State of California
California Regional Water Quality Control Board, Los Angeles Region

Amendment
to the
Water Quality Control Plan for the Coastal Watersheds of Los Angeles and Ventura Counties
to Prohibit On-site Wastewater Disposal Systems in the Malibu Civic Center Area

adopted on November 5, 2009

Administrative Record
Volume 2 of 4

Agenda for
Public Meeting

California Regional Water Quality Control Board
Los Angeles Region

Linda S. Adams
Agency Secretary

Arnold Schwarzenegger
Governor

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Next Order #'s

Resolution - R09-

CI - 9563 008

Order - R4-2009-

0113

Notice of Public Meeting/Hearing

Thursday, November 5, 2009

9:00 a.m.

Meeting Location:

Metropolitan Water District of Southern California
Board Room
700 North Alameda Street
Los Angeles, California

Agenda

The Regional Board strives to conduct an accessible, orderly, and fair meeting. During the meeting, the Chair will conduct the meeting and establish appropriate rules and time limitations for each item. The Board will only act on items designated as action items. Action items on the agenda are staff proposals, and may be modified by the Board as a result of public comment or Board member input. Additional information about Regional Board meeting procedures is included after the last agenda item.

To ensure a fair hearing and that the Regional Board Members have an opportunity to fully study and consider written material, unless stated otherwise, written materials must be provided to the Executive Officer ***not later than 5:00 p.m. on October 26, 2009. Please consult the agenda description for specific items, because certain items may have an earlier deadline for written submissions. If you are considering submitting written materials, please consult the notes at the end of the agenda. Failure to follow the required procedures may result in your materials being excluded from the hearing record; however, failure to timely submit written materials does not preclude a person from testifying before the Board.***

INTRODUCTORY ITEMS

1. **Roll Call.**
2. **Order of Agenda.** The agenda items are numbered for identification purposes only and may not necessarily be considered in this order.

Approved

3. **Approval of September 3, 2009 and October 1, 2009 draft Meeting Minutes.**
   [Ronji Harris, (213) 576-6612]
4. **Board Member Communications.**
   - 4.a. Ex Parte Disclosure. Board Members will identify any discussions they may have had requiring disclosure pursuant to Government Code section 11430.40.
   - 4.b. Board Member Reports. The Board Members may discuss communications, correspondence, or other items of general interest relating to matters within the Board's jurisdiction.

5.a **Executive Officer's Report.**
[Tracy Egoscue, (213) 576-6605]

5.b **Board Checklist.**

5.c **Update from State Board**. [Fran Spivy-Weber]

6. **Public Forum.** Any person may address the Board regarding any matter within the Board's jurisdiction provided the matter does not appear elsewhere on this agenda, has not been scheduled to appear on a future agenda, and is not expected to be imminently scheduled for the Board's consideration. Remarks will be limited to five (5) minutes, unless otherwise directed by the Chair.

UNCONTESTED ITEMS

(Items marked with an asterisk are expected to be routine and noncontroversial. The Board will be asked to approve these items at one time without discussion. Any Board member or person may request that an item be removed from the uncontested calendar. The Chair will determine the appropriate time to consider an item removed from the consent calendar.)

Waste Discharge Requirements that Serve as Individual NPDES Permits
Termination-

4-2009-0110 *7. PABCO Building Products, LLC - PABCO Paper Company, 4460 Pacific Boulevard, Vernon, CA; NPDES No. CA0057274 [Veronica Cuevas, (213) 576-6662]

Non-NPDES State Discharge Requirements
New-

R4-2009-0111 *8. Consideration of Waste Discharge Requirements for the Los Angeles County Fire Department Camp 14 (File No. 08-022) for disposal of treated wastewater from future onsite wastewater treatment plant to be in operation by October/November 2009. (Comment submittal deadline was October 5, 2009.) [Orlando H. Gonzalez, (213) 620-2267]

CI 9557

ACTION ITEM

BASIN PLAN AMENDMENT

209-007 9. Malibu Civic Center Area: Consideration of an amendment to the *Basin Plan* to prohibit discharge from onsite wastewater disposal systems in the Malibu Civic Center area (including Malibu Valley and surrounding hillsides, Winter Canyon and surrounding hillsides, and the coastal strips along the Pacific Coast Highway between and including Surfrider Beach and Amarillo Beach). Deadline for submitting written comments was October 8, 2009. [Rebecca Chou (213) 620-6156 and Elizabeth Erickson (213-620-2264]

Waste Discharge Requirements that Serve as Individual NPDES Permits
Renewal-

R4-2009-0112 10. Long Beach Generation LLC (Long Beach Generating Station), Long Beach; NPDES No. CA0001171(Comment submittal deadline was October 5, 2009) [Jau Ren Chen, (213) 576-6656]

Amendment-

cntd/ postponed 11 Harbor Water Recycling Project – Dominguez Gap Barrier Project, San Pedro; File No. 97-208. (Comment submittal deadline was September 25, 2009) [Don Tsai, (213) 576-6665]

CLOSED SESSION

12. As authorized by the Government Code section 11126, the Regional Board will be meeting in closed session. Closed session items are not open to the public. Items the Board may discuss include the following: [Michael Levy (MJL), (916) 341-5193; Jennifer L. Fordyce (JLF) (916) 324-6682]

12.1 *Cities of Los Angeles, City of Burbank v. Los Angeles Regional Water Quality Control Board*, Los Angeles County Superior Court, Case Nos. BS 060957 and BS 060960. [Challenging the Burbank, Tillman, and Los Angeles-Glendale Water Reclamation Plants' NPDES permits]. (MJL)

12.2 *County of Los Angeles et al. v. Commission on State Mandates et al. and City of Artesia et al. v. State of California,* Los Angeles Superior Court Nos. BS 089769 & BS089785, Second District Court of Appeal No. B183981 [Alleging that the Los Angeles MS4 Permit created an unfunded state mandate]. (MJL)

12.3 *In re Halaco Engineering Company,* United States Bankruptcy Court, Central District of California, Northern Division, No. ND-02-12255 RR [Regarding a CDO and CAO at the Oxnard Property]. (JLF)

12.4 *Cities of Arcadia et al., v. Los Angeles Regional Water Quality Control Board,* Orange County Superior Court No. 06CC02974 [Challenging the 2004 Triennial Review]. (MJL)

12.5 *Cities of Bellflower et al., v. Los Angeles Regional Water Quality Control Board et al.,* Los Angeles Superior Court No BS101732 [Challenging the Los Angeles River and Ballona Creek Metals TMDLs]. (MJL)

12.6 *In re: Petition of the County of Los Angeles and the County Flood Control District for Review of Order No. R4-2006-0074* [Challenging the incorporation into the MS4 Permit of the Waste Load Allocations from the Santa Monica Bay Beaches Bacterial TMDL]. (MJL)

12.7 *U.S., People of the State of California ex rel. California Regional Water Quality Control Board, Santa Monica Baykeeper, and Intervenors v. City of Los Angeles,* United States District Court, Central District of California, Consolidated Case Nos. 98-9039-RSWL and 01-191-RSWL [Regarding a Settlement Agreement and Final Order concerning the City of Los Angeles' sewer collection system]. (JMO)

12.8 *In re: Petition of the Boeing Company for Review of Order No. R4-2009-0058* [Challenging the waste discharge requirements for the Santa Susana Field Laboratory] (MJL)

12.9 *In re: Petition of Committee to Bridge the Gap for Review of Order No. R4-2009-0058* {Challenging the waste discharge requirements for the Santa Susana Field Laboratory] (MJL)

12.10 *In re: Petition of the Building Industry Association of Southern California, Inc., et al for Review of Order No. R4-2009-0057* [Challenging the Ventura County MS4 Permit] (MJL)

12.11 *People of the State of California, ex rel., California Regional Water Quality Control Board, Los Angeles Region v. Southern California Gas Company and County of Los Angeles, Los Angeles County Superior Court* [Regarding a proposed Stipulated Consent Judgment and Final Order]. (MJL)

12.12 Consultation with counsel about:

(a) A judicial or administrative adjudicatory proceeding that has been formally initiated to which the Regional Board is a party;

(b) A matter that, based on existing facts and circumstances, presents significant exposure to litigation against the Regional Board;

(c) A matter which, based on existing facts and circumstances, the Regional Board is deciding whether to initiate litigation. (JLF)

12.13 Consideration of the evaluation of performance about a public employee. (MJL)

12.14 *In re Lyondell Chemical Company, et al.,* United States Bankruptcy Court, Southern District of New York, Case No. 09-10023 [Regarding remediation obligations at the former Weber Aircraft site in Burbank].(JLF)

12.15 *Consideration of Complaint No. R4-2009-0017 for Administrative Civil Liability against The Kissel Company, Inc. (Paradise Cove Mobile Home Park).* [The Regional Board may deliberate in closed session with regard to the supplemental briefs filed by the parties on September 3, 2009.] (MJL)

13. **Adjournment of Current Meeting.** The next meeting will be held on December 10, 2009, beginning at 9:00 am, at the Metropolitan Water District of Southern California, located at 700 North Alameda Street, Los Angeles, California.

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NOTICE

Ex Parte Communications: An ex parte communication is a communication to a board member from any person, about a pending matter, that occurs in the absence of other parties and without notice and opportunity for them to respond. The California Government Code prohibits the board members from engaging in ex parte communications during permitting, enforcement, and other "quasi-adjudicatory" matters. The Regional Board discourages ex parte communications during rulemaking and other "quasi-legislative" proceedings. The ex parte rules are intended to provide fairness, and to ensure that the board's decisions are transparent, based on the evidence in the administrative record, and that evidence is used only if stakeholders have had the opportunity to hear and respond to it. Ex parte rules do not prevent anyone from providing information to the water boards or requesting that the water boards take a particular action. They simply require that the information come into the record through proper channels during a duly noticed, public meeting. A board member who has engaged or been engaged in a prohibited ex parte communication will be required to publicly disclose the communication on the record and may be disqualified from participating in the proceeding. For more information, please look at the ex parte questions and answers document found at www.waterboards.ca.gov/laws_regulations/docs/exparte.pdf

Hearing Procedures: The Regional Board follows procedures established by the State Water Resources Control Board. These procedures are established in regulations commencing with section 647 of title 23 of the California Code of Regulations. The Chair may establish specific procedures for each item, and consistent with section 648, subdivision (d) of title 23 of the California Code of Regulations may waive nonstatutory provisions of the regulations. Generally, all witnesses testifying before the Regional Board must affirm the truth of their testimony and are subject to questioning by the Board Members. The Board does not, generally, require the designation of parties, the prior identification of witnesses, or the cross examination of witnesses. Any requests for an alternate hearing process should be made to the Executive Officer in advance of the meeting, and under no circumstances later than 5:00 p.m. on the Thursday preceding the Board meeting. The provisions of this paragraph shall be deemed superseded to the extent that they are contradicted by a hearing notice specific to a particular agenda item.

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Written Submissions: Written materials (whether hand-delivered, mailed, e-mailed, or facsimiled) ***must be received prior to the relevant deadline*** established in the agenda and public notice for an item. If the submitted material is more than 10 pages or contains foldouts, color graphics, maps, or similar items, 12 copies must be submitted prior to the relevant deadline.

Failure to comply with requirements for written submissions is grounds for the Chair to refuse to admit the proposed written comment or exhibit into evidence. (Cal. Code Regs. tit. 23, § 648.4(e).) The Chair may refuse to admit written testimony into evidence unless the proponent can demonstrate why he or she was unable to submit the material on time or that compliance with the deadline would otherwise create a hardship. If any other party demonstrates prejudice resulting from admission of the written testimony, the Chair may refuse to admit it.

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Administrative Record: Material presented to the Board as part of testimony that is to be made part of the record must be left with the Board. This includes photographs, slides, charts, diagrams, etc. All Board files pertaining to the items on this Agenda are hereby made a part of the record submitted to the Regional Board by staff for its consideration prior to action on the related items.

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Accessibility: Individuals requiring special accommodations or language needs should contact Dolores Renick at (213) 576-6629 or drenick@waterboards.ca.gov at least ten working days prior to the meeting. TTY/TDD/Speech -to-Speech users may dial 7-1-1 for the California Relay Service.

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Availability of Complete Agenda Package: A copy of the complete agenda package is available for examination at the Regional Board Office during regular working hours (8:00 a.m. to 5:00 p.m. Monday through Friday) beginning 10 days before the Board meeting. Questions about specific items on the agenda should be directed to the staff person whose name is listed with the item.

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Continuance of Items: The Board will endeavor to consider all matters listed on this agenda. However, time may not allow the Board to hear all matters listed. Matters not heard at this meeting may be carried over to the next Board meeting or to a future Board meeting. Parties will be notified in writing of the rescheduling of their item. Please contact the Regional Board staff to find out about rescheduled items.

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Challenging Regional Board Actions: Pursuant to Water Code section 13320, any aggrieved person may file a petition to seek review by the State Water Resources Control Board of most actions taken by the Regional Board. A petition must be filed within 30 days of the action. Petitions must be sent to State Water Resources Control Board, Office of Chief Counsel; ATTN: Elizabeth Miller Jennings, Senior Staff Counsel; 1001 "I" Street, 22nd Floor; Sacramento, CA 95814.

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Electronic Information and Updates: Our web site address is www.waterboards.ca.gov/losangeles/. The site can also be accessed through the State Water Resources Control Board's web site at www.waterboards.ca.gov/, then clicking on "Regional Boards". Information available online includes the Regional Board's meeting schedule, a list of the Regional Board members, past and present Executive Officer reports, program information, a list of staff and phone numbers arranged by their work unit, and links to the Santa Monica Bay Restoration Commission's home page and other governmental agencies. Last-minute changes to the agenda, such as the continuance of an item, will be posted electronically. If you need further information, please contact Jack Price at (213) 576-6669.

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Pending Water Quality Certifications: A listing of pending water quality certification applications currently on public notice pursuant to Section 401 of the Federal Clean Water Act may be obtained by calling Valerie Carrillo at (213) 576-6759.

Settlement of Enforcement Actions: A listing of settlement enforcement actions can be accessed by the following link: http://www.waterboards.ca.gov/enforcement/index.html

Agenda Item No. 9

ADDITIONAL MATERIAL TO BE INCLUDED IN THE AGENDA PACKAGE

ITEM: Agenda Item #9 (Volumes 1 and 2)

SUBJECT: Malibu Prohibition

FROM: Wendy Phillips PHONE: 213-576-6618

DATE: October 30, 2009

BOARD MEETING DATE: November 5, 2009

Volume 1 -- Attached are corrections to the item, showing markings of minor changes to pages 1 and 11. Please place these corrected pages in Volume 1. Also attached is a correction to Tech Memo #4, page TM4-11, second paragraph (where 'west' has been corrected to 'east').

Volume 2 – Attached are matrices of staff's responses to comment letters in the binder sent to you earlier this week. Please remove all the material before the first tab (GOVT), and insert this material before the first tab in Volume 2.

TO:
- X ALL BOARD MEMBERS
- _____ STEVE BLOIS
- _____ FRANCINE DIAMOND
- _____ MADELYN GLICKFIELD
- _____ MARY ANN LUTZ
- _____ MARIBEL MARIN
- _____ F.W. DICK RICHARDSON
- _____ MARIA MEHRANIAN
- X MICHAEL LEVY

California Regional Water Quality Control Board, Los Angeles Region
531st Regularly-scheduled Meeting of November 5, 2009 (Los Angeles)

Item 9

Subject Malibu Civic Center Area: Consideration of an amendment to the *Basin Plan* to prohibit discharge from on-site wastewater disposal systems in the Malibu Civic Center area (including Malibu Valley and surrounding hillsides, Winter Canyon and surrounding hillsides, and the coastal strips along the Pacific Coast Highway between and including Surfrider Beach and Amarillo Beach).

Purpose To conduct a hearing to consider a staff recommendation for the prohibition as well as public comment in support and opposition, and to take regulatory action as appropriate.

This item is the culmination of direction given by the Board during a public meeting in November 13, 2008, when the Board considered rescission of a Memorandum of Understanding (MOU) with the City of Malibu through which responsibilities for discharges from residential and small commercial properties are delegated to the City. During that public meeting, the board directed staff to prepare a prohibition for public review and Board consideration. During a public meeting in December 2008, as the Board deliberated adoption of an Order specifying waste discharge requirements (WDR) for a re-development of Malibu Lumber, the Board reiterated this direction.

Goal The goal of the prohibition is to remediate pollution and restore beneficial uses impaired by releases from on-site wastewater disposal systems (OWDSs) polluting the following water resources:

- Groundwater, which the Board has designated as a potential source of drinking water in the *Basin Plan*.
- Malibu Lagoon, which the Board has designated as habitat for aquatic life and wildlife, and for recreation in the *Basin Plan*. This waterbody is subject to a nutrient TMDL.[1]
- Beaches, including Amarillo Beach, Malibu Beach, and Malibu Lagoon Beach (Surfrider). These beaches are subject to a pathogen TMDL.[2]

Background Without community sewers and wastewater treatment infrastructure, residents, businesses, and public facilities in the City of Malibu use thousands of on-site wastewater disposal systems (OWDSs) to discharge their sewage to the subsurface and underlying groundwater. In several areas of the City, high flows of wastewaters coupled with unfavorable hydrogeologic conditions have raised concerns about reliance on this wastewater disposal strategy. In one of those areas, namely the Malibu Civic Center area, land use activities by more than 400 dischargers result in the release of wastewaters to the subsurface at a rate that Regional Board staff estimates to be as high as 270,000 gallons per day (gpd).

Important dates in the history of wastewater management are **highlighted below** ~~in the attached timeline~~.

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1 TMDL (total maximum daily load), issued by the US EPA on March 21, 2003, specifying targets for various sources of nitrogen, among which include OWDSs.

2 TMDL, issued by the Regional Board and effective as of July 15, 2003, specifying numeric dry and wet weather targets for pathogens at beaches along the Santa Monica Bay.

1950s Access to the Malibu area is difficult. The community relies on local supplies of groundwater.

1960s Population doubles from 6,500 in 1960 to 12,500 in 1966. Water quality in local wells is impaired, and deliveries of imported water begin. County of Los Angeles begins planning for sewers, given expectations for development and concerns about reliance on septic systems. Shortly thereafter, voters in the area proposed to be sewered twice defeat measures for sewer bonds proposed by the County.

1970s Development pressure continues, and the County, Regional Board, and SCAG express concerns over siting, installation, and maintenance of septics. County proposes a prohibition in 1979, and continues planning for sewers in portions of the area that would later be incorporated. Litigation ensures.

1990s Residents vote in 1990 to incorporate (effective 1991), and adopt the 'Warshall' strategy of on-site wastewater management. In 1996, the Regional Board designates Malibu Lagoon and beaches as impaired, citing septics, among others sources, as sources of pollutants.

2000s In 2003, the Regional Board extends several Time Schedule Orders, in view of expectations that the City will develop a regional wastewater solution. The US EPA issues a nutrient TMDL for Malibu Lagoon in 2003, and the Regional Board issues a pathogen TMDL for Santa Monica Bay beaches, including Malibu area beaches, effective 2003. Also in 2003, the City develops a concept plan for the Malibu Civic Center. In 2004, the Regional Board enters into an MOU with the City, delegating oversight authority for residential and small commercial OWDSs. In 2008, during deliberations on the MOU (October 2008) and a WDR (December 2008) for a new and significantly large discharge (Malibu Lumber), the Regional Board directs staff to prepare a prohibition. Although a meeting is held in 2009 among City officials and several Board members, an MOU strategy for solving water quality pollution from OWDSs is not agreed upon.

Structure The prohibition has been structured to remedy pollution in a portion of the City of Malibu, and has been structured as follows:

Area: The prohibition boundary, which was delineated on the basis of topography, encompasses Winter Canyon and Malibu Valley, an area that totals 2.2 square miles. Politically, the area includes 1.5 square miles in the City of Malibu, and 0.7 square miles in the unincorporated portion of the County of Los Angeles. (See the Technical and Environmental Staff Reports for more detail, including Figures 1 and 2.)

Types of Dischargers: All existing and future discharges from OWDSs, including those from residents, businesses, and public facilities, are subject to the prohibition.

Types of Wastewaters: All existing and future wastewaters discharged to land are subject to the prohibition, regardless of the sources of the wastewater and type of treatment applied to the wastewaters.

Schedule: All existing discharges must cease by November 5, 2014. New discharges (including those that have not completed State and local agency permitting as of November 5, 2009), are immediately prohibited. Also, the Resolution sets interim deadlines and requires that the City

submit progress reports, documenting progress to the satisfaction of the Executive Officer, on a quarterly basis.

Exemptions: The prohibition allows for repairs and upgrades of existing septic systems during the period up to 2014, provided that the repairs and upgrades do not increase wastewater flows and that they cease by 2014 deadline.

Technical Evidence

In the administrative record, staff presents substantial evidence in support of the proposed prohibition, in accordance with the requirements of the California Water Code, sections 13280 and 13281, to serve as the basis for a determination by the Board that discharges of OWDSs in the Malibu Civic Center area result in violation of water quality objectives, impair present or future beneficial uses of water, cause pollution, nuisance, or contamination, or unreasonably degrade the quality of any water of the state. This evidence supports conclusions as follows:

i. **Dischargers subject to Orders from the Regional Board that specify waste discharge requirements (WDRs) for OWDSs have poor records of compliance.** See Technical Memorandum (Tech Memo) #1 appended to the technical staff report.

ii. **Discharges of wastewaters released from OWDSs to groundwater contain elevated levels of pathogens and nitrogen that impair underlying groundwater as a potential source of drinking water.** See Tech Memo #2 appended to the technical staff report.

iii. **Pathogens in wastewaters that are in hydraulic connection with beaches represent a source of impairment for water contact recreation of wastewaters released from OWDSs.** See Tech Memo #3 appended to the technical staff report.

iv. **Discharges of wastewaters released from OWDSs to groundwater that is in hydraulic connection with Malibu Lagoon transport a nitrogen load significantly in excess of the wasteload allocation in the TMDL established to restore water quality to a level sufficient to protect aquatic life and prevent nuisance resulting from eutrophication.** See Tech Memo #4 appended to the technical staff report.

v. **Wastewater flows in the Civic Center area have been increasing. On many sites, hydrogeologic conditions are unsuitable for high flows of wastewater, and many dischargers generate wastewater flows at rates that exceed their capacity to discharge on-site. These dischargers rely on pumping significant flows into tanker trucks that haul liquid sewage and sludge via public roadways to communities that have sewer and wastewater treatment facilities.** (See Tech Memo #5 appended to the technical staff report.)

Legal Issues

In order to adopt this prohibition, the Regional Board must make several determinations. These determinations in accordance with the California Water Code (CWC) and the location of the supporting evidence are summarized below:

A. **CWC 13280[3] – Discharges from OWDSs violate water quality objectives and impair present or future beneficial uses of water:** As detailed in the technical staff report, staff demonstrates that OWDSs impair water resources as follows:

[3] 13280. A determination that discharge of waste from existing or new individual disposal systems or from community collection and disposal systems which utilize subsurface disposal should not be permitted shall be supported by

- Groundwater: In Tech Memo #2, staff evaluates nitrogen and pathogen levels in groundwater against drinking water standards, and concludes that OWDSs impair groundwater that the Board has designated as a potential source of drinking water.

- Beaches: In Tech Memo #3, staff demonstrates that pathogens released from OWDSs in hydraulic connection with the ocean impair swimming, surfing, and other recreational activities (e.g. wading).

- Lagoon: In Tech Memo #4, staff evaluates nitrogen levels from OWDSs in groundwater that is in hydraulic connection with Malibu Lagoon, and concludes that discharges from OWDSs fail to meet a load allocation of 6 pounds per day, specified in order to prevent accelerated eutrophication and restore aquatic and riparian habitat and wildlife in the nutrient TMDL.

Furthermore, as described in Tech Memo #1, many dischargers under Orders specifying Waste Discharge Requirements (WDRs) and Time Schedule Orders (TSOs) from the Board have failed to meet effluent limits that the Board set at levels protective of beneficial uses.

B. CWC 13280 – Discharges from OWDSs cause nuisance: As detailed in the technical staff report, staff demonstrates that OWDSs cause nuisance:

- Hauling: In Tech Memo #5, staff analyzes a subset of 13 dischargers who, due to relatively large flows coupled with unsuitable hydrogeologic conditions, hold their raw sewage for pumping into tanker trucks that haul the liquid wastes to other communities that have sewer and wastewater treatment facilities. This practices result in nuisance (odors and noise).[4]

- Additional Nuisances: At beaches, persistent failures to meet water contact standards result not only in elevated risks of human illness, but also in nuisance for beachgoers expecting to recreate in unpolluted waters. At Malibu Lagoon, odors and color problems from accelerated eutrophication can cause odor and color problems in and near the lagoon.

Based on these findings, staff has prepared a tentative resolution to amend the *Basin Plan* to prohibit OWDSs in order to protect the quality of water resources and to restore beneficial uses of water resources in the Malibu Civic Center area. In presenting the findings, staff considered factors set forth in CWC 13281[5]:

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substantial evidence in the record that discharge of waste from such disposal systems will result in violation of water quality objectives, will impair present or future beneficial uses of water, will cause pollution, nuisance, or contamination, or will unreasonably degrade the quality of any waters of the state.

[4] Although staff also estimated the carbon footprint of hauling practices, staff did not quantify impacts to traffic from the tanker truck routes.

[5] 13281. (a) In making a determination pursuant to Section 13280, except as specified in subdivision (b), the regional board shall consider all relevant evidence related to the discharge, including, but not limited to, those factors set forth in Section 13241, information provided pursuant to Section 117435 of the Health and Safety Code, possible adverse impacts if the discharge is permitted, failure rates of any existing individual disposal systems whether due to inadequate design, construction, maintenance, or unsuitable hydrogeologic conditions, evidence of any existing,

C. **CWC 13241(a) – Past, present, and probable future beneficial uses of water:** In analyzing evidence for a prohibition, staff relied upon designations of beneficial uses in the *Basin Plan*, as summarized below:

- Groundwater, designated as a potential source of drinking water. Also, staff considered past uses of groundwater to meet historic demands for drinking water. Staff acknowledges that groundwater is not a current source of drinking water. Nevertheless, staff – in accordance with the Board's designation of groundwater as a 'potential' source of drinking water and the State Board's *Sources of Drinking Water Policy* – considered the potential for groundwater to be used as a future source of water to meet a portion of the community's demand, or to meet demand in times of emergency. (See Tech Memo #2.)

- Malibu Lagoon, designated for providing habitat for aquatic life and wildlife. Also, staff considered recent regulatory actions that designated (in accordance with section 303(d) of the Clean Water Act) this waterbody as impaired, and that allocated loads from all significant point and nonpoint sources, including OWDSs. (See Tech Memo #4.)

- Malibu Beach, Malibu Lagoon Beach (Surfrider), and Amarillo Beach, designated for water contact recreation. Also, staff considered recent regulatory actions that designated Malibu Beach and Surfrider Beach as impaired, and that specified dry and wet weather pathogen loads. (See Tech Memo #3.)

D. **CWC 13241(b) – Environmental characteristics of the hydrographic unit under consideration, including the quality of water available thereto:** Staff considered environmental characteristics, including water quality and impairments to beneficial uses, throughout the technical and environmental staff reports and also in previous regulatory actions by the Board and US EPA to designate beneficial uses and establish water quality objectives, to designate impaired waters, and to issue TMDLs.

E. **CWC 13241(c) – Water quality conditions that could reasonably be achieved through coordinated control of all factors which affect water quality in the area:** In previous regulatory actions by the Board and US EPA, strategies to control pollutants from point and nonpoint sources were considered.

- In the nutrient TMDL for Malibu Lagoon, numeric targets are established for all significant sources of nitrogen, including a numeric target of six pounds per day from OWDSs. (See nutrient TMDL for numeric targets for all significant sources of nitrogen; see Tech Memo #4 for an evaluation of nitrogen released from OWDSs.)

- The Santa Monica Bay Beaches Bacterial TMDLs require responsible agencies to achieve the numeric targets and waste load allocations for fecal indicator bacteria at the beaches through implementation of coordinated control strategies to address all bacterial sources. In the administrative records for the TMDLs, the Regional Board identifies myriad point and nonpoint sources of fecal indicator bacteria to the beaches, including sanitary sewer and sewage plant overflows and spills, septic

prior, or potential contamination, existing and planned land use, dwelling density, historical population growth, and any other criteria as may be established pursuant to guidelines, regulations, or policies adopted by the state board.

systems, urban runoff, animal fecal matter, illegal discharges from boats, and illicit discharges from private drains among other sources. The Regional Board anticipated that responsible agencies would employ a variety of control strategies, including diverting storm drain flows to treatment plants, where possible; controlling sources of bacteria, including groundwater sources such as from malfunctioning or improperly placed septic systems; eliminating illicit discharges; or implementing "end-of-pipe" treatment to address these sources and, ultimately, achieve the TMDL targets.

F. **CWC 13241(d) – Economic considerations:** This section requires consideration of costs associated with establishment of water quality objectives. The proposed prohibition does not establish water quality objectives – rather, it is a proposed action to achieve existing objectives. Nevertheless, staff analyzed the costs of possible projects that the city, a utility, or a water authority could implement to comply with the prohibition. These projects, which were evaluated on a conceptual basis, have estimated costs ranging from $17 million to $80 million. (See Environmental Staff Report, section entitled Summary of Economics.)

G. **CWC 13241(e) – Need for developing housing within the region:** Although staff did not find that there is a need to develop additional housing in the City of Malibu, staff did consider impacts to housing that could arise from projects constructed to comply with the prohibition deadline. (See Environmental Staff Report, Environmental Checklist, Item 12.)

H. **CWC 13241(f) – Need to develop and reuse recycled water:** Although through this regulatory action the Regional Board is not determining method of compliance, staff assumed that the community would recycle as much treated wastewater as possible in planning and designing a project to achieve compliance with the prohibition. (See Environmental Staff Report, section entitled Options for Compliance Projects including Summary of Economics, and the Environmental Checklist, Item 3.)

I. **CWC 13281 – Health & Safety Code, section 117435, providing health officers with the authority to require reports from businesses that clean septic tanks, seepage pits, and cesspools:** Staff consulted with the health officer for the County of Los Angeles to get this information, and determined that the County does not require reports on the location of septic tanks/seepage pits/cesspools being cleaned, the locations of the disposal points, the frequencies of cleanouts, and any observed violations.[6] In the past, the County did require such reports. However, due to limited resources, the County has had trouble reviewing all reports and, as a result, dropped the requirement for submittal for the past two years. The health officer still requires an annual inspection of all registered tanker trucks. (See Tech Memo #5, section entitled 'Septic Pumping and Hauling Regulations.')

Staff did have access, in Regional Board files, to pumping and hauling information for many of the dischargers who operate under WDRs specified in Orders issued by the Board. In Tech Memo #5 staff compiled and considered this information, and concluded

[6] Staff is aware that the City provides contact information for five hauling firms, registered with the County; however, the City does not endorse any of these firms. Also, the City provides recommendations for pumping frequencies for properly functioning OWDSs. The City does not require 'section 117435' information (paragraph above), as this oversight would duplicate the County's oversight. Also, concerns have been raised by the City about the transporters' level of cooperation in providing such information to the City, as well as privacy issues.

that a high level of pumping and hauling occur due to limitations of treatment systems or hydrogeologic limitations, or both, that preclude on-site disposal.

J. **CWC 13281 – Possible adverse impacts if the discharge is permitted:** Swimmers are already exposed to elevated health risks at beaches in the Civic Center area. Habitat in Malibu Lagoon is already degraded by accelerated eutrophication. Much of the groundwater in the area fails to meet standards for drinking water. Continued and/or additional discharges will further pollute these water resources and be inconsistent with goals of the *Basin Plan* and other state plans and policies. In the Technical Staff Report as well as though previous regulatory actions by the Board, staff has demonstrated adverse impacts to the following water resources:

- Groundwater: Pollution from OWDSs violates water quality objectives for drinking water use.[7] (See Tech Memo #2.)

- Malibu Beach, Malibu Lagoon Beach (Surfrider), and Amarillo Beach: Pollution from OWDSs in hydraulic connection with these beaches is a significant source of impairment to water contact recreation.[8] (See Tech Memo #3.)

- Malibu Lagoon: Pollution from OWDSs in hydraulic connection with the lagoon impairs aquatic and wildlife beneficial uses fails to meet a pollutant load for nitrogen is impaired by nitrogen from OWDSs as well as other sources.[9] (See Tech Memo #4.)

K. **CWC 13281 – Failure rates of any existing ....systems whether due to inadequate design, construction, maintenance, or unsuitable hydrogeologic conditions:** All 20 dischargers subject to Orders issued by the Board have violated those Orders at least once during the period from the fourth quarter of 2004 through the fourth quarter of 2008 (except Malibu Lumber, which didn't start discharge until April 2009[10]). While a few of the violations were for reporting problems (e.g. late submittal of a monitoring report), most were for serious violations, such as failure to meet pollutant concentration limits that the Board sets at levels protective of beneficial uses. Failure to meet limitations on flow is another example of serious violations, and indicates design limitations and/or siting and hydrogeologic limitations.

Dischargers also experience start-up and maintenance problems, as indicated in reports of self-monitoring and the record of violations. (See Tech Memo #1.) A recent example is Malibu Lumber, which started treatment and discharge in April 2009. The discharger has experienced many unanticipated start-up problems. (See Tech Memo #1.) The discharger has yet to achieve full compliance with its WDR.

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7 See the *Basin Plan*, in which the Board designates groundwater as 'potential MUN;' the State Board 'Sources of Drinking Water Policy'[7]; and Tech Memo #2, in which staff presents evidence that groundwater fails to meet MCLs for nitrate, nitrite, and pathogens.

8 See the *Basin Plan*, in which the Board has designates water contact recreation as a beneficial use for these beaches; the 303(d) list, in which the Board and US EPA designate these beaches as impaired; the beach pathogen TMDL, in which the Board specifies dry and wet weather targets for pathogens; and Tech Memo #3, in which staff presents evidence of impairment to water contact recreation activities from OWDSs.

9 See the *Basin Plan*, in which the Board has designates aquatic and wildlife beneficial uses for the lagoon; the 303(d) list, in which the Board and US EPA designate Malibu Lagoon as impaired; and the nutrient TMDL for the lagoon, in which the Board allocates nitrogen loads for various sources of nitrogen, including OWDSs.

10 Malibu Lumber, since beginning discharge in April 2008, also has a record of serious violations of its WDR.

Many dischargers resort to a high level of pumping and hauling (almost 2 million gallons per year, from a subset of 13 dischargers) due to the limitations of treatment systems or hydrogeology, or both, which preclude on-site disposal. Such pumping and hauling practices have been needed to prevent further stress on sites and systems that already fail to properly function for the flow of wastewater generated from on-site activities, especially during periods of peak activity, such as summer weekends and holidays. (See Tech Memo #5.)

L. **CWC 13281 – Evidence of existing, prior, or potential contamination:** For Malibu Lagoon, the Board has already considered evidence of impairment, and designated that waterbody as impaired. (See 303(d) list.) Furthermore, targets for nitrogen loads have been allocated through a TMDL for nitrogen loads from various sources, including OWDSs. (See Malibu Lagoon nutrient TMDL.) In Tech Memo #4, staff demonstrates that nitrogen loads from OWDSs far exceed the TMDL target.

For Malibu Lagoon (Surfrider) Beach and Malibu Beach, the Board already considered evidence of impairment from pathogens, and designated these beaches as impaired. (See 303(d) list.) The Board already set dry weather targets for these beaches through a TMDL for pathogens TMDL. In Tech Memo #3, staff demonstrates that pathogen indicators released from OWDSs in hydraulic connection with beaches fail to meet water contact recreation standards and the dry weather target.

For groundwater, comments were received regarding seawater intrusion into groundwater resources, and staff acknowledges that seawater intrusion may have contributed to degradation of water quality (along with other sources of pollutants, such as OWDSs). Nevertheless, such problems do not preclude restoration of water quality. And in restoring water quality, staff is not suggesting that it is feasible for groundwater resources to completely replace the City's other supplies of drinking water. Rather, staff suggests that groundwater could meet a portion of drinking water demand, and could also serve as an emergency supply of water in the event that deliveries of imported water were interrupted. In restoring and managing potential future groundwater production, the storage and operational yield of the aquifer should be evaluated, and community leaders should ensure that pumping patterns and replenishment with high quality waters are properly designed and managed. Early studies of water resources were of limited scope, and past production of groundwater does not appear to have been managed in a manner to establish sustainable pumping patterns and sources of replenishment, in order to prevent over-pumping of the aquifer and degradation of water quality from seawater intrusion and discharges of wastewaters.

M. **CWC 13281 – Existing and planned land use and dwelling density:** The entire prohibition area covers 2.2 square miles, and includes approximately 400 dischargers who cumulatively generate wastewater at a rate of about 270,000 gallons per day (gpd).

Staff did not average the total existing flow over the entire 2.2 square miles. Most activity and the flows generated from these activities are concentrated along the beach and in the Civic Center area, which serves as the core of the City's business and civic activities. (See Tech Staff Report – Overview, sections entitled Introduction and Prohibition Boundary, and Tech Memo #4.) Many of the existing commercial dischargers already exceed flow limits established in WDRs. (See Tech Memo No. 1.) Many of these dischargers rely on hauling their wastewaters off-site. (See Tech Memo No. 5.) In lower Winter Canyon, high

density development – namely four multi-family units – generate significant flows that rely on the Malibu Water Pollution Control Plant, a small, high-cost plant that has a problematic compliance history. (See Tech Memo #1.) Lower Winter Canyon also receives flows of wastewater from the coastal area, namely Malibu Colony Plaza, which lifts its wastewater over to four acres in Winter Canyon.

Significant properties in the City's core may be developed in the future, including La Paz and Malibu Towing; activities on these future developments may generate additional flows. Significant redevelopment also may occur in the future; intensified activities from redevelopment will likely generate additional flows. For example, Malibu Lumber is expected to generate up to 17,000 gpd – over a ten-fold increase in flows from the previous site activities.

N. **CWC 13281 – Historical population growth:** A census value is not available for the population within the prohibition boundary, and staff initially estimated the current residential population at about 1,000.[11] Staff revised this estimate to almost 2,000, using information on buildings, such as numbers of bedrooms and bathrooms (see Tech Memo #4, Table 2). Also, staff used information on wastewater flows (see Tech Memo #4, Table 1) as a rough crosscheck of the population estimate. See also the Environmental Staff Report, section on Growth-Inducing Impacts. Staff also considered trend data (see Tech Memo #5, Appendix E), available for the City as a whole, and determined that, as with many areas in the County, Malibu has experienced growth; since 1990, prior to incorporation of the area that would become the City of Malibu, the population increased by 30%, from 10,500 to 13,700[12] in 2008 – an annual growth rate of 1.5%.

Furthermore, the population estimate of 2,000 does not include daytime and evening visitors who use the beaches and patronize the businesses and public facilities in the area. The visitor population appears to be substantially increasing, as indicated by beach activity statistics for beaches – e.g. beach activity (throughout the area – not just limited to the prohibition area) appears to be increasing at an annual rate of 6% based on an increase in monthly beach counts from 233,500 in August 1999 to 355,000 in August 2006. (See Tech Memo #3, Appendix E.) Although the monthly totals are for all Malibu area beaches, staff believes that it is likely that beach activity for the beaches in the Civic Center area have shown a similar – and likely greater – increase, given the proximity of commercial and public facilities in the area.

Nor do the above population estimates include daytime and evening workers employed in the Malibu Civic Center area. As indicated by increasing wastewater flows from 13 commercial and public facilities (see Tech Memo #5, Figure 2), economic activity in the Civic Center area appears to be increasing with intensified development. Rates for discharges of wastewater will likely increase with intensified development – e.g. the redevelopment of the Malibu Lumber site which, when fully operational, is expected to discharge up to 17,000 gallons per day (over a ten-fold increase from the prior activity on the site).

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[11] Staff's population estimate of 1,000, presented in the July 31, 2009 drafts, was based on information in Stone, *Final Report – Risk Assessment of Decentralized Wastewater Treatment Systems in High Priority Areas in the City of Malibu, California*, 2004, funded by the Santa Monica Bay Restoration Commission and the California State Coastal Conservation.

[12] The 2008 population estimate is for the entire City of Malibu, not just the Malibu Civic Center area.

Staff also considered growth inducing impacts. (See Environmental Staff Report, CEQA Analysis, section entitled Other Environmental Considerations.)

O. **CWC 13282 – Has an authorized public agency provided satisfactory assurance that systems will be appropriately designed, located, sized, spaced, constructed, and maintained?** No – The City has not given such assurance to the satisfaction of the Regional Board. However, the City has commented that it believes it can provide the assurances required by this section.

The City has started a wastewater management database;[13] however, staff has expressed concerns to the City of Malibu about the accuracy of information identifying each property listed in IWIMS, and also the extent to which entries for each property have been populated with data needed to regulate discharges to achieve protection of both public health as well as the quality of underlying groundwater and nearby surface waters. (See attachments to Tech Memo #1, letters dated May 28, 2009 and June 23, 2009.)

The City discussed, during the October 2008 public meeting of the Board, an Operating Permit Program initiated as of March 10, 2008 and other terms of the MOU. The Board directed staff to prepare a prohibition. Concurrent with staff efforts to prepare a prohibition, a meeting to discuss the MOU was held among three Regional Board members, including the Chair, and City officials. However, there was no progress towards re-negotiating the MOU.

Issues

Staff released the initial drafts of the documents supporting the prohibition 97 days prior to the hearing scheduled for November 5, 2009. In addition to properly noticing the proposed regulatory action, staff made discretionary efforts to provide the community with opportunity to learn about the prohibition and to provide comments at a workshop on September 1, 2009 and a community meeting on October 1, 2009. Also, staff has spent significant time in meetings, on the phone, and in e-mail communication with many interested parties representing government agencies, NGOs,[14] dischargers, community members, and others. The revised technical and environmental staff reports incorporate revisions based on many of the comments received.

Staff will provide the Board with comments received from the public in Volume 2 (a separate binder) the week before the hearing. In the interim, staff is highlighting, below, key issues for Board consideration.

Delay: ***Should the Board delay the hearing and regulatory action scheduled for November 5th?***

No – As noted by the Executive Officer at the October 1, 2009 Board meeting, staff recommends that the Board continue to deny this request. The City has had almost 20 years to implement an effective wastewater management strategy. Many interested parties have expressed frustration with the City's past commitments to address wastewater problems and the slow progress on meeting past commitments. Efforts to find a solution through re-negotiation of the MOU have not been successful.

Although the City and many other interested parties have urged the Board to wait for results of five additional studies, staff believes that sufficient technical evidence has been presented to

[13] IWIMS – Integrated Wastewater Information System.
[14] Non-government organizations (NGOs).

merit a prohibition. Furthermore, it is not clear that the additional studies will assist in finding solutions to wastewater management in the Civic Center area.

Technical Evidence: ***Does the Board have adequate technical evidence to make a determination that OWDSs should be prohibited?***

Yes – As described above, the administrative record supports a determination for a prohibition. The scientific elements of staff's technical evidence have successfully passed external peer review in conformance with Health and Safety Code section 57004. With regard to comments contesting issues arising from TMDLs, staff notes that this item is not for the purpose of re-opening prior Board decisions on TMDLs.

CEQA:[15] ***Does the Board find that the Environmental Staff Report appropriately describes the project and disclosed environmental impacts?***

Yes – On July 31, 2009, staff released substitute environmental documentation in the Environmental Staff Report, in which a preliminary determination was made that the proposed project may have a significant or potentially significant effect on the environment, and therefore alternatives and mitigation measures have been evaluated. Staff also released responses to comments, which have included changes to the Environmental Staff Report. To the extent that there are unavoidable significant impacts, staff believes that the project's benefits outweigh the impacts and thus the Board should adopt a statement of overriding considerations, which is set forth in the proposed Resolution.

Economics: ***What can the Board do to respond to concerns of financial hardship that members of the community may face?***

Staff has estimated, on a conceptual basis, that capital costs for projects to comply with the prohibition will range from $16 million to $80 million. Staff has not attempted to allocate costs among users – e.g. allocating costs among homeowners versus commercial users. Financing community services, including collection and treatment of wastewaters, is typically **decided** by a community, and not at the state or federal level. Likewise, finding a fair way to allocate the costs within a community is typically done by community leaders with input from their constituents.

Nevertheless, the Board has been advocating on behalf of the community to obtain financial assistance from the State. Staff has already encouraged the City **to** apply for a subsidized loan from the Clean Water State Revolving Fund. Also, please note that for the Oxnard Forebay prohibition in 1999, the Board actively worked with the County of Ventura to obtain substantial financial assistance (over $10 million) for sewer infrastructure for El Rio, Strickland Acres, Saticoy, and a portion of Oxnard.

The Board may wish to encourage community leaders to make allowances or set more flexible payment terms for users facing financial hardship, such as seniors on fixed incomes and low income homeowners.

Structure of the Prohibition: ***Should the Board modify the schedule or boundaries, or add exemptions to the Prohibition?***

[15] CEQA: California Environmental Quality Act.

No (re schedule) – The City has had almost 20 years to implement an effective wastewater management strategy. Many interested parties have expressed frustration with the City's past commitments to address wastewater problems, and stated that the City has made slow progress in this regard despite past commitments. The 2014 schedule, while aggressive, is feasible. The City has already conducted substantial planning and a completed preliminary feasibility study.

No (re boundaries) – staff used topography and hydrology to delineate the prohibition area, to achieve the goal of restoration of the quality and beneficial uses of groundwater and surface waters in hydraulic connection with groundwater, including Malibu Lagoon and the Civic Center area beaches. The Winter Canyon watershed is included in the prohibition area due to dense development in the lower part of the watershed, and stress on the wastewater management facilities. Furthermore, strategies for managing wastewater in Winter Canyon are or have been proposed to link with Malibu Valley and the coastal strips. For example, a significant amount of flow from the Malibu Colony Plaza is lifted over to Winter Canyon for disposal into a four-acre field.

No (re exemptions) – An exemption to allow for repairs and upgrades until 2014 is already in the prohibition. A proposed exemption to allow for new flows that are 'zero discharge' has been deleted.

Conclusion As directed by the Board, staff has:

- presented adequate technical evidence, in accordance with the California Water Code, to support the proposed prohibition,
- structured a prohibition, proposing a deadline in 2014,
- properly disclosed environmental impacts to the community, and
- properly noticed this amendment for Board consideration and action.

Recommendation

Staff proposes that the Regional Board adopt the resolution to amend the Basin Plan to prohibit OWDSs and to adopt and certify the substitute environmental documentation (the Environmental Staff Report).

Attachment Draft Resolution

The highland area is bisected by Malibu Canyon Road and includes 61 homes and a portion of the Pepperdine University campus. Winter Canyon is not eroded to the depth of the Malibu Valley and thickness of the alluvium is less. Sector I is subdivided into two sub-sectors with significant differences in contribution to the Lagoon. The greatest volume of wastewater from Sector I is discharged in the Winter Canyon drainage, but the Winter Canyon load is assumed to have a small contribution to Malibu Lagoon via tidal inflow (USEPA, 2003, p34, estimated as much as 5 percent of nitrogen is from tidal inflow). Most of the wastewater discharged in Winter Canyon is assumed to discharge between Amarillo Beach and Malibu Beach.

Sector I is divided into the Winter Canyon drainage and drainage from highland area southeast toward Malibu Valley. The division is based on topography. Wastewater in this sub-sector is discharged from mostly single family homes, private schools, nurseries, and the HRL facility. Flow is directed by topography southeast to the western edge of Malibu Valley and east toward Malibu Creek Canyon.

Regional Board staff assumed that the maximum contribution to the Lagoon from this sub-sector is 45% of the total flow. The fractured bedrock highlands outside of the Winter Canyon drainage have a thin veneer of soil. It has been assumed in some previous studies that all wastewater from septic discharges to this highland area flows into the alluvial sediments on the west-side of Malibu Valley. Where flow through the relatively impermeable alluvium is slow and travel times to the Lagoon of 30 years to 50 years. A portion of the wastewater flow from this highland sub-sector does enter the alluvium, as evidenced by the relatively high nitrogen concentrations and high bacteria found in the monitoring wells located near the Valley walls (e.g. monitoring wells located at the Mira Mar Properties on Stuart Ranch Road and behind the County Administration Center on Civic Center Way). Monitoring wells used for the Stone risk assessment study were all located in the alluvium of the Malibu Valley and none of the groundwater table contours extend to the bedrock highlands, which represent over 50% of the Malibu Civic Center area.

Groundwater takes the path of least resistance. It can be logically assumed that some portion of the septic wastewater will percolate down into the fractured bedrock, until it reaches the water table. Low permeability sediments are not recharged at high rates; flow is restricted. There should be sufficient hydrostatic head for groundwater flow through the highly fractured bedrock underlying the Valley. Unconfined, this groundwater will rise to potentiometric surface.

Malibu Water Company records and geologic reports[13] indicate that the deep and shallow alluvial aquifers in the Malibu Valley are recharged by groundwater in the fractured bedrock exposed in the surrounding highlands. All unconfined groundwater in the Malibu Civic Center area rises to the same potentiometric surface, a surface that slopes from the bedrock highlands to sea level. Groundwater in the bedrock highlands derived from

[13] Old records for the Malibu Water Company, owned and operated by the Adamson Family, are kept in storage at Mariposa Land Company, LLC. offices on Cross Creek Rd.

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rainfall, infiltration from septic discharges, and irrigation preferentially would not flow into relatively impermeable alluvial layers of silt and clay when high permeability sands, gravels, and fractured bedrock underlying the Malibu Valley provide a relative super highway for groundwater flow. Wells and borings adjacent to Malibu Creek have found very high permeability sands and gravels. Wells and borings adjacent to Malibu Creek have found very high permeability sands and gravels. There are no confining layers in this relatively coarse alluvium. These sediments have high conductivities and travel times of 400 feet a day (ft/d).

Sector II – Sector II consists of area along the west side of Malibu Creek including the residential area surrounding Serra Retreat and the surrounding highlands, which drain to this area. In the Stone Environmental report, Sector II corresponds to the Malibu Tributary, Serra Retreat, North Alluvium, and East Alluvium areas. There is only one commercial facility located in Sector II; that is Serra Retreat with a relatively low wastewater discharge of 428 gpd. There are 83 homes located in this sector with an estimated wastewater discharge volume of 30,900 gpd.

Percolate from septic systems following topography flows toward Malibu Creek. Most of Malibu Water Company's water supply wells were located in this area. It was implied in previous nitrogen load studies that flow from the wastewater discharged into the thin alluvium draped over the bedrock highlands in this sector was confined to this thin soil layer until it reaches the alluvial sediments in the Valley. Alluvium adjacent to Malibu Creek on the east-side of Malibu Valley has very high conductivities, 400 ft/d, and travel times of less than one year for the alluvium in this area of the Malibu Valley were estimated in the (2004) Stone report[11]. Regional Board staff estimated that as much as 95% of the total wastewater flow from this sector reaches the Lagoon.

Sector III – Sector III consists of the relatively flat, gently sloping floor of Malibu Valley located north of Pacific Coast Highway. Sector III is generally described as the Malibu Civic Center area and most of the commercial development is located here. Many of these commercial facilities are located close to Malibu Creek and the Lagoon where the alluvial sediments have high conductivity. Travel time to Malibu Creek and the Lagoon for wastewater discharged in this area can be less than one day. Staff estimates 95% of the wastewater flow from this area reaches Malibu Creek and Lagoon. An exception to this high percentage of total flow is the wastewater discharged from two commercial properties located near the western edge of Malibu Valley. The (2004) Stone report found travel times to the Lagoon from this area can be as much as 50 years[14]. The Racquet Club and Miramar Properties are located in this area. It is estimated that only 20% of the wastewater discharged at these two sites reaches the Lagoon.

Only two homes with an estimated wastewater of 800 gpd are located in Sector III. There are 16 commercial facilities located in Sector III. An estimated 51,598 gpd, consisting of wastewater from both septic and advanced wastewater treatment systems, is discharged in Sector III.

[14] Stone Environmental, Inc. "Risk Assessment of Decentralized Wastewater Treatment Systems in High Priority Areas in the City of Malibu, California", 2004.

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State of California
California Regional Water Quality Control Board, Los Angeles Region

Resolution No. R4-2009-xx

Amendment to the
Water Quality Control Plan for the Coastal Watersheds of Ventura and Los Angeles Counties
to Prohibit On-site Wastewater Disposal Systems
in the Malibu Civic Center Area

WHEREAS, the California Regional Water Quality Control Board, Los Angeles Region (hereinafter Regional Board), finds that:

1. In the *Water Quality Control Plan for the Coastal Watersheds of Los Angeles and Ventura Counties* (hereafter *Basin Plan*), the Regional Board designated beneficial uses and established water quality objectives for the following water resources in the Civic Center area of the City of Malibu:

   Groundwater: Municipal and Domestic Supply (Potential), Industrial Process and Service Supply, and Agricultural Supply.

   Malibu Lagoon: Navigation; Water Contact Recreation; Non-contact Water Recreation; Estuarine Habitat; Marine Habitat; Wildlife Habitat; Rare, Threatened, or Endangered Species Habitat; Migration of Aquatic Organisms; Spawning, Reproduction, and/or Early Development; Wetland Habitat.

   Malibu Creek: Water Contact Recreation; Non-contact Water Recreation; Warm Freshwater Habitat; Cold Freshwater Habitat; Wildlife Habitat; Rare, Threatened, or Endangered Species Habitat; Migration of Aquatic Organisms; Spawning, Reproduction, and/or Early Development; Wetland Habitat.

   Malibu Beach and Malibu Lagoon Beach (Surfrider Beach), Amarillo Beach, and Carbon Beach: Navigation; Water Contact Recreation; Non-contact Water Recreation; Commercial and Sport Fishing; Marine Habitat; Wildlife Habitat; Spawning, Reproduction, and/or Early Development; and Shellfish Harvesting.

2. In the 2006 Clean Water Act Section 303(d) list, approved by the United States Environmental Protection Agency (US EPA) on June 28, 2007, impairments to beneficial uses were formally identified for the following water resources:

   Malibu Lagoon: impaired by Coliform Bacteria, Eutrophication.
   Malibu Creek: impaired by Coliform Bacteria, Nutrients (Algae).
   Malibu Beach: impaired by Indicator Bacteria.
   Malibu Lagoon Beach (Surfrider Beach): impaired by Coliform Bacteria.
   Carbon Beach: impaired by Indicator Bacteria.

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3. To restore water quality and impaired beneficial uses, the US EPA and/or Regional Board have adopted the following Total Maximum Daily Loads (TMDLs):

   i. **Malibu Creek Watershed Nutrient TMDL:** The US EPA, on March 21, 2003, specified a numeric target of 1.0 mg/l for total nitrogen during summer months (April 15 to November 15) and a numeric target of 8.0 mg/L for total nitrogen during winter months (November 16 to April 14). Significant sources of the nutrient pollutants include discharges of wastewaters from commercial, public, and residential land use activities. The TMDL specifies a load allocation for on-site wastewater disposal systems of 6 lbs/day during the summer months and 8 mg/L during winter months.

   ii. **Malibu Creek and Lagoon Bacteria TMDL**: The Regional Board specified numeric targets, effective January 24, 2006, based on single sample and geometric mean bacteria water quality objectives in the *Basin Plan* to protect the water contact recreation use. Sources of bacteria loading include storm water runoff, dry-weather runoff, on-site wastewater disposal systems, and animal wastes. The TMDL specifies load allocations for on-site wastewater disposal systems equal to the allowable number of exceedance days of the numeric targets. There are no allowable exceedance days of the geometric mean numeric targets. For the single sample numeric targets, based on daily sampling, in summer (April 1 to October 31), there are no allowable exceedance days, in winter dry weather (November 1 to March 31), there are three allowable exceedances days, and in wet weather (defined as days with >=0.1 and the three days following the rain event), there are 17 allowable exceedance days.

   iii. **Santa Monica Bay Beaches Wet and Dry Bacteria TMDL:** For beaches along the Santa Monica Bay impaired by bacteria in dry and wet weather, the Regional Board specified numeric targets, effective July 15, 2003, based on the single sample and geometric mean bacteria water quality objectives in the *Basin Plan* to protect the water contact recreation use. The dry weather TMDL identified the sources of bacteria loading as dry-weather urban runoff, natural source runoff and groundwater. The wet weather TMDL identified stormwater runoff as a major source. The TMDLs did not provide load allocations for on-site wastewater disposal systems, meaning that no exceedances of the numeric targets are permissible as a result of discharges from non-point sources, including on-site wastewater disposal systems. There are no allowable exceedance days of the geometric mean numeric targets. For the single sample numeric targets, based on daily sampling, in summer (April 1 to October 31), there are no allowable exceedance days, in winter dry weather (November 1 to March 31), there are three allowable exceedances days, and in wet weather (defined as days with >=0.1 and the three days following the rain event), there are 17 allowable exceedance days.

4. Pursuant to California Water Code section 13243, the Regional Board may, in its *Basin Plan*, specify certain conditions or areas where the discharge of waste, or certain types of

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waste, will not be permitted. During a public meeting on December 14, 1998, the Regional Board directed the Executive Officer to prepare a prohibition of on-site wastewater disposal systems (OWDS) for consideration by the Regional Board. During a public meeting on November 13, 2008, the Regional Board discussed the need for a firm time schedule to address water quality problems in the Malibu Civic Center area and again directed staff to prepare a prohibition of on-site wastewater disposal systems for Board consideration.

5. For the purposes of this *Basin Plan* amendment, the "Malibu Civic Center area" is defined as the area within the Winter Canyon and Malibu Valley watersheds and adjacent coastal strips between and including Amarillo Beach and Surfrider Beach. A map depicting the boundaries of the Malibu Civic Center area is area is attached hereto as Exhibit 1.

6. In accordance with the California Water Code, sections 13280, 13281 and 13283, Regional Board staff presented technical evidence in a public hearing on November 5, 2009, demonstrating that discharges of wastewater from OWDSs in the Civic Center area fail to meet water quality objectives established in the *Basin Plan,* contribute to impairments of present or future beneficial uses of water resources, and cause pollution, nuisance or contamination. Section 13280 states that a determination that discharges from OWDSs should not be permitted shall be supported by substantial evidence. The evidence, as summarized in the Technical Staff Report, leads to the following conclusions:

   i. Dischargers in the Civic Center area subject to Orders from the Regional Board that specify waste discharge requirements (WDRs) for OWDSs have poor records of compliance.

   ii. Discharges of wastewaters released from OWDSs in the Civic Center area to groundwater contain elevated levels of pathogens and nitrogen that impair underlying groundwater as a potential source of drinking water.

   iii. Discharges of wastewaters released from OWDSs in the Civic Center area to groundwater that are in hydraulic connection with beaches along the mouths of unsewered watersheds transport pathogens that elevate risks of infectious disease for water contact recreation.

   iv. Discharges of wastewaters released from OWDSs in the Civic Center Area to groundwater that are in hydraulic connection with Malibu Lagoon transport a nitrogen load significantly in excess of the wasteload allocation in the nutrient TMDL established to restore water quality to a level sufficient to protect aquatic life and prevent nuisance resulting from eutrophication.

   v. Wastewater flows from OWDSs in the Civic Center area have been increasing. On many sites, hydrogeologic conditions are unsuitable for high flows of wastewater, and

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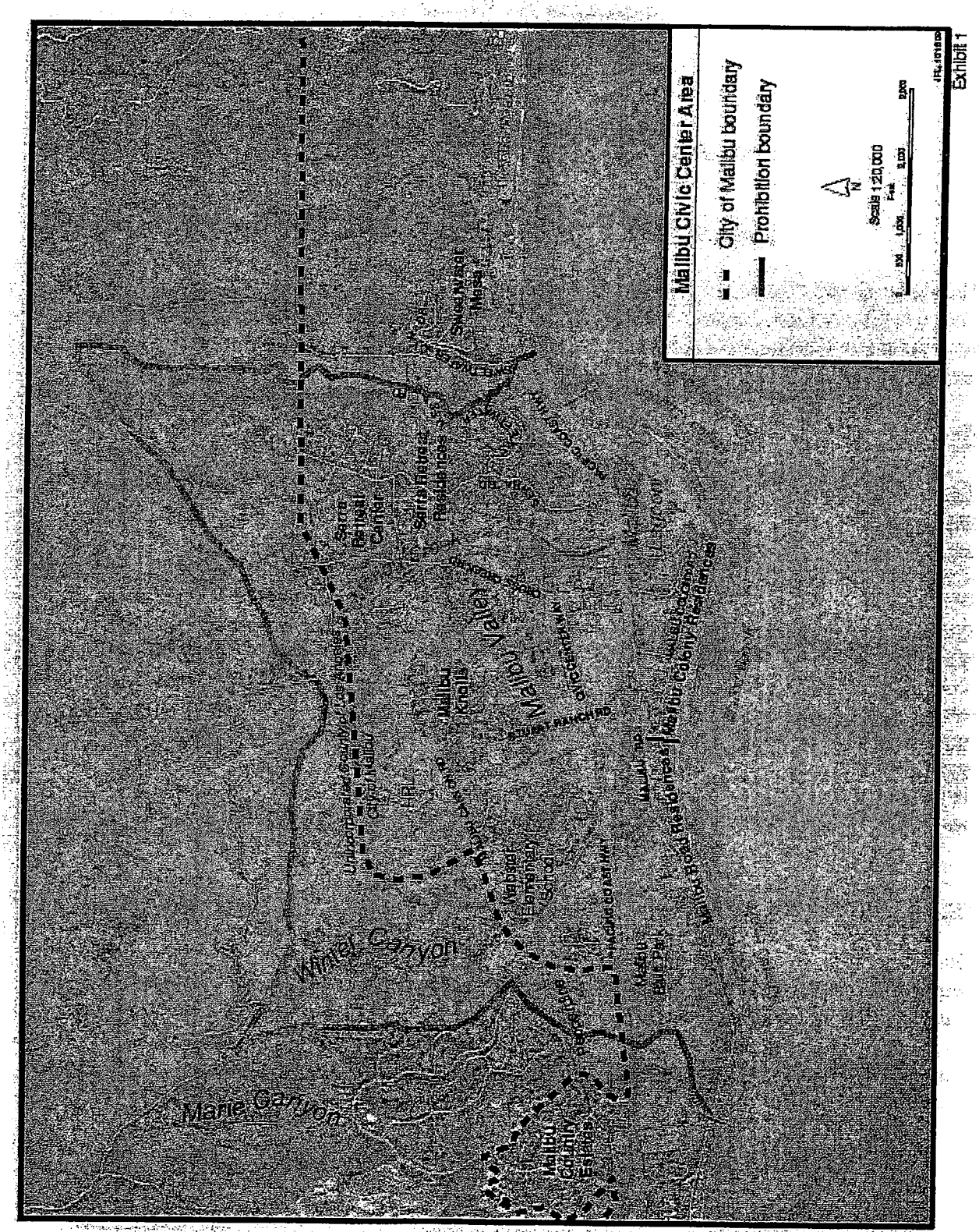
many dischargers generate wastewater flows at rates that exceed their capacity to discharge on-site. These dischargers rely on pumping significant flows into tanker trucks that haul liquid sewage and sludge via public roadways to communities that have sewer and wastewater treatment facilities.

7. Peer reviews of the scientific portions of the technical staff report were conducted pursuant to California Health and Safety Code section 57004. The peer reviewers confirmed that the technical staff report was based upon sound scientific knowledge, methods and practices.

8. No authorized public agency has offered satisfactory assurance that discharge systems are appropriately designed, located, sized, spaced, constructed, and maintained, such that they are adequate to protect the quality of water for beneficial uses in the Malibu Civic Center area, pursuant to the California Water Code section 13282.

9. Pursuant to the California Water Code section 13283, the State Water Resources Control Board (State Board) is required to include a preliminary review of possible alternatives necessary to achieve protection of water quality and present and future beneficial uses of water, and prevention of nuisance, pollution, and contamination, including, but not limited to, community collection and waste disposal systems which utilize subsurface disposal, and possible combinations of individual disposal systems, community collection and disposal systems which utilize subsurface disposal, and convention treatment systems. The Regional Board has conducted a preliminary review of possible alternatives, as documented in the staff report.

10. The basin planning process has been certified as functionally equivalent to the California Environmental Quality Act (CEQA), including preparation of an initial study, negative declaration, and environmental impact report (California Code of Regulations, title 14, section 15251(g)). As this amendment is part of the basin planning process, staff has prepared an Environmental Staff Report, which is considered a substitute to an initial study, negative declaration, and/or environmental impact report. This Environmental Staff Report satisfies the substantive requirements of the California Code of Regulations, title 23, section 3777(a), and includes a project description, environmental checklist, reasonable alternatives, alternative methods of compliance with the Basin Plan amendment, and mitigation measures. The Environmental Staff Report, together with this resolution and the responses to comments constitute the Substitute Environmental Documents, as specified in California Code of Regulations, title 23, section 15252. The Regional Board hereby determines that depending upon the compliance project selected, there could be significant adverse impacts, as specified in the Substitute Environmental Documents. However, there are also impacts that can be mitigated and be less than significant. The potential mitigation measures are set forth in the Environmental Staff Report and checklist incorporated therein.



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Resolution No. R4-2009-xx

Amendment to the
Water Quality Control Plan for the Coastal Watersheds of Ventura and Los Angeles Counties
to Prohibit On-site Wastewater Disposal Systems in the Malibu Civic Center Area

Exhibit 2: Language to be revised in the *Basin Plan*

The *Water Quality Control Plan for the Coastal Watersheds of Ventura and Los Angeles Counties* (*Basin Plan*) contains a section entitled "Septic Systems" in Chapter 4.[1] This amendment to the *Basin Plan* revises that section, as indicated by italicized, underlined text for additions, and text strikeouts for deletions.

Regulating Septic Systems

The California Water Code, Chapter 4, Article 5, sets forth criteria for prohibiting individual disposal systems (i.e., residential septic tanks). Alternatively, the Regional Board has authority to regulate discharges, including discharges from residential units, multiple-dwelling units, non-domestic septic tank systems, and large developments. ~~The California Water Code, Chapter 4, Article 5, sets forth criteria for regulaprohibiting individual disposal systems (i.e., residential septic tanks). Prior to the 1950s, the Regional Board placed certain types of septic tank systems under individual WDRs. In the 1950s, the regional Board delegates local health or public works departments jurisdiction to permit and regulate septic tank disposal systems, typically for single family dwellings. However, Alternatively, the Regional Board has authority to regulatecould exercise jurisdiction over discharges, including discharges from residential units, multiple dwelling units, some non-domestic septic tank systems, and large developments in certain problem areas, as well as in any situation where systems are creating or have the potential to create a water quality problem.~~

Oxnard Forebay Septic Prohibition

On August 12, 1999, the Regional Board amended the Basin Plan to include a prohibition on septic systems in the Oxnard Forebay (figure 4-xx ~~2axx~~), pursuant to Section 13280 of the California Water Code. The prohibition applies to both future and existing septic systems in the Oxnard Forebay. As of August 12, 1999, new septic systems in the Oxnard Forebay were prohibited. By January 1, 2008, discharges from existing septic systems must cease. This action was taken in view of:

[1] Language to be revised will go into the *Basin Plan*, starting on page 4-17 (in the 1994 version) with the section currently entitled 'Septic Systems.'

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- The conclusion that discharges of wastewaters from residential and commercial facilities to groundwater underlying the Oxnard Forebay do not meet water quality objectives specified in the Basin Plan, and are impairing the present and future beneficial uses of underlying resources of ground water.

- The need to ensure long-term protection of ground water underlying both the Oxnard Forebay and the Oxnard Plain. Alternatives to replace these supplies of local water, or to treat the water before beneficial use, would be costly and would violate the requirement to protect the water for beneficial uses.

The prohibition is not intended to prevent repairs to existing septic systems in the Oxnard Forebay prior to January 1, 2008, provided that the purpose of such repairs is not to increase capacity.

An exemption to this prohibition or a time extension of the effective date of the prohibition may be granted in the event the Regional Board determines that such an exemption or extension is in the best interest of water quality, in accordance with Water Code Section 13241 and the correction of water quality problems associated with the wastewater discharges from septic systems in the Oxnard Forebay.

Individual disposal systems that dispose of domestic wastewater that are located on lot sizes equal to or greater than five acres are not subject to this prohibition.

Malibu Civic Center Area Prohibition

On November 5, 2009, the Regional Board amended this Basin Plan *to prohibit on-site wastewater disposal systems (OWDSs) in the Malibu Civic Center area (figure 4-xx), pursuant to section 13280 of the California Water Code. Effective [insert effective date of Basin Plan amendment]:*

- *All new on-site wastewater disposal system discharges are prohibited.*
- *All wastewater discharges from existing on-site wastewater disposal systems are prohibited on November 5, 2014.*

The prohibition is not intended to prevent repairs, maintenance, and upgrades to existing on-site wastewater disposal systems prior to November 5, 2014, provided that repairs, maintenance, and upgrades do not expand the capacity of the systems or increase flows of wastewaters.

Other Areas

In other areas, where ground water constitutes an important source of drinking water, the Regional Board has adopted general WDRs (Order 91-94) for certain private residential subsurface sewage disposal systems. A lot with size less then 1 acre is not eligible for these

general WDRs; for those lots between one and less than five acres in size, the General WDRs require either a hydrogeologic study or mitigation measures. WDRs are not required for lot sizes greater than five acres.

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California Regional Water Quality Control Board, Los Angeles Region
531st Regularly-scheduled Meeting of November 5, 2009 (Los Angeles)

Item 9 (Volume 2 – Written Comments and Staff Responses)

Subject Malibu Civic Center Area: Consideration of an amendment to the *Basin Plan* to prohibit discharge from on-site wastewater disposal systems in the Malibu Civic Center area (including Malibu Valley and surrounding hillsides, Winter Canyon and surrounding hillsides, and the coastal strips along the Pacific Coast Highway between and including Surfrider Beach and Amarillo Beach).

Attachments Response Matrices
Written Comments

Introduction On July 31, 2009, staff distributed the prohibition drafts for public review and comment. The review period, ending October 8, 2009, lasted 69 days. During the review period, staff conducted a workshop and a community meeting, to take oral comments and questions. Also, staff has expended significant time in meetings, phone, and e-mail communications with parties interested in the proposed prohibition. At the end of the review period, staff received 46 written comments, which are appended to this document.

In a series of matrices, staff has summarized the written comments and provided responses. Staff has written filled out the matrices as succinctly as possible. Similar comments are grouped. Abbreviations are used. References are made to other documents that include a draft resolution, a draft Technical Staff Report (including five technical memoranda), a draft Environmental Staff Report (including an environmental checklist), peer reviews of scientific elements of the Technical Staff Report, TMDLs (total maximum daily loads), and the *Basin Plan*. Staff does not repeat extensive information in these documents.

Parties Forty-six interested parties submitted written comments, all of which are appended to this document. These comments have been organized into categories of parties, including: government, non-government organizations (NGOs), dischargers regulated by the Regional Board, other dischargers (residents and businesses in the prohibition area), and others (interested parties who live or work outside of the prohibition area).[1] The attached table identifies each party that submitted a written comment, and designates an abbreviation for that party for cross-reference with the responses.

Basin Plan and TMDLs Many comments were outside of the scope of this action – e .g. comments objecting to beneficial uses designated in the *Basin Plan* and TMDLs (total maximum daily loads). These comments raise issues on decisions already made by the Board. Although staff did summarize the rationale behind many of these decisions, staff did not respond in detail to all these comments, due to time limitations and the fact that the proposed regulatory action is not intended to re-open *Basin Plan* and TMDL decisions already made by the board.

[1] Staff has made reasonable attempts to determine which category each party should be grouped with. However, the location of some parties could not be clarified in the time allowed.

Responses Staff is in the process of preparing response matrices, organized by issue. Similar or duplicative comments are being consolidated in the following matrices:

- ***Support, Opposition, Opposition to 2014 Deadline, and Financial Hardship Concerns***
- ***Objections to the Regulatory Process for Adoption of the Prohibition***
- Objections to Staff's Analysis of Compliance and MOU Issues
- Objections to Staff's Analysis of Hauling Practices (Tech Memo #5)
- Objections to Staff's Analyses of Impairments to Water Resources
  - Groundwater (Tech Memo #2)
  - Beaches (Tech Memo #3)
  - Malibu Lagoon (Tech Memo #4)
- Concerns about Boundaries
- Support or Opposition to Exemptions from the Prohibition
- ***Concerns about CEQA (California Environmental Quality Act)***
- ***Legal Concerns***
- Other Concerns

With the October 27th transmittal, we are including only the four matrices indicated in bold italic type above. Other matrices are still in process, and staff will submit the entire set of matrices in a supplemental mailing the end of the week.

Written Comments Submitted as of October 8, 2009

Category	Party	Abbreviation	Page
Government	City of Malibu (submitted by Jenkins & Hogin)	City	100
	City of Malibu Wastewater Advisory Committee	WW Advisory Committee	185
	County of Los Angeles	County	188
	Santa Monica Bay Restoration Commission	Bay Restoration Commission	195
	Las Virgenes Municipal Water District	Las Virgenes MWD	197
	Santa Monica-Malibu Unified School District	School District	209
NGOs	Santa Monica BayKeeper	Baykeeper	212
	Malibu Chamber of Commerce (dated Oct 2, 2009)	Chamber – 1st	230
	Malibu Chamber of Commerce (dated Oct 2, 2009)	Chamber – 2nd	232
	Heal the Bay	Heal the Bay	234
	Malibu Surfing Association	Surfing Association	238
	Coalition of Surfing Clubs (petitions)	Surfing Coalition	241
WDR Dischargers	Malibu Colony Plaza (from Malibu Bay Company)	Colony Plaza	262
	R.L. Embree	Embree (MWPCP*)	309
	Morton Gerson	Gerson	314
	HRL Laboratories	Hughes	316
	Malibu Canyon Village HOA submitted by, Ross Morgan & Co.	Malibu Canyon Village HOA (MWPCP*)	319
	Pepperdine University	Pepperdine	320
Other Dischargers	Mike Barsocchini	Barsocchini (Knolls)	380
	Sally and Chris Benjamin	Benjamin (Knolls)	381
	Steven and Helen Clarke	Clarke	404
	Ken Duzy (dated Sept 2, 2009)	Duzy (Knolls) – 1st	406
	Ken Duzy (dated Oct 7, 2009)	Duzy (Knolls) – 2nd	407
	Jeff Harris	Harris	410
	La Paz, submitted by Chris Deleau	La Paz (Deleau)	411
	La Paz, submitted by Cox Castle Nocholson	La Paz (Cox)	415
	Lady of Malibu Church submitted by Carl Ehrlich	Lady of Malibu Church	421
	Latham & Watkins (submitted on behalf of three unidentified dischargers)	Latham & Watkins	427
	Malibu Knolls POA submitted by, Richard N. Scott Inc.	Malibu Knolls POA	475
	Marmol Radziner & Associates, submitted for unidentified residents	Marmol Radziner	477
	Rick Metzler	Metzler	478
	Grant Adamson, MHAB Trust	MHAB (Adamson)	479
	Gaines & Stacey LLP, submitted for MHAB Trust	MHAB (Gaines)	482
	Jean Rosenfeld	Rosenfeld	486
	Laura Rosenthal	Rosenthal	487
	Ozzie Silna	Silna	488
	Daniel and Carole Stark	Stark	489
	Malibu Towing, submitted by Robert Gold, Big Rock Partners	Towing	491
Other	Advanced Onsite Systems	Advance Onsite	586
	Frank Angel	Angel	589
	Meg Henry / Ensitu	Ensitu	591
	Environmental Engineering & Contracting	Env Engineering	593
	Pat Maginnis	Maginnis	597
	Cholada Thai Cuisine	Thai Cuisine	599
	George Toberman Construction Co	Toberman	600
	Tobias Architecture, Lester Tobias	Tobias	601

* MWPCP: Malibu Water Pollution Control Plant, also known as the Maison DeVille Sewage Treatment Plant, which serves four multi-family complexes located in Winter Canyon.

Response to Comments

State of California
California Regional Water Quality Control Board, Los Angeles Region

Item 9
(Volume 2 of 2)

Amendment to the *Water Quality Control Plan for the Coastal Watersheds of Los Angeles and Ventura Counties*

to Prohibit On-site Wastewater Disposal Systems in the Malibu Civic Center Area

Response to Comments

October 27, 2009

California Regional Water Quality Control Board, Los Angeles Region
531st Regularly-scheduled Meeting of November 5, 2009 (Los Angeles)

Responses Staff has prepared response matrices, organized by issue. Similar or duplicative comments are being consolidated in the following matrices:

Page Numbers

Support, Opposition, Opposition to 2014 Deadline, and Financial Hardship Concerns..... 1

Objections to the Regulatory Process for Adoption of the Prohibition..... 6

Objections to Staff's Analysis of Compliance (Tech Memo #1) and MOU Issues..... 9

Objections to Staff's Analysis of Hauling Practices (Tech Memo #5)..... 12

Objections to Staff's Analyses of Impairments to Water Resources..... 16

Ground Water (Tech Memo #2)..... 16

Beaches (Tech Memo #3)..... 21

Malibu Lagoon (Tech Memo #4)..... 42

Concerns about Boundaries..... 52

Support or Opposition to Exemptions from the Prohibition..... 55

Concerns about CEQA (California Environmental Quality Act)..... 56

Legal Concerns..... 66

Other Concerns..... 71

Pages 72 to 99 intentionally left blank

Comment Received..... 100

Support, Opposition, Opposition to the 2014 Deadline, and Financial Hardship Concerns

No.	Comment	Parties	Page #	Response
1	Support, in general, and support with qualifications	Angel	590	Support acknowledged. Responses to comments that qualify support are summarized in subsequent matrices.
		Baykeeper	212-229	
		Bay Restoration Commission	195-196	
		Heal the Bay	234-237	
		Maginnis	597-598	
		Rosenfeld	486	
		Surfing Association	238-240	
		Surfing Coalition	241-260	
2	Opposition	City	100-185	Opposition acknowledged. Responses to comments cited in opposition are summarized below and in subsequent matrices.
		WW Advisory Committee	186-187	
		County	188-194	
		Las Virgenes MWD	197-208	
		School District	209-210	
		All 6 'WDR Dischargers'	262-378	
		Almost all (19 out of 20) 'Other Dischargers'	380	
		Advanced Onsite	586-588	
		Ensitu	591-592	
		Thai Cuisine	599	
		Toberman	600	
		Tobias	601-602	

Support, Opposition, Opposition to the 2014 Deadline, and Financial Hardship Concerns

No.	Comment		Parties	Page #	Response
3	2014 deadline to cease discharge:	Support for 2014 deadline	Baykeeper*	219	Staff acknowledges that the 2014 schedule does not include allowances for significant delays in planning, financing, design, environmental evolutions, construction, and start up; however, it is a feasible schedule. The City has provided no evidence that the 2014 schedule is is not feasible. Latham and Watkins provides an alternate scenario based upon its expertise, but it appears to be a "worst case" schedule and staff does not agree that the worst case is inevitable. For example, staff is aware that significant planning and preliminary design work has been done by the City (see Stone 2004 and Questa 2003 and 2005), and that State Water Board funding opportunities have been initiated. * Bay Keeper: Accelerate deadline to 2012 for Civic Center, Malibu Colony, and Winter Canyon (page 219). **Heal the Bay: "...outlines a reasonable schedule..." (page 235). [Re Malibu Colony]..."A requirement to either tie into the sewer or install a disinfection system ...[within] 8 years would be acceptable...." (page 236).
			Bay Restoration Commission	196	
			Heal the Bay**	235-236	
			Surfing Association	238	
		Extend 2014 deadline	City	118	
			Latham & Watkins	470	
			Advanced Onsite	586	
			Env Engineering	594-595	
4	Opposition based on anticipated financial hardship		City	131-133	Staff has not attempted to allocate costs among users – e.g. allocating costs among homeowners versus commercial and industrial users. Financing community services, including collection and treatment of wastewaters is typically by a community, and not at the state or federal level. Likewise, finding a fair way to allocate the costs within a community is typically decided by community leaders with input from their constituents. Nevertheless, the Board has been advocating on behalf of the community, to obtain financial assistance from the state. Staff has already encouraged the City apply for a subsidized loan from the Clean Water State Revolving Fund. Also, the Board may wish to encourage community leaders to make allowances or set more flexible payment terms for users facing financial hardship, such as seniors on fixed incomes and low income homeowners. The City appears to have financial flexibility. For example, the City has high bond ratings. (See attached release dated Aug 18, 2009.)
			School District	209	
			Most 'WDR Dischargers'	262-378	
			Most 'Other Dischargers'	380-585	
			Many 'Other Dischargers'	586-602	

City of Malibu News

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FOR IMMEDIATE RELEASE:
August 18, 2009

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City of Malibu Achieves Highest Credit and Bond Ratings

Ensures New City Hall Will Be Purchased at Lowest Possible Interest Expense and Cost to the Taxpayer

MALIBU, CA – The independent bond-rating agency, Standard & Poor's, described the City of Malibu's financial performance as "very strong" and awarded its highest possible credit and bond ratings to the City – ratings that will help ensure the new City Hall will be purchased at the lowest possible interest rate and cost to the taxpayer, Mayor Andy Stern announced today.

Standard & Poor's gave the City a "AAA" credit rating and "AA+" bond rating, its highest possible rating for the general appropriations lease financing the City is undertaking. The City plans to issue nearly $20 million in Certificates of Participation to finance the purchase of an existing building and its renovation so it can serve as Malibu's new City Hall.

The City also achieved the "AAA" credit rating and "AA+" bond rating in 2005 in association with its issuance of 2006 Certificates of Participation for the purchase of the Legacy Park property where it is building an innovative stormwater and environmental restoration project.

"We are very proud that the City of Malibu has once again achieved the highest possible credit and bond ratings, especially at a time when the state and many other governmental entities have experienced a reduction in their ratings because of the difficult economic conditions," said Mayor Stern. "Maintaining outstanding ratings verifies the fiscally responsible and sound management of the City. These great bond ratings also will help ensure the new City Hall will be purchased and renovated with the lowest possible interest expense and cost to the taxpayer."

In issuing its ratings, Standard & Poor's said the City's financial performance has been "very strong, with annual operating surpluses that the city used to boost the reserves and a track record of actual performance that has exceeded budgeted performance." It also noted that Malibu enjoyed strong property values, a low unemployment rate, a low debt burden, a strong reserve and close proximity to Los Angeles' "deep and diverse" economy.

"The outlook also reflects our expectation of continued strong financial performance with substantial flexibility maintained by healthy reserves above the council's stated target," Standard & Poor's said in issuing its ratings for Malibu. "We believe the desirability of Malibu as both a permanent residence and a tourist destination should continue to provide credit stability."

Sara Oberlies, the City of Malibu's investment banker for the Certificates of Participation and a managing director at the municipal bond underwriting firm of Stone & Youngberg, said only 35 California cities have achieved a "AAA" credit rating.

(More)

"A rating of AAA is very difficult to achieve in such difficult economic times because of the volatility and uncertainty of available revenues for municipal governments," she said. "Malibu's City Council, its mayor and its staff deserve praise for their sound financial management of the City's resources and its revenues."

The City of Malibu plans to issue nearly $20 million in Certificates of Participation on Thursday for the purchase and renovation of an approximately 35,000-square-foot commercial office building that will serve as the new City Hall. The new City Hall will replace the building the City currently rents for its operations.

"In all my years on the Council, the purchase of this building was the one thing nearly everyone in town agreed was the right thing to do," said Mayor Stern.

The City also plans to retain for public and private use the new building's state-of-the-art, 500-person auditorium and one-of-a-kind recording studio that has been used by such renowned musicians as Tom Petty, Bob Dylan, Sting and Barbra Streisand.

"The purchase of this quality building in this location at this price was a unique opportunity for the City, and I applaud the City Council for their initiative in making it happen," said City Manager Jim Thorsen.

The City of Malibu was incorporated on March 28, 1991. Located in northwest Los Angeles County, the City has 21 miles of coastline along the Pacific Ocean and a population of 12,575. For more information on the city and the project, please visit http://www.ci.malibu.ca.us/ and http://www.malibulegacy.org/.

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Recycled Paper

Objections to the Regulatory Process for Adoption of the Prohibition

No.	Comment	Party	Page	Response
5	Delay Nov 5th hearing. Give City time [generally unspecified] to complete five studies. Provide general public more opportunity for discussion.	City	106	The City has had almost 20 years to implement an effective wastewater management strategy. Many stakeholders, over the past decade, have expressed frustration with the City's slow progress and failure to meet past commitments. Scientific elements of staff's reports have successfully passed an external review. Staff believes that the admin record supports a determination for a prohibition, and disagrees that preliminary results of the five studies contradict findings in the admin record. CEQA does not require that the Regional Board wait for additional studies. Staff believes there is substantial evidence from the myriad of studies that have already been published. Staff has reviewed many studies (see ESR) and spoken with many experts regarding the validity of the prior data. Staff believes the research to date is still valid. Further, staff has spoken with some of the researchers of the new studies and does not believe the results will be ready timely or that the results will shed new light directly on the issues at hand. Staff notes there is disagreement about the last point.
		Las Virgenes MWD	197	
		Barscocchini (Malibu Knolls POA)	380	
		Harris	410	
		La Paz (Deleau)	412	
		La Paz (Cox)	415	
		Malibu Knolls POA	476	
		Metzler	478	
		Rosenthal	487	
		Stark	490	
		Toberman	600	
		Thai Cuisine	599	
6	Partner/take a collaborative approach with the community – instead of a prohibition.	City	133 & 134	See above response. Also see comments from Bay Restoration Commission (pg 195), BayKeeper (pg 214) and Heal the Bay (pg 234), and Surfing Association (pg 238) that suggest a more aggressive approach is needed.
		Chamber	231 & 233	
		Metzler	478	
		Rosenthal	487	
		Stark	490	
		Tobias	601	

No.	Comment	Party	Page	Response
7	Staff did not provide direct notice of the prohibition to individual homes or business owners.	County	190	Staff met legal requirements for noticing, including publishing the notice in a paper of general circulation (Malibu Times) on Sept 3rd, Sept 10, and Sept 17th. Staff took additional discretionary efforts to outreach to the community, including a technically-oriented workshop on Sept 1st and a community meeting for affected residents on Oct 1st.
8	More outreach, workshops, 'town hall' meetings are needed.	Chamber	230 - 233	Staff held a workshop on Sept 1st, and a community meeting on the evening on Oct 1st. Staff has met with the City of Malibu many times since June, including June 17, Sept 23rd, Oct 6th, and Oct 23rd. Staff has also met with other interested parties, and provided much additional outreach through phone and e-mail.
		Benjamin	383	
		Advanced Onsite	587	
		Env Engineering	593 -596	
9	Where are meetings advertised?	Lady of Malibu Church	422	The Nov 5th hearing was noticed in the Malibu Times. Information on the Sept 1st workshop and Oct 1st community meeting was sent through Lyris announcements, Web site postings (including pdf's of handouts), and e-mail notices to WDR dischargers. Also, the City of Malibu worked with staff to notify the community of the meetings.
10	The Oct 1st Board meeting [hearing] should be rescheduled.	La Paz (Deleau)	413	Staff did not schedule the Oct 1st community meeting on the same day as the Board hearing. The prohibition item, originally scheduled for a hearing during the Oct 1st Board meeting, was rescheduled to Nov 5th. Because of this additional time, staff scheduled a community meeting on Oct 1st. To ensure that Mr. Deleau understood this, staff left a voice mail for him on Sept 22nd.
11	Staff was irresponsible in stating the Board will likely not take a strict approach toward enforcement.	La Paz (Deleau)	413	Disagree. Staff provided context, by explaining the agency's progressive approach to enforcement. The context and detail staff provided was in response to questions from several people in the audience at the Sept 1st workshop, who asked about the Board's enforcement authority and – specifically penalties (which information was subsequently misquoted in the press).

No.	Comment	Party	Page	Response
12	The Sept 1st workshop was too short and the venue was inappropriate.	La Paz (Deleau)	411	Re timing of the Sept 1st workshop, staff acknowledges that five questions had to be cut off after 1 hour and 50 minutes. However, staff had committed to vacating the Pepperdine lecture hall so that a class could start at noon. Informally, staff engaged in discussions with interested attendees on the plaza outside of the lecture hall. Also, staff contacted the five speakers afterwards (including Deleau on September 2, 2009), asked for their comments, and invited them to the next community meeting. At the Oct 1st community meeting, staff did not close the meeting until all participants had opportunity to speak, and also stayed another hour for informal discussion. Re location, staff disagrees that the venue was inappropriate. Other facilities in the prohibition area were not available. Staff consulted with City officials about the venue.
13	Peer review memos – access was not provided for timely review and comments.	City	114	Health and Safety Code section 57004 requires an external scientific peer review of the scientific basis for any rule proposed by the Regional Board. The peer reviews are publicly available but are not the subject for comments.

Objections to Staff's Analysis of Compliance (Tech Memo #1) and MOU Issues

No.	Comment	Parties	Page #	Staff Response
14	The Basin Plan amendment seems drastic and premature and is based on Regional Board oversight cases only.	City	101, 2nd paragraph	Beneficial Uses are impaired as demonstrated in Tech Memo #2 (groundwater), #3 (beaches) and #4 (lagoon). The City has had almost 20 years to implement an effective wastewater management strategy. Results of City's 2004 Stone studies are consistent with Staff's conclusion that both commercial and residential discharges have impacted groundwater quality.
15	Objections to prohibition – suggest improvement in permitting, reporting, communications and compliance between all affected parties	City	101, 2nd paragraph	See matrix for "Objections to the Regulatory Process for Adoption of the Prohibition" objections (page 6), Response to Comment #2. Also, the City has not provided satisfactory assurance that systems will be appropriately designed, located, sized, spaced, constructed and maintained. City's oversight efforts have been slow, and ineffective. For example, IWIMS, the City's wastewater management database, is inaccurate and not well populated. The City's Operating Permit Program, initiated in March 10, 2008, will take many years to cover a substantial portion of residents and small commercial dischargers since the City only requires upgrades at point of sale and remodeling. Many WDR dischargers have been repeatedly warned of violations. The Regional Board enforced all permitted facilities as much as possible in view of the limited staff resources. In addition, dischargers are responsible to self-monitor and ensure compliance as required by WDRs. Staff acknowledges the City has implemented many programs to comply with the MOU, and that the City asserts it is able to offer satisfactory assurances.
16	What criteria were used to determine violations? Why are all violations weighted similarly?	City	101, 3rd paragraph	Regarding criteria, staff applied specifications in WDRs for determination of violations. In response to comments, staff revised Tech Memo #1, Table 4 to distinguish discharge violations and non-reported parameters.
17	Notices of Violation (NOVs) contain mistakes: For example: Hughes alleges that an NOV was mistakenly issued for non-submittal and late submittal.	City	102, 1st paragraph	An amended NOV was issued to Hughes. Staff's error resulted from Hughes' incorrectly dated submittals. Further analysis of Hughes' compliance status indicated that Hughes failed to submit records of waste hauling.

Objections to Staff's Analysis of Compliance (Tech Memo #1) and MOU Issues

No.	Comment	Parties	Page #	Staff Response
18	Existing [commercial and residential] OWDSs will be replaced with advanced systems, which should eliminate concerns with older systems causing pollution. Prohibition fails to credit City's progress including upgrades and new commercial systems reusing water. Over time, all of the OWDSs in the City will be upgraded to the advanced systems. The proposed Prohibition freezes the progress. The new OWDSs will not pollute groundwater. Staff failed to consider that advanced systems would help to improve the current situation even in advance of 2014 prohibition.	City	102, 2nd paragraph 105, 2nd paragraph	Disagree. The small localized cleanups in the high density discharge area are not effective. It is worse because the high discharge violation rate results in groundwater pollution as evidenced in compliance history and Tech Memo #2. For commercial facilities, 40% (8 out of 20 commercial facilities) have advanced treatment systems. Seven out of these 8 commercial facilities have discharge violations. Only about 20% of residential systems have advanced treatment; most are still passive systems that impact water quality. For example, one residence in Serra Retreat has total system failure. An effective and timely solution is not apparent. Most individual advanced systems for commercial properties do not operate properly to protect water quality, as evidenced by the compliance history. We have similar concerns for residential advanced systems. City's Integrated Wastewater Management Information System (IWIMS) submitted in June 2009 demonstrated that IWIMS is not a tool for tracking compliance. A regional solution is needed to protect water quality in the Malibu Civic Center area.
		Latham and Watkins	442, 1st paragraph 441, 4th and 5th paragraphs	
19	Prohibition is unfair to many dischargers who invested resources upgrading the old septic systems to advanced treatment systems.	WW Advisory Committee	186	Acknowledged. However, staff is concerned that many advanced treatment systems are inadequately designed to handle seasonal or holiday peak flows. Most of the advanced treatment systems have startup problems, such as Malibu Lumber, or maintenance problems, such as the two plants in Winter Canyon. See also response to Comment No. 187. Tech Memo #1 documented compliance history including facilities with advanced treatment systems. Tech Memo #2 demonstrated wide-spread groundwater pollution from all discharges, including facilities with advanced treatment systems.
20	The Regional Board did not ensure that the septic systems are designed/operated/maintained properly	School District	210, 1st paragraph	Most of these systems were permitted by City or County and are under City or County's oversight.
21	Despite the WDRs issued by the Regional Board to dischargers, the violations of effluent limits and effluent flow continue.	Baykeeper	213, 5th paragraph	Concur. See Tech Memo #1.

Objections to Staff's Analysis of Compliance (Tech Memo #1) and MOU Issues

No.	Comment	Parties	Page #	Staff Response
22	Without a prohibition, impairment of beneficial uses and violations of water quality objectives (WQO) will continue. The existing permitted dischargers routinely violate effluent limits for nutrients and pathogens. WDR are insufficient to ensure that WQO will be met. Even the Malibu Lumber Yard "state of the art" system violates its effluent limits and can not ensure that water quality is protected.	Baykeeper	216, 6th paragraph 217, 1st paragraph	Concur. See Tech Memo #2, #3 and #4.
23	Many of Malibu's smaller businesses are simply uninformed about the current requirements for wastewater permitting.	Chamber	230, 3rd paragraph	Many commercial facilities failed to apply for WDRs resulting in the Regional Board issuing California Water Code (CWC) section 13260 directives in April 2009. The directives include detail requirements for permitting. Some facilities failed to respond to CWC section 13260 directives by the due date. Many smaller businesses continue to discharge without a permit despite Regional Board efforts.
24	For the most part these septic systems satisfactorily perform the disposal objective and do provide an effective level of treatment.	Chamber	230, 4th paragraph 231, 1st paragraph	Disagree. All commercial systems failed to comply with the WDRs as evidenced by data used to support the NOVs issued by the Regional Board between April and June 2009. Many systems aren't adequately designed and sited, and cannot handle the flow of wastewater generated by land use activities permitted by the City. (See Tech Memo #5.) See also response to Comment No. 186
25	Tech Memo #1, Table 4 mis-stated violation count of 62 which did not account for TSO extension from 1/30/06 to 8/31/06. An additional 12 violations cited late reporting by a few days.	Colony Plaza	265, 5th paragraph	Acknowledged. Staff revised Tech Memo #1, Table 4 to reflect a TSO extension granted by the Executive Officer in 2006. The correct violation count is 55 (not 62, as stated in the July 31, 2008 draft). Late reporting is a violation.
26	MOU - If the *Basin Plan* is amended, it is necessary to modify the MOU to carve out the portion of the unincorporated County within Prohibition Area.	County	190	Concur. Staff will initiate a meeting to discuss changes to the MOU if the Basin Plan amendment is adopted by the Regional Board.

Objections to Staff's Analysis of Compliance (Tech Memo #1) and MOU Issues

No.	Comment	Parties	Page #	Staff Response
27	MOU - The City of Malibu has failed to develop a truly comprehensive wastewater management plan for the Civic Center Area. City has failed to adequately regulate smaller dischargers under MOU, including the requirement to adopt ordinances requiring: a. upgrades of all OWDS within the six-month time-of-travel zone by 9/16/06 and within the Malibu Lagoon contributory area by 9/17/09, b. de-nitrification standards for residential areas within the contributory area by 9/17/06 and c. registration criteria and programs for OWDS management by 9/17/08.	Bay Restoration Commission	195	Concur. See Tech Memo #1. Also see matrix for "Objections to the Regulatory Process for Adoption of the Prohibition" page 6, Responses to Comments #1 and #2.
		BayKeeper	213-214	
28	MOU - The Regional Board is not adequately staffed to timely issue zero-discharge permits to residents.	Malibu Knolls POA	476	The Regional Board staff does not intend to issue zero-discharge permits to residents in the Civic Center Area of Malibu. In addition, the City of Malibu currently regulates residential discharges.

No.	Comment	Parties	Page #	Response
29	Inaccurate reference to "Intensive land use"...."prohibition area encompasses 1,410 acres and 90% of the land is open space, undeveloped...."	City	109 § 2	Clarified by Inserting "Relative" in Tech Memo 5 ,Background section. Staff did not average the total existing flow over the entire 2.2 square miles because the commercial dischargers are clustered relatively close to each other as shown in Figure 1 of Tech Memo # 5. Some commercial developments have low Floor Area Ratio (FAR), for example Cross Creek Plaza has 0.54. In spite of the large undeveloped area in the Civic Center area, the flow and hauling data were from the clustered dischargers.
30	"Claim that seepage pits are not serving its purpose... is not supported by evidence or data.."	City	109 § 2	Disagree. The reliance of haulers on hauling large volumes of septic wastes off site is a sign that the seepage pits are no longer serving their purpose. Dischargers' hauling reports submitted to the Regional Board indicate that pumping and hauling were done not as a regular maintenance procedure.
31	Water use "has remained steady.." Staff "should rely on data from LA County Waterworks District #29".... "..last month', the City reduced water usage by nearly 20%.."	City	109 § 4	See Tech Memo # 5, page TM5-24, which shows an increasing trend in water consumption over the past 20 years. Concur that water consumption data from LA County Waterworks District # 29 .should be used - this is indeed what staff did use. On page 109, the City states that it "reduced our water usage in the last month". While such a reduction last month is commendable, staff nevertheless refers to the long term trend.
32	The calculation of the number of residences in the Malibu Civic Center area is inaccurate.	City	110 § 2	Agree. Regional Board staff recalculated the number of residences in the Malibu Civic Center area based on the county assessor's database and revised the Tech Memo accordingly.
33	Hauling data about Cross Creek Plaza was inaccurate.	City	110 § 1	Agree. Tech Memo # 5 was revised to incorporate the correct data.
34	95% of water used within the facility goes to the septic is merely an assumption not supported by fact.	City	110 § 3	The assumption that 95% of the water consumed goes to the sewer is made by the dischargers without flow meters to measure the waste flow. The dischargers assumed that the remaining 5% of the water consumed was used for irrigation and other outdoor activities.

Objections to Staff's Analysis of Hauling Practices (Tech Memo #5)

No.	Comment	Parties	Page #	Response
35	"Spills in the Study Area" is misleading	City WW Advisory Committee	Page 110 § 4 Page 186 § 2	Spill data were deleted from Tech Memo # 5 because most of the spills occurred outside the Malibu Civic Center area. The analysis of the hauling data indicate that dischargers resort to hauling wastewater off site to avoid spills.
36	Drive-through inspection's observations do not indicate waste flow increase or lapses in City's regulatory competency.	City	112 § 2	The drive through inspection was not meant to be a compliance evaluation inspection. Staff observed and documented how much hauling is going on in the Civic Center area on a typical weekday.
37	Carbon Footprint Analysis is irrelevant to increased water flow.	City	112 § 3	The Carbon Footprint Analysis is meant to show that the frequent hauling of septic wastes off site has a potential climate change impact.
38	Appendix A (Septic Waste Flow and Hauling Data) of Tech Memo # 5 contains incorrect values.	Colony Plaza	268 § 4	Disagree. Staff considered new data (page 272), but was unable to resolve conflicting assumptions (See Supplement). **Staff further analyzed the waste flow trend, ignoring the Colony Plaza flows. This revised trend line still shows an increasing trend.**
39	Tech Memo #. 5 conclusion that hauled volumes are increasing is incorrect.	Colony Plaza	269 § 3	Disagree. Staff analyzed the hauling trend for 13 permitted facilities. Colony Plaza asserts that its waste hauling is going down. This does not change the trend for the 13 permitted facilities.
40	Regional Board's calculation of daily waste flow was inaccurate.	Gerson	314	Disagree. Technical Memo No. 5 did not include Morton Gerson-Colony Plaza in its analysis of waste flows and hauling because of the small amount of waste flow generated.
41	Supports Technical Memo # 5 as evidence for the Prohibition.	Rosenfield	486	Response acknowledged.

On October 8, 2009, Malibu Bay Company (Colony Plaza) objected to staff's analysis of waste flows (Figure 1). Colony Plaza alleges that Appendix A: Septic Waste Flow and Hauling Data (TM5-12) contained incorrect values related to its facility. Colony Plaza specifically questioned the assumptions made by staff on the waste flows from the facility for 2004 and 2005. Staff's methodology of assumptions is explained in Technical Memo #5, footnote 3. Where data are missing from monitoring reports, staff made reasonable assumptions using best professional judgment.

Integrated Performance Consultants (IPC) on behalf of Colony Plaza adjusted Colony Plaza's waste flows (Figure 2). IPC estimated that in 2004, Colony Plaza discharged 8,946,516 gallons, assuming that between January and August, the facility discharged the same amount of septic waste as it did from September to December 2004 (2,982,172 gallons, shown on Colony Plaza's pumping records). IPC also estimated that in 2005, Colony Plaza discharged 11,753,171 gallons. IPC's estimates were based on pumping records for the first 11 months of the year and best professional judgment, assuming that the volume of waste pumped in December is similar to the volumes pumped during the first 11 months of the year. (This is the same approach that staff used.)

In order to generate complete data sets for the analysis of annual waste flows in the Malibu Civic Center area, staff extrapolated from available data. IPC submitted data on waste flows and annual water consumption. IPC reported that in 2004, 8,946,516 gallons of septic waste were discharged, which is 68% of the 13,126,161 gallons of the water consumed. (IPC did not account for the missing 4,000,000 gallons.) In 2005, IPC reports that Colony Plaza discharged 11,753,171 gallons and consumed 11,7432,673 gallons (higher waste flow than water use). Staff adjusted the waste flow value for 2005 to be consistent with the value reported for 2004, which assumed the waste flow was 68% of the potable water consumed.

Figure 2 varies greatly from Figure 1. Staff estimated waste flows for Colony Plaza using the methodology described on footnote 3 of Tech Memo #5. In 2006, only the waste flow value for the fourth quarter was available. Staff multiplied this value by four to get an estimate for waste flows for the entire year. Staff estimated the waste flow for 2008 based on the data from the first and second quarters, which were available. The sum of waste flows reported for the first two quarters was doubled to provide an estimate for the entire year's waste flow. Using these assumptions, waste flow estimates for years 2006 through 2008 showed a steady annual increase. These values were extrapolated back to years 2005 and 2004, to get an estimated waste flow of 5 million gallons per year. These data were included in Figure1, which shows the annual waste flow trend for the Malibu Civic Center area.

As staff was not able to reconcile discrepancies, staff also analyzed the trend ignoring Colony Plaza's flows. Colony Plaza is one of thirteen commercial dischargers that were included in the analysis. Colony Plaza is the second largest discharger among the thirteen commercial dischargers (Malibu Water Pollution Control Plant is the largest); therefore, its waste flow has a significant impact on total annual waste flows. This explains the opposite trends shown in Figures 1 and 2. However, **even when the Colony Plaza is eliminated from the analysis, an increasing waste flow trend for the Malibu Civic Center area still remains** (Figure 3).

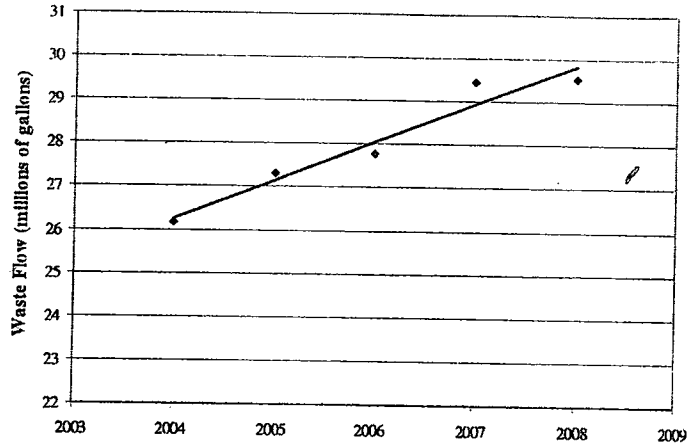


Figure 1. Staff's analysis of the waste flow trend in the Malibu Civic Center area. (Same as Technical Memorandum #5, Figure 2)

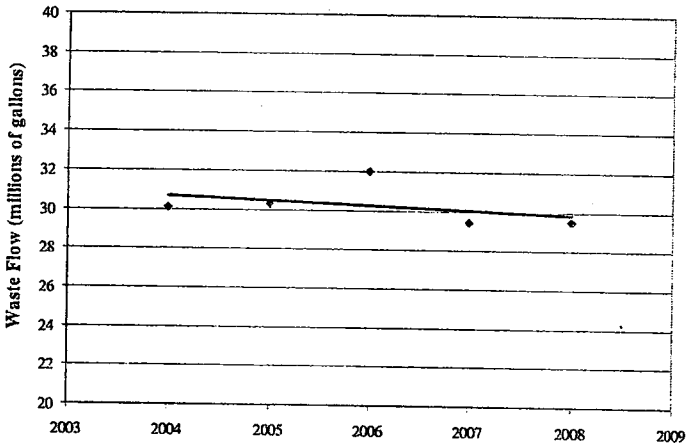


Figure 2. Colony Plaza's adjusted analysis of waste flow trend for the Malibu Civic Center. using waste flow data provided by IPC for Colony Plaza.

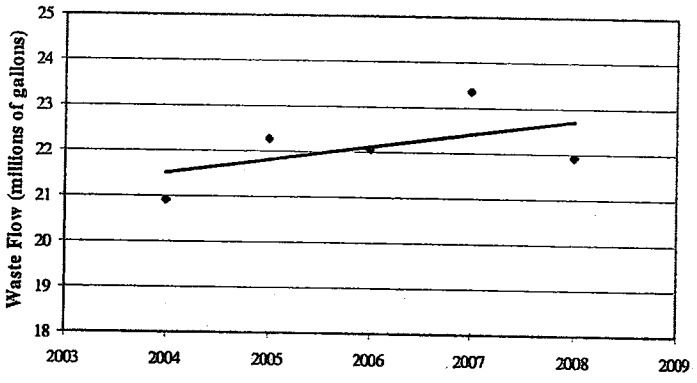


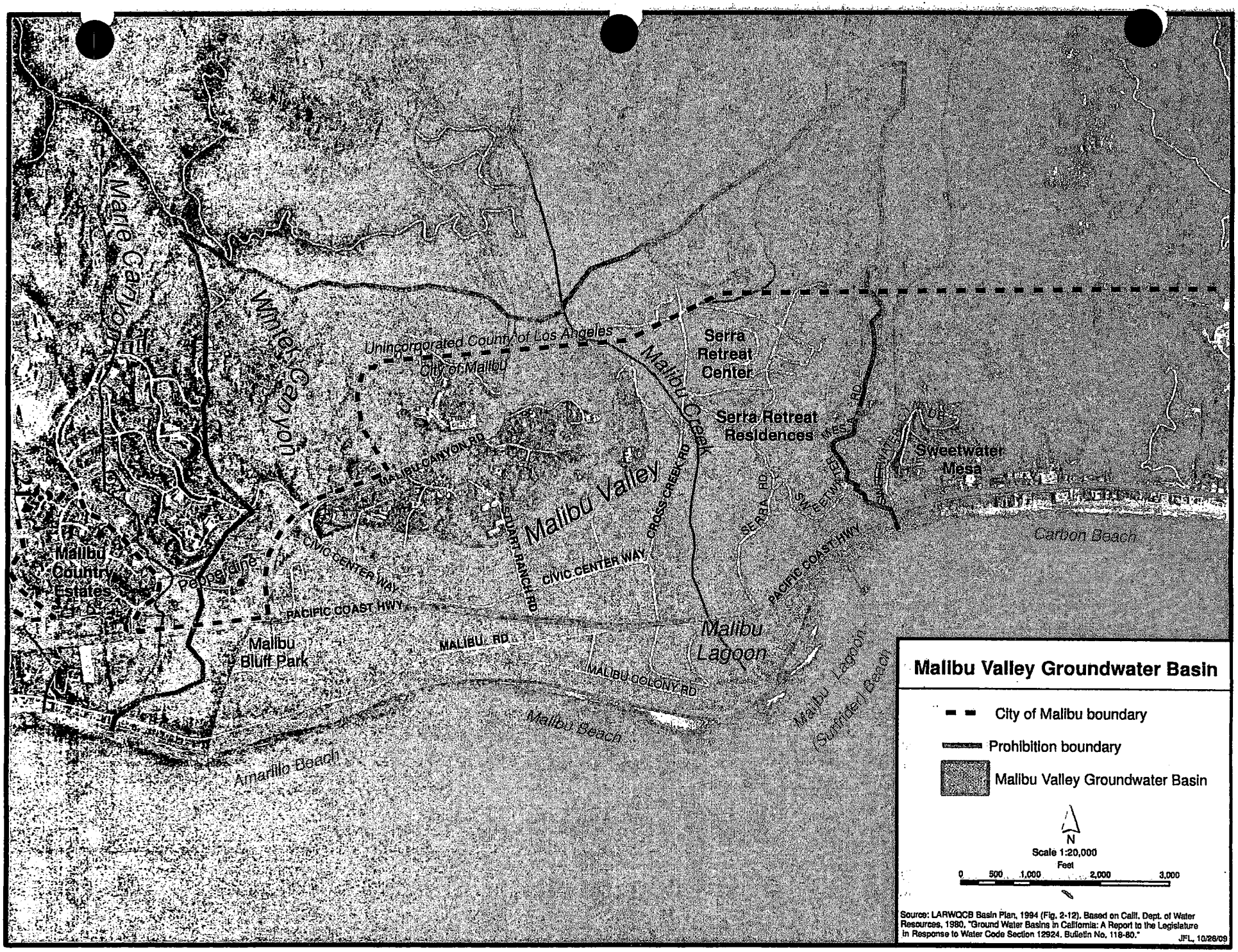
Figure 3. Waste flow trend for the Malibu Civic Center area, excluding waste flows from Malibu Colony Plaza.

No.	Comment	Parties	Page #	Response
42	Groundwater is unsuitable as a potential source of drinking water. Staff's analysis is not pertinent to the lower aquifer, which was used as water supply historically but discontinued due to seawater intrusion.	City	103-104 137 140	The Regional Board has designated groundwater in the Malibu Valley Groundwater Basin as a potential supply of municipal and domestic water (MUN). See *Basin Plan*, 1994, page 5-7). Accordingly, staff is required to apply this designation until the Regional Board changes it through a Basin Plan amendment, in accordance with the State Board and Regional Board Sources of Drinking Water Policies (Resolution 88-63). Groundwater resources, while not sufficient to meet demands of the entire community, may nonetheless meet partial demand or meet emergency demand. Staff acknowledges that seawater intrusion may have contributed to degradation of water quality. In restoring and managing potential future groundwater production, the City or other utility will need to evaluate the storage and safe yield of the aquifer, and ensure that pumping patterns and replenishment with high quality waters are properly designed and managed. Early studies of water resources were of limited scope, and were undertaken after production levels and pumping patterns had already caused sea water intrusion (Bailey, 1950 and 1951). Sustainable production of groundwater in the future will require an understanding and management of safe yields, replenishment, and pumping patterns.

No.	Comment	Parties	Page #	Response
43	The Malibu Valley Groundwater Basin does not include Winter Canyon. Winter Canyon is not a potential source of drinking water.	Colony Plaza	266-267	Disagree. The Malibu Valley Groundwater Basin <u>does</u> include lower Winter Canyon (see attached figure showing the basin outline, enlarged from the *Basin Plan*). As the Board has designated this basin for 'potential MUN,' staff has treated groundwater in lower Winter Canyon accordingly. (See comment in above row.) Furthermore, groundwater upgradient (e.g. upper Winter Canyon) of major basins identified in the *Basin Plan* are to be protected as designated in downgradient basins (*Basin Plan*, Table 2-2, footnote 'ac'). Also, wastewater management in Malibu Valley is linked to Winter Canyon – a significant flow from the Malibu Colony Plaza is lifted over to Winter Canyon for disposal into a four-acre field.
44	There are other sources of nitrogen, such as agriculture, lawn fertilization, and stormwater pollution.	City	104 136 138	Staff agrees that other sources can contribute to the groundwater pollution. However, in assessing the presence of those other possible sources versus the pollutant loading from OWDSs, staff believes that OWDSs are predominately responsible for pollution seen in the wells evaluated in Tech Memo #2.
45	There is no MCL for ammonia and therefore it should not be included in the analysis. Several wells would not be considered contaminated wells if ammonia had not been included.	City	104 137 140	Staff clearly explained, in Tech Memo #2, that there is no MCL for ammonia, and that the ammonia analyses were provided because of the expectation that this contaminant would convert to nitrite and nitrate. Staff submits that this is a prudent analysis, and that it is consistent with the Regional Board's permitting strategy.

No.	Comment	Parties	Page #	Response
46	Staff double counts wells. [In staff's attempt to clarify this, the City stated that two wells -- #7b and #8) are the same as SMBRP 7b and SMBRP 8.]	City	104	Thank you. Staff acknowledges that there are two duplicate wells (#7b is the same as SMBRP7b, and #8 is the same SMBRP 8). This error arose because the wells had different data sets (different sampling dates, and different water quality values). Nevertheless, based on the remaining 57 wells, staff's conclusion in Tech Memo #2 remains the same.
47	Staff over-counts total and fecal coliform MCL exceedances …should not include [hits] from new wells…..	City	139	Staff is not clear on the rationale behind this comment. Staff assumes that representative samples were correctly collected, and that the first data point for wells is not from well development.
48	Opposition to the way the number of samples that failed to meet the MCL is reported.	City	138 139	The historical monitoring results for 57 wells (excluding the two duplicates) are summarized in Table 2. Any time a well failed to meet the MCL, a "yes" value is designated. Even though a well have been in compliance since 2003, it's still helpful to know of longer term trends. Because this is a comprehensive analysis, all data points were considered.
49	This line is intentionally blank.			
50	All monitoring well samples are arbitrarily lumped together and there is no evaluation of results based on whether water quality has changed over time. The analysis does not include site specific data. Raises questions pertaining to objective evaluation.	City	138	The purpose of this study is to answer the question – is groundwater impaired as a potential source of drinking water, and staff used a comprehensive approach to answer this question.

No.	Comment	Parties	Page #	Response
51	No mention of upgrades of, and replacement of, septic systems including advance treatment systems.	City	136	Staff's analysis, using data through early 2009, reflects the performance of OWDS upgrades. Staff has not been able to validate basin-wide improvements to water quality.
52	Ammonia is erroneously counted twice because all the tables in Attachment 2-1 include a column that is the summation of Ammonia + Nitrate + Nitrite + TKN	City	140	Disagree. Although staff included TKN in the data compilation in the July 31st draft (so that a reader could get a comprehensive understanding of all species of nitrogen), staff did not add TKN values in calculating exceedances. To eliminate confusion in the Oct 21st draft, staff deleted the TKN column. Staff's results and conclusions do not change.
53	Ignores other published sources that are seen as quite relevant.	City	106 136	Re the studies that the City lists on page 136, yes – staff did consider these data. Re the studies that the City lists on page 106, no – these data haven't been made available.


Malibu Valley Groundwater Basin
City of Malibu boundary
Prohibition boundary
Malibu Valley Groundwater Basin
N
Scale 1:20,000
Feet
0 500 1,000 2,000 3,000
Source: LARWQCB Basin Plan, 1994 (Fig. 2-12). Based on Calif. Dept. of Water Resources, 1980, "Ground Water Basins in California: A Report to the Legislature in Response to Water Code Section 12924, Bulletin No. 118-80."
JFL, 10/26/09
Unincorporated County of Los Angeles
City of Malibu
Malibu Valley
Malibu Creek
Malibu Lagoon
Malibu Bluff Park
Malibu Country Estates
Serra Retreat Center
Serra Retreat Residences
Sweetwater Mesa
Carbon Beach
Malibu Beach
Surfrider Beach
Amarillo Beach
Marie Canyon
Winter Canyon
Pepperdine
MALIBU CANYON RD
CIVIC CENTER WAY
PACIFIC COAST HWY
MALIBU RD
MALIBU COLONY RD
CROSS CREEK RD
SERRA RD
WESTWARD BEACH RD
KANAN DUME RD
DUNT RANCH RD

Objections to Staff's Analyses of Impairments to Water Resources - Beaches (Tech Memo #3)

No.	Comment	Parties	Page #	Staff Response
54	Additional technical work is required to determine OWDS relationship to beaches via groundwater	For: City Latham & Watkins	155,162 470	Staff disagrees. See peer reviewer comments and response to peer reviews. See attachment #1 and attachment #3.. The microbiological and hydrological systems delivering bacteria to the beaches from the OWDSs are sufficiently complex that emerging information will provide more clarity, but will not disprove that under some conditions and in some places, OWDSs contribute pathogens to the beaches.
		Against: Baykeeper Surfrider Foundation	 213-216	
55	Additional technical work is required to confirm EPA's criteria relating human illness to enterococcus despite natural sources of the bacteria	For: City	 162	Staff disagrees. See response to peer reviewers comments and attachment #2 below. New criteria based on human source indicators will have the same problems as enterococcus, i.e. confusion due to transport in the food chain, large samples required to show statistical proof of human source indicators, and local variations in microbiological and hydrological conditions affecting the fate and transport of the indicator.
		Against: Heal the Bay Baykeeper Surfrider Foundation	 235 216 241	
56	The scientific method was not followed in Tech Memo #3	For: City	 162	Staff agrees that additional clarity can be provided. See changes in text and in peer review response attachment #1 on statistics. The use of frequencies to show enterococcus bacteria variations in populations of different sizes is a standard technical practice. The scientific process involves referenced journal articles, peer reviews, release of information to third parties and robust discussion.
		Against: Heal the Bay Baykeeper	 235 216	
57	Technical memo #3 does not show relationship between OWDS and beaches	For: City WW Advisory Committee Committee Colony Plaza Latham & Watkins	 155 186 262 470	Staff disagrees. See three independent peer reviewer comments. See historical and recent studies in Tech Memo 3. See staff analysis in peer review response attachment #1.
		Against: Heal the Bay Baykeeper Surfrider Foundation	 235 213-216 241 316	

No.	Comment	Parties	Page #	Staff Response
58	Understanding groundwater transport of bacteria pollution can allow sufficient beach protection	For: City Colony Plaza Latham & Watkins	155,162 263 439	Staff concurs that the 6-month travel time area identified in Stone (2004) continues to indicate elevated risk for transport of bacteria into surface waters where the City of Malibu agreed in the 2004 Memorandum of Understanding to replace all OWDS within this zone. However, Stone (2004) is a hydrological study which did not include a literature search of microbiology in the groundwater or on beaches. The evidence for bacteria die-off and transport is significantly more complex than modeled by Stone (2004). Also see attachment #1 to this response to comments titled: *Interpretation of Temporal and Spatial Groundwater Information.* Also see response to peer reviewers' comments on bacteria transport in groundwater. The City has not considered hydrological and microbiological factors which may increase or decrease bacteria transport and identification of bacteria in well tests. Staff's analysis of data (not released by the city previously) duplicates the City 's findings that stable groundwater levels are found in the Civic Center area. The City interprets this as steady and continuous discharge of groundwater at a rate sufficient to remove pathogens. However, staff notes that the well in the Civic Center area, such as the 'c' wells, have nondetect on some occasions and were found by Vergutz (2006) to contain bacteria. As numerous literature cited here suggests, the heterogeneity of the aquifer has a larger influence on virus transport than is considered in the City's work.
		Against: Heal the Bay Baykeeper Surfrider Foundation	235 213-216 241	
59	Site specific epidemiology studies relate illness to stormwater, not OWDSs	For: City	156,160, 162	Haile et. al. (1999) includes untreated urban runoff as a source, but does not exclude groundwater discharge from OWDS. It was not a source study so it identifies urban runoff as a source, but does not eliminate OWDSs as a source. It relates illness to a location on the beach. In fact, the study did not consider groundwater discharge as a potential source, since they measured illness at that point on the beach on days when there was not overland flow. An adjacent fresh-water source, either stormwater urban flow or groundwater, would have to move through the sand of the beach to provide bacteria to the swimmers. Also see response to peer review comments on Attachment #3, bacteria in groundwater.
		Against: Heal the Bay	235	

Objections to Staff's Analyses of Impairments to Water Resources - Beaches (Tech Memo #3)

No.	Comment	Parties	Page #	Staff Response
60	Progressive cleanup of bacteria is underway	For: City Colony Plaza Latham & Watkins	158 262 470	It is not clear what "cleanup" the commenter is referring to. Board staff is aware that the stormwater containment structure began construction in September, 2009, and while permitting and upgrade activities have been described, the City has provided minimal documentation of load reductions nor has the surface water quality impact of those changes been calculated using simple technical methods. Specifically, the City's actions upgrading OWDSs between 2005 and 2007 constitutes an upgrade of about 80 of the 400 residential septic systems and 8 of the 40 commercial OWDSs within the Civic Center area. Since the sewage flow ratio of residential versus commercial estimated by the City is roughly equal, the residential change would constitute about 20% reduction in residential waste and about 20% of reduction in commercial waste, or 20% of the total waste from OWDSs. This difference is small to explain, alone, the reduction in enterococcus measures on the beach, which Board staff attributes to reduced transport of bacteria due to reduced groundwater flows. In addition, the upgraded OWDSs have shown poor performance and effluent violations which could increase the potential discharge of waste: the actual reduction of wastes would be lower than 20%.
		Against: Heal the Bay Baykeeper Surfrider Foundation	235 213-216 241	
61	Tech Memo #3 does not include sufficient statistical support	For: City	162	Tech Memo #3 concludes that the published and peer-reviewed scientific information on the issue provides a sufficient basis for regulatory action. Three independent peer reviews agree. An earlier July 31, 2009, version of Tech Memo #3 did include original research. That study of summer bacteria at all Santa Monica Bay beaches used a statistical analysis to demonstrate that the frequency of enterococcus bacteria on beaches between 2005 and 2008 was best predicted by the presence or absence of adjacent septic system, as opposed to other factors such as watershed size or number of bathers. Early technical reviewers requested more information on the analysis and revisions were made to provide clarificationAlso, see response to peer reviewer about statistical assessment.
		Against: Heal the Bay Baykeeper	235 213-216	
62	The major shortcoming of the analysis done by the LARWQCB is the fact that they ignored published hydrologic data and analyses (groundwater level data, lagoon stage, ocean stage, water level maps and modeling analyses) that show the capture zone for Malibu Lagoon. Several examples of the relevant documentation that was not considered in the LARWQCB's analyses are included in Appendix 3-1.	City Colony Plaza	158,159, 162 263	Staff finds it inappropriate to pre-judge conclusions from studies that are not complete. However, to the extent that results and preliminary findings were made available, staff considered such information. The City of Malibu first released to staff the hydrology information and interpretation described in Appendix 3-1 with their October 8 comments letter, so staff was not able to include the information in Tech Memo #3. Staff has asked for interim reports about the hydrology study since April 2008. The City has invited staff to hear an interim report on the groundwater study on November 3 or 4th when the hydrology study principals would all be in town.

Objections to Staff's Analyses of Impairments to Water Resources - Beaches (Tech Memo #3)

No.	Comment	Parties	Page #	Staff Response
63	Section 3 results end-of-pipe data. Sufficient explanation of these data is not provided. On what dates were the measurement taken?....Also these data are not relevant to.....1. concentrations of indicator bacteria that are reaching the water table....2. concentrations of indicator bacteria that reach the beaches.	City	157	Staff agrees. Brief end-of-pipe data was included to document that enterococcus bacteria are produced by OWDSs when no disinfection is present. The figures and text have been modified to reflect the comment (TM3-4).
64	Section 3 results-Bacteria in Groundwater- Figures 2 and 3 show single sample results but compare them to recreational water geometric means.	City	157	Geometric means are applicable to single sample results when multiple samples have not been collected. The City of Malibu's plots of geometric means are incorrect, as they combine values collected within a very large time period. The geometric mean was not intended to allow the averaging of all samples taken, as is apparently used in the displays provided by the City.
65	Data are from Stone's 2004 risk assessment report. The LARWQCB provides no documentation to infer that these wells represent the current groundwater quality conditions.	City	157	Staff identifies the data as collected in 2004.
66	Figure 3 Page T3-5 shows a plot of maximum enterococcus bacteria results from 27 surviving wells in the CC area. .....the Board's use of maximum frequently means one reading out of 5 years worth of data for moths of the wells, and/or fails to account for a management system whereby OWDS repairs made in 2004 or 2005 result in consistent values well below action levels.	City	157	The data is identified as maximum and is intended to show the prevalence with which the groundwater limits are exceeded in the sample period between 2004 and 2008. If OWDSs have been repaired such that adjacent groundwater is not impacted, this information should be documented and provided by the City of Malibu.
67	Section 3 Results: Bacteria in surface water- The statement "Malibu Civic Center groundwater discharge is a possible source of increased levels of enterococcus in the Lagoon" is misleading because groundwater monitoring has shown that not all the groundwater in the civic center area flow into the lagoon.	City	157	Stone (2004) stated that the majority of the groundwater from the Civic Center entered the lagoon and the majority of that water entered the ocean.
68	Table 2 labels the Mc-1,2 and 3 points, which seem to be different (inverted)	City	158	Typographical errors have been corrected.

Objections to Staff's Analyses of Impairments to Water Resources - Beaches (Tech Memo #3)

No.	Comment	Parties	Page #	Staff Response
69	Table 2 shows a site SMB-12 which is not shown in figures 4. Where is it?	City	158	A full description of the site is included in the attachment and in the referenced document CSMP. SMB-12 is Sweetwater Canyon on Carbon Beach.
70	Technical accuracy of figures is questioned.	City	158-159	Each figure was inspected again. Only one error was found, where the values in the figure showing cumulative exceedances on beaches did include double counted values. This administrative error has been corrected: enterococcus measures above 35 MPN/100mL but not above 104 MPN/100mL are now counted once (Figure 6, TM 3-10). The values in Figure 6 include non-detect values. The enterococcus exceedance numbers for 2005 are highest and lowest for 2007. Using 2006 values, where only one year is given, was considered to the least biased representation of the data.
71	Coefficient correlations do not show beaches have consistent bacteria.	City	158	Staff agrees that more clarity of the use of correlation coefficients can be provided and has made changes in the text accordingly. See peer review concurrence that frequency plots and correlation coefficients are technically defensible. Staff considered stormwater and urban runoff as likely sources and thus selected a beach study period which minimized contributions from these sources. Other non-human sources are present at all beaches and did not provide sufficient dilution of human-specific enterococcus to affect the results of the Hiale et al. (1999) epidemiology study which found correlated highly credible gastrointestintial illness rates of 14 to 35 MPN/100 mL enterococcus, within the range quoted in the 1983 EPA criteria. The frequency intervals closely approximate log intervals, but do extend the ranges above 50 to emphasize the observed differences between septic and sewered beaches. The use of figures which are able to depict relationships observed is a desirable technical method. See response to peer reviewer comments Attachment #1 on statistics.

Objections to Staff's Analyses of Impairments to Water Resources - Beaches (Tech Memo #3)

No.	Comment	Parties	Page #	Staff Response
72	"Malibu beaches have more exceedances" and incorrect reference of number of illnesses at Surfrider.	City	158	The statement that Malibu beaches exceeded the other two study areas referred to the study period 2005 to 2008. During 1995, when the data was collected for the Haile et al. study, Will Rogers beach did not have a low flow diversion to prevent overland flows from reaching the ocean. The relative enterococcus exceedances for the summer of 1995 are similar. The illness rates presented are identical for each beach on each day when enterococcus levels exceeded the water quality standards of 35 MPN/100 mL or 104 MPN/100mL. The number of illness predicted for each beach was similar in 1995.
73	TMDL reference does not identify OWDSs as a source	City	161	The Santa Monica Bay bacteria TMDL discussion includes OWDSs as a possible non-point source for beach bacteria. The Malibu Creek and Lagoon TMDL quantifies OWDSs as a source of bacteria and the Malibu Creek and Lagoon nutrient TMDL also quantifies effluent contributions from this source. All available references were reviewed. City of Malibu's Stone (2004) study limits risk from bacteria pollution to the area identified in the hydrology study as within 6 month travel time. LARQWCB used this interpretation to craft an MOU dictating the area where OWDSs would be upgraded, a task now 10% complete after 5 years.
74	No historic findings are conclusive	City	161	Staff disagrees. Historic findings need not provide a conclusive link between OWDSs and the beach in the Civic Center area to provide substantial and persuasive evidence sufficient to convince Board staff and three independent peer reviewers that such a link exists.
75	Cross section poor [Figure 11, TM 3-28]	City	162	The cross-section includes references and is constructed according to standard methods. See additional discussion in letter in response to peer reviews.
76	The prohibition on the discharge of surplus recycled water from the Tapia Water Reclamation Facility in 1997 has not resulted in reduced bacteria levels at Surfrider Beach in the years since the adoption of prohibition. On the contrary, the number of days exceeding 1,000 CFU of total coliform bacteria have increased since then.	Las Virgenes MWD	206	Acknowledged.

Attachment #1

Comment: Interpretation of temporal and spatial groundwater information is lacking and a critical factor

Staff concurs that the groundwater system was not evaluated in Tech Memo #3. The City of Malibu's Stone Environmental Inc. (2004) did a sufficient job of demonstrating that the groundwater flow system underling the Civic Center area is in hydraulic connection with the beaches. That report says more than half of the groundwater comes from OWDSs and almost all of that water eventually finds its way to the ocean.

Detailed study of groundwater elevations is not expected to provide critical evidence linking OWDSs to the beach.

Staff concurs that evaluation of the groundwater system would be beneficial to a full understanding of the transport of bacteria to the beaches, the goal behind Board staff's request to the City of Malibu in January 2008 to complete additional hydrological studies on critical conditions. Staff commented during the development of the new study, a repetition of the Stone's 2004 study extended to include 2008 data; the model design would not be able to provide the assurance that groundwater surfacing did not occur on land or the beach during the wettest days. The new study continues to look at average conditions obscuring periods when the percolation rates are exceeded by influent ground or surface flow, and did not include data collected during the wettest periods when the groundwater is observed to pond uphill from Pacific Coast Highway. City's hydrological study also assumes at uniform boundary conditions inconsistent with the pending Izbicki's work (2009) and published Boehm's studies (Boehm et al., 2004) where groundwater discharge rates are variable.

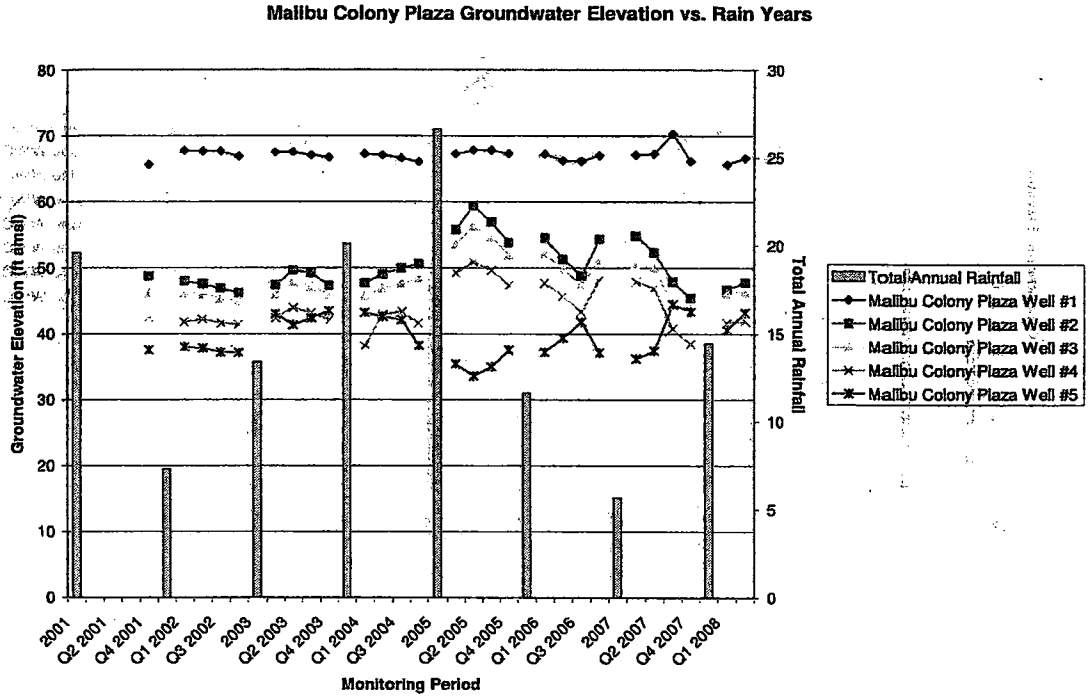
Early technical reviewers requested that staff discuss groundwater level variations and enterococcus concentrations of the very limited data set in the Civic Center area to further validate the study conclusion relating the two. Groundwater data was not available to identify bacteria and water level trends for the vicinity of most Santa Monica Bay beaches although a study of this type is needed to confirm the physical processes.

The scientific understanding of groundwater transport of pathogenic particles is less advanced than that for surface water transport of bacteria and viruses or for groundwater transport of dissolved or uniformly distributed fluids. Steady state models have been used in the Malibu Civic Center area to predict the movement of water or dissolved pollutants, but the models assume that fluid movement is continuous, along a single path and a function of physical fluid properties.

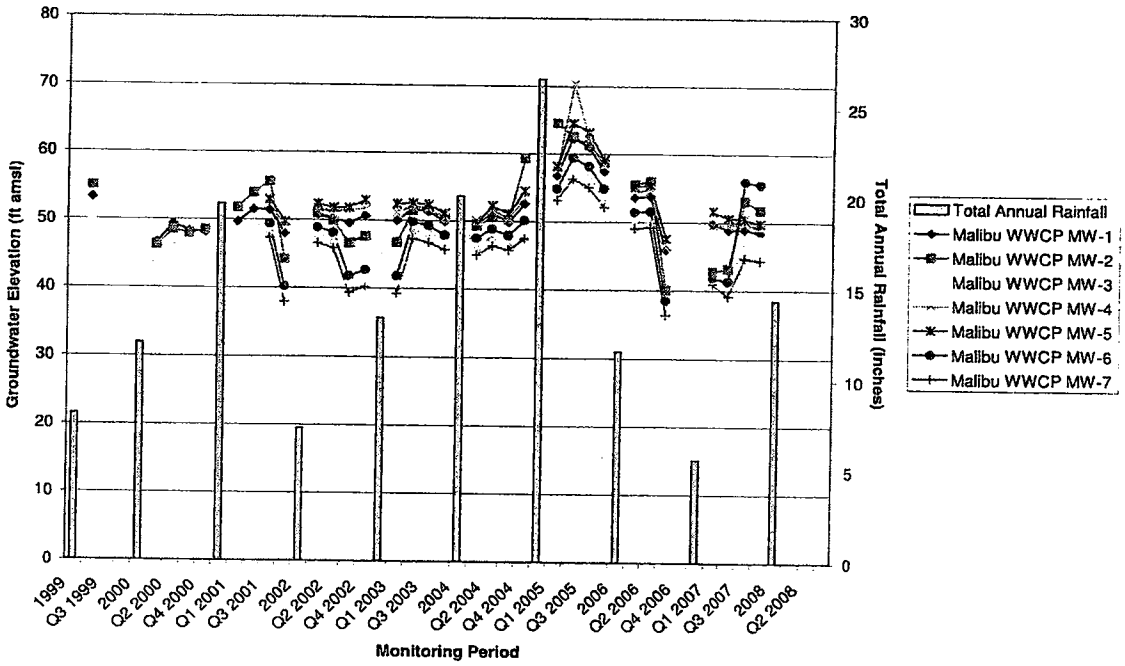
Emerging research shows that bacterial, viral, and organic particles' transport is not uniform and transport is known to vary with nutrients, time, season, tide, tortuosity of the transport path, organic materials, and even biological predation. Most models focus on dissolved pollutants. Most dissolved pollutants seek to disperse uniformly through an aquifer by diffusion, where as organic particles may become 'caked' in the soil through the processes of adhesion. As a result, the absence of bacteria or viruses in the groundwater at a specific location and time can be over-interpreted.

Groundwater and enterococcus measures found in the Civic Center area, alone, present a complex picture subject to alterative interpretations. The charts below show enterococcus densities, groundwater elevation in monitoring wells in the Malibu Civic Center and annual rainfall. Staff provides an interpretation although the data sets are not large enough for the use of statistics to quantify the strength of those correlations. The

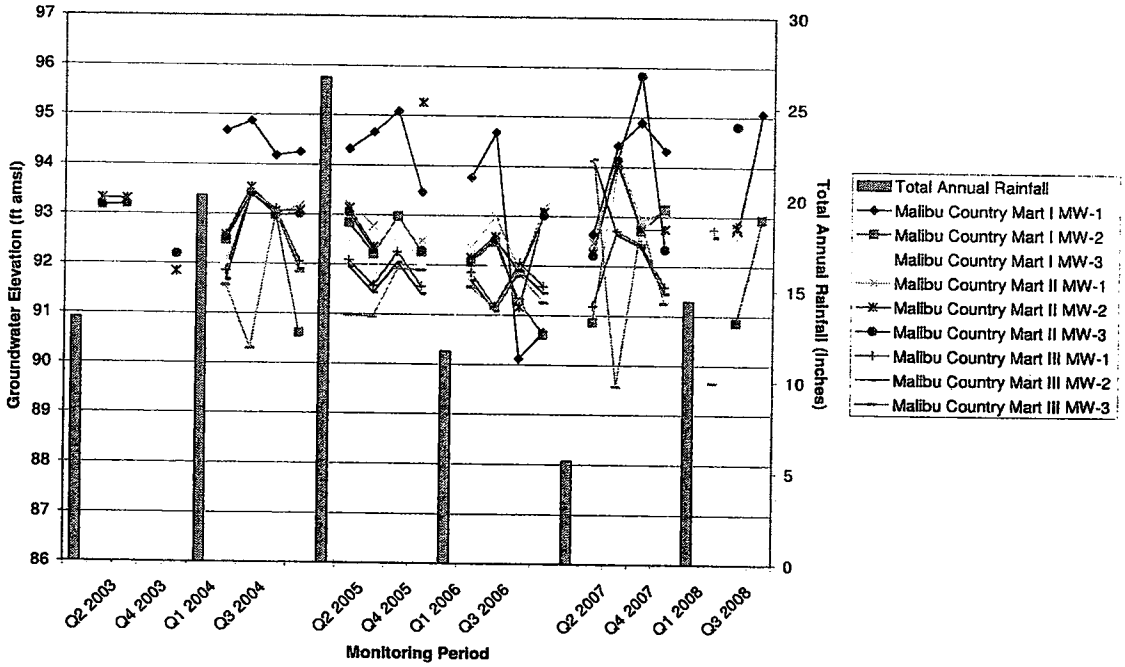
wells are located (a) in Winter Canyon at Malibu Colony Plaza and Malibu WWCP and (b) Malibu Country Marts 1, 2 and 3 near to the receiving waters of Malibu Creek. The wells in (a) show more systematic variation in groundwater level with rainfall than the wells in (b).



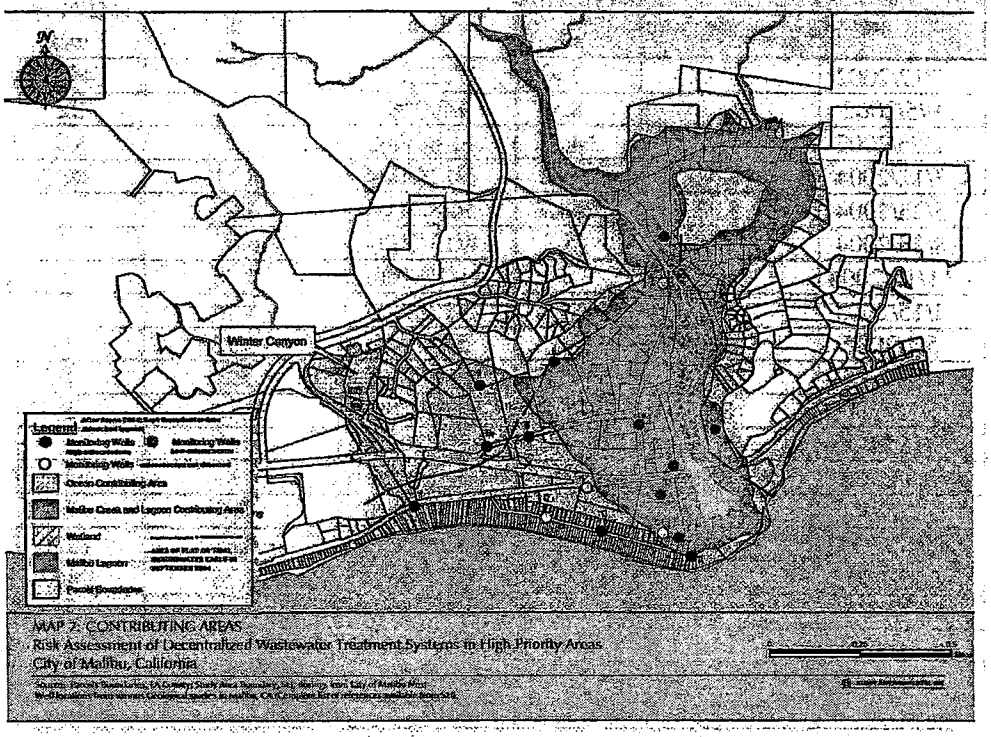
Malibu WWCP Groundwater Elevation vs. Rain Years



Malibu Country Mart I-III Groundwater Elevation vs. Rain Years



The map below shows Civic Center wells and those wells where enterococcus varied with rainfall are found outside the broken line. Groundwater levels do not vary in the wells in the center of the basin (except for tidal effects). The only wells with no detectable enterococcus in September 2004 are also found in the area with constant groundwater levels.



The simplest interpretation of these groundwater observations is that enterococcus movement in the subsurface is not via uniform dispersal but episodic transport. The lack of detections in the center of the Civic Center may be caused by preferential pathways of fluid transport as opposed to the absence of uniform bacteria density. The groundwater observations are not found to conflict with the study findings, but additional work is necessary to document the nature of bacteria transport in groundwater and the episodic nature of freshwater discharge through the aquifer in the Civic Center area.

A hydrological connection is more likely if the water table is shallow. Further evidence of a transport path for bacteria in the Civic Center beaches is shown in these charts where the water table is calculated to occur 4 to 5 feet below (see highlights) the base of the leachfield, assumed to exist at 1 foot. Groundwater elevations calculated to be less than 6 feet are also highlighted and observed a total of 24 times at these 5 wells with quarterly sampling between 2002 and 2008.

Malibu Creek Plaza (MW-1)	Surface to Groundwater Elevation	Enterococcus	Malibu Creek Plaza (MW-4	Surface to Groundwater Elevation	Enterococcus
Unit	ft	(MPN/100 ml)	Unit	ft	(MPN/100 ml)
7/12/2002		7.4	7/12/2002		49.6
9/5/2002		8.4	9/5/2002		22
11/6/2002		4.1	11/6/2002		8.2
3/12/2004	8.93	20.2	3/12/2004	8.11	48.7
5/28/2004	5.33	344.8	5/28/2004	4.67	1
8/13/2004	6.75	15.3	8/13/2004	6.07	3
11/12/2004	7.84	1	11/12/2004	7.88	1
2/15/2005	9.6	231.8	2/15/2005	8.55	2
5/1/2005	4.53	1	5/1/2005	6.92	1
9/1/2005	5.6	4.1	9/1/2005	5.2	1
11/22/2005	8.8	7.4	11/22/2005	8.14	2
2/15/2006	8.38	1	3/2/2006	7.7	1
5/3/2006	8.8	1	5/3/2006	8	2
8/22/2006	5.7	1	8/22/2006	5.1	1
11/15/2006	5.47	6.2	11/15/2006	4.9	15.6
2/13/2007	8.31	11.6	2/15/2007	8.76	1046.2
5/11/2007	6.53	1	5/11/2007	5.4	4.1
8/18/2007	7.07	42.4	8/17/2007	5.89	1
11/7/2007	7.74	1	12/6/2007	6.67	1
2/14/2008	8.78	84.5	2/14/2008	7.19	2419.2
5/13/2008	8.02	50.5	5/13/2008	6.72	2419.2
8/26/2008	6.71	9.8	8/26/2008	5.65	25.4
11/18/2008	6.24	7.2	11/18/2008	5.07	7.1

Malibu Creek Plaza (MW-2)	Surface to Groundwater Elevation	Enterococcus	Malibu Creek Plaza (MW-1)	Surface to Groundwater Elevation	Enterococcus
Unit	ft	(MPN/100ml)	Unit	ft	(MPN/100ml)
7/12/2002		2419.2	7/12/2002		7.4
9/5/2002		4.1	9/5/2002		8.4
11/6/2002		51.9	11/6/2002		4.1
3/12/2004	7.35	1	3/12/2004	8.93	20.2
5/28/2004	4.05	10.8	5/28/2004	5.33	344.8
8/13/2004	5.45	98.1	8/13/2004	6.75	15.3
11/12/2004	7.05	31.8	11/12/2004	7.84	1
2/15/2005	8.25	866.4	2/15/2005	9.6	231.8
5/1/2005	6.27	64.5	5/1/2005	4.53	1
9/1/2005	5	214.3	9/1/2005	5.6	4.1
11/22/2005	7.45	1	11/22/2005	8.8	7.4
3/2/2006	7.2	1	2/15/2006	8.38	1
5/3/2006	7.3	18.3	5/3/2006	8.8	1
8/22/2006	4.47	1	8/22/2006	5.7	1
11/15/2006	4.27	1	11/15/2006	5.47	6.2
2/13/2007	6.8	32.9	2/13/2007	8.31	11.6
5/11/2007	5.29	1	5/11/2007	6.53	1
8/18/2007	5.74	10.8	8/18/2007	7.07	42.4
11/7/2006	6.38	5.2	11/7/2007	7.74	1
2/13/2008	7.43	3	2/14/2008	8.78	84.5
5/13/2008	6.6	3	5/13/2008	8.02	50.5
8/26/2008	5.57	9.7	8/26/2008	6.71	9.8
11/18/2008	5	1	11/18/2008	6.24	7.2

Malibu Country Mart 3 (MW-3)	Groundwater Elevation	Surface Elevation	Surface to Groundwater Separation	Enterococcus
Unit	ft	ft	ft	(MPN/100ml)
3/8/2004	91.56	98.86	7.3	0
7/9/2004	90.29	98.86	8.57	0
9/23/2004	93.06	98.86	5.8	0.99
12/14/2004	91.83	98.86	7.03	13
3/15/2005	90.98	98.86	7.88	0
6/15/2005	90.94	98.86	7.92	1860
9/16/2005	91.92	98.86	6.94	0
3/20/2006	91.89	98.86	6.97	0
6/21/2006	91.56	98.86	7.3	97
9/13/2006	91.12	98.86	7.74	0
12/27/2006	91.83	98.86	7.03	23
3/20/2007	91.25	98.86	7.61	0
6/13/2007	94.11	98.86	4.75	0
9/14/2007	89.56	98.86	9.3	0
12/21/2007	92.86	98.86	6	0
4/4/2008	91.25	98.86	7.61	0
7/2/2008	89.64	98.86	9.22	0

Malibu Country Mart I MW-2	Groundwater Elevation	Surface Elevation	Surface to Groundwater Elevation	Enterococcus
Unit	ft	Ft	Ft	(MPN/100ml)
12/14/2004	90.61	98.16	7.55	17
3/15/2005	92.84	98.16	5.32	0
6/15/2005	92.21	98.16	5.95	120
9/15/2005	92.98	98.16	5.18	0
12/14/2005	92.26	98.16	5.9	0
3/20/2006	92.06	98.16	6.1	0
6/21/2006	92.47	98.16	5.69	52
9/13/2006	91.26	98.16	6.9	0
12/27/2006	90.61	98.16	7.55	0
3/20/2007	90.86	98.16	7.3	0
6/13/2007	94.05	98.16	4.11	0
9/14/2007	92.71	98.16	5.45	0
12/21/2007	93.16	98.16	5	0
4/4/2008	90.86	98.16	7.3	0
7/2/2008	92.94	98.16	5.22	0

Malibu Country Mart MW-1	Groundwater Elevatio	Surface Elevation	Surface to Groundwater Elevation	Enterococcus
Unit	ft	Ft	ft	(MPN/100ml)
MCL	0	0	0	
Sample Date				
12/14/2004	94.25	98.87	4.62	0
3/15/2005	94.32	98.87	4.55	0
6/15/2005	94.66	98.87	4.21	3880
9/15/2005	95.08	98.87	3.79	0
12/14/2005	93.47	98.87	5.4	0
3/20/2006	93.77	98.87	5.1	0
6/21/2006	94.67	98.87	4.2	10
9/13/2006	90.12	98.87	8.75	0
12/27/2006	90.65	98.87	8.22	0
3/20/2007	92.64	98.87	6.23	0
6/13/2007	94.42	98.87	4.45	0
9/14/2007	94.89	98.87	3.98	0
12/21/2007	94.32	98.87	4.55	0
4/4/2008	92.64	98.87	6.23	0
7/2/2008	95.06	98.87	3.81	0

Attachment #2

Comment: Selection of Study Method was flawed.

Multivariate analysis was beyond the scope of this study, which relied primarily on exceedance measures. Where multiple variables were present, the power of the statistical analysis was not high enough to allow meaningful interpretation of smaller data sets, even if previous workers have used such analysis.

Staff provides a comment on each of the factors raised, but notes that the data set associated with each factor on Civic Center beaches is insufficient to provide a statistically valid measure of the factor's impact after 4 years of weekly sampling.

Statistical tools beyond student t-test or Chi square test were used, as discussed in the response to peer review. An example of the limitations of smaller data sets was requested by reviewers and is offered here. Malibu Colony is an OWDS beach, with many physical properties like Manhattan Beach Strand, which is a sewered beach. Data sets for the two beaches for 2006 are provided below. While a direct comparison is desirable, simple statistical measures did not provide clear conclusions as shown in the table below.

Manhattan Beach			MPN/100mL	Malibu Colony			MPN/100mL
SMB-MC-1	5/1/2006		20	SMB-5-1	5/7/2007	<	10
SMB-MC-1	5/8/2006		10	SMB-5-1	5/14/2007	<	10
SMB-MC-1	5/15/2006		10	SMB-5-1	5/21/2007	<	10
SMB-MC-1	5/22/2006		31	SMB-5-1	5/28/2007	<	10
SMB-MC-1	5/30/2006		31	SMB-5-1	6/4/2007	<	10
SMB-MC-1	6/5/2006		10	SMB-5-1	6/11/2007		10
SMB-MC-1	6/12/2006		10	SMB-5-1	6/18/2007	<	10
SMB-MC-1	6/19/2006		31	SMB-5-1	6/25/2007	<	10
SMB-MC-1	6/26/2006		63	SMB-5-1	8/6/2007	>	24192
SMB-MC-1	7/5/2006		10	SMB-5-1	8/8/2007		10
SMB-MC-1	7/7/2006		31	SMB-5-1	8/13/2007		10
SMB-MC-1	7/10/2006		10	SMB-5-1	8/20/2007	<	10
SMB-MC-1	7/17/2006		10	SMB-5-1	8/27/2007	<	10
SMB-MC-1	7/24/2006		10	SMB-5-1	9/3/2007	<	10
SMB-MC-1	7/31/2006		20	SMB-5-1	9/10/2007	<	10
SMB-MC-1	8/7/2006		10	SMB-5-1	9/17/2007	<	10
SMB-MC-1	8/14/2006		10	SMB-5-1	9/24/2007	<	10
SMB-MC-1	8/21/2006		2143	SMB-5-1	10/1/2007	<	10
SMB-MC-1	8/23/2006		20	SMB-5-1	10/8/2007	<	10
SMB-MC-1	8/28/2006		323	SMB-5-1	10/15/2007	<	10
SMB-MC-1	8/30/2006		84	SMB-5-1	10/22/2007	<	10
SMB-MC-1	9/5/2006		31	SMB-5-1	10/29/2007	<	10
SMB-MC-1	9/11/2006		106				
SMB-MC-1	9/13/2006		110				
SMB-MC-1	9/15/2006	<	10				
SMB-MC-1	9/18/2006		10				
SMB-MC-1	9/25/2006		10				
SMB-MC-1	10/2/2006		10				
SMB-MC-1	10/10/2006		10				
SMB-MC-1	10/16/2006		410				
SMB-MC-1	10/23/2006		20				
SMB-MC-1	10/30/2006	<	10				
student t-test beach 1 versus beach 2					0.18806401		
					=not significant difference		
student t-test beach 1 versus beach 2					**cannot be calculated**		
without minimum values							
student t-test beach 1 versus beach 2					0.012589		
without maximum values					**=significant difference at .05 level**		
student t-test natural log of beach 1 versus the					0.092144		
natural log of beach 2					**=significant difference at .1 level**		
chi-square test beach 1 with 10 values truncated versus beach 2=0							
					=not significant difference		
Not sufficient data to define the intervals for Quartile, Wilcoxsin or Gehan tests							

Staff responds on each of several confounding factors identified by commenters.
Bird/Avian populations are not considered to be a confounding factor. See peer review response Attachment #2.

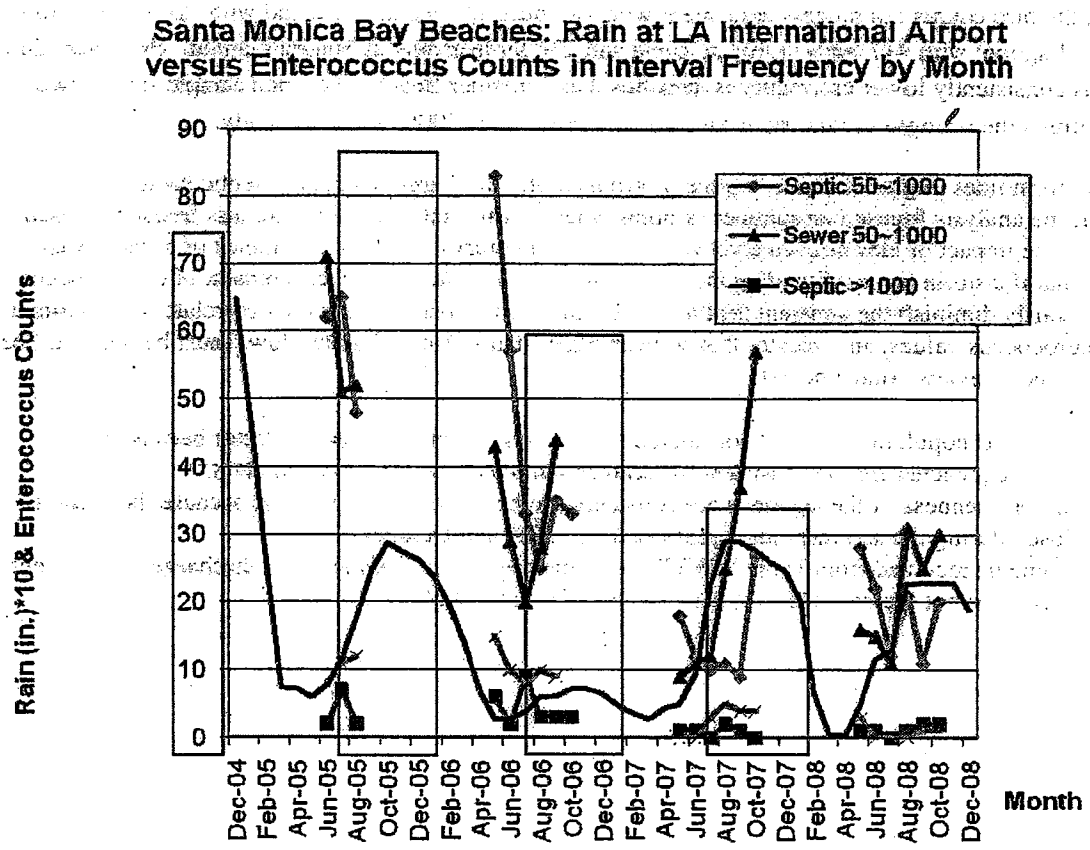
Staff's work in Technical Memo #3 identified non-human sources of stormwater/urban runoff and natural beach bacteria. This confirmed the findings of Griffith, Schiff and Lyon in 2006 (SCCWRP) that non-OWDS bacteria sources in stormwater/urban flow supply enterococcus to the beaches, although little is delivered during dry summer days. Griffith and others also found that non-human sources of enterococcus are also found on beaches. These non-human natural beach bacteria are the enterococcus found on both OWDS and sewered beaches, under all conditions that do not result in statistically significant differences between the beaches.

Staff also looked at the variation in enterococcus densities by month and year for OWDS and sewered beaches to provide a response, but notes that these observations are not supported by a measure of statistical significance.

Monthly bacteria data from sewered and OWDS beaches are presented in the figure below. The chart shows a rolling average of rainfall in inches, plotted with the number of enterococcus measures within the intervals given in MPN/100 mL for sewered and OWDS beaches against the sample date. As an example, OWDS beaches contained more than 70 enterococcus density measurements between 50 and 1000 MPN/100mL in June of 2005. The boxes outline the summer dates during which the enterococcus densities on the beaches were measured.

The chart shows that enterococcus densities between 50 and 1000 MPN/100mL are highest on both sewered and OWDS beaches in the early part of the summer and the late part of the summer, consistent with wet summer days discussed by Griffith et al. (2006). The enterococcus measures in these interval densities become less frequent following drier winters. Enterococcus densities above 1000 MPN/100 mL are seen to remain constant and measures below 50 MPN/100mL were consistently high, varied as a function of the sample size, and are not shown. The results are most simply explained by the existing hypotheses that stormwater/urban runoff causes variations in the enterococcus densities when rain events occur, especially at the beginning and end of the summer. Natural bacteria sources do supply enterococcus at densities below 50 MPN/100 mL and above 1000 MPN/100 mL on all beaches, as demonstrated in the limited variations seen in the larger measures and the persistence of the smaller measures. However, another enterococcus source or transport path must be present to explain why enterococcus densities between 50 and 1000 MPN/100mL vary more and do not go to zero when rainstorms are absent and transport across the beach berm is also absent.

Staff comments that this more detailed monthly analysis of 57 beaches does not provide a clearer understanding of the variations in enterococcus on the beaches.



The Santa Monica Bay bacteria TMDL demonstrated a link between rainfall and fecal indicator bacteria during wet weather and even for wet summer weather. Griffith and others, who completed the 2006 bacteria study upon which the TMDLs are based, did not investigate groundwater enterococcus sources, attributing correlations in bacteria density on beaches with berms to winter bird populations. However, they did not attribute all enterococcus to birds.

> "It appears that factors other than flow may be responsible for water quality exceedances at reference beaches with intact sand berms when storms are insufficient to breach berms. For example, San Mateo Creek never breached its sand berm during the sampling period, yet this reference beach had a similar frequency of bacterial water quality threshold exceedances as those of adjacent San Onofre Creek when its sand berm was breached. A possible reason for the many exceedances observed at this non-breached site was the large number of Western Gulls observed feeding on the beach during wet weather sampling (page 7)."

A simpler conclusion consistent with the results presented in Technical Memo #3 is that bacteria moved in stormwater through the beach berm.

To examine a bird source for enterococcus exceedances during dry summer months, bird counts were obtained for Zuma beach in 2003 and Malibu Lagoon in 2004. The ten minute counts show that, during the

summer, the bird counts are roughly equivalent with 183 birds in June at Zuma and with 320 birds in June at Malibu Lagoon; with 417 birds in July at Zuma and 230 birds in July at Malibu Lagoon. However, Zuma beach has consistently lower enterococcus densities than Surfrider Beach. The small sample size of two beaches limits the strength of this argument, just as it does in the 2006 SCCWRP study.

Storm or storm tides might affect the volume of groundwater discharge containing septic bacteria. However, the analysis focused on summer samples when storms and storm tides are less frequent. Based on De Seyes, the impact of elevated sea level would be to temporarily decrease the impact of human waste, meaning that if a storm is a confounding factor it would result in the under measurement of enterococcus and temporarily diminish the apparent health risk. Further, watershed size does not correlate with summer mean enterococcus values, an indicator that sources other than storm and urban flows must be present. See response to peer review Attachment #1.

Human (transient) populations are not considered to be a significant confounding factor because the enterococcus frequencies are too consistent in summer samples between 2005 and 2008.
The closure or openness of the lagoon is not considered to be a confounding factor, because the lagoon remains closed during the summers most years between May and October.
See the comments received from Tapia WWTP concerning evidence that increased discharge from higher in the watershed does not increase the bacteria concentrations at Cold Creek.

Comment: Wait for additional studies.

The City of La Canada-Flintridge proposed sewer assessment districts on four dates between 1998 and 2009, each of which show an increase in the total assessment per property as construction costs rise, the number of total participants drop when some connect to a sewer line, and the property available for construction becomes more limited (pers. com. LCF Public Works).

La Canada-Flintridge Sewer Engineering Design	1998	2002	2004	2009
Assessment District	1	2	3B and 3A	5 and 6
Total Assessment per Property (to be paid over 20 years)	$8,300	$12,000	$18,200-$22,200	$50,000-$100,000
Type	Gravity	Gravity	Gravity	Low-Pressure

Past studies have shown stormwater is a source of bacteria, and the City of Malibu is taking steps to address this problem with stormwater containment. However, this simple measure is not enough, based on existing science. The Los Angeles County Fire Department reports beach goers in Malibu in 2007 was 40,000 per month in the winter and 200,000 per month in the summer. Given winter exceedances and summer exceedance rates and the illness risk provided by Haile et al. (1999), summer beaches are associated with more than twice the number of illnesses expected on winter beaches. Even with more exceedance days in the winter, more illness will result from summer beach use.

Septic system implications based on Richard Ambrose's Bacteriorides study are overstated by the City because (1) bacteriorides fate and transport is poorly studied and may be more severely limited than other fecal-indicator-bacteria , (2) the study took place in a dry year when groundwater septage transport is expected to be minimal, (3) the relationship between human illness and bacteriorides, an indicator of human illness vectors, is unknown so the significance of the bacteria is unknown, and (4) enterococcus criteria took 3 years of beach studies and 5 to 10 years of study to develop and a bacteriorides criteria is unlikely to be finalized at the state and federal level within the time that the SMB bacteria TMDL requires a load reduction. Further, Dr. Ambrose agreed via email that he had not reached final conclusions based on his findings.

Septic system implications based on John Izbicki's study are overstated by the City because (1) groundwater discharge varies with the season and the number of sampling points, yet the study based on less than two weeks of data is less-completely studied and may be more severely limited than other fecal-indicator-bacteria , (2) the study took place in a dry year when groundwater septage transport is expected to be minimal, (3) the dynamic relationship between groundwater and tides, freshwater and saltwater, can best be understood through inspection of additional beaches beyond just Surfrider Beach and even a multi-year and multi-parameter study by Dr. Izbicki in Santa Barbara failed to quantify groundwater discharge at that beach, and (4) enterococcus criteria took 3 years of beach studies and 5 to 10 years of study to develop. A full understanding of groundwater impacts at Civic Center Beaches is unlikely to be finalized and peer

reviewed within the time that the SMB bacteria TMDL requires a load reduction. Further, Dr. Izbicki agreed via email that he had not reached final conclusions based on his findings.

Septic system implications based on Stone Environmental's new groundwater modeling are overstated by the city because (1) the accuracy of groundwater modeling varies with the number of sampling points, yet the study did not place equal weight on all the groundwater data available, (including that supplied by the Regional Board staff) and limited water elevation studies to a greatly limited set of wells, (2) the study emphasized water level changes in a dry year when groundwater septage transport is expected to be minimal, (3) the dynamic relationship between groundwater and tides, freshwater and saltwater, as documented by Dr. Izbicki in the more recent study above is not consistent with model assumptions of a steady state uniform groundwater discharge to the ocean, and (4) a full understanding of groundwater impacts at Civic Center beaches is unlikely to proceed from a second study by Stone, neither of which have been reviewed by an independent peer, making such an evaluations unlikely within the time that the SMB bacteria TMDL requires a load reduction. Further, the City agreed to participate with the Regional Board staff on the study, but did not respond to requests for update or information after April, 2008.

Septic system implications based on Donna Ferguson's and Steven Weisberg's SCCWRP Bacteria study in Ramirez Creek are overstated by the City because (1) bacteria levels were higher both upstream of Paradise Cove and the Beach in 2005 and 2006, and dry weather with lower surface flows is associated by all co-authors with the recent reduction in bacteria densities, (2) additional study is being delayed until a wet year, (3) no evidence has been developed which rules out a groundwater source for the bacteria despite opportunities offered by Board staff to sample wells and creek water during the dry summer in a search for such evidence, and (4) this is an entirely different watershed from the Civic Center. Further, Mr. Weisberg agreed that additional study of groundwater contributions to the bacteria in Ramirez Creek were necessary.

Septic system implications based on Steven Weisberg's SCCWRP epidemiology study of Surfrider Beach by SCCWRP is ongoing with fieldwork conducted during the summer of 2009 are overstated by the City because (1) bacteriorides fate and transport is poorly studied and may be more severely limited than other fecal-indicator-bacteria, (2) the study took place in a dry year when groundwater septage transport is expected to be minimal, (3) the relationship between bacteriorides or other physical factors measures at the beach and human illness is unknown so the preliminary significance of the presence or absence of those physical factors or human illness is unknown, and (4) enterococcus criteria took 3 years of beach studies and 5 to 10 years of study to develop and new epidemiology criteria for the Civic Center beaches alone is unlikely to be finalized at the state and federal level within the time that the SMB bacteria TMDL requires a load reduction.

Objections to Staff's Analyses of Impairments to Water Resources – Malibu Lagoon (Tech Memo #4)

No.	Comment	Parties	Page #	Response
77	Discharges of wastewater released from OWDS groundwater that is not in hydraulic connection with Malibu Lagoons transport a nitrogen load significantly in excess of the waste load allocation in TMDL. The information in the memo does not support a need for a prohibition on OWDS in the Civic Center area and the finding based on this memo is not supported by substantial evidence.	City	107, 2nd paragraph	Staff prepared the draft Tech Memo # 4 using updated information from Regional Board permit files and information from the Stone Report, Questa Report, Tetra Tech Report, Los Angeles County Assessor Parcel Web Page, and several other technical sources as listed the references. Based on staff review of the information from all these sources, it was concluded that there is a direct correlation between the high level of nitrogen discharge through the OWDS and the levels found in the Malibu Lagoon because of hydraulic connection. Figure 1 of Tech Memo #4 page TM4-37 shows a simple model of soil layers and groundwater budget. The nitrogen species, discharged to the groundwater through the OWDS, transform through the different stages of the nitrogen cycle. Once nitrogen reaches the lagoon or the ocean, it converts to the most stable form as nitrate. The City's 2004 Stone Study concluded that there is a hydraulic connection and identified six-months-travel-time zone to lagoon.
78	Technical Memo does not demonstrate that nitrogen from OWDS is a significant source of impairment to aquatic life. … The analysis did not consider loading of nitrogen from atmospheric sources… The memo does not show that a balanced scientific review was conducted by staff…	City	107, 3rd paragraph	The purpose of Technical Memo #4 is to quantify the cumulative nitrogen load from OWDS to Malibu Lagoon and compare the results with the Malibu Creek Nutrient TMDL numerical target for nitrogen. The TMDL quantifies all sources of nitrogen loading to the Lagoon, including OWDS, Tapia WWRP, fertilizer application, runoff, nutrient cycling, and atmospheric deposition, and assigns allocations to these sources. Staff used the modeling results of groundwater flow nets to distinguish different hydraulic flow transports in the groundwater and develop a quantitative water balance for the groundwater system, identify the contributing area for the surf zone and the Lagoon, estimate groundwater travel time. Therefore, the estimates of nitrogen loads in different capture zones have scientific basis and are consistent with the results of existing groundwater and surface water model analyses. Staff also carefully evaluated the OWDS nitrogen loading using a scientific approach and a mass balance model to ensure the estimate of mass loading to the Lagoon is the best fit with actual conditions, including groundwater and surface loads, as documented in the Nutrient TMDL for the Malibu Creek Watershed.
79	The proper scientific method was also not followed in the analysis….	City	108, 2nd paragraph	The Malibu Creek Nutrient TMDL, adopted by U.S. EPA on March 21, 2003, demonstrates that OWDS are a significant source of nitrogen in the Lagoon and affect aquatic life in the Lagoon. Tech Memo #4 demonstrates that current OWDS nitrogen loading causes continued exceedance of numeric targets and impairment of beneficial uses.

Objections to Staff's Analyses of Impairments to Water Resources – Malibu Lagoon (Tech Memo #4)

No.	Comment	Parties	Page #	Response
80	Staff uses models for its analysis, data and trends from the Stone (2004), Questa (2005), and Tetratech (2003) reports, then applied its own conservative approach, ...	City	108, 3rd paragraph	Staff used two approaches to estimate the mass loading to the Lagoon and then employed a mass balance model to evaluate which estimate of mass loading to the Lagoon is the best fit with measured data of nitrogen in the Lagoon. Each approach has its own assumptions; however, the final estimates were compared with actual field data to justify the assumptions. Thus, staff believes that the approaches used in the Tech Memo # 4 are appropriate and the assumptions have been verified with the measured data.
81	There were 349 residential homes in the study area. Prohibition area differs from boundaries of the Risk Assessment. It includes more homes.	City	110, 2nd paragraph	Staff used the same boundaries as the Stone Report in the August draft of Tech Memo #4 and expanded to include coastal strips on Amarillo Surfrider Beaches as shown in Map 1 due to beach water quality impacts. Nutrients encourage bacteria growth. The original calculations in Tables 1 and 3 advertently exclude the coastal strip expansions. The number of homes has been adjusted to 392. The flow is 139,300 gpd.
82	Flow estimation: Residential flow is calculated by multiplying the number of bedrooms in each home for 100. "This is a faulty conclusion ..." Flow estimate is based on a series of unsubstantiated assumptions...Water delivery records shall be used .... - the calculations for residential use do not take into account the unique nature of Malibu that many of these residences are second homes and are not inhabited on a daily basis. This is especially true for the properties in the colony and along Malibu road.	City	110, 2nd paragraph 171, Comment 1 172, Comment 13	This flow is very close to the estimated flow using two different approaches to calculate it: (a) A study of water use and onsite wastewater management needs utilized in-house surveys to derive an estimated water use of 142 gallons per capital per day (gpcd) (Peter Warshall and Associate, 1992 Malibu Wastewater Management Study (MWMS)). Based on the Census 2000, the average house hold size is 2.39 for the City Malibu. Therefore the number of houses (392) multiplied by the 2.39 and 142 gpcd results in a flow of 133,036 gpd. (b) The MWMS report indicates that the average water usage is on the order of 350 gallons per day per household. If we use this approach to calculate, the flow is 137,200 gpd (350x392). Staff estimated the flow using updated information. This updated information included a significant number of commercial dischargers who were not part of earlier studies.
83	The numerical fate and transport model is not explained... Therefore, the conclusion of the Tech Memo # 4 cannot be independently verified.	City	171, Comment 2	The previous fate and transport groundwater model developed by McDonald Morrissey Associates for the City was used for the estimate of mass loading to the Lagoon. The relationship between nitrogen mass loading from OWDS and to Malibu Lagoon was established by this previous model. Based on the estimate of mass loads from OWDS by Regional Board staff, the mass loads to the Lagoon can be obtained by this relationship. The detailed description of the estimate of nitrogen mass loadings to the Lagoon using this model was presented in the attachment 4-1 of Tech Memo # 4.

Objections to Staff's Analyses of Impairments to Water Resources – Malibu Lagoon (Tech Memo #4)

No.	Comment	Parties	Page #	Response
84	The analytical (spreadsheet) fate and transport model is not explained… Therefore, the conclusion of the Tech Memo # 4 cannot be independently verified.	City	171, Comment 3	Staff provided the description of all factors considered in the analysis to estimate the percent of flow that may reach the lagoon and the ocean. The factors are: wastewater discharge location, surface topography, groundwater contours, soil and hydrology. Staff assumed that the flow contours depicted for the Malibu Valley in the 2004 Stone report were correct and we applied to the model.
85	No credible scientific basis is provided for estimation of the soil nitrogen load reduction factors (staff used values ranging from 0% to 20%). Therefore, the conclusion of the Tech Memo # 4 cannot be independently verified.	City	171, Comment 4	Staff used both credible scientific basis and information about the site (Table 3, TM4-32) to estimate the soil nitrogen load reduction. With expansion of the range to zero removable, staff used Table 3-19, page 3-29 of the USEPA Onsite Wastewater Treatment Systems Manual, February 2002 edition. Assigned percentage total nitrogen (TN) reductions were based on information about reported pumping and overflows, indicated failure, the vertical separation between the bottom of the leach field and groundwater elevation, and/or the use of seepage pits for disposal .
86	Staff's decision to not evaluate soil nitrogen load reduction for residential properties is indefensible. …load rates of effluent hydraulic loading and waste strength loading…, natural nitrogen load reduction would be greater for residential properties than for commercial properties.	City	171, Comment 5	Disagree. For calculation of the residential nitrogen load, staff assigned a nitrogen load reduction (in-tank reduction) which is equivalent to typical leachfield reductions for residential discharges when the concentration level was reduced from 60 mg/L to 45 mg/L. Also, Regional Board staff considered that many of the Malibu coastal residents lack adequate separation between groundwater and many hillside residents use bedrock seepage pits for disposal, which do not provide natural nitrogen load reduction.
87	The analytical (spreadsheet) fate and transport model is not explained in any reasonable level of detail to allow technical review; model equation, model input, and the selection of input parameters are not described.	City	171, Comment 6	Staff has provided explanations for all the inputs of each parameter of the spreadsheet in Tech Memo # 4. No model equation and model input were used in the spreadsheet calculation. The spreadsheet shows the input for each calculation.
88	No discussion of the scientific basic for establishing a numerical threshold for nitrogen concentrations in receiving surface waters habitat with respect to the question of what aquatic toxicity endpoint is used to define impairment of aquatic life.	City	172, Comment 7	Staff provided in footnote 15, page TM4-15 in Tech Memo # 4, the numerical threshold for nitrogen concentration in the receiving surface waters. The discussion of the scientific basis for establishing a specific numerical threshold was provided in the TMDL.
89	Page 1 erroneously states that commercial development is concentrated on Malibu Road. While there are a small number of parcels, it would be better to state that it is centered on Civic Center Way instead.	City	172, Comment 8	Concur. Comment incorporated.

Objections to Staff's Analyses of Impairments to Water Resources – Malibu Lagoon (Tech Memo #4)

No.	Comment	Parties	Page #	Response
90	City does not have an Assessor. This reference should be to the Los Angeles County Assessor.	City	172, Comment 9	Concur. Comment incorporated.
91	Study of water usage on an assumption of 100 gpd per restroom. It would seem that the uses of low flow fixtures are more prevalent now and that a more accurate number would reflect such water conservation measure.	City	172, Comment 10	Staff corrected the text and tables in Tech Memo #4 to read 100 gpd for bedroom. This assumption of higher than national per capita usage is based on the cited references to both higher BOD and wastewater discharge volumes for luxury or affluent communities. Water consumption data from Water Works District 29 support per capita usage in the City of Malibu.
92	Area the total listed for current wastewater generated (128,469) accurate? It is not correct to say that there has been a 100% increase in use. The calculation was done in error. …the percentage increase is not actually that high.	City	172, Comment 11	The revised flow number of 127,241 gpd was based on Regional Board updated information received from monitoring reports and Report of Waste Discharge (RoWDs) applications received for unpermitted sites in the area. Tech Memo # 4 paragraph 2 of page 6 stated that the 100% percent increase is only in comparison to the (2004) Stone report inventory, which is 62,166 gpd (Table 5, page TM4-14). Your comment is based in Tetra Tech report, which is 75,000 gpd (Table 5, page TM4-14).
93	Memo does not provide sufficient data regarding the information obtained on "site visits" to the unpermitted commercial establishments.	City	172, Comment 12 Page 2 of 6,	Information is available for public review in our office.
94	A statement is made that untreated wastewater is being discharged. By whom? Why is a portion of Pepperdine included when it is on sewer?	City	172, Comment 14	Staff has amended the statement to read "The wastewater discharged from commercial facilities in Sector 1 is a mixture of primary and secondary treated wastewater." A portion of the Pepperdine University is included because inland boundaries were adjusted to correspond to watershed drainages. Also, the boundaries for the study area in the 2004 Stone Report were expanded to include coastal strips on Amarillo and Surfrider Beaches.
95	Staff gives various estimations of the percentage of flows that are reaching the lagoon from the various Sectors. What evidence are these assumptions based on?	City	172, Comment 15	Staff estimated these percentages of drainage based on groundwater contours and surface watershed drainages of the study area.
96	Staff states that Malibu Colony Plaza encompasses all the commercial area between PCH and Malibu Road. This statement is not true, because there is also the 76 Station, Post Office, Urgent Care, and abandoned gas station that are located in the specified area.	City	172, Comment 16,	Disagree. All these businesses are connected to the Malibu Colony Plaza WWTP.

Objections to Staff's Analyses of Impairments to Water Resources – Malibu Lagoon (Tech Memo #4)

No.	Comment	Parties	Page #	Response
97	Clarification about the number of homes in sector IV and explanation about the sub-sectors.	City	173, Comment 17	The corrected total number of homes is 223. The sector was subdivided to estimate the contribution of this sector to the nitrogen load to the lagoon. Subsectors have a different drainage direction and therefore a different contribution to the nitrogen loading at Malibu Lagoon.
98	There is nothing but the Pacific Ocean south of Malibu Lagoon. The project document needs to include accurate directions throughout (i.e. PCH runs east – west and the ocean is to the south of the project area).	City	173, Comment 18	Concur. Correction made.
99	29 lbs/days of what is transported to Malibu Lagoon? Needed to be clarified.	City	173, Comment 19	Tech Memo #4 is about nitrogen load to the Lagoon. A revision to the nitrogen load was made after the number of homes and flow was corrected. 30.2 lbs/day of total nitrogen is transported to Malibu Lagoon.
100	Why is the last line in Table 4 different for the next load to Malibu Lagoon?	City	173, Comment 20	The last line in table 4 show results of the net load to Malibu Lagoon from different studies. It also includes the numeric and spreadsheet estimates by staff.
101	Reduction of nitrogen load from commercial facilities was not analyzed in the memo. Where were the new 15 OWDS installed?	City	173, Comment 21	Staff considered the nitrogen reduction from commercial facilities in the analysis as shown in the Tables. Tables 1 and 3 show the average effluent total nitrogen (TN) levels for those businesses with advanced OWDSs. Also, there are only 9 new OWDSs. 8 of 9 facilities were installed since 2004. The other facility, Malibu WWRP, was installed in 2001.
102	Table 2 includes properties that are incorrectly categorized: APN 4458-027-037 is actually addressed as 3547 Winter Canyon and it contains a long standing commercial use – Malibu Glass. There is no multifamily development on that property. APN 4458-027-025 is an elementary school and does not contain a 6 bed, 6 bath residence. APN 4458-027-005 is a duplex, not a single-family residence. APN 4452-019-008 is a duplex, not a single-family residence.	City	173, Comment 22	Regarding APN 4458-027-037 according to the Los Angeles County Assessor database, this is the site of Malibu Vista Pacific Condominiums, located at 3601 Vista Pacific Unit 2. Wastewater from the site is discharged to the Malibu WWRP. This APN is not listed individually in Table 2. 3547 Winter Canyon Road, which is a multi-family residence, corresponds to APN 4458-027-034. Regarding APN 4458-027-025, staff will further investigate this site because the L.A. County Assessor database listed APN 4458-027-025 as a single family residence with 6 bedrooms and 6 bathrooms, but a view through Google Earth indicates that this may be a school. Staff concurs with your comments regarding APN 4458-027-005 and APN 4452-019-008.

Objections to Staff's Analyses of Impairments to Water Resources – Malibu Lagoon (Tech Memo #4)

No.	Comment	Parties	Page #	Response
103	Assumptions used in estimating nitrogen loading are explained … it is most important to recognize that the assumptions result in estimates, not actual measurements of nitrogen loading. Therefore, the language in 2.b.iii that states what flows and loads are should be changed to document that based on the assumptions.	City	173, Comment 23	Acknowledged. Language is revised.
104	Water used data show that the amount of commercial wastewater discharge has actually gone down in the area that contributes to the lagoon….	City	173, Comment 24	Disagree. See Tech Memo # 4 Table 1 for flow information and RTC # 6.
105	Stone (2004) estimated average indoor water use as 500 gpd and 20 mg/L Nitrate-N, because a high volume of indoor water use resulted in diluted wastewater with relatively low nitrate-N concentration…However, the assumption of 1 person per bathroom and an average of 3.6 bathrooms per house (1,262 total bathrooms/349 Residential units) results in an exaggerated estimate …	City	174, Comment 25	The tables used to characterize domestic wastewater in the textbooks cited already account for dilution. It is the very lowest residential TN loading value of 20 mg/L used in the Stone report that is not supported. In addition, the volume of residential wastewater estimated in the Stone report was essentially the same as used in Tech Memo #4. Staff provided several references that support the premises that luxury homes have a higher discharge volume.
106	The Technical Memorandum does not provide a rationale for the distribution of flow and does not provide any hydrologic data or analysis to support it…	City	174, Comment 26	The factors governing the flow contribution are listed in Tech Memo #4 (section cii, page TM4-9): wastewater discharge location, surface topography, and the groundwater flow contours. Staff used the groundwater flow contours for the Malibu Valley alluvium published in the 2004 Stone report. Water and wastewater flow downhill perpendicular to the elevation contours. Shallow groundwater flow in the bedrock areas follows topography.
107	The loading calculations done by LARWQCB should be recalculated using contributing area based on the region's actual hydrogeology. See the map titled Groundwater Wells and Groundwater Recharge Areas in Malibu Study Area in Appendix 4-1.	City	174, Comment 27	Appendix 4 in the 2004 Stone report consists of materials from stakeholder presentations. The major difference between our hydrologic model and the model used in the Stone report is that Stone assumes all bedrock highland flow discharges to the edges of the Malibu Valley groundwater basin. Staff agrees that much but not all of it does, especially in areas such as the west-side of the valley with low transmissivity sediments.
108	The statement is made that "Groundwater takes the path of least resistance", and then the memo attempts to present a case, without any evidence, that the groundwater will NOT take the path of least resistance. Rather it will travel through the bedrock instead of flowing directly to the ocean down a relatively steep gradient through the permeable alluvial along the trough of Winter Canyon…	City	174, Comment 28	Geologists for the Malibu Water Company targeted bedrock fracture areas for water supply wells after wells in the porous alluvium adjacent to Malibu Creek were found to be too susceptible to pollution. There is no statement in Tech Memo #4 that Winter Canyon flow traveled in bedrock and not alluvium.

Objections to Staff's Analyses of Impairments to Water Resources – Malibu Lagoon (Tech Memo #4)

No.	Comment	Parties	Page #	Response
109	There was nothing in the Memo to indicate that the beach in front of Winter Canyon has ever been found to be contaminated by discharge from Winter Canyon…Winter Canyon should be deleted from the proposed Prohibition Zone. If contribution is indeed only 1% and may be ZERO, how does this miniscule contribute justify a prohibition? Longshore current drift from the mouth of Winter Canyon cannot enter the Lagoon, because the Lagoon is topographically higher than the ocean, and is typically blocked by a sand bar.	City	175, Comment 29	The Thomas Guide shows the mouth of Winter Canyon discharges to the ocean midway between Malibu and Amarillo Beaches. Amarillo Beach does not have a monitoring station for water quality. However, the 2003 USEPA TMDL for nutrients in the Malibu Creek Watershed estimated up to 5% of the nutrient load to Malibu Lagoon was derived from tidal inflow on the basis of earlier research (2000) by Ambrose. The estimate of one percent (1%) flow contribution from those sectors of the prohibition area may potentially reach to the Lagoon. Staff agrees with the USEPA's analysis that nutrient discharges to the ocean waters adjacent to Lagoon can contribute to the Lagoon nutrient load. Tidal exchange with the ocean is greater when the berm is open, but it still occurs even when the berm is closed.
110	Reference is made to the west side of Malibu Creek and Serra Retreat is on the east side of Malibu Creek.	City	175, Comment 30	Comment noted and correction made.
111	The analysis ignores nitrate loading from inflow of Malibu Creek to the Lagoon. Available data from Heal the Bay monitoring at Arizona Crossing shows that nitrate levels in Malibu Creek can be as high as 10 mg/L See the chart titled…	City	175, Comment 31.	TN concentrations at Arizona Crossing are due to high nutrient loads in the Upper Malibu Creek Watershed, and these loads are detailed in 2003 USEPA TMDL for nutrients. The total nitrogen load allocation for the Lagoon is 27 lbs/day from all sources. This is the load which has been calculated to limit nitrogen concentration in waters of the Lagoon to 1 mg/L. Reduction is required from all sources in the Malibu Creek Watershed to meet this load allocation.
112	The discussion of nitrogen loading is only a repetition of various estimates without discussion of why there are differences. The analysis is presented with no clear basis for the Board's choice of estimate, and without documentation of the procedure for making the estimate of how much nitrogen is produced…No consideration is given as to whether existing advanced treatment systems might change the assumed nitrogen production rates. This is a very hollow results section, difficult to quantitatively review because there is no substance in it available to review.	City	175, Comment 32	Disagree. "End-of-pipe" data is used including Septic system source in both Tables 1 and 3. Only a very small proportion of commercial flow and load is estimated. The totals are the result of simple addition.
113	The wording in the main body of Technical Memo #4 implies that the numerical model was used by Board staff to estimate loading rates; however, this is appears to not be true and the ratio of total nitrogen load was used to calculate the load to the lagoon.	City	175, Comment 33	The numerical model was used in addition to the spreadsheet model for comparison.

Objections to Staff's Analyses of Impairments to Water Resources – Malibu Lagoon (Tech Memo #4)

No.	Comment	Parties	Page #	Response
114	The following statement is not clear: "Since 2004, 15 additional OWDS have been installed at commercial properties in the Malibu Civic Center area." It would appear to more accurately be stated as follows: "Since 2004, 15 OWTS have been installed at existing commercial properties in the Malibu Civic Center area."	City	175, Comment 34	Acknowledged. Tech Memo #4 reflects the revision that 8 OWTS have been installed since 2004..
115	Section 4-1, Pages 33. In Table 1 of the memo addendum by Lai, various loading rates are compared. Rather than using the correct contributing area for the lagoon the staff simply assumed that 50% of total nitrogen produced in the project area will go to the lagoon. This assumption is arbitrary and completely ignores the mapped capture zone for the lagoon. See the mapped capture zones presented in the map tilted Groundwater Wells and Groundwater Recharge Areas in Malibu Study Area, in Appendix 4-1.	City	176, Comment 35	This table shows five estimates of nitrogen mass loading to the Lagoon including three prior third-party estimates. The assumption that 50% of total nitrogen loads from OWDS will go to the Lagoon was made by Tetra Tech as part of the previously adopted Malibu Creek Watershed Nutrients TMDL. Staff reviewed three prior estimates of mass loads to the Lagoon and considered the different capture zone, hydraulic conductivity, soil characteristics, and prior groundwater modeling results to determine direction of groundwater flow and to identify which parts of the study area contribute groundwater flow to the beach and to the Lagoon. Finally, staff used a mass balance model to evaluate which estimate of the mass loads is the best fit with the measured data of nitrogen concentration in the Lagoon. See the attachment of Tech Memo # 4 for the detailed description of Table 1 and related information.
116	The presumption that the OWDSs in Malibu are responsible for the pollution in the lagoon and in the beach area is not supported by facts. The pollution is more likely to be a result of large quantities of animal fecal matter from water fowl and from terrestrial animal waste that flows down into lagoon from tens of thousands of acres of watershed	WW Advisory Committee	187 paragraph 2	Acknowledged. See the (2003) USEPA TMDL for the nutrient load due to fecal matter from water fowl, and other animals such as horses in the Malibu Creek Watershed.

Objections to Staff's Analyses of Impairments to Water Resources – Malibu Lagoon (Tech Memo #4)

No.	Comment	Parties	Page #	Response
117	As previously referenced, Tech Memo # 4 indicates that the Winter Canyon Drainage (WCD) is not a source of Nutrients which contribute to impairments found in the Malibu Lagoon or Surfrider Beach. Lastly, we believe Tech Memo #4 contains a typographical error when it states, "Most of the wastewater discharged in Winter Canyon is assumed to discharge to Malibu Beach" [T4-9]. We believe the author meant to cite *Amarillo Beach* as the discharge point for Winter Canyon because there is ample evidence of this in the 2004 Stone Report and the 9/18/09 Earth Consultants International letter cited above. If indeed the author meant *Malibu Beach* then that assumption is not supported by any evidence…	Colony Plaza	268, paragraph 3 & 4	Acknowledged. The mouth of the Winter Canyon drainage meets the ocean mid-way between designations of Amarillo and Malibu Beach.
118	OWDSs are not the sole causative factor in the degradation of the water quality in Malibu Lagoon, but no other alternative causes are evaluated. Major conservative assumptions are made with respect to wastewater volumes passing through OWDS, bacterial and nutrient loads, groundwater flow velocities, and soil cleaning potential. Despite these large assumptions	Latham & Watkins	439, paragraph 2	Tech Memo # 4 is focus on septic system nitrogen loads and compare water quality against TMDL for septic system. Other factors contributing to degradation were detailed in the (2003) USEPA TMDL for nutrients.
119	The City has made considerable progress in regulating improvements in Civic Center (and City-wide) OWDS treatment systems in both residential and commercial systems. The Board fails to credit any of this progress by using outdated data ….	Latham & Watkins	440, paragraph 4	Disagree. Existing OWDS site specific data was used including sites regulated by the City.

Objections to Staff's Analyses of Impairments to Water Resources – Malibu Lagoon (Tech Memo #4)

No.	Comment	Parties	Page #	Response
120	Individually, any single residence's OWDS contribution is minor compared to any single commercial discharge... The City's assignment of wastewater volumes based on 100 gallons per day per bathroom is outmoded and conservative...The overall water awareness campaigns, and the price of water, have all driven water usage volumes lower, resulting in lower wastewater discharge volumes or most new structures.	Latham & Watkins	441, paragraph 2 & 3	There are 392 residences and collectively the nutrient load discharged is significant. Staff is aware that low flow toilets and water conservation practices have reduced water usage and use 100 gpd instead of 150 gpd for luxury homes. Waterworks District #29 provided 2008 water usage data for the City of Malibu with estimates of the proportion of total usage that was used in the Malibu Civic Center area.
121	The Board states that 1% of my building's wastewater contributes to pollution in Malibu Lagoon. If in fact the building's discharge actually reaches the lagoon, the correct figure, based upon the Board's own calculations for the Malibu Civic Center area, is 0.004%. The Board states that my building's wastewater discharges directly to the ocean. This is patently wrong as my building is located two houses, a road and a beach from the ocean and the waste does not flow into a water table.	Gerson	314, Comment 3	Disagree. Taken alone the discharge from one small business has little impact. However, cumulative impact from all commercial and residential dischargers is problematic. All septic discharges in areas of shallow groundwater reach the water table, and the predominant flow in the discharge area is toward the ocean And only 1% may reach Lagoon along the coastline.

Concerns About Boundaries

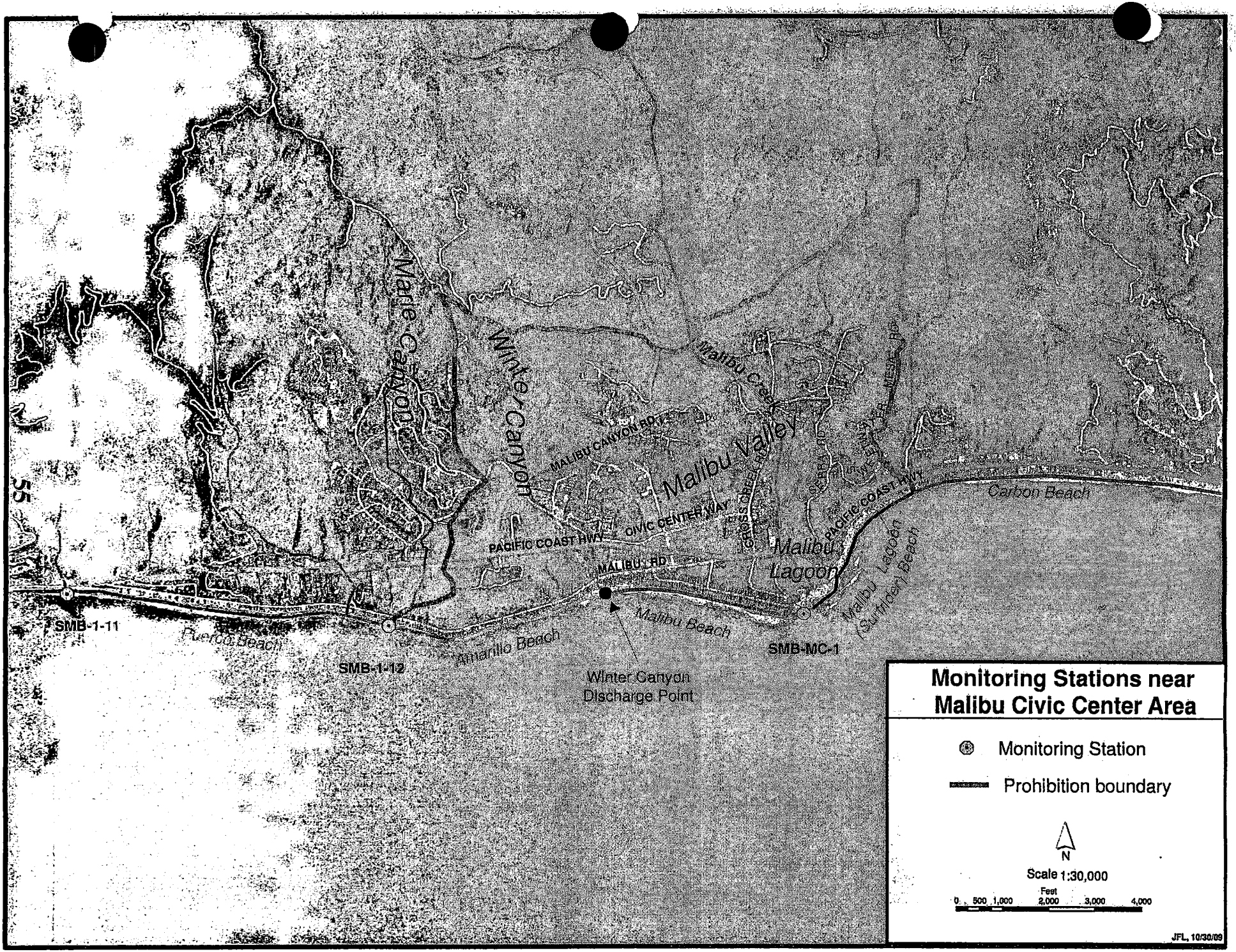
No.	Comment	Parties	Page #	Response
122	Boundaries are not justified/need more rationale.	City	133	These comments pertain to the July 31st draft. Subsequently, staff provided further discussion and improved maps of boundaries in Web site postings, at the Oct 1st community meeting, and in the Oct 21st draft – see Tech Memo Overview (pages 1 through 3), Environmental Staff Report (pages 1-2), and cross-references in tech memos #1 though #5.
		Heal the Bay	236	
123	Eastern boundary – expand to Carbon Beach (to include dense commercial and multi-family properties (Baykeeper)/Duke's/Las Flores (Silva).	BayKeeper	218	Staff acknowledges that there is relatively dense commercial development on PCH east of the boundary, and that many OWDSs have problems. However, staff limited the scope of this proposed prohibition to priority areas in the Civic Center area, focusing on the hydrology affecting polluted groundwater and hydraulically connected surface waters. Additional areas, such as the stretch of PCH east of the proposed prohibition, may be addressed through an enforcement strategy or future regulatory actions.
		Silna	488	
124	Western boundary – **contract**, to exclude Pepperdine…proposed boundary bisects campus.	Pepperdine	321	Staff did not use parcel boundaries in delineating the prohibition; rather, the proposed boundaries are based on technical factors, and consider the hydrology affecting polluted water resources. Staff acknowledges that the western boundary thus bisects the edge of the Pepperdine campus. Staff concurs with Pepperdine that use of recycled water on the small portion of Pepperdine property located within the prohibition boundary is not a discharge of wastewater, and that Pepperdine has backup systems in place for emergency discharge, including periods when irrigation demand is inadequate for recycling all treated wastewaters.
125	Western boundary – **expand** to include all of Malibu Rd and PCH to Corral Canyon	Silna	488	Staff acknowledges the existence of relatively dense development along PCH west of the boundary, and that many OWDSs have problems. However, staff limited the scope of this proposed prohibition to priority areas in the Civic Center area, focusing on the hydrology affecting polluted groundwater and hydraulically connected surface waters. Additional areas, may be addressed through an enforcement strategy or future regulatory actions.

Concerns About Boundaries

No.	Comment		Parties	Page #	Response
126	Western Boundary – **contract** to exclude Winter Canyon)	Groundwater doesn't flow to the lagoon.	Lady of Malibu Church	422	Staff concurs that OWDS discharges do not flow to Malibu Lagoon. OWDS discharges to Winter Canyon flow to the ocean and discharge between Malibu Beach and Amarillo Beach, where longshore current can carry flow eastward to Malibu Beach. Staff proposes to include Winter Canyon in the prohibition boundary due to impacts to groundwater and Amarillo Beach and Malibu Beach, which are hydraulically connected. Also, plants that treat large volumes of wastes in Winter Canyon have poor records of compliance. (See response to comment from Embree and Malibu Canyon Village HOA.)
		Winter Canyon groundwater is not drinkable.	Colony Plaza	266-267	Staff acknowledges that groundwater monitoring data show pollution of Winter Canyon groundwater. However, there has been historical production of groundwater in Winter Canyon, and the *Basin Plan* recognizes groundwater as potential MUN. Staff is required to consider all MUN designations as the beneficial use standard until amended by the Regional Board. State Board Resolution No. 88-63 contains possible exceptions for waters that may not be suitable for drinking water, but that issue is not the subject of this prohibition See also response ***#??? (Koo's matrix).***
			Towing	503-506	
		The Winter Canyon Plant works.	Colony Plaza	265-266	Staff acknowledges Colony Plaza's statement that the plant has a life expectancy to about 2031. Staff affirms that the Winter Canyon Plant has had compliance problems since completing an upgrade in 2006, including 39 violations of effluent limits for chloride, total coliform, fecal coliform, enterococcus, BOD (biochemical oxygen demand), turbidity, nitrate-N, and suspended solids. Also, staff acknowledges a correction to the number of violations (actually, 55 versus the 61 reported in the July 31st draft). See Tech Memo #1, page TM-5). See also response ***#12??.***
		The MWPCP works.	Embree (MWPCP)	309	Staff affirms that the Malibu Water Pollution Control Plant (MWPCP) has had compliance problems since completing an upgrade in 2001, including 235 violations for effluent limits of turbidity, BOD, pH, and fecal coliform. See Tech Memo #1, page TM-5. The upgrade was $1.3 million and the operation and maintenance cost are $431,000 per year. In addition to O&M costs, there are $40,000 to $50,000 capitol equipment costs for items such as pumps, blowers, and compressors that need replacement every 5 to 10 years. Even after the upgrade, compliance is still an issue.
			Malibu Canyon Village HOA	319	
		Amarillo Beach is not impaired.	Colony Plaza	265-266	Staff acknowledges that there is not a beach monitoring station at the mouth of Winter Canyon. Much of the lower part of the stream in Winter Canyon was hydro-modified in a subsurface storm drain when PCH was improved. Given the relatively high flows of wastewater in Winter Canyon (over 50,000 gpd, see Tech Memo #4, page TM4-9) and pollutants in groundwater (reference key tables in Koo's TM#2), staff believes that pathogens in groundwater impair Amarillo beach, via groundwater flow and subsurface hydromodifications. In addition, alongshore currents carry the pollutants east to Malibu Beach. The beaches on either side of Amarillo Beach (Malibu Beach to the east, and Puerco Beach to the west) are impaired.
			Towing	503-506	

Attachment: Locations of beach monitoring stations (next page)

October 30, 2009


Malibu Creek
Winter Canyon
Malibu Valley
MALIBU CANYON RD
CIVIC CENTER WAY
PACIFIC COAST HWY
MALIBU RD
Malibu Lagoon
Carbon Beach
Malibu Beach
Malibu Lagoon (Surfrider) Beach
Point Dume
Amarillo Beach
SMB-1-11
SMB-1-12
SMB-MC-1
Winter Canyon Discharge Point
Monitoring Stations near Malibu Civic Center Area
Monitoring Station
Prohibition boundary
N
Scale 1:30,000
Feet
0 500 1,000 2,000 3,000 4,000
JFL, 10/30/09

Support or Opposition to Exemptions from the Prohibition

No.	Comment	Parties	Page #	Response
127	Repairs and upgrades	City	103	Staff concurs that, during the interim period from 2009 to 2014, all dischargers should be allowed to repair and properly maintain their OWDSs. The resolution contains such a provision.
		Latham and Watkins	430 - 431	The City has proposed that residents be allowed to expand flows. Staff is concerned about the expansion of flows but supports the concept of repairs and upgrades without flow increases since the objective of the prohibition is to restore the beneficial uses of water resources in the area.
128	Undeveloped properties: Do NOT exempt between 2009 and 2014.	BayKeeper	219	Staff considered crafting language to define a cut-off point in the City and County's permitting pipeline. However, after further discussions, the City and County agreed to provide lists of specific projects in the permitting pipeline that they propose to exempt. When language is formally proposed, staff will be able to determine whether the temporary exemption warrants support.
	Undeveloped properties: Provide exemption, as developers have significant investments and should not be held hostage.	MHAB (Adamson)	479 - 481	
		MHAB (Gaines)	482 - 485	
		Latham and Watkins	428 – 431 440 - 441	
		Towing	497	
	Undeveloped properties: Exemption for lots over 5 acres like in Oxnard Forebay	HRL Laboratories	318	The exemption for lots over 5 acres was provided in the Oxnard Forebay in recognition of a few large ag properties, where a small domestic septic system served a home for owners or renters on farms. Staff does not support a similar exemption for the Malibu Civic Center area.
129	'Zero Discharge' projects should be exempted.	La Paz (Cox)	419	Staff has eliminated this exemption, which was in the July 31st draft, after reviewing public comments. All of the comments, taken together, demonstrate the difficulty of proposing an exemption for "zero discharge" projects that will make progress towards the objective of restoring beneficial uses of water quality, due to design and operational constraints. However, staff will propose to the Board that specific projects, listed by the City and the County by Nov 5th, be exempted because those projects are "in the pipeline", on the condition that those exempted projects meet the 2014 deadline to terminate discharges.
		Latham and Watkins	437	
		Towing	497	
130	'Zero Discharge' projects should NOT be exempted.	Bay Restoration Commission	195	Opposition acknowledged. Staff removed this exemption in the Oct 21st draft resolution.
		BayKeeper	218	
		Heal the Bay	236	
		Malibu Surfing Assn	239	

No.	Comment	Party	Page	Response
131	Statement of Overriding Considerations, and Unavoidable Significant Adverse Impacts discussions are inadequate.	City	118 - 119	These sections of the ESR have been supplemented with additional discussion and moved to the end of the ESR. However, the conclusions remain the same.
		La Paz (Cox)	419	
132	The environmental staff report contains a redundant section. It mistakenly refers to TMDLs.	City County	119 188	Redundancy acknowledged, which included a large section (Other Environmental Considerations) in two places of the July 31st draft. Corrected in Oct 21st draft. Also, the report did mistakenly refer to the supplement environmental report for a trash TMDL – this has been corrected in the Oct 21st draft. However, discussion referring to TMDLs under Cumulative Impacts is correctly included, because the prohibition is a remedy to correct water quality impairments from OWDSs.
133	The ESR and checklist fail to adequately analyze potential environmental impacts of the compliance projects and identify mitigation measures.	City	119-120	Staff has analyzed the reasonably foreseeable environmental impacts of the potential compliance projects. Because the details of these projects do not exist, staff used its professional judgment in identifying the common foreseeable impacts, except in those cases where a foreseeable impact was discussed for a particular project. Contrary to the City's assertion, mitigation measures were set forth in most of the checklist narratives. The CEQA Guidelines require a public agency, when commenting to the lead agency, to provide either complete and detailed performance objectives for mitigation measures addressing the effects the public agency identifies or refer the lead agency to appropriate, readily available guidelines or reference documents concerning mitigation measures (Title 14, CCR, section 15086, subd (d)).
		County	192	
		Latham & Watkins	423	
		La Paz (Cox)	417	
		Towing	499	
134	In the category for 'less than significant with mitigation incorporated,' the checklist fails to identify a single mitigation measure.	City	120	Not all impacts in this category were missing mitigation measures. For those that were missing mitigation measures, staff has added appropriate measures. (See following responses to checklist revisions.)
135	Cumulative impact analysis is inadequate.	City	129	The ESR contains a revised cumulative impact analysis beginning on page 43. Staff disagrees with the comment that no CEQA methodology was used as there is a list of the other projects considered in the original analysis. The conclusion is unchanged from the original.
		Towing	499	
136	The growth inducing impacts analysis is deficient.	City	129	The ESR contains a revised analysis beginning on page 45. The conclusion is unchanged from the original.

No.	Comment	Party	Page	Response
137	The ESR fails to analyze a reasonable range of project alternatives.	City	130	The first project alternative is not "simply a restatement of the proposed project." In the absence of the prohibition, a local agency could undertake the design, planning and construction of a centralized plant which would be an alternative to the prohibition. That alternative has been a potential project for several years and therefore is an alternative project. It is also a potential compliance project but the design of the project does not have sufficient detail to enable staff to make more than a preliminary analysis of potential impacts. Other possible project alternatives proposed included a partial prohibition. That alternative was rejected by staff because there is not sufficient data about the status of individual OWDSs to make it a reasonable alternative. A partial ban would not eliminate or reduce significant environmental impacts as there would still be the need for compliance projects. Enhanced enforcement of individual permits was not considered to be a viable alternative. An analysis of the compliance of dischargers with their respective Waste Discharge Requirements resulted in a conclusion that case-by-case enforcement would not achieve the project's basic objective, i.e. restoration of the beneficial uses of water resources for the entire region. Therefore, staff concluded that the alternatives proposed were a reasonable range of feasible alternatives.
		County	193	
		School District	209	
		HRL	318	
		La Paz (Cox)	416	
		Towing	492	
138	Checklist #1.a (Earth – unstable earth conditions): What is nature of potential impacts, what is basis for conclusion? What mitigation measures will lessen impacts…?	City	121	Federal Emergency Management Agency's Flood Insurance Rate maps, California Alquist-Priolo earthquake fault zone maps, and City and County designations in zoning codes, general plans, of geologic hazards were used, in general, to evaluate potential impacts. These potential impacts include slope instability (e.g. landslides, erosion) from construction of the projects. Mitigation measures, including shoring and soil stabilization, were identified on the July 31st draft. Additional measures have been added to the Oct 21st draft, among which include review of seismic/soil hazard maps, compaction, and storm water measures. These measures that are available to mitigate risks such as a pipeline rupture from geologic hazards.
139	Checklist #1.b (Earth – disruptions….): What mitigation measures will lessen impacts…?	City	121	As identified in the July 31st draft, mitigation measures include geotechnical studies prior to construction, and standard constructions techniques including but not limited to shoring, piling, and soil stabilization.

No.	Comment	Party	Page	Response
140	Checklist #1.c (Earth – changes in topography): What is basis for concluding that infrastructure …. Could minimize impact to topography or relief?	City	121	Sewers are subsurface. Many treatment facilities – e.g. the Malibu Lumber treatment facility – require minimal grading, and have components placed subsurface.
141	Checklist #1.e (Earth – increase in wind or water erosion….): What is basis for conclusion? What are mitigation measures?	City	121	Standard construction techniques, including best management practices to prevent erosion and control sedimentation, have successfully controlled wind and water erosion at large construction sites throughout the region. Staff has no reason to assume a failure to control erosion in connection with these compliance projects. Mitigation measures include BMPs for controlling stockpiling, and standard BMPs, as noted in the July 31st draft. Staff has added additional possible mitigation measures, such as minimizing the size and duration of exposed stockpiles and re-vegetation.
142	Checklist #1.f (Earth – …changes in deposition or erosion of beach sand…..): Clarify impact category – is it 'less than significant' or 'less than significant with mitigation incorporated'? What is basis for conclusion? What are mitigation measures?	City	121	The impact refers to potential erosion that could occur through construction in sandy soils along the coast (and has been clarified in the Oct 21st draft). The impact is 'less than significant,' as indicated in the July 31st draft. The basis for staff's conclusion is our experience that conformance with existing and standard construction measures will prevent or limit impacts of erosion to beaches, rivers, streams or the ocean. In referring to mitigation measures, staff is using the term 'mitigation' in a broad sense, and referring to well established BMP techniques that would be expected to be used on standard construction sites.
143	Checklist #1.g (Earth – exposure of people/property to geologic hazards…): What is nature of potential impacts, and what is the basis for conclusions? What mitigation measures will lessen impacts…?	City	121	Federal Emergency Management Agency's Flood Insurance Rate maps, California Alquist-Priolo earthquake fault zone maps, and City and County designations in zoning codes, general plans, of geologic hazards were used, in general, to evaluate potential impacts. These potential impacts include slope instability (e.g. landslides, erosion) from construction of the projects. Mitigation measures, including shoring and soil stabilization, were identified on the July 31st draft. Additional measures have been added to the Oct 21st draft, among which include review of seismic/soil hazard maps, compaction, and storm water measures. These measures that are available to mitigate risks such as a pipeline rupture from geologic hazards.

No.	Comment	Party	Page	Response
144	Checklist #2.a (Air – substantial air emissions or deterioration of ambient air quality): Why is discussion limited to construction? What is nature of potential impacts, and what is the basis for the conclusion? What mitigation measures will lessen impacts…? Impact of idling cars is not anticipated. What are mitigation measures?	City	122	See Checklist 2.a for a discussion of air emissions during both the construction and operation phases. Staff assumed that emissions would not exceed screening levels for potential adverse construction and operation air quality impacts because air quality is highly regulated. Upon evaluation at a project level, proponents may use an emission calculation methodology specified in the SCAQMD guidance, or an SCAQMD model to estimate the construction and operational emissions. The model can be obtained at www.aqmd.gov/ceqa/models.html. Regarding the mitigation comment, we have identified and added more specific mitigation in the revised ESR. Please look at the narrative for this checklist section.
		La Paz (Cox)	417	
		Latham & Watkins	460-464	
145	Checklist #2.b (Air – creation of objectionable odors): What are the impacts, including impacts during construction of a compliance project and abandonment of OWDSs? No mitigation measures are identified.	City	123	Odor impacts during construction, including those that would occur during de-commissioning of existing OWDSs, would be of a short-term nature. SCAQMD has established specific methodologies and thresholds of significance regarding odors that should be consulted during review of the compliance projects. As described in the Checklist #10.a, during abandonment of existing OWDSs, the risk of accidental release (including accidental release of raw sewage and sludge) can be lowered by complying with local codes for proper de-commissioning. Regarding the mitigation comment, we have identified and added more specific mitigation in the revised ESR. Please look at the narrative for this checklist section.
146	Climate Change: The environmental analysis does not include impacts to climate change.	County	193	See Legal Response Matrix 2nd page.
		La Paz (Cox)	417	
		Latham & Watkins	462	

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No.	Comment	Party	Page	Response
147	Checklist #3.e (Water – discharge into surface waters, or alteration of quality……): Presumed flow of 300,000 gallons per day (gpd) is understated, because it does not account for undeveloped properties once developed. [Analysis of surface water impacts from discharges is inadequate.] No sites are identified for disposal of effluent. Does not analyze an ocean outfall.	City	123	Given estimates of current discharges totaling about 270,000 gpd (see Tech Memo #4), staff assumed compliance projects would be on the order of 300,000 gpd. As the prohibition is intended to be growth neutral, relying on the City's "strategy" (as set forth in its General Plan that septic systems reduced the rate and intensity of growth) as an assumption of minimizing potential growth, staff did not feel it appropriate to assume the City would allow for significant additional development, and accordingly did not adjust for a significant future growth. Staff has added a description of surface water impacts from dewatering groundwater to 3.e, and included mitigation measures. Staff acknowledges that we did not survey possible sites for disposal facilities because the location of the potential compliance projects are speculative right now. The survey would occur during local planning and feasibility studies, and at a project level CEQA analysis when there is a specific project tied to a specific location. As the regulatory agency potentially responsible for permitting a compliance project, the Regional Board would carefully analyze the location of the disposal sites in the future. Also, staff did not analyze impacts from a possible ocean outfall, as none of the compliance projects assumed this discharge mechanism would be selected (see the description of projects on page 17 of the Env Staff Report).
		La Paz (Cox)	417	
		Latham & Watkins	463	
148	Checklist #3.f (Water – alteration of the direction or rate of flow of ground waters): No analysis of impacts. What is the basis for conclusion? What are the mitigation measures? The impact from possible salt water intrusion after groundwater discharge ceased has not been analyzed.	City	123	Based on staff's experience and knowledge, impacts include localized changes to groundwater flows from termination of OWDS discharges (for all compliance projects), and larger scale changes resulting from new discharge facilities for the Integrated Facilities and Decentralized Facilities compliance projects (see Checklist #3.f). The long-term impact is expected to be an improvement in the quality of groundwater. Regarding the mitigation comment, we have identified and added more specific mitigation in the revised ESR. Please look at the narrative for this checklist section.
		County	193	
		Towing	500	

No.	Comment	Party	Page	Response
149	Checklist #3.g (Water – changes in the quantity or quality of groundwater….): No analysis of impacts. What is the basis for conclusion? What are the mitigation measures?	City	124	Among the goals of the prohibition is to improve pollution in groundwater. This analysis is covered by the Technical Memoranda produced by staff. The long-term impact is expected to be an improvement in the quality of groundwater. See the discussions in #3.f and #3.h of the Checklist.
150	Checklist #3.i (Water – exposure of people or property to water related hazards): No analysis of impacts. What is the basis for conclusion? What are the mitigation measures?	City	124	Staff revised the #3.i discussion to note a possibility of impacts from tsunamis and flooding. Based on an expectation that projects would be sited outside of flood hazard zones, as designated by Federal Emergency Management Agency's Flood Insurance Rate maps, staff concluded that there would be a 'less than significant impact' (which is a revision of staff's original conclusion of 'no impact.' Also, staff expanded the #3.i discussion to note measures ("mitigation" measures, intended in a broad sense) contained in the City's building code, such as bulkheads or other protective barriers that would protect against such risks.
151	Checklist # 4 (Plant Life) and #5 (Animal Life): No recognition of environmentally sensitive areas	Latham & Watkins	464	See Environmental Staff Report, pages 27 to 29.
152	Checklist #6.a (Noise – increase in existing noise levels): What is nature of potential impacts, and what is the basis for conclusions? What mitigation measures will lessen impacts…?	City	124	Insignificant impacts are expected from decommissioning of the OWDSs, as most of the abandonment is expected to occur in place. However, impacts, including noise and/or vibration, would occur during installation of sewers and construction of treatment works. Based upon staff's experience, the impacts from would be of a limited duration. During operation, no significant impacts are expected. The City has noise ordinances which will restrict the noise impacts. Regarding the mitigation comment, we have identified and added more specific mitigation in the revised ESR. Please look at the narrative for this checklist section.
		Latham & Watkins	461	

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No.	Comment	Party	Page	Response
153	Checklist #6.b (Noise – exposure of people to severe noise levels): What is nature of potential impacts, and what is the basis for conclusions? What mitigation measures will lessen impacts…?	City	124	Insignificant impacts are expected from decommissioning of the OWDSs, as most of the abandonment is expected to occur in place. However, impacts, including noise and/or vibration, would occur during installation of sewers and construction of treatment works. Based upon staff's experience, the impacts from that would be of a limited duration. During operation, no significant impacts are expected to the public or employees. The City has noise ordinances which will restrict the noise impacts. Different California agencies, such as Cal OSHA, have regulations that address worker safety with respect to noise. Regarding the mitigation comment, we have identified and added more specific mitigation in the revised ESR. Please look at the narrative for this checklist section.
154	Checklist #7.a (Light and Glare): Inconsistent with Traffic analysis, which includes night-time construction work as a traffic mitigation measure. Clarify impact category – is it 'less than significant' or 'less than significant with mitigation incorporated'? What mitigation measures will lessen impacts…?	City	124	Construction is not likely to produce new light or glare, unless construction is done at night. (Staff has added this clarification in the Oct 21st draft.) Staff has revised the impact category to 'Less than significant with Mitigation Incorporated.' Regarding the mitigation comment, we have identified and added more specific mitigation in the revised ESR. Please look at the narrative for this checklist section.
155	Checklist #8.a (Land Use – substantial alteration of present or planned land use): Clarify conclusion about impact. Consider impact (e.g. commercial centers shutting down) if a compliance project is not completed within five years.	City	125	Staff affirms the 'Potentially Significant' impact noted in the July 31st and Oct 21st drafts. In setting the 2014 deadline for compliance, staff set a feasible time schedule, which considers significant planning and preliminary design work that the City has already completed (see Stone 2004 and Questa 2003 and 2005). Staff disagrees with contention (La Paz – Cox) that urban blight would result; rather, staff anticipates long-term positive economic impacts from improved water quality and visitor confidence in using Civic Center area beaches. See also discussion in the second page of the matrix for Legal Concerns.
		La Paz (Cox)	417	
		Latham & Watkins	445	

No.	Comment	Party	Page	Response
156	Checklist #11. Population. a. 1. OWDSs act as a constraint on development. Without OWDSs, new development corresponding growth in population 2. Staff fails to analyze the effect of prohibition on projects in the pipeline 3. The compliance projects sized to replace existing OWDS flow without considering large undeveloped area for additional flow	City	125	The City could update its General Plan to develop a'new strategy for reducing the rate and intensity of growth and further control the flow. The compliance projects will presumably be sized to provide capacity for existing wastewater flow rates or for whatever level of growth that the City decides. Without a specific compliance project to analyze, any discussion would be speculative. Staff's assumption of a growth neutral project stems from the City's General Plan statements about the restriction of growth from environmental hazards as well.
157	Checklist #12. Housing. a. City uses OWDS as a constraint on development. Without OWDS, compliance projects promote developments and affect the existing housing supply.	City	126	Staff has revised this narrative. The City could update its General Plan to develop a new strategy for reducing the rate and intensity of growth. The Malibu General plan section 7.3.3.1 states that the opportunity for development of housing is constrained by geologic hazards, flood hazards, and wildland and urban fire hazards. Also, slope instability and high groundwater are additional constraints on development. Therefore, it is unlikely that this project will create a demand for additional housing. Through the general planning process as well as zoning and other land use authorities, the City and the County have the tools to meet community goals, including housing goal.
		County	194	
158	Checklist #13. Transportation/Circulation. a. define level of impact and mitigation b. no mitigation identified c. If City can't complete compliance project within 5 years, hauling will add additional traffic impact and need mitigations. d. There are impacts to present pattern of circulation, such as, lane closures. f. Need justification for level of impact and mitigation measures.	City	126-127	a. The level of impact is revised to "potentially significant impact". Mitigation measures should be examined at a project level and could include development of a traffic mitigation plan and night-time construction schedules. b. Mitigation could include park-and-ride lots or temporary increased public transportation. c. Mitigations and impacts should be examined on a project level and potential mitigations are added in discussion on page 35 of Draft Environmental Staff Report (ESR), dated October 21, 2009. d. Checklist revised to "less than significant". Additional discussion incorporated in page 35 of Draft ESR. f. Checklist revised to "Potential significant impact". Discussion includes mitigation measures on page 35 of Draft ESR.
		Latham & Watkins	459-460	

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No.	Comment	Party	Page	Response
159	Checklist #14. Public Service d. define basis for "potentially significant impact" e. Increase road maintenance if City can't comply in 5 years and will rely on hauling as a mitigation measure.	City	127-128	e. The integrated Facilities – a centralized integrated wastewater/recycled water plant – would require land for construction and operation of facility. Parks are usually used as wastewater subsurface disposal/recycle site and may have potentially significant impact. Lower road maintenance is expected after compliance project is complete. Overall, the demand for road maintenance is no impact.
160	Checklist #16 Utilities and Service System d. define basis for "potentially significant impact" and mitigations and analyze the potential impacts associated with the abandonment and removal of old septic systems f. Need discussion on disposal of solid waste generated by a wastewater treatment plant and disposal of old septic systems. Define basis for "less than significant"	City	128	d. Staff affirms its conclusion of "potentially significant impact" See added discussion under #16.d. f. Regarding other government services, staff affirms its conclusion of 'no impact.' See added discussion under #16.f.
		La Paz (Cox)	417	
161	Checklist #17.a (Human Health – creation of any health hazard…) and #17.b *exposure of people to any human health hazards): …a plant may be located near residences. Health hazards could occur from rupture of a sewer. What are mitigation measures?	City	128-129	Staff has revised its conclusion to 'less than significant with mitigation incorporated'(versus 'less than significant,' as concluded in the July 31st draft). Regarding the mitigation comment, we have identified and added more specific mitigation for both construction and operation phases in the revised ESR. Please look at the narrative for this checklist section. Also, for human health impacts, please refer to Checklist # 10.a (Risk of Upset), which includes a discussion of impacts and possible mitigation measures during the design, construction, and operation phases.
		County (pg 4)	192	
162	Checklist #18.a and b (Aesthetics): Objection to the 'less than significant' conclusion.	County	192	Staff has revised its conclusion to a 'less than significant with mitigation incorporated.' Regarding the mitigation comment, we have identified and added mitigation measures in the revised ESR. Please look at the narrative for this checklist section.

Concerns about CEQA (California Environmental Quality Act) – Environmental Staff Report

No.	Comment	Party	Page	Response
163	Checklist #20.a (Archeological/Historical): A significant portion of the area adjacent to Malibu Lagoon has been identified as an archaeological site. What are potential impacts?	City	129	Staff has revised its conclusion to a 'less than significant with mitigation incorporated,' as compliance projects, such as sewers, are expected to be located in public streets and on public property that has already undergone significant disturbance. See revised discussion under Checklist #20.a.

Legal Concerns

No.	Comment	Parties	Page #	Response
164	CWC section 13241 analysis is missing	City County	130 193	Evidence for determinations in accordance with the CWC and other codes is in both the Technical and Environmental Staff Reports. Also, staff has added a summary of this evidence, organized by code section, on pages 13 through 19 of the Overview for the Technical Staff Report.
165	Proposed findings are not supported by evidence	City	100	The weight of the evidence prepared by the staff, set forth in the technical memoranda, supports the need for the prohibition and addresses each of the legal factors required by the Water Code section 13280-13283.
166	GW as potential drinking water source not supported by record and doesn't meet 13241 or the State Board's "Sources of Drinking Water" policy, Resolution No. 88-63.	City	103	Staff is required to consider all MUN designations as the beneficial use standard until amended by the Regional Board. State Bd Resolution No. 88-63 does indeed contain exceptions for waters that may not be suitable for drinking water, but that issue is not the subject of this prohibition.
167	CEQA document is not adequate in several respects and fails to provide public with meaningful information	City	118	The Environmental Staff Report, in the checklist and narrative, identifies reasonable compliance alternatives, provides mitigation measures when feasible and discusses the reasonably foreseeable impacts from the project.
168	CEQA document fails to identify mitigation measures	City County MHAB (Gaines)	120 192 485	The original checklist had many mitigation measures. The revised checklist has included many more specific mitigation measures. A commenting public agency should provide either complete and detailed performance objectives for mitigation measures addressing the effects the public agency identifies or refer the lead agency to appropriate, readily available guidelines or reference documents concerning mitigation measures. Title 14, CCR, section 15086, subd (d).
169	Costs of compliance not adequately analyzed	City	130	In the Environmental Staff Report, in the section entitled Options for Compliance Projects, staff provides estimates (including key assumptions) of capital costs for three conceptual projects. These costs range from $17 million to $80 million. The City's comments are noted as providing an alternate view of the cost of compliance.
170	Civic Center boundaries not justified	City	130	The rationale for the boundaries is described in detail in the Technical Staff Report, beginning on page 1. See also responses provided in the Boundary matrix.

No.	Comment	Parties	Page #	Response
171	TMDLs don't indicate prohibition on OWDSs necessary	City	133	The nutrient TMDL for Malibu Lagoon allocates a nitrogen load of 6 lb/day from OWDSs. As demonstrated in Tech Memo #4, existing loads from OWDSs far exceed the target. Because the Regional Board has attempted other strategies for reducing pollutant loads from OWDSs which have not been successful in reducing the impairment and restoring the quality of water resources in the area, this prohibition is necessary. The cumulative effects of other implementation actions to attain TMDLs, other actions by the City, and this prohibition should be beneficial to restoring the water quality.
172	MOU with County doesn't give enforcement authority; need for modification to carve out target area from MOU	County	189-190	If the prohibition is adopted, the Regional Board will discuss appropriate modifications to the MOU with the County of Los Angeles.
173	Findings of 13280 etc. require adjudicative hearing process	County	190	This Basin Plan amendment is a quasi-legislative action. Therefore, the APA does not apply.
174	No discussion of impact if nothing done in 5 years	County	192	Staff does not believe that it is a reasonably foreseeable conclusion that no action will be taken by the prohibition deadline date, and thus did not evaluate the impacts from the closing of the entire Malibu Civic Center area.

No.	Comment	Parties	Page #	Response
175	No discussion of global climate change from project	County Latham & Watkins	193 462	CEQA regulations and guidance, to expand environmental reviews to include climate change, are in the process of being revised and are not yet approved. Staff believes this is more appropriate for a project level analysis when a specific project has been designed and proposed. However, staff has discussed potential climate change impacts in the checklist narratives for air, housing, transportation, and energy. The specific amount of potential greenhouse gas emissions were not calculated because of the lack of agency guidance on how to determine the significance of the greenhouse gas emissions that directly or indirectly result from the project and the lack of published thresholds of significance. The potential compliance projects discussed and analyzed in the ESR are reasonably foreseeable means of compliance but none of the projects have detailed specific designs, timetables, or any other concrete documentation. Therefore, any analysis done must be somewhat speculative, although staff has exercised its best judgment and good faith in determining the potential impacts. Mitigation measures for climate change impacts are evolving but the California Air Resources Board has published its Climate Change Scoping Plan, dated December 2008, which sets forth several potential mitigation measures that should be considered by the lead agency reviewing the compliance projects. These measures include use of energy efficient technologies or equipment, low carbon fuels, energy efficient building design and construction materials, and water system and water conservation measures. Staff concludes that determining the significance of the potential impacts of the project, or determining whether the mitigation measures can reduce that contribution to a level that is less than cumulatively considerable and thus less than significant, is uncertain and thus speculative at this time. If there are significant impacts, the project's benefits override and outweigh its potential unavoidable impacts, as set forth in the statement of override in the draft Resolution, because the benefits include restoration of the beneficial uses of water resources, which will enhance the recreational use of the Malibu beaches, improve the aquatic habitat and restore the drinking water potential of the groundwater.
176	Draft resolution doesn't have 13241 or 13280 findings	County	194	A revised draft (Oct 21, 2009) resolution addresses the issues raised and contains appropriate findings.
177	Consider less drastic alternatives	City School District	134 209	Many alternatives were considered but none met the objectives of the prohibition. A partial prohibition would not meet the objective because, based upon experience with compliance with and enforcement actions taken on individual WDRs, water quality is not improving enough to restore beneficial uses in an acceptable timeframe.

Legal Concerns

No.	Comment	Parties	Page #	Response
178	SWRCB state-wide proposed regs for OWDSs not considered by staff as a program alternative	Hughes	318	Earlier efforts to develop AB 885 regulations were not successful. The timing for a future effort by the State Board is not clear.
179	Set the effective date of prohibition 30 days after approval by OAL	Latham & Watkins	427	The legal effective date of the regulation is when OAL approves it. The tentative Resolution states that the deadline for termination of existing discharges is November 5, 2014. All other discharges are prohibited as of November 5, 2009.
180	Inadequate project description re: evaluation of compliance projects	Latham & Watkins	427	This is a program or first-tier level environmental document because it is evaluating the effects of an amendment to the *Basin Plan*. As such, the details of any compliance projects are largely hypothetical at this time. Staff has used its best judgment in forecasting reasonably foreseeable impacts for impacts that are likely to occur from any of the potential compliance projects. However, the level of specificity required by CEQA generally depends upon the degree of specificity involved in the proposed activity. An EIR on a policy or plan need not be as detailed as in EIR on the specific compliance projects that will follow. An analysis of the impacts of future actions should be undertaken when those actions are sufficiently well-defined that it is feasible to evaluate their potential impacts.
181	Enforcement of prohibition is unknown; staff should make enforcement actions explicit	Morton Gerson La Paz	314 413	Staff agrees with Schmitz and Associates that enforcement actions that *may* be taken by the Regional Board at the end of the prohibition period is currently speculative and not at issue. However, staff disagrees that there are only "two alternatives" (store and pump off-site or abandon the premises as uninhabitable). In the absence of information regarding actual compliance with the prohibition, compliance alternatives with the prohibition are still speculative as well.
182	Staff Report fails to analyze other potential causative factors to the degradation of GW quality in the MCC target area, citing State Board Resolution 88-63	Towing	500	State Board Resolution 88-63 sets forth the policy that all surface and ground waters of the State are considered to be suitable for a water supply, with several exceptions. The Regional Board must take steps to amend the *Basin Plan* beneficial uses. That is normally done during the "Triennial Review" process, which the Regional Board is currently undertaking in a separate proceeding. Therefore, until such time that beneficial use designations are changed by the Regional Board, it must be assumed that all water is suitable for a water supply.

No.	Comment	Parties	Page #	Response
183	Prohibition is a taking; denies property owners right to substantive due process because it is arbitrary and capricious as applied to AZWM.	Towing	507	Water Code section 13262, subdivision (g), specifies that there is no right to discharge waste. The contention that the prohibition is arbitrary as applied to the commenter because it lacks voting rights in the city is erroneous. The prohibition applies based upon the effects of the discharge, not based upon the identity or status of the discharger. If the commenter was correct, no land-use regulation could ever be enacted against a business entity. Nor do the property owners lack ability to affect the public policies of the City of Malibu. The property owners may properly exercise their political rights with the City of Malibu to encourage the construction of a compliance project in a timely fashion. The prohibition is not a "taking" because this regulation is being proposed to prevent harm in the nature of a nuisance to the public.
184	Prohibition denies property owners equal protection because current dischargers can continue while non-dischargers will not be able to discharge	Towing MHAB (Gaines)	507 484	Equal Protection is equality under the same conditions and among persons similarly situated. The Regional Board may make a reasonable classification of persons and pass special regulations applying to certain classes. The classification must not be arbitrary and must be based on some difference in the classes having a substantial relation to a legitimate object to be accomplished. Current dischargers must terminate their discharges by November 5, 2014. This class of persons is different from persons who are not currently discharging as staff believes it would be inappropriate to require immediate cessation of waste discharges. The commenter is being treated the same as all other property owners who are not currently discharging. This difference is not arbitrary and has a substantial relationship to the object of restoring beneficial uses of water resources, and grandfathering existing dischargers for a period of time is a well-established accommodation for the economic hardships attendant with replacing an existing infrastructure. This distinction bears a rational basis.
185	Prohibition denies property owners all reasonable, economic use of its property	Towing MHAB (Gaines)	507 483	The discharge of waste is a privilege, not a right (see Water Code section 13262, subd.(g)). The commentors have submitted no evidence that prohibiting discharges of waste from OWDSs deprives the property owners of all reasonable economic use, and the fact that most other municipalities in the state of California have constructed alternatives to the use of septic systems and nevertheless have thriving businesses tends to demonstrate the inaccuracy of the claims. The requirement to discharge waste in such a way as to not endanger public health and safety does not effect a taking in any event, since the prevention of nuisance is not a taking, and furthermore since no right has vested with these property owners who do not yet have authorized OWDSs.

Other Concerns

No.	Comment	Parties	Page #	Response
186	Serra Retreat – confusion among residents about compliance.	Serra Retreat HOA and residents	Sept 1st workshop	The Serra Retreat Center, which supports full-time staff, retreats and events, is under Regional Board jurisdiction. Staff has issued two NOVs to the Center, for three flow violations, missing perjury statements, inadequate oversight of the disposal area, and missing hauling reports. Serra Retreat single-family residences are under the City's jurisdiction. There is one documented recent spill, and one known on-going failure. About 40% of the residences have limited leachfield redundancy. The City states that these problems result from oversight practices by the County, prior to the City's incorporation.
187	The prohibition is unfair to many dischargers who invested resources upgrading the old septic systems to advanced treatment systems	WW Advisory Committee	186 263	Staff acknowledges significant investments in advanced systems, among which include the system for Malibu Lumber (which has been reported to cost from $3 million to $4-1/2 million), and Malibu Colony Plaza ($2-1/4 million). However, advanced systems have not solved the community's water quality problems. Furthermore, the systems are expensive to operate (residents in the multi-family complexes served by the MWPCP pay $188/month in operating costs), and have poor compliance records. Staff does not believe that these advanced systems, installed on an individual basis, will effectively restore water quality.
		Colony Plaza	309	
		Embree (MWPCP) Latham & Watkins	440	
188	Recommends artificial breaching of berm, to allow for twice daily flushing…..This would eliminate a barrier for steelhead trout.	Lady of Malibu Church	422	Artificial breaching was done in the past, prior to oversight by the Coastal Commission. Past proposals to allow draining of the lagoon (e.g. by insertion of a flexible pipe) were not widely accepted by stakeholders, and attention has shifted to controlling pollutant sources.
189	Tapia dumps sewage….. Tapia Water Reclamation Facility Discharge: concern that regulatory attention is misplaced, and should focus on Tapia…..Tapia is contributing to nitrogen and bacteria loading……..	Toberman	602 Sept 1st workshop	Tapia's WDR contains a discharge prohibition to Malibu Creek from April 15 to November 15 each year, except under certain conditions, including: (a) upset or operational emergencies; (b) storm events; or (c) to meet minimum flows of 2.5 ft^3/second to sustain endangered species in Malibu Creek. Tapia has had intermittent discharge to Malibu Creek since September 1, 2009 in order to comply with condition (c) above – this was not a violation. Tapia has incurred violations, including reporting deficiencies, late submittals, and effluent violations, and these violations are subject to enforcement.
		Oral comments at Sept 1st workshop from Serra Retreat residents and Surfrider Foundation member.		

Other Concerns

No.	Comment	Parties	Page #	Response
190	Tapia's effluent …[improves water quality downstream]…without summer discharge, Surfrider Beach bacteria levels have risen…… Object to staff's assumption [Environmental Staff Report, page 19] as a possible compliance project.	Las Virgenes MWD (also oral comments on Sept 1st by staff from Las Virgenes MWD)	206 198	See comment above regarding Tapia compliance. Re the objection to being considered as a possible compliance project is acknowledged: staff contacted the general manager on Sept 2nd, to explain that the compliance projects included in the Environmental Staff Report were conceptual-type projects, and that staff was not advocating for a specific manner in which the community would comply with the prohibition.

Comments from
Government

HAND DELIVERED

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October 8, 2009

VIA E-MAIL AND HAND DELIVERY

Mary Ann Lutz, Board Chair
& Members of the Board
Regional Water Quality Control Board
Attn: Dr. Rebecca Chou, Chief Ground Water Permitting Unit
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RECEIVED
2009 OCT 8 PM 1:47
CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION

Re: City of Malibu Comments on proposed amendment to the Water Quality Control Plan for the Coastal Watershed of Ventura and Los Angeles Counties (Basin Plan), to prohibit on-site wastewater disposal systems in the Civic Center Area of the City of Malibu

Dear Chair Lutz and Board Members:

I write on behalf of the City of Malibu. The Board staff recommends adoption of a Basin Plan amendment to prohibit onsite wastewater treatment systems (OWTS[1]) in the Civic Center area of the City of Malibu; however, the proposed findings in the draft resolution are contrary to, and not supported by, the available evidence. The record does not establish that OWTS cause degradation of water quality and the Regional Board cannot amend the Basin Plan based on this faulty premise. The proposed findings in the resolution are not supported by substantial evidence and the City will address the deficiencies with each of the proposed findings in turn.

[1] The proposed Basin Plan Amendment uses the nomenclature onsite wastewater disposal systems; however, this nomenclature does not reflect the industry standard and or the treatment of effluent provided by the systems. Therefore, all references to the systems herein will be referred to as onsite wastewater treatment systems. As the City understands the proposed amendment, it covers all types of wastewater systems except zero-discharge systems. If use of the term onsite wastewater disposal systems by the Board staff was intended to exclude certain types of treatments systems from the basin plan amendment, the City requests clarification on the scope of the amendment.

A. Responses to Key Proposed Findings:

Resolution Finding 5. In accordance with the California Water Code, sections 13280 and 13281, Regional Board staff presented technical evidence, in a public hearing on November 5, 2009, demonstrating that discharges of wastewater in the Civic Center area fail to meet water quality objectives established in the Basin Plan and contribute to impairments of existing or potential beneficial uses of water resources. The evidence, as presented in a Technical Staff Report, includes the following conclusions:

i. Dischargers subject to Orders from the Regional Board that specify waste discharge requirements (WDRs) for OWDSs have poor records of compliance. (See Technical Memoranda #1 appended to the technical staff report.)

This finding contains factual errors and makes conclusory statements that are not supported by available evidence. First, the background information inaccurately limits the Board's regulatory authority under the MOU to commercial properties, ignoring the Regional Board's responsibility for systems generating over 20,000 gallons per day, residential developments of more than two homes, multi-family developments, systems disposing of sewage containing industrial waste and systems utilizing aboveground dispersal or effluent storage. More specifically, the discharges identified in Tables 1, 2, 3 and 4 are primarily under the Regional Board's discharge permitting jurisdiction and compliance issues are indicative of a larger communication and enforcement problem with these facilities during the 2004-2008 period. The Regional Board has ramped up enforcement efforts since 2008 and the City has also adopted a comprehensive OWTS program (discussed further in response to Technical Memo No. 5 below). The Basin Plan amendment seems both a drastic and premature measure considering the recent increase in oversight and enforcement by both responsible agencies since the 2004-2008 period. Rather, the City sees this as an opportunity to bring all of the affected and responsible parties to the table to discuss improvements in permitting, reporting, communications and compliance and open the communication lines between all affected parties.

The City also notes a wide variability across the spectrum of dischargers with respect to the number and severity of their violations. The memo discloses that the Board employed "a team of college-level and graduate school-level interns" to review the 224 reports they had received from 2004 to 2008. Since these report violations are being used as data, there are many questions about the review process that need to answered before these "data" can be properly evaluated. For example, what were the criteria upon which a violation was assessed? Why are all violations weighted similarly? There is no delineation in the analysis to separate those who were initially in violation, but who have consistently satisfied the requirements later as they learned how to comply with the Board's requirements.

In addition, in order to try to substantiate this finding, a slew of NOVs were issued on April 24, 2009 to many of the permittees within the oversight of the Board. Unfortunately in the rush to send out the NOVs many of the addresses, names, and types of violations were incorrect and many of the reported violations were for such trivial actions as being a day late on a report submittal. As an example, an NOV was issued to HRL Laboratories for failing to submit 3 reports as long ago as 2002 and for sending in 2 reports late (1 day and 5 days). In its response to the NOVs, HRL indicated it was surprised to learn of these violations and had never been contacted by the Board staff in the 7 years prior to this allegation. However, after researching its records, HRL produced copies of all the reported missing reports, copies of the certified mail that showed all reports were mailed prior to the due date, and also detailed that its WDR permit Order No. 98-013 only required HRL to maintain up to 3 years of records. Fortunately, HRL retained its records longer than required, which enabled HRL to refute the improper allegations. The method of oversight and enforcement demonstrates inadequacies in the operations of the permitting procedures, which make the data an unreliable measure of compliance.

The Memo suggests that this is the first substantive analysis of these reports by the Regional Board. It appears that Board staff may have failed to promptly notify those with delinquent or inadequate submittals; it has been reported that some of the parties listed as non-compliant first learned of it through the release of this Memo. It is the Board's responsibility to enforce its regulations in a timely manner and against those who are in violation. A lack of enforcement should not be mischaracterized as evidentiary support for the proposal. under the proposal, no new users will be permitted within the Civic Center area until the treatment plant is operational. Many of these new permits are redevelopment proposals for existing homes or businesses where existing OWTS will be replaced with advanced wastewater treatment systems that will, in operation, eliminate staff's concerns with older systems. Thus, in some respects the proposal ironically frustrates the solution it purports to seek.

The proposal fails to credit the progress that the City of Malibu has made in the past five years towards complying with prior Board regulations on the OWTS in the City, through a rigorous technical design, analysis, and review of OWTS in the City. All of the currently proposed new commercial systems utilize advanced disinfection and treatment solutions, with nearly complete on-site reuse of the treated water for landscaping or toilet water. This focus on reuse should be rewarded in that it is saving scarce fresh water resources (the Board's mission); however, all existing systems are characterized the same under the proposal.

Similarly with private residence OWTS, the prohibition disregards the City's aggressive program to upgrade residential OWTS. Any remodel activity triggers a requirement to upgrade the OWTS. The purchase of an existing home triggers a mandatory inspection and probable upgrade of the system. Over time, all of the OWTS in the City will be upgraded to the advanced systems.

There has been no new development in the Civic Center area in many years and nearly all recent development involves either the full demolition and reconstruction (some of which were for structures lost in the 2007 fire), or partial remodels of existing homes and businesses. In all of these cases, the volume contribution of the site's wastewater to the entire Civic Center system is essentially unchanged, while the quality of wastewater that will be discharged will either be so completely treated that it is essentially Title 22 quality, or in the case of individual homes, be processed through a new and fully upgraded advanced OWTS. The recharged effluent-water quality will be improved from all upgraded systems, as they are required to meet or exceed the Basin Plan objectives. Until a regional solution is developed, the Board should focus its attention on enforcement and build upon the City's aggressive system upgrade program.

ii. *Discharges of wastewaters released from OWDSs to groundwater contain elevated levels of pathogens and nitrogen that impair underlying groundwater as a potential source of drinking water. (See Technical Memoranda #2 appended to the technical staff report.)*

This finding contains factual errors and makes conclusory statements that are not supported by substantial evidence. In Technical Memorandum No. 2, Board staff erroneously, and without evidentiary support, concludes that OWTS have impaired the underlying groundwater as a potential source of drinking water. In 1960, however, the underlying groundwater was considered unsuitable as drinking water due to the presence of extremely high and increasing concentrations of total dissolved solids (TDS). These elevated TDS levels resulted from salt water intrusion, which was caused by groundwater withdrawal. A recent water quality measurement made during sampling of the deep aquifer located in the area designated for the Prohibition revealed a TDS concentration exceeding the drinking water maximum contaminant level (MCL).

Memo No. 2 also does not address the State Water Resources Control Board's "Sources of Drinking Water Policy" (Resolution 88-63), even though this policy specifically questions whether the TDS and electrical conductivity water quality criteria are satisfied, a question central to whether Malibu Valley groundwater is suitable for municipal use. While the case maybe on appeal, we cannot ignore that a trial court in *City of Arcadia v. State Waster Resources Control Board* found that it is improper to base standards on consideration of *potential* beneficial water uses, and that Water Code Section 13241 requires the Regional Board to consider analysis of only *probable* future beneficial uses of water in the basin planning process. *See* Case No. 06CC02974, Orange County Superior Court Judgment dated March 13, 2008. Staff's analysis of groundwater as a potential drinking water source is not supported by the evidence and does not appear to meet the requirements of Section 13241.

In Memo No. 2, Board staff also inaccurately concludes that there is widespread contamination above Maximum Contaminant Levels (MCL), double counts wells, over-counts total and fecal coliform MCL exceedances, improperly includes ammonia (which has no MCL), and does not take into account that many of the wells for which monitoring results are available are located immediately adjacent to OWTS in areas that would never be considered suitable for the location of drinking water supply wells.

The Board staff purports to have evidence that OWTS in proximity to Malibu's water resources may be among the factors contributing to poor water quality, yet Staff's supporting documentation does not demonstrate such a connection. Page 3 states that "some systems are up to 40 years old and some are operated at a much greater wastewater flow capacity than what they were originally designed for," but does not cite any specific addresses for problematic systems; without support, this statement is conclusory. The technical memo does not take into account significant improvements in water quality that have been realized with advanced OWTS treatment systems, which are now required of most new systems in Malibu and does not consider that there are other potential sources of bacteria in groundwater, such as stormwater, or other potential sources of nitrogen in groundwater, such as fertilizer. Specifically, the memo never acknowledges potential impacts from dischargers upstream or from any animal or other natural sources. In other words, the memo does not include any evidence actually showing that OWTS in the Civic Center area contribute to exceedances of bacteria levels in a probable source of drinking water.

See Attachment for Technical Memo No. 2 documenting additional factual and analytical errors.

iii. *Discharges of wastewaters released from OWDSs to groundwater that is in hydraulic connection with beaches along the mouths of unsewered watersheds transport pathogens that elevate risks of infectious disease for water contact reaction. (See Technical Memoranda #3 appended to the technical staff report.)*

Technical Memo No. 3 contains factual errors, makes conclusory statements and does not adequately demonstrate that discharges of wastewaters released from OWTS to groundwater that is in hydraulic connection with beaches along the mouths of unsewered watersheds transport pathogens that elevate risks of infectious disease for water contact reaction. Technical Memo No. 3 provides no evidence for a relationship between bacteria in groundwater and bacteria in beaches. Stone (2004) concluded that a high risk area for bacteria in groundwater is 6 month time of travel zone (see attached figure from report). Based on scientific evaluation by Stone (2004), the rest of area appears to be years to decades time of travel. No information is provided to refute this conclusion.

In Technical Memo No. 3, the Regional Board fails to make the case that there is a hydraulic connection between the bacterial contamination in the groundwater and the bacterial contamination on the beaches. The major shortcoming of the Board's analysis of a hydraulic connection is the fact that it ignored hydraulics. They did not use published hydrologic data and analyses (ground-water level data, lagoon stage, ocean stage, water level maps, and modeling analyses) that show the capture zone for Malibu Lagoon.

The City has made considerable progress in regulating improvements in the Civic Center (and City-wide) in OWTS in both residential and commercial systems; however, the Board fails to credit any of this progress by using outdated data to justify its position in its statements and charts.

Significant portions of the Technical Memo fail to follow established scientific method and are based on a myopic focus on onsite wastewater treatment systems as the only significant source of bacteria in groundwater and in the watershed. No consideration is given to other sources of bacteria in the groundwater and surface waters, such as upstream sources, stormwater, and wildfowl. Nor has bacterial re-growth been considered.

There is also no consideration of precipitation events, lagoon breaching or other seasonal variations in a wide variety of sources of bacterial contamination in surface waters. The analysis of the data to "prove" a connection is unsubstantiated, misleading and insufficiently documented.

The lack of analysis to demonstrate a connection between a source, transport pathway, and receptor of sewage related disease agents is a major deficiency in Technical Memorandum No. 3. Original data has not been presented to demonstrate the physical connection from a potential source of pathogens (OWTS effluent) to a transport pathway (groundwater flow and discharge to surface water) to an exposure medium where human receptors could be exposed (ocean water). If present, a complete exposure pathway has physical linkages between the source, transport pathway, and exposure medium. A complete exposure pathway was presumed to exist, but not demonstrated through any quantitative pathogen fate and transport analysis. A sanitary survey using tracer techniques should be used as supporting evidence of a viable exposure pathway prerequisite to imposing a prohibition such as this. Attenuation mechanisms for pathogens (e.g., retention, die-off, inactivation, etc.) should be evaluated on a site-specific basis, rather than as simply presented as part of a general discussion of pathogen fate and transport phenomena.

Board Staff bases much of its argument on the faulty premise that bacteria from the OWTS seep into the groundwater, which ultimately seep into the Creek; however, based on recent studies, it is reasonable to draw the opposite conclusion that bacteria in the Creek do not come from the OWTS.

In a 2005 SCCWRP Study[2], no enterovirus or Bacteroides sp. were detected in the samples from the Malibu Creek watershed, indicating that bacteria found in the Malibu Creek is not from a human source. Five additional studies are expected to be completed in coming months and these studies will provide significant information to help guide the City and Regional Board and ensure its actions will improve water quality and protect the public's health.

These studies include:

1. UCLA - Human Specific Bacteriodes Study/Malibu Creek, Lagoon, and Surfrider Beach.
   Preliminary results: This study is finding no human specific bacteria markers during dry weather – which indicates that OWTS may have little to no effect on the cause of the bacteria levels in the groundwater and lagoon. Human specific bacteria markers were found in a few wet weather samples indicating stormwater is a potential source of human bacteria.

2. USGS – Water Resource Study/Malibu Creek, Lagoon, and Surfrider Beach
   Preliminary results: Presence of fecal indicator bacteria along coastline appear to be unrelated to onsite wastewater treatment systems.

3. SCCWRP (Southern California Coastal Water Research Project) – Epidemiology Study/Surfrider Beach

4. Stone Environmental - Groundwater Modeling Study/Malibu Civic Center
   This study was required by the RWQCB at a cost to the City of $350k. It is prudent to wait for completion before implementing prohibition and new mandates.

5. SCWRRP - Malibu Source ID Study/Ramirez and Escondido Creeks
   Preliminary results: 3-year study that has not identified any significant wastewater sources for bacteria contribution.

The staff recommendation does not account for these scientific studies that will provide evidence on the impacts of OWTS and instead, relies on unsubstantiated assumptions. The Board should place the proposed prohibition on hold until it has all the information to be certain it achieves the goals we all share: protecting the public's health and improving water quality.

See Attachment for Technical Memo No. 3 documenting additional factual and analytical errors.

[2] Multi-Tiered Approach Using Quantitative Polymerase Chain Reaction For Tracking Sources of Fecal Pollution to Santa Monica Bay, California, February 2005 SCCWRP.

iv. *Discharges of wastewaters released from OWDSs to groundwater that is in hydraulic connection with Malibu Lagoon transport a nitrogen load significantly in excess of the wasteload allocation in the TMDL established to restore water quality to a level sufficient to protect aquatic life and prevent nuisance resulting form eutrophication. (See Technical Memoranda #4 appended to the technical staff report.)*

Technical Memo No. 4 contains factual errors, makes conclusory statements and does not adequately demonstrate that discharges of wastewaters released from OWTS to groundwater that is in hydraulic connection with Malibu Lagoon transport a nitrogen load significantly in excess of the wasteload allocation in the TMDL. The information in the memo does not support a need for a prohibition on OWTS in the Civic Center area and the finding based on this memo is not supported by substantial evidence.

This Technical Memo does not demonstrate that nitrogen from OWTS is a significant source of impairment to Aquatic Life. In fact, aquatic life is only mentioned four times in the document: in the title (two times), in the purpose, and in the conclusion. This significant oversight of substantive analysis indicates a lack of objectivity in the analysis. As in Technical Memos #2 and #3, a fundamental shortcoming of the analysis is that it ignores published hydrologic data and analyses (ground-water level data, lagoon stage, ocean stage, water level maps, and modeling analyses) that show the capture zone for Malibu Lagoon. Arbitrary assumptions were made to distribute nitrogen loads across the landscape without regard to existing detailed analyses of loading. Areas that do not provide groundwater flow to Malibu Lagoon are arbitrarily included in staff's assessment of the contribution of nitrogen to the Lagoon. The analysis did not consider loading of nitrogen from atmospheric sources, fertilizer, nutrient cycling, and sources up Malibu Creek, as documented by Heal the Bay, and in the Nutrient TMDL for the Malibu Creek Watershed. The memo does not show that a balanced scientific review was conducted by the Board staff in this myopic evaluation of OWTS nitrogen loading to justify the Basin Plan amendment.

The major shortcoming of the analysis is that the it ignores published hydrologic data and analyses (ground-water level data, lagoon stage, ocean stage, water level maps, and modeling analyses) that show the capture zone for Malibu Lagoon. Several examples of relevant documentation that was not considered by staff are included in Appendix 4-1:

- Malibu Downtown Area Well Location Map, prepared by Earth Consultants International in 2008
- Malibu Downtown Area Historical Hydrographs 1998-2008, prepared by Stone Environmental, McDonald Morrissey Associates, and Earth Consultants International in 2008 (updated with water table elevations measured through the end of 2008)

- Map 5: Water Levels Measured on September 25, 2003—Unbreached Lagoon (from Stone Environmental Inc. 2004)
- Map 6: Water Levels Measured on March 9, 2004—Breached Lagoon (from Stone Environmental Inc. 2004)

The proper scientific method was also not followed in the analysis. Proper scientific method to establish a direct relationship between a potential source of contamination (nitrogen from OWTS) and resulting impacts on the ecology in the lagoon would include establishing a hypothesis, such as: nitrogen from OWTS is a significant source of nitrogen in the lagoon and affects aquatic life in the lagoon. Then a series of analyses needs to be conducted to adequately confirm the cause and effect stated in the hypothesis, and also rule out other potential causes. Staff did not undertake either of these analyses.

Instead, the Board staff uses as models for its analysis, data and trends from the Stone (2004), Questa (2005), and Tetra Tech (2003) reports, then applied its own conservative approach, resulting in substantially higher values across the board. The memo does not consider whether the assumptions in those reports were themselves unduly conservative, whether those assumptions are still valid, or how the City's aggressive and successful efforts are improving both wastewater treatment and surface runoff systems. To take these prior models and then assume even greater levels of conservatism is an inaccurate analytical approach and these assumptions should be better justified as they form basis for the entire report's conclusion.

See Attachment for Technical Memo No. 4 documenting additional factual and analytical errors.

v. *Wastewater flows in the Civic Center area have been increasing. On many sites, hydrogeologic conditions are unsuitable for high flows of wastewater, and many dischargers generate wastewater flows at rates that exceed their capacity to discharge onsite. These dischargers rely on pumping significant flows into tanker trucks that haul liquid sewage and sludge via public roadways to communities that have sewer and wastewater treatment facilities. (See Technical Memoranda #5 appended to the technical staff report.)*

Technical Memo No. 5 contains factual errors, makes conclusory statements and does not adequately demonstrate that wastewater flows in the Civic Center area have been increasing. The information in the memo does not support a need for a prohibition on OWTS in the Civic Center area and the finding based on this memo is not supported by available evidence.

The Technical Memorandum No. 5 primarily addresses the hauling of liquid sewage and sludge and not effluent from the OWTS. Sludge must be pumped on a regular basis in order to properly maintain the systems and the Regional Board staff does not differentiate between the pumping of sludge for maintenance and the pumping of effluent. In addition, the Board staff does not provide specifics, such as the systems/addresses where frequent pumping occurs nor does it acknowledge that one system/property in the Civic Center has been doing so since 2004 under a TSO issued by the Regional Board.

The memo inaccurately refers to "intensive land use activity in the Malibu Civic Center area." Malibu has the most restrictive land use codes in Los Angeles County. The proposed prohibition area (referred to in the Resolution as the Civic Center area) encompasses 1410 acres and approx. 90% of the land is open space, undeveloped, or landscaped. Within the Civic Center of Malibu, there has been no new commercial development of vacant land in 18 years. Further, on page T5-1 and continuing on page T5-2 staff states that, "[m]any of the seepage pits and leach fields in the area have been in use for decades and can no longer serve their purpose." Staff's statement is conclusory and is not supported by evidence or data citing problematic pits and leach fields or showing how these systems "no longer serve their purpose."

Staff refers to "hydrogeologic constraints, such as the lack of suitable surface area for new leach fields." This is untrue and contrary to the fact that the Regional Board staff and Los Angeles County Department of Public Health have permitted septic systems based upon geotechnical and hydrogeologic data as recently as this year. Similarly, Page T5-2, Paragraph 1, Section 1 refers to "extremely limited vertical separation between leach field disposal sites and the groundwater table." This is untrue and unsubstantiated. The Regional Board staff permitted 20 commercial sites and all of the large commercial sites including permits in 2008 and 09, and staff established that there was sufficient separation to warrant issuing the permits. It appears that staff is trying to demonstrate that the permits that were legally and properly obtained from the Board were done so in error and should be rescinded.

Notably, staff incorrectly asserts that waste flows for the dischargers in the prohibition area have increased 15% ...from 2004 – 2008 and that "[w]astewater flow volumes have been steadily increasing in the City of Malibu as shown in Figure 1"; however, water use in the region has remained steady and tends to only fluctuate based upon rainfall and fires. The City estimates that the population has been growing at only one percent per year (approximately), and that limited growth rate does not support the allegation the wastewater flows have increased as high as 15% over 4 years. Board staff should rely on actual water use data, such as Malibu Civic Center water use data provided by LA Co. Waterworks District No. 29, to more accurately determine an increase in wastewater flows. In fact, Los Angeles Water District 29 reported that the City has reduced our water usage in the last month by nearly 20%.

On page T5-3, staff alleges that, "Cross Creek Plaza was responsible for more combined hauling than any other discharger from 2004-2007" (combined total of 6.56 million gallons of septic waste hauled off site); however, this does not account for the hauling that was required during the construction and testing of the advanced OWTS currently in place at the Cross Creek Plaza site and the data presented is artificially high and does not represent the norm. The Board staff admits there has been "very little hauling since October 2007." Construction on the Cross Creek Plaza Advanced Wastewater Treatment System started on November 20th, 2006 and construction and testing of the system was continuous until March 24th, 2008 when Operating Permit 08024 was issued by the City. Pumping of the system was a necessity during the period of time between 11/20/06 and 04/24/2008 due to the construction and testing of that system. The inference that Cross Creek Plaza was responsible for more combined hauling than any other discharger during this period is both misleading, and unfair to the property owner who went to considerable length and expense to meet the requirements of both the Regional Board and the City of Malibu. The significant reduction in hauling since October 2007 indicates that that the advanced system is performing adequately.

Staff's wastewater calculation is arbitrary and not based on the evidence. Page T5-3, Paragraph 2, Section 2 states that the "Regional Board staff determined there were 349 residential homes in the study area." Regional Board staff relies upon the residential properties "in the study area" in the Stone Environmental Risk Assessment Study; however, the prohibition area differs from the boundaries of the Risk Assessment area includes more homes. It is unclear to which geographic area staff is referring. Additionally, Board staff "determined" that based on the number of bedrooms in each house and multiplying that number by 100 gallons per day ("an accepted assumption of waste discharge from homes"), it is estimated that 126,300 gallons of wastewater per day are discharged. This is a faulty conclusion that does not accurately reflect the occupancy characteristics of the area because many homes in the Malibu Colony area and along Malibu Road are occupied only a seasonal or part-time basis.

The assumption on Page T5-3, Paragraph 3, Section 3 that 95% of the water used within the facility goes to the OWTS is merely an assumption not supported by factual evidence and can not be used as an indicator to determine increased wastewater flows. The assumptions on Page T5-4, Paragraph 1, Section, Figure 1 are erroneous because much of estimated annual waste flows and hauling volumes for the 4th quarter was based upon 3rd quarter data (summertime flows). 4th quarter flows are historically much less than summer months. See assumptions from Appendix A.

The discussion of "Spills in the Study Area" on page T5-9, Section 7 is misleading because a majority of the cited incidents occurred outside the Risk Assessment area. In the last thirty-two months there were forty-two spills reported. Most spills that occurred fell under the Regional Board's jurisdiction at Paradise Cove. Out of forty-two spills, it was reported that only

a total of 280 gal went to a drain or river. Of those, 130 gal were outside the City jurisdiction and the 150 gal inside the City jurisdiction fell under the careful watch of the RWQCB at Paradise Cove as part of their upgrade to their sewer system. Therefore, there were 0 gallons that spilled into a creek or drain from our City that was due to a septic failure or overflow.

Pages T5-21 and T5-22 of Appendix C of the report purport to represent the L.A. County Department of Public Health Sewage Discharge Incident Reports for Malibu. The data submitted actually indicates that Malibu's Wastewater Management Program is highly effective and that the OWTS systems under the City's purview are not contributing to the degradation of surface waters. The dates of the reported incidents cover a three year period from August 19, 2006 through March 2, 2009 and indicate forty-two reported incidents during that period. Twenty-three of the forty-two reported incidents occurred at the Paradise Cove Mobile Home Park Facility, a facility under the purview of the Regional Board. City of Malibu code enforcement staff responded to many of these incidents and noted that in several cases the issue was not a failure of the OWTS, but simply a blocked drain line or some other type of plumbing issue from an individual unit. The data presented by the Regional Board is anecdotal and not based on accurate data collection.

With further examination of the forty-two surfacing events provided by the staff, there were a total of nineteen reported incidents not associated with the Paradise Cove Mobile Home Park, ten did not occur in the City of Malibu or the address could not be confirmed. Of the nine incidents over the three-year period that did occur in the City of Malibu, only four of those took place in the Civic Center area. From the four Civic Center incidents, a "reported" (these are very rough estimates) 400 gallons were discharged, all of which were contained and none of which reached a storm drain or the Creek. In the five other incidents in the City of Malibu, two were reported at the County Zuma Beach Facility, both of which were contained, and the remaining three incidents were minor events, all contained. The incidents reported on January 13, 2009 and September 8, 2008 on Malibu Canyon Road (no address) appear to result from damage to elements of the disposal system for Pepperdine University (not in the City of Malibu). The treated effluent from the University's centralized treatment facility is piped to the Las Virgenes centralized treatment plant. The surfacing event on September 8, 2008 on Malibu Road of a reported 10,000 gallons points out the potential hazards of a sewage pipeline to or from a centralized treatment plant, as when events occur they tend to be on a larger scale. It should be noted that the L.A. County Public Health report referenced by Regional Board staff indicates that none of the 10,000 gallons entered a drain or river (Creek). This was most likely due to prompt action by the responding agencies and Pepperdine University staff.

Also, Appendix C includes two spills at locations that are entirely outside of City limits. Both Castlerock & Wavecrest and 3917 Spray Lane are located east of Topanga Canyon. These should be removed from the list and Pg. 9 should be revised to reflect this change.

Due to the extremely low reported spills that actually reached a drain or creek, it is easy to conclude that a decentralized system (individual OWTS) is actually far better for the water environment than a centralized system that has a very real potential to produce large spills that actually reach the ocean. As another example, it has been reported that 10,000 gallons of raw sewage entered the ocean at Will Rogers Beach in recent months.

Starting on page T5-6 of the "Septic Pumping and Hauling Regulations" report, Board staff explains that it conducted a "drive through type of inspection" on June 16, 2009, and their observations are documented in the inspection report included as Appendix B; however, the investigation results do not indicate an increase in wastewater flows. First, staff states that they chose the Malibu Colony Plaza as their destination, which has actually been under the purview of the Regional Board's NOV and TSO for several years and is not indicative of any lapses in the City's regulatory competence. Page T5-17 includes a photograph of an Ely Jr. pumping unit, a licensed operator, and a member of the City's Wastewater Advisory Board; but, the summary of staff's investigation does not demonstrate an increase in wastewater flows because the operator was pumping a grease trap, not a septic tank. Under the photo of the unit on page T5-18, Regional Board staff comments that, "noise levels required raising your voice significantly for conversation" and that "there was a strong stench of raw sewage." These comments are not related any water quality or wastewater issues associated with the observed pumping activity because all grease traps need to be pumped regularly, regardless of whether the business is connected to a septic system, package plant, or centralized system. Notably, staff commented under the photos on page T5-18 that no spills or leaks were observed and no spills or leaks were reported on Page T5-19 either. On page T5-20, staff reports seeing three vehicles belonging to McDermott Plumbing "apparently pumping residential septic tanks; however, "[i]t was unclear whether these trucks were performing routine sludge removal or pumping due to septic tank capacity problems" and thus, the summary of the investigation is not demonstrative of any capacity problems.

Section 6, pages T5-7 – T5-9, references a Carbon Footprint Analysis, which appears to be both loosely analyzed and irrelevant to a determination of increased wastewater flows nor does it have any relationship to water quality and the proposed prohibition. Additionally, the true number of trips per day by septic haulers would be negligible compared to the tens of thousands of trips per day by vehicles that go through Malibu on P.C.H., Malibu Canyon Road, and Kanan Dume Road. The analysis by Regional Board staff also does not take into account the "carbon footprint" of the Malibu Civic Center Wastewater Treatment Facility when built and operational, or compare the two carbon footprints.

Resolution Finding 6. A peer review was conducted pursuant to California Health and Safety Code section 57004.

With respect to the Peer Review, the City questions the basis for the statements in each peer review memo regarding the sound scientific method used. Without a consideration or analysis into other potential causes of the elevated nitrogen or bacteria in groundwater, surface water, and surfzone, the scientific evidence to support the Basin Plan Amendment is incomplete at best.

The City also requests full access to all the peer review memos and an opportunity to submit comments in writing before the Regional Board considers the proposed Basin Plan amendment. This finding 6 is not supported by substantial evidence in the record in that all of the memos were not made available to the public prior to the October 8, 2009 deadline for submittal of written comments to the Board and the City and the Board cannot base its decision on documents that are outside the record for the public hearing that is required under Water Code section 13244.

Resolution Finding 7. No authorized public agency has offered satisfactory assurance that the discharge systems are appropriately designed, located, sized, spaced, constructed, and maintained, such that they are adequate to protect the quality of water for beneficial uses in the Malibu Civic Center area, pursuant to California Water Code section 13282.

Malibu objects to this finding and contends that the City's comprehensive wastewater management program adequately protects the water for beneficial uses. The Board staff has not sufficiently demonstrated that the existing systems are inadequately designed and to the contrary, the City has implemented a comprehensive regulatory scheme to ensure that the systems do not impair water quality standards. Before the Board considers staff's recommendation, Malibu requests the opportunity to provide satisfactory assurances that the systems it is responsible for are appropriately designed, located, sized, spaced, constructed and maintained, as required under Water Code Section 13282.

Under the Memorandum of Understanding with the Regional Water Quality Control Board[3], the City is responsible for permitting OWTS for single family homes and small commercial development, except restaurants. As a Qualified Local Agency, the City has diligently carried out the terms of the MOU by reviewing and enforcing the siting, permitting, construction, inspection, monitoring, and performance requirements for nearly 1500 residential and small commercial onsite wastewater treatment systems in all areas of Malibu, including all

[3] The MOU memorializes an agreement reached several years ago under which the City assumed responsibility for permitting OWTS for single family homes and small commercial development, except restaurants. The Regional Water Quality Control Board retains permitting responsibility for systems that generate over 20,000 gallons per day, residential developments of more than two homes, multi-family developments, commercial facilities that generate over 2,000 gallons per day, systems that dispose of sewage containing industrial waste and systems proposed to utilize aboveground dispersal or storage of effluent.

new, replaced, repaired and upgraded systems. The City has the equivalent of three full-time staff members dedicated to performing these duties and the City Manager estimates that the City spends approximately $500,000 - $750,000 annually to carry out the requirements of the MOU.

The City has completed or made significant progress on each of the seven specific programs it agreed to implement under the MOU (set out in Section VI of the MOU concerning "Interim Measures"). Building on the programs from the MOU, the City has adopted and implemented a comprehensive regulatory scheme governing OWTS citywide. These procedures ensure that new and existing systems are functioning at the highest levels of performance corresponding to the systems' design intent. The wastewater management programs administered by the City protect public health and safety, and the environment, and ensure that the City safely and effectively regulates the dispersal of treated effluent in a manageable and sustainable manner. A short summary of the status of each program follows:

Malibu Ordinance No. 321: On March 10, 2008, the City of Malibu adopted Ordinance 321, establishing the Operating Permit Program for OWTS citywide. The program assists property owners in OWTS management by establishing consistent requirements for assuring appropriate operation and maintenance of the systems and safe and effective wastewater treatment and dispersal.

All new development, which includes the installation of a new OWTS, requires an Operating Permit (OP). Properties with existing OWTS must apply for and obtain an OP when a proposal to repair, alter, modify, replace, renovate, or relocate the existing OWTS, including the alteration, modification, remodel, or repair of an existing structure involving the addition of any new plumbing fixtures or results in any increase in the load to the existing OWTS.

Under the OP process, the existing OWTS must undergo a thorough and comprehensive inspection conducted by a City of Malibu Registered Inspector certified by a nationally recognized training entity, currently the National Association of Wastewater Transporters (NAWT).

Ordinance 321 requires specific uses within the City to apply for and obtain an Operating Permit on or before specific dates due to the intensity of use and the potential strength of the effluent created by the specific occupancy. These timeframes for obtaining Operating Permit are as follows:

- Restaurants: On or before April 9, 2009
- All Commercial Properties: On or before April 9, 2009
- Multifamily/Condominiums: On or before April 9, 2010

Ordinance 321 also contains a "Point of Sale" component whereby the owners of real property served by an existing OWTS must obtain an OP prior to the transfer of title of the property. The system must pass a thorough and comprehensive inspection to be eligible for an OP and systems that fail inspection must be repaired, modified, or replaced as appropriate. To facilitate the transfer of title, the OWTS owner may sign a binding Compliance Agreement with City outlining the corrective actions to be completed and the timeframes in which such remedial action may be accomplished. The Point of Sale and Operating Permit programs have resulted in improved tracking, and repairing and upgrading the existing OWTS within the City.

Implementation of Ordinance 321 will provide ongoing assurance that all new and existing OWTS are operating in a safe and healthy manner and that any OWTS that are not functioning properly are immediately identified and repaired or replaced. Failure to operate and maintain an OWTS in strict conformance with the standards and policies of the City of Malibu are grounds for revocation of the Operating Permit and a violation of the Malibu Municipal Code.

Local Coastal Program: Chapter 18 of the Local Coastal Program is the primary regulatory framework for the installation, use and long-term maintenance of OWTS in the City. The intent of the LCP is to protect coastal waters within the City, accomplished through strict regulations governing the design, siting, installation, operation, maintenance, and sustainability of all OWTS in the City. A Coastal Development Permit (CDP) is required for the installation of all new OWTS, the expansion, modification or change in the type or intensity of use of an existing OWTS. During the CDP review process, the system is assessed for compliance with all applicable regulations, including the Regional Board's current requirements. Chapter 18 of the LCP requires submittal of extensive documentation to assure the system is being operated in a safe, proper manner, reviewed by Registered Civil Engineers, Certified Engineering Geologists, Professional Geologists, and Registered Environmental Health Specialists,. The City of Malibu's policies require OWTS contractors to posses a valid State of California Class A Engineering license, or a valid Class C42 Septic Installer License. These rigorous requirements provide additional assurance the systems are installed and maintained to the highest standards possible.

The California Plumbing Code, Appendix K – Private Sewage Disposal Systems: The City has adopted this section of the California Plumbing Code, which can be found at Malibu Municipal Code Chapter 15.12 and also regulates the design, siting, installation, and maintenance of OWTS's in Malibu. The Plumbing Code establishes general regulations for when an OWTS may be used, where it may be located and means to protect both the system and the environment, and creates minimum standards for the capacity and construction of OWTS. The Plumbing Code also describes acceptable materials for use in the construction of OWTS components and installation of the system, as well as details the methodology of installation and acceptable tolerances for all components of the systems. In conjunction with the strict

requirements of LCP Chapter 18, the Plumbing Code provides a strong foundation for the design, siting, installation, operations, and maintenance of the OWTS.

Guidelines and Policies: The City of Malibu has established guidelines and policies to compliment the requirements of LCP Chapter 18, the California Plumbing Code, and Ordinance 321. These policies prescribe the specific requirements necessary for the review and installation of all OWTS to assure conformance with all applicable State, County, and City of Malibu regulations. The City has worked diligently and collaboratively with other agencies in this effort, including the State Water Quality Control Board, the Los Angeles Regional Water Quality Control Board, the Department of Health Services, Los Angeles County Department of Health, the City of Malibu's Wastewater Advisory Committee, among other responsible entities.

Integrated Wastewater Information Management System (IWIMS): Completed with a $667,000 Clean Beach Initiative grant, the web-based program is in use and is essential in the management of the Operating Permit Program, the Point-of-Sale Program, and implementation of the Malibu Wastewater Management Program. Two full-time staff positions have been created for data input and management of this system.

Malibu Lagoon and Beaches Bacterial Contributory Areas: The City requires that most new, renovated, modified, or replaced OWTSs provide a minimum secondary treatment with disinfection (City-defined tertiary treatment), including properties adjacent to the Malibu Lagoon and ocean. The City also works closely with Regional Board staff to implement Waste Discharge Requirement (WDR) permits for all new, renovated, modified, or replaced commercial, restaurant and multifamily OWTSs requiring the issuance of a WDR to assure compliance.

Malibu Lagoon Nitrogen Contributory Areas: Similar to the Malibu Lagoon and Beaches Bacterial Contributory Areas, the City works with Board staff to achieve compliance with water quality criteria through the plan review process. Additionally, the nitrogen limits for Malibu Lagoon and Malibu Creek were adopted by the United States Environmental Protection Agency (EPA) in March 2003.

Water Resource Management: The City has adopted provisions in the Malibu Plumbing Code to require the use of low-flow fixtures when plumbing fixtures are newly installed or replaced. The City, through the Public Works Department, is also implementing conservation programs for the reduction of water consumption. The City also works with the West Basin Municipal Water District to ensure that Malibu commercial properties are taking advantage of rebates to replace high water use fixtures. Since 2005, the Civic Center commercial area reduced water use by nearly 2,000,000 gallons per year, reducing inputs to the groundwater table. Additionally, the City is also investigating programs for rainwater harvesting and use, gray water

use, and subsurface irrigation of wastewater for landscaping. The City has met with State representatives and personnel from the State Water Quality Control Board and the Department of Public Health to discuss how to promote these initiatives, including water quality.

OWTS Information Manuals: These informational brochures are produced and mailed out to all property owners in the City. The brochure has been well received and many OWTS designers include this brochure in their homeowner information packets.

The City's General Plan, the comprehensive, long-term plan for development with which all land use decisions must be consistent, finds that as long as a high level of supervision of design and maintenance of these systems is maintained, septic systems are not expected to significantly impact the quality of the groundwater resource (Warshall & Williams, 1992). See City of Malibu General Plan Section 3.3.3. The City has increased its regulatory oversight and implemented an inspection, retrofit and point-of-sale program that ensures the appropriately designed, located, sized, spaced, constructed, and maintained.

Resolution Finding 8. Pursuant to the California Water Code, section 13283, the State Water Resources Control Board (State Board) shall include a preliminary review of possible alternatives necessary to achieve protection of water quality and present and future beneficial uses of water, and prevention of nuisance, pollution, and contamination, including, but not limited to, community collection and waste disposal systems which utilize subsurface disposal, and convention treatment systems. The Regional Board has conducted a preliminary review of possible alternatives, as documented in the staff report.

The Board's staff analysis of possible alternatives does not meet the requirements of Water Code Section 13283. A more detailed discussion on staff's alternatives analysis can be found below in the response to Finding 9.

Resolution Finding 9. The basin planning process has been certified as functionally equivalent to the California Environmental Quality Act (CEQA), including preparation of an initial study, negative declaration, and environmental impact report (14 CCR, section 15251(g)). As this amendment is part of the basin planning process, staff has prepared an Environmental Staff Report, which is considered a substitute to an initial study, negative declaration, and/or environmental impact report. This Environmental Staff Report satisfies the substantive requirements of the California Code of Regulations, title 23, section 3777(a), and includes a project description, environmental checklist, reasonable alternatives, and mitigation measures.

Additionally, the Regional Board staff has not adequately analyzed the environmental impacts of the Basin Plan amendment and reliance on this deficient environmental assessment

would violate the requirements of the California Environmental Quality Act (CEQA) and the California Water Code.

While CEQA's EIR requirement does not apply to actions specifically authorized by a certified regulatory program, the preparation of the required functionally equivalent document is still subject to the broad policy goals and substantive standards of CEQA. An environmental document offered as a substitute for an EIR pursuant to a certified regulatory program must include alternatives to the activity and mitigation measures to avoid or reduce any significant or potentially significant effects that the project might have on the environment, and a document offered as a substitute negative declaration must include a statement that the agency's review of the project showed that the project would not have any significant or potentially significant effects on the environment and therefore no alternatives or mitigation measures are proposed to avoid or reduce any significant effects on the environment. The statement must be supported by a checklist or other documentation to show the possible effect that the agency examined in reaching its conclusion. 14 CCR § 15252. The Regional Board may not approve a proposed activity if there are feasible alternatives or feasible mitigation measures available which would substantially lessen any significant adverse impact which the proposed activity may have on the environment. Pub. Res. Code § 21080.5(d)(2)(B); 23 CCR § 3780. The Environmental Staff Report (hereinafter "Checklist" or "Report") offered by the Board staff in support of its Basin Plan amendment is legally inadequate in several respects and fails to provide the Board and the public with any meaningful information upon which to base a conclusion about the potential environmental effects of the proposed project.

1. General Comments on the Environmental Staff Report.

Five-Year Schedule for Compliance Projects. The entire analysis is predicated on a five-year time schedule for implementation for one of three so-called "options for compliance." The five-year assumption appears dubious at best. Not only does the schedule appear to underestimate the time necessary for the design, planning, CEQA review, and construction phases, it does not account at all for the significant amount of time that will be required to plan and secure a financing mechanism of any of the "compliance projects." In addition, the schedule does not account for the possibility of litigation—a reasonably foreseeable eventuality given the controversial nature of the proposed project and the complex nature of the CEQA review that would be required for any of the "compliance projects" outlined in the Report.

Statement of Overriding Considerations. The Report contains a brief section entitled "Statement of Overriding Considerations and Determination." The Statement consists only of conclusions and offers no evidentiary basis for those conclusions whatsoever. CEQA

unambiguously requires a statement of overriding considerations to be supported by substantial evidence in the record. 14 CCR § 15093(b). In any event, as analyzed in greater detail below, because of the many contradictions between the Checklist and the accompanying discussion in the Report, it is unclear what exactly the anticipated unavoidable significant environmental impacts are.

Unavoidable Significant Adverse Impacts. The section of the Report entitled "Unavoidable Significant Adverse Impacts" inexplicably appears to be discussing a different project. The proposed project does not involve a TMDL. This section appears to be lifted from a completely unrelated report (e.g., "Section 6 of this SED identifies the anticipated environmental effects for each resource area...."). Finally, in spite of the section heading, the conclusion appears to be that there are no unavoidable significant adverse impacts anticipated. This is but one of several examples throughout the Report that evidences the complete lack of a good-faith effort at full disclosure.

Redundancy. A large section of the Report commencing with a section entitled "Other Environmental Considerations" on page 19 and ending on page 24 is repeated verbatim on pages 43 through 48. These redundant sections include the sections discussed above, patent errors and all, once again evidencing the lack of serious effort made to evaluate the environmental impacts of the proposed project.

2. The Environmental Staff Report and Checklist Fail To Adequately Analyze Potential Environmental Impacts and Identify Mitigation Measures.

Although the Environmental Staff Report acknowledges that the project will effectively require one of three very significant, large-scale projects to be undertaken—the construction of "integrated facilities," an "interceptor sewer," or "decentralized facilities" (referred to in the Report as "options for compliance projects")—there is no meaningful analysis whatsoever of the potential environmental impacts of any of the three enumerated "compliance projects." In order to be of any value to the decisionmakers and to the public, the Report and Checklist must analyze all reasonably foreseeable environmental impacts of the project proposal. Rather than providing a meaningful analysis of the potential environmental consequences of the "compliance projects" that the Basin Plan Amendment will effectively require, the Report and Checklist instead repeatedly cite to section 13360 of the Water Code and conclude that, because the Board may not mandate a specific manner of compliance (that is, it may not force the City to choose among the three potential compliance options), it is somehow relieved of its obligation to analyze the reasonably foreseeable environmental impacts of its action. The Board's staff is mistaken. CEQA unambiguously requires the Board to analyze reasonably foreseeable environmental impacts of the reasonably foreseeable methods of compliance. PRC § 21159(a)(1). Ironically,

the Board's staff acknowledges this obligation outright (Environmental Staff Report at p. 5), yet fails to make any serious effort to meet it. The deferral of the requisite environmental analysis is not consistent with the Board's duty to disclose to the public and the decisionmakers the potential impacts and feasible mitigation measures associated with the proposed project.

Furthermore, although the Checklist concludes that a large number of environmental impacts will be "less than significant with mitigation incorporated," it fails to identify a single mitigation measure.[4] When mitigation measures are required, they must include specific feasible actions that will actually minimize or avoid potential impacts and reduce them to less than significant levels.

As detailed below, the Checklist identifies and contemplates several potentially significant environmental impacts but provides no meaningful information as to the nature of the anticipated impacts or how they may be mitigated. In addition, the Checklist fails to mention a host of foreseeable, and potentially significant, environmental impacts that may result from the proposed project. These shortcomings evidence a failure to provide the good-faith effort at full disclosure required by CEQA and render the Report/Checklist useless as an informational document.

3. The Environmental Checklist and Discussion Fails to Meet Minimum Legal Requirements.

Global Comments: The Environmental Checklist and accompanying discussion consist entirely of unsubstantiated conclusions without any evidentiary support. Not a single source is cited for any of the factual determinations made or conclusions reached. Consequently, none of the findings is supported by any evidence at all, let alone substantial evidence. Consequently, the Report raises more questions than it answers and utterly fails to provide any meaningful data or analysis necessary for informed decisionmaking. The lack of reasoned analysis and

[4] Oddly, the Report proclaims that "[w]hen the CEQA analysis identifies a potentially significant environmental impact, the accompanying analysis identifies reasonably foreseeable feasible mitigation measures." Yet, not a single mitigation measure is identified. Instead, the Report relies on vague and unsubstantiated conclusions while purporting to shift the burden of identifying mitigation measures to other agencies. (E.g., "The implementation of this prohibition...may result in short-term localized significant adverse impacts to the environment as a [sic] large construction projects may be undertaken in the vicinity of the area. These impacts are generally expected to be limited, short-term or may be mitigated through careful design and scheduling." Report at p. 24.) Because the "options for compliance projects" are reasonably foreseeable at the present time, and because the RWQCB will retain WDR permitting jurisdiction over the treatment facilities associated with any of the "compliance projects," the Board cannot rely on another agency to identify feasible mitigation measures or alternatives at a later date. 14 CCR § 15091(c).

supporting data evidences that no good-faith effort has been made to analyze the potential environmental effects of this very large-scale project. Even though the proposed project effectively commits the City to a course of action (which the Report narrows down to three possible "options for compliance projects"), no effort is made to analyze any of the reasonably foreseeable environmental effects of any of those potential projects. Instead, any meaningful analysis is consistently deferred to a later stage and made the responsibility of another agency. The consistent deferral of any meaningful analysis, in spite of the fact that several impacts are reasonably foreseeable at this stage, frustrates CEQA's fundamental purpose and completely forecloses the opportunity for the Board or the public to make an informed, independent and reasoned judgment on the merits of the proposed project.

1. Earth. a.: Each of the "compliance projects" mentioned in the Report requires tens of thousands of feet of pipe to transport untreated wastewater to the point of treatment and tens of thousands of feet of pipe to distribute the treated and recycled wastewater product, yet there is no meaningful information or analysis provided regarding the relationship between the anticipated "compliance projects" and the geological hazards present in the area. A pipe rupture related to the geological instability may result in significant adverse environmental impacts. The potential for a significant environmental impact is implicitly recognized (the "less than significant with mitigation incorporated" box is checked), yet the discussion simply concludes without explanation or evidence that any potentially significant impacts can be effectively dealt with and mitigated to a level of insignificance at the "project level." This deferred analysis and mitigation fails to satisfy CEQA's mandate and does not provide the decisionmaker with the information necessary to make an informed decision about the project. What is the nature of the potential impacts of the project as relates to unstable earth conditions or changes in geologic substructures? What is the evidentiary basis for the conclusions set forth? What exactly are the mitigation measures that will lessen the potential impacts to degree of insignificance?

1. Earth. b.: What is (are) the mitigation measure(s) that will lessen the impact to degree of insignificance?

1. Earth. c.: The explanation concludes that the infrastructure for the compliance projects "could be of the size or scale that minimizes impact to topography and relief." What is the evidentiary basis for this conclusion?

1. Earth. e.: What is the evidentiary basis for this conclusion and what degree of temporary impacts are expected? What is (are) the mitigation measure(s) that will lessen the impact to a level of insignificance?

1. Earth. f.: The discussion contemplates unspecified mitigation measures, yet the table indicates a less than significant impact without the need for mitigation. Which is it? If mitigation measures are required, exactly what are they? What is the evidentiary basis for concluding that the mitigation measures will reduce the potential impacts to a level of insignificance?

1. Earth. g.: Each of the "compliance projects" mentioned in the Report requires tens of thousands of feet of pipe to transport untreated wastewater to the point of treatment and tens of thousands of feet of pipe to distribute the treated and recycled wastewater product yet there is no meaningful information or analysis provided regarding the relationship between the anticipated compliance projects and the geological hazards present in the area. A pipe rupture as a result of earthquake, landslide, mudslide, ground failure or similar hazard could result in significant adverse environmental impacts. This warrants meaningful analysis. Some places in the project area may be subject to liquefaction as well. The potential for a significant environmental impact is implicitly recognized (the "less than significant with mitigation incorporated" box is checked), yet the discussion simply concludes without explanation or evidence that any potentially significant impacts can be effectively deal with and mitigated to a level of insignificance at the "project level." This deferred analysis and mitigation fails to satisfy CEQA's mandate and does not provide the decisionmaker with the information necessary to make an informed decision about the project. What are the nature of the potential impacts of the project as relates to geological hazards? What is the evidentiary basis for the conclusions set forth? What exactly are the mitigation measures that will lessen the potential impacts to degree of insignificance?

2. Air. a.: The discussion only mentions construction emissions. No attempt is made at quantifying emissions, yet the discussion concludes without any evidentiary basis that the emissions can be mitigated to a level of insignificance. Even the unsupported conclusion is unsure ("[w]ith mitigation measures, these emissions *should be* within the South Coast Air Quality Management District's construction significance thresholds." (Emphasis added.)) The discussion does not indicate what the emissions thresholds are or what level of emissions can be anticipated from the project. The discussion also fails to acknowledge the reasonably foreseeable possibility that one of the "compliance projects" may not be online by the end of the five year period, thereby leaving existing dischargers with no choice but to arrange for daily hauling until such time as a "compliance project" comes online. Daily hauling from every existing discharger in the Civic Center would result in increased emissions, in addition to other potentially significant impacts, and the possibility of this impact is not anticipated. Also, construction of any of the "compliance projects" will foreseeably result in traffic congestion during installation of the requisite piping. The additional impact of idling cars is not anticipated or analyzed in any way. The analysis needs to be expanded to include a meaningful discussion of all reasonably foreseeable impacts to air quality. And, the discussion needs to identify the

evidentiary basis for any conclusions set forth. Finally, the discussion must identify the mitigation measures that will lessen the potential impacts to degree of insignificance.

2. Air. b.: The Checklist indicates that the impact with respect to objectionable odors will be less than significant with mitigation, yet no mitigation measures are identified. What is the evidentiary basis for the conclusion? What exactly are the mitigation measures that will ensure no significant impact from any of the three foreseeable methods of compliance? There is no discussion of the odors associated with the construction phase of any compliance project or with the abandonment and excavation of existing septic systems once a "compliance project" comes online. What types of impacts can be expected from these reasonably foreseeable consequences of the project and can they be mitigated to a level of insignificance? If so, how? What is the evidentiary basis for the conclusion?

3. Water. e.: The presumed maximum flow of 300,000 gpd is understated because it does not account for all of the many undeveloped properties in the project area that will be required to tie into any of the "compliance projects" once developed. Only half of one sentence is devoted to identifying and analyzing the potential impacts of the proposed project with respect to discharges into surface waters and that sentence concludes by deferring any meaningful analysis until one of the three potential "compliance projects" is chosen by the local agency ("The potential for such impacts, such as increased turbidity and sediment in runoff from construction sites, would be evaluated during planning and design at the project level.") Report at p. 29. The discussion also fails to identify any potential sites for the disposal of treated effluent. However, the discussion does anticipate that an ocean outfall may be required and, yet, does not even begin to analyze or disclose the potential environmental impacts of discharging treated wastewater into the ocean. Rather, the discussion simply concludes without citation to any evidence whatsoever, that "[w]ith proper design and operation of treatment facilities and outfall equipment such as diffusers and temperature controls, an ocean outfall discharge *should meet* water quality objectives, including temperature and turbidity." *Id.* (Emphasis added.) Then, in keeping with the balance of the Report, the discussion defers all meaningful environmental analysis to a later stage. The analysis fails to consider any of the reasonably foreseeable impacts of the project on surface waters, fails to provide any evidence for the conclusions reached, and fails to identify any mitigation measures that will ensure impacts will be less than significant.

3. Water. f.: The Checklist indicates that potentially significant impacts can be expected yet there is no analysis of the impacts whatsoever and no discussion of any mitigation measures that might be implemented to alleviate or reduce those impacts. What exactly are the impacts? What is the evidentiary basis for the conclusion? What mitigation measures are available to reduce or minimize the potentially significant impacts?

3. Water. g.: The Checklist indicates that potentially significant impacts can be expected yet there is no analysis of the impacts whatsoever and no discussion of any mitigation measures that might be implemented to alleviate or reduce those impacts. What exactly are the impacts? What is the evidentiary basis for the conclusion? What mitigation measures are available to reduce or minimize the potentially significant impacts?

3. Water. g.: Without any evidentiary basis indicated whatsoever, the Checklist and discussion indicate that no impacts are anticipated. This necessarily assumes, among other things, that all infrastructure necessary for any of the "compliance projects" would be located outside of the flood plain. What is the evidentiary basis for that apparent assumption? Considering it is reasonably foreseeable that some of the necessary infrastructure may have to be located within a flood plain, what type of impacts can be expected to result? What mitigation measures might be available to reduce or minimize those impacts?

6. Noise. a.: The Checklist concludes that the increase in existing noise levels will be less than significant with mitigation, yet there is no evidence to support that conclusion. The discussion simply states that "[w]hen specific projects are developed, measures should be identified to ensure that noise is kept to levels that comply with any noise standard or ordinance." However, it is reasonably foreseeable at this time that any sewer lines installed in areas like Malibu Colony or along Malibu Road or Pacific Coast Highway would be located immediately adjacent to residences. These sensitive receptors could be significantly impacted by the noise associated with construction—especially those along PCH considering sections 7a and 13a of the Checklist actually suggests that construction along PCH be conducted at night. Given that fact that any of the three enumerated "options for compliance projects" would require the installation of tens of thousands of feet of piping through residential areas, what is the evidentiary basis for concluding that noise impacts will be less than significant with mitigation? What exactly are the mitigation measures that will be implemented to assure less than significant impacts?

6. Noise. b.: See comment on 6.Noise.a above.

7. Light and Glare. a.: The statement in the first sentence evidences the lack of effort apparent throughout the document. If the mitigation measures are reasonably foreseeable, how is it that it remains unknown whether any of them involve lighting? How is that a valid assumption? If such impacts are "not likely," how is it that the Checklist can conclude that the impacts will be less than significant? The very next sentence contemplates that night work will be required to alleviate some of the traffic impacts. The night work will certainly involve significant lighting immediately adjacent to residences. The third sentence recognizes there will be impacts, yet defers analysis of those impacts until a specific project is formulated. If the

analysis is deferred, how is it that the Checklist can conclude the impacts will be less than significant? Given that fact that any of the three enumerated "options for compliance projects" would require the installation of tens of thousands of feet of piping through residential areas, and given the fact that night work is both anticipated and encouraged, what is the evidentiary basis for concluding that light and glare impacts will be less than significant? Given the foreseeability of such impacts at this stage, why is the entire analysis being deferred in violation of CEQA?

8. Land Use. a.: The checked box indicates that there will be potentially significant impacts with respect to land use, yet the discussion concludes, without evidence or analysis, that "[s]ewer lines for all three compliance projects will not have impacts on land use, zoning, or the physical arrangement of the community." Which is it? Furthermore, the analysis does not consider the potential impacts to land use that may result if one of the "compliance project" options is not online by the end of the five-year period. If commercial centers are forced to shut down as a result of the prohibition, what effect will this have on land use?

10. Risk of Upset. a.: This section fails to analyze the potential impacts of a sewer line rupture occurring as a result of an accident, pipe failure, earthquake, landslide, or other cause. This section also fails to analyze the potential for accidental release of hazardous materials when old onsite wastewater treatment systems are abandoned and excavated as a result of the proposed project. Furthermore, although the Checklist indicates a less than significant impact, the discussion contemplates a "hazardous materials management program." What is this program exactly and why is it not considered a mitigation measure? *See also* comment 1.Earth.g above.

11. Population. a.: This section is wholly deficient in a number of ways. First, the current requirement for onsite treatment and disposal of wastewater acts as a constraint on development. *See* Malibu General Plan sections 3.3.3 and 7.3.3.1. Removal of that constraint through any one of the three contemplated methods of compliance will certainly foster new development and, consequently, a corresponding growth in population. There is no analysis or discussion of this foreseeable impact whatsoever. Second, the Report fails to analyze the effect of the prohibition on development projects that have valid planning approvals but have not yet been constructed. How will those projects be dealt with under the proposed prohibition and how will this affect the growth rate in the project area? Third, the discussion (and, indeed, the entire Report) anticipates that the "compliance projects" will be sized to replace existing OWDS flows only. If any future development in the project area will need to tie into any "compliance project" eventually constructed, why would the capacity of the new system be assumed to be equal to the existing flow rate from the existing development? There is a significant amount of undeveloped property in the project area. Where does the Board anticipate that those properties will dispose of their wastewater once developed if the capacity of the anticipated "compliance project" will be designed to not accommodate them? Development of the currently undeveloped properties in

the project area should be anticipated in a manner consistent with the City's Local Coastal Program and General Plan. This is clearly foreseeable at this stage and the failure to provide a good-faith analysis of foreseeable impacts violates CEQA and precludes informed decisionmaking.

12. Housing. a.: The discussion fails to acknowledge that the current requirement for onsite treatment and disposal of wastewater acts as a constraint on development. *See* Malibu General Plan sections 3.3.3 and 7.3.3.1. Removal of that constraint through any one of the three contemplated methods of compliance may foster the development of currently undeveloped parcels in the project area and, consequently, affect the existing housing supply. There is no analysis or discussion of this foreseeable impact whatsoever. In addition, the discussion fails to acknowledge that without the need for leachfields in the future, beachfront parcels will be less constrained and there will be more area available on each beachfront lot for development. Since there is no maximum square footage restriction on beachfront parcels, the proposed project would foreseeably result in larger beachfront homes and additions to many existing beachfront homes once the leachfield areas are no longer necessary. The failure to anticipate these reasonably foreseeable consequences of the proposed project renders the analysis inadequate.

13. Transportation/Circulation. a.: The discussion neglects to mention that all three of the "options for compliance projects" would require laying tens of thousands of feet of pipe in the public right of way. Installing pipelines along PCH, Malibu Road and other roadways will require lane closures. The analysis fails to account for the potentially significant traffic impacts associated with lane closures, especially on PCH which the Report acknowledges is the most heavily traveled highway in the area and an important regional link. The analysis also fails to account for employees/maintenance personnel at the treatment plants and the associated vehicle trips during the operations phase. Furthermore, the terse discussion fails to meaningfully answer these fundamental questions: What level of impact is anticipated? How has it been quantified? What thresholds of significance were used? What exactly are the mitigation measures proposed and how will they reduce the impact to a level of insignificance?

13. Transportation/Circulation. b.: This section concludes that project impacts on parking will be less than significant with mitigation yet fails to identify any mitigation measures, instead deferring identification of mitigation measures for a "project level" review. Without identifying the level of potential impacts, and without identifying any mitigation measures, how can the Report meaningfully conclude that any potential impacts will be mitigated to a level of insignificance? What is the evidentiary basis for the conclusion reached?

13. Transportation/Circulation. c.: *See* comment on section 13.a. above. Also, the Report assumes that one of the "compliance projects" will be completed and online within 5

years. No effort is made to examine the potentially significant environmental consequences that would result if the City is unable meet this aggressive timeline. If a treatment plant, or a transport system to an existing treatment plant, is not online within 5 years, what traffic impacts will result when the prohibition kicks in for existing systems and all of them are required to haul away wastewater on a daily basis? What if the end of the 5 year period overlaps with ongoing construction efforts and occurs at a time when lanes are closed on critical roadways? What effect will the substantial additional truck traffic have under those circumstances?

The Checklist indicates that the anticipated impacts will be less than significant, yet the discussion concludes, without citation to any evidence, that the Interceptor Sewer project "would have significant impacts on vehicle traffic on the Pacific Coast Highway." Which is it? If the impacts are significant, or potentially significant, what is the evidentiary basis for that conclusion? What exactly are the types of impacts that can be expected and when? Why are the impacts not quantified? Are there any mitigation measures to reduce or alleviate these impacts? Why does the discussion imply that only the Interceptor Sewer project would significantly impact PCH when both of the other options would also require significant trenching and piping along PCH and other constrained roadways?

13. Transportation/Circulation. d.: Without even so much as an attempt at analysis, this section concludes that there will be no impacts to present patters of circulation or movement of people and/or goods. Cleary, the closure of lanes of traffic along PCH, Malibu Road, Malibu Colony Road, Civic Center Way and other important thoroughfares will alter patterns of circulation. If a lane closure is required on a two-lane roadway (e.g., Malibu Road), that will leave only one lane to accommodate two directions of traffic. Given the foreseeability of the need for lane closures, the no impact conclusion lacks credibility and evidentiary foundation.

13. Transportation/Circulation. f.: This section concludes that project impacts with respect to increased traffic hazards to motor vehicles, bicyclists and pedestrians will be less than significant with mitigation yet fails to identify any mitigation measures, instead deferring identification of mitigation measures to a "project level" review. Without identifying the level of potential impacts, and without identifying any mitigation measures, how can the Report meaningfully conclude that any potential impacts will be mitigated to a level of insignificance? What is the evidentiary basis for the conclusion reached? *See* comment on section 13.a. above.

14. Public Service. d.: The Checklist indicates that the impact on parks or other recreational facilities will be potentially significant. The discussion does not endeavor to explain the nature of these potentially significant impacts other than to say that Legacy Park is a possible site for a centralized integrated wastewater treatment facility. However, Legacy Park design is complete and entitled and it will not include a wastewater treatment facility. The Legacy Park

site will, however, have a large stormwater treatment component. On what basis does the Report conclude that the project will have a potentially significant impact on parks or other recreational facilities?

14. Public Service. e.: This section of the Report concludes that the elimination of tanker truck trips will result in lower road maintenance. This is a dubious contention given the small volume of truck trips in relation to overall traffic volume. However, if accepted as true, it necessarily means that the converse is also true—that is, that more tanker truck trips will require more road maintenance. If a "compliance project" is not online within 5 years, the number of tanker truck trips will increase dramatically overnight when all properties will be forced to haul away wastewater on a daily basis. Yet, this foreseeable impact is not analyzed at all.

16. Utilities and Service Systems. d.: The Checklist concludes that the project will have a potentially significant impact on sewer or septic tanks. While the conclusion is logical, there is no supporting analysis or evidence whatsoever. What is the evidentiary basis for the conclusion? What mitigation measures might be employed to minimize these impacts? Why does the Report fail to analyze the potential impacts associated with the abandonment and removal of old septic systems which will presumably be required once a "compliance project" comes online? What are these potential impacts and can they be mitigated to some degree?

16. Utilities and Service Systems. f.: The discussion does not mention where the solid waste generated by a wastewater treatment plant (or multiple plants) will be hauled to. The discussion only mentions soil and materials from the construction phase. The discussion does not account for the abandonment and removal of old septic tanks from properties in the project area. Where will they go? Can some components be recycled? Furthermore, although analysis of the potential impacts is deferred to a later stage, somehow the Report concludes that the impacts are "expected to be less than significant." If no analysis has yet been done, on what evidence is that conclusion based?

17. Human Health. a.: There is a potential for a wastewater treatment plant to be located in the immediate vicinity of residences, yet the potential impact to neighboring residences is not discussed. Similarly, although tens of thousands of feet of piping are anticipated, there is no discussion of the potential health hazards that could result from a rupture along the pipelines. A rupture, whether it be the result of a materials failure, earthquake, landslide, or accident, is a reasonably foreseeable occurrence. What potential health hazards could result? Are there any components that can be designed into a treatment/piping system that could sense a rupture and cease the flow of hazardous materials? What types of mitigation measures are available at the design, construction and implementation phases that could help minimize the potential for impacts to the public health resulting from rupture or temporary system failure?

17. Human Health. b.: *See* comment 17.a. above.

20. Archaeological/Historical. a.: The discussion fails to account for the fact that a significant portion of the area adjacent to Malibu Lagoon has been identified as an archaeological site. What are the potential impacts of the project on these resources?

21. Mandatory Findings of Significance.: This Checkbox indicates potentially significant impacts with respect to the potential for the project to degrade the environment, yet there is no accompanying analysis or explanation whatsoever. What is the evidentiary basis for the conclusion? Are there any feasible mitigation measures that can be employed to minimize or avoid the unidentified significant impacts? Similarly, the conclusions with respect to cumulative impacts and substantial adverse effects on human beings are dubious. No supporting discussion whatsoever is included to explain the conclusion that there will be less than significant impacts in these areas. The complete absence of any information, evidence, or analysis flies in the face of CEQA's mandate and precludes informed decisionmaking.

4. The Cumulative Impact Analysis is Wholly Inadequate.

The cumulative impacts discussion on pages 43 and 44 of the Report fails to comply with CEQA. There is no mention of the methodology used as the basis for the analysis. CEQA unambiguously requires one of two methodologies to be employed as the basis for an adequate cumulative impact analysis—the list of projects method or the summary of projections method. 14 CCR § 15130(b)(1). Neither method was utilized here, rendering the entire analysis inadequate. Furthermore, none of the other elements necessary to an adequate discussion of significant cumulative impacts is present. *Id.*

5. The Growth-Inducing Impacts Analysis is Deficient.

Although the Report acknowledges that inadequate wastewater treatment capacity is a constraint on development and, therefore, an existing obstacle to growth (Report at p. 46), the Report completely fails to consider the potential effect of removing that significant existing constraint on development. *See* Malibu General Plan sections 3.3.3 and 7.3.3.1. Removal of that constraint through any one of the three contemplated methods of compliance may foster the development of currently undeveloped parcels in the project area and, consequently, induce population and housing growth in and around the project area. The CEQA Guidelines

themselves recognize the removal of this type of constraint as a potentially significant, growth-inducing action. ("Included in this area are projects which would remove obstacles to population growth (a major expansion of a waste water treatment plant might, for example, allow for more construction in service areas).) 14 CCR § 15126.2(d).

6. The Report Fails to Analyze a Reasonable Range of Project Alternatives.

The Report must include a reasonable range of alternatives that can feasibly accomplish most of the basic objectives of the project while avoiding or substantially lessening one or more of the significant effects.[5] 14 CCR § 15126.6(b). The Report must also include sufficient information about each alternative to allow meaningful evaluation, analysis, and comparison with the proposed project. 14 CCR § 15126.6(d).

Other than the obligatory "No Project" alternative, the Report fails to identify and analyze a single meaningful alternative. The so-called "Program Alternative 1—Local Government Initiative" is simply a restatement of the proposed project itself—a ban on OWDSs followed by one of the three "options for compliance projects" enumerated in the description of the proposed project. *Compare* Report at pp. 11-12 *with* pp. 6-10. No alternative to a complete ban on OWDSs is analyzed. For that reason alone, the document is legally inadequate. 14 CCR § 15252; 23 CCR § 3777.

B. Other Considerations

Costs of Compliance

Water Code Section 13240 mandates that the Regional Water Quality Control Board consult with and consider the recommendations of any affected local agency in the basin planning process and the City of Malibu recommends that the Board reject staff's proposal. The realities of this prohibition would likely require infrastructure costing double staff's estimates to construct and currently, staff has identified no funding mechanisms. Water Code section 13241[6] requires a consideration of economic considerations and staff's unsubstantiated cost estimates do not appear to be an adequate analysis of the economic ramifications of the proposal.

[5] Ironically, as detailed elsewhere in this letter, there is no substantial evidence to support the assumption that the proposed project itself will even accomplish the project objective (referred to as the "goal of the proposed action" on page 6 of the Report).

[6] The City specifically addresses probable beneficial uses and economic considerations herein; however, there is not sufficient evidence in the record to support the finding that any of the 13241 factors have been adequately considered.

Water Code Section 13291.5 requires the Board to assist private landowners with the cost of completion of these projects and to loan money in certain circumstances, yet the Regional Board staff has not proposed, or even considered funding assistance for the compliance measures. While the City recognizes section 13360 prevents the Board from specifying a manner of compliance, the reality is that affected residents, property owners and local agencies are significantly restricted in feasible methods of treating and/or removing wastewater from the Civic Center area and staff's recommended compliance options would cost tens of millions of dollars involve jurisdictional and engineering constraints that have not been adequately examined through this process (see response to Finding 9 above).

The City's experts have estimated the cost of providing centralized wastewater treatment, disposal, and effluent recycling to the affected area, not including land purchase costs. These costs have been estimated at a conceptual level, based on costs developed to provide centralized wastewater management to Civic Center 'High Priority Areas' identified in the 2004 Risk Assessment of Decentralized Wastewater Management in High Priority Areas in the City of Malibu. The previously developed costs have been modified to incorporate the following impacts:

- Average daily flows from the proposed prohibition area would be on the order of 610,000 gallons per day versus the 400,000 gallons per day associated with the Civic Center area.

- The aerial extent of the sewer collection system area would be approximately 2.5 times greater than previously contemplated for centralized treatment in the Civic Center area.

- Previously estimated unit construction costs have been reduced by 25 percent to reflect the current economic and bidding climate.

Based on the above, the capital costs of providing centralized wastewater management to the proposed prohibition area are summarized in the following table. These costs include planning, design, construction, construction management, administration and legal fees. Land purchase costs are not included.

Wastewater Component	Capital Cost, $millions
Treatment Plant	20
Sewer Collection System	17

Recycle Distribution	7
Percolation Area	8
Total	$52

The treatment plant costs assume nitrification/denitrification to approximately 8mg/l, and do not include phosphorus removal. If percolation area cannot be obtained, an outfall or deep well injections would be needed, which could increase these costs further. Given the cost of environmental and permitting studies associated with an outfall, and assuming that the outfall would be at least 5,000 feet long to have its plume in deep water beyond all recreational swimming, surfing, and diving, an outfall could increase the above costs by $2 or $3 million, or more.

The estimated annual operations and maintenance costs of this system would be approximately $1.6 million per year including power, chemicals, repair/replacement, insurance, and staffing by certified operators.

The monthly cost of this project would be on the order of $420,000 ($5.0 million per year) assuming a capital cost of $52 million, annual costs of $1.6 million, and a 20 year SRF loan at 2.7 percent. Assuming a longer loan period (30 years) would not lower the monthly costs. A longer loan period would require using municipal bond financing, which would have a higher interest rate of approximately 4.5 percent. The annual bond payment would be approximately equal to the annual SRF loan payment. Assuming that the proposed Prohibition Zone would have approximately 400 to 450 Equivalent Dwelling Units, the above costs would result in monthly payments on the order of **$1000 per month** per Equivalent Dwelling Unit.

This is just one example of analysis for proposed compliance options and the cost is prohibitively high.

Additionally, the Regional Board staff relies on the fact that a similar ban was adopted in the Oxnard Forebay[7] area in the City of Oxnard and analogizes that ban to the proposed prohibition in the Civic Center area; however, the area of Oxnard impacted by the ban differs significantly from the Civic Center area of Malibu. The City of Oxnard and the County of Ventura already operate a sewer system in close proximity to the prohibition area and the compliance methods in that case merely required property owners to connect to an existing sewer system, at a reported one-time cost of approximately $3500 per parcel, compared to the system described above that would cost property owners approximately $1000/month ($240,000 per parcel) to construct and operate. The two scenarios are far from analogous and the Oxnard

[7] Staff's proposed resolution refers to a prohibition on septic systems in the Oxford Forebay area; however, the 1999 ban was actually adopted in the Oxnard Forebay area in Ventura County.

Forebay prohibition should not be used as an example of an analogous prohibition. In addition, the Oxnard Forebay groundwater is an active groundwater recharge system that supplies drinking water to residents in Ventura County.

The City asks that the Board and all affected property owners and agencies have the opportunity to collaborate to identify realistic costs of compliance before taking any action to permanently ban OWTS through the entire Civic Center area.

Civic Center Boundaries

The City is also not aware of any justification for the proposed boundaries that staff identifies as the Civic Center area. If the goal of the Basin Plan amendment is to reduce nitrogen, the boundaries of the Risk Assessment study area establish the actual groundwater flow area into Malibu Creek. Even if the goal of the prohibition is to reduce bacteria, staff does not explain how the arbitrary boundary lines correspond to that goal.

Change in Course of Action

Lastly, in the 2004 Memorandum of Understanding, the Regional Board agreed to partner with the City of Malibu to use a decentralized wastewater management approach for the Civic Center area. The proposed Basin Plan Amendment represents a drastic change in course with no apparent changed conditions or new information to justify it. The City of Malibu has also been anticipating the State Water Resources Control Board's adoption of state-wide regulations for onsite wastewater systems pursuant to AB 885. A technical approach to onsite wastewater management for properties adjacent to water bodies impaired by bacteria and nitrogen was put forth by the State Board, but the Board staff has determined that the statewide approach should exclude the Malibu Civic Center area without any real scientific justification.

The Malibu Creek nutrient and bacteria TMDLs specify that the wasteload allocation of septic systems will be implemented through Regional Board's issuance of WDR permits to individual discharges. A prohibition on OWTS was not indicated as necessary to achieve compliance with the TMDL requirements. In fact, the bacteria TMDL report adopted by EPA Region 9 states, "[r]esidential septic systems were not targeted for load reductions by the Regional Board since many of them are dispersed in rural areas. The residential septic systems in Malibu Colony produce about 1% of the bacterial loads produced by the commercial septic systems, so they are not targeted for reductions by the Regional Board."

An excerpt from the nutrient TMDL report states that the "EPA anticipates that the WLAs developed for these TMDLs will be established as WDR permit limits for the individual septic systems. The actual implementation date on the WLAs will depend on implementation

schedules established by the Regional Board." An excerpt from the bacteria TMDL report makes the same representation.

Regional Board staff is critical of the City of Malibu for not requiring groundwater monitoring or effluent monitoring at permitted facilities; however, many of the WDRs issued by Regional Board staff to commercial dischargers in the Malibu area waive any type of groundwater monitoring requirement.

Since the Regional Board has not undertaken all of its OWTS obligations under the MOU and the State Board has not yet implemented statewide regulations or standards for the permitting and operation of OWTS per AB 885, the prohibition shifts a disproportionate amount of the burden away from the agencies primarily responsible for responsible wastewater functions (the State and Regional Boards) onto the property owners and the City of Malibu. Before moving forward with the prohibition, the Board should consider what actions in the existing permitting/regulatory process can be initiated and improved, such as issuance of WDRs and increased enforcement.

In conclusion, Malibu strongly urges the Board to reject staff's proposal. The Basin Plan is designed to preserve and enhance water quality. The proposed findings in the draft resolution are contrary to, and not supported by, the available evidence and without scientific evidence demonstrating that the OWTS contribute to impairments of existing or probable beneficial uses. Consequently, there is no evidentiary basis for a Board action to prohibit OWTS in the Civic Center area. The analysis does not take into account for the fact that improvements in technology now allow new individual systems to treat wastewater to the same level of quality as a centralized system. Further, the Board cannot adopt a monumental change in the existing wastewater program that would require significant development activities in the City's environmentally sensitive habitat without a substantive environmental review, as required under state law. The City's successful implementation of OWTS programs do adequately protects water quality and provides valuable information and experience that can be used to develop further programs. Should the Board wish to draw on the City's experiences with OWTS in the Civic Center area specifically, the City is eager to engage in a cooperative solution to any perceived issues in that geographic area.

Very truly yours,

Lauren Feldman

Lauren Feldman
Assistant City Attorney, City of Malibu
Christi Hogin
City Attorney, City of Malibu

Enclosures:

Attachment No. 2 plus maps and other data
Attachment No. 3 plus maps and other data
Attachment No. 4 plus maps and other data

cc: Tracy J. Egoscue, Executive Officer

ATTACHMENT 2

City of Malibu

Point-by-point comments for Technical Memo No. 2.

Document Reference			Comment
Section	Page	Para-graph	
Overall			The major shortcoming of the analysis done by the LARWQCB is the fact that it ignores published hydrologic data and analyses (ground-water level data, lagoon stage, ocean stage, water level maps, and modeling analyses) that show the capture zone for Malibu Lagoon. Several examples of relevant documentation that was not considered in the LARWQCB's analysis are included in Appendix 2-1: • Malibu Downtown Area Well Location Map, prepared by Earth Consultants International in 2008 • Malibu Downtown Area Historical Hydrographs 1998-2008, prepared by Stone Environmental, McDonald Morrissey Associates, and Earth Consultants International in 2008 (updated with water table elevations measured through the end of 2008) • Map 5: Water Levels Measured on September 25, 2003—Unbreached Lagoon (from Stone Environmental Inc. 2004) • Map 6: Water Levels Measured on March 9, 2004—Breached Lagoon (from Stone Environmental Inc. 2004)
3	T2-3	2	**Background** There is no mention of the number of upgrades of, and replacement of, many of these systems that have occurred since the City of Malibu was founded in 1991, and since the earliest monitoring data presented in this memo (2002). According to City of Malibu records, 43 OWTS in the prohibition area have advanced treatment prior to dispersal into the soil (see table in Appendix 2-1 titled *Advanced Treatment OWDS in the Malibu Civic Center Area*, for some of the commercial advanced treatment systems).
3	T2-3	2	This Memo is intended to support the Board's proposed OWTS prohibition by showing that the Civic Center area groundwater is non-compliant with existing water quality regulations within a potential drinking water aquifer. The inference is that OWTS are the sole causative factor in the degradation of the water quality, and no other alternative causes are evaluated. Also not evaluated, or even commented upon, was whether the Civic Center aquifer was ever within current water quality compliance requirements during the time it was used as a water resource by the community.

ATTACHMENT 2

City of Malibu

Point-by-point comments for Technical Memo No. 2.

3	T2-3	2	The Memo does not differentiate between the two aquifers in the Civic Center area. The unconfined groundwater in the upper geologic material is where the majority of data has been collected, while the more permeable lower aquifer is where the historic water supply production was located. From this Technical Memorandum, it cannot be determined if the lower aquifer is similar to the upper material as being non-compliant with current water quality requirements. If it is non-compliant (due to unacceptable chemistry), it is unlikely to be due to the Civic Center OWTSs because they are well above this confined aquifer. Water quality test results from a well drilled to 100 feet below land surface during a recent hydrogeologic investigation in the Civic Center Area are included in the table titled *Summary of Aqueous Analytical Results for General Minerals, Cross Creek Civic Center Malibu, CA* (Appendix 2-1). A map showing the location of the deep well from which the sample was taken is also included in Appendix 2-1. These results, from the deeper, semi-confined aquifer, show high levels of total dissolved solids (1,430 mg/l) and concentrations of common inorganic ions that exceed levels recommended in the National Drinking Water Secondary Standards.
4	T2-3/4		**Section 4 Methods & Procedures**: The need to maintain the aquifer below Malibu Civic Center at Drinking Water Quality is contradicted by historic water quality before Los Angeles County Water District #29 piped in drinking water to the area in the mid-1960s. According to *Title 17 California Code of Regulations Related to Drinking Water, Table 64449-B (Secondary Maximum Contaminant Levels (MCL) "Consumer Acceptance Contaminant Level Ranges")*, the Maximum Contaminant Level for Total Dissolved Solids (TDS) is 1000 mg/L. This TDS MCL was exceeded by 2 to 10 times in 1960 for the former water supply wells # 5 and #7 serving the Malibu Water Company (see the figure titled *Total Dissolved Solids Lower Malibu Wells Trend Line Graph, Malibu Water Co., prepared by Pomeroy & Assoc. March 1961*, in Appendix 2-1). The increasing concentrations of TDS in these well indicates that saltwater intrusion was increasing over time. The inclusion of ammonia in the determination of potable water quality is not supported by contemporary potable water quality standards, and should be omitted from the discussion. According to *Title 17, Table 64431-A (Maximum Contaminant Levels Inorganic Chemicals)* the current Primary drinking water standard for nitrogen species are 10 mg/L Nitrate-N+Nitrite-N and 1 mg/L Nitrite-N. There is currently no drinking water standard for Ammonia-N. Title 17 source (downloaded 10/5/09): http://www.cdph.ca.gov/certlic/drinkingwater/Documents/Lawbook/dwregulations-08-13-2009.pdf

ATTACHMENT 2

City of Malibu

Point-by-point comments for Technical Memo No. 2.

4	T2-3/4		The Methods and Procedures sections of the Technical Memorandum do not include any evaluation of site specific data, where monitoring wells are located relative to OWTS or other potential sources of contamination, nor when exceedences occur. The relationship of cause and effect, the basis of the scientific method, is not objectively evaluated. For instance, many of the monitoring wells that are included in the LARWQCB's detailed evaluation are located very close to OWTS dispersal fields (see the map in Appendix 2-1 titled *Groundwater Wells and Leachfields in Malibu Study Area).*
4	T2-3/4		The Method and Procedures do not include an approach to determine or confirm that water quality impacts are a result of OWTS. Stormwater infiltration and lawn fertilization are examples of potential sources of bacteria and nitrogen that can reach the groundwater which are not mentioned. There is no mention of other potential sources of groundwater contamination. Stone (2004) concluded that since a number of wells that are not located near any OWTS and had low nitrogen concentrations, stormwater infiltration is a potential source of groundwater contamination in the Civic Center area.
5	T2-4/5		**Section 5 Results:** The analysis is not meaningful to meet the stated purpose of this technical memo, which is *"...to determine the extent and severity of contamination of groundwater that is designated as a potential source of drinking water."*. All monitoring well samples are arbitrarily lumped together and analyzed by constituent. There is no evaluation of results based on the relationship of wells to potential sources of contamination or whether water quality has changed over time.
5	T2-4/5		The analysis uses data from a set of 18 of the 45 wells that were not generally sampled after 2004. The current water quality of these wells is not known.
5	T2-4/5		There are several WDR wells which were non-complying for several consecutive readings, but which have been brought into compliance since 2007. All of these were also plotted in the newest analysis as non-conforming, although the situations that were the cause of non-conformance have clearly been corrected. Indeed, if the abandoned wells, the corrected wells, and those with only one reading are discarded, there is a significant improvement in the percentage of compliant wells for bacteria and nitrogen.
5	T2-5	1	The data from Attachment 2-1 was reanalyzed. Significant errors were found in the number of samples that exceeded the MCL goals as reported in the Technical Memorandum. Table 1 should be changed to indicate that out of 671 samples: # of samples failing to meet the fecal coliform MCL was 199, not 360; (30%, not 54%) # of samples failing to meet the total coliform MCL was 389, not 480; (55%, not 72%)

ATTACHMENT 2

City of Malibu

Point-by-point comments for Technical Memo No. 2.

5	T2-5		The Technical Memorandum sums all of the data into two tables, and especially on Table 2, all of the "yes" values look quite convincing. However, when the data are actually evaluated, and not merely summarized, a different picture emerges. Take the first result, Malibu Administrative Center, Well 7b, YES and YES for Fecal Coliform and Total Coliform. When you look at the actual data for Well 7b, you see that the test results came back with a result exceeding the MCL only once in five years for each value, and those were in different years. Is it not more likely that these results are the product of a contaminated sample or a laboratory error? Many of the wells had their only failing test in the first reading, as far back as 2003. These values are always suspect in a new well. There may be an explanation in the compliance reports that were submitted to the Board, but that explanation is not presented in Memo 2. Instead, one anomalous result is used to reinforce the Board's conclusion that 54% and 72% (or 30% and 58%, once the counting errors are corrected) of the sites are non-complying with Fecal and Total Coliform, respectively. Indeed, this is the case for nearly all of the wells presented. In any managed system, there will be occasional failures of the system. This is why it is monitored and managed. When a system becomes non-compliant, it is brought into compliance. One test result over the MCL may be an error or it may be a result of something broken operationally in the system. That the following tests are well below the MCL should indicate that the problem(s) has been solved. If the discharge results are summarized fairly, it will be seen that the presentation in Technical Memorandum 2 is biased.
5	T2-4	5	The data from Attachment 2-1 covers 45 wells, not 47. Malibu Administrative Center Wells 7b and 8 are the same as Malibu Study Area Wells 7b and 8. This fact should be reflected in the analysis reporting the number and percentage of wells meeting the MCL.
5	T2-4	5	If the counting errors are corrected the referenced paragraph would read: For the 45 groundwater monitoring wells in the study area, from July 12, 2002 to November 18, 2008, a total of 671 samples were collected and analyzed for total coliform. Results indicated that out of the 671 samples, 389, or 58% of the samples exceeded the MCL. Forty-one (41) out of 45, or 93%, of the wells detected total coliform in excess of the MCL.
5	T2-4	6	If the counting errors are corrected the referenced paragraph would read: For the 45 groundwater monitoring wells in the study area, from July 12, 2002 to November 18, 2008, a total of 671 samples were collected and analyzed for fecal coliform. Results indicated that out of the 671 samples, 199, or 30% of the samples exceeded the MCL. Thirty-nine (39) out of 45, or 87%, of the wells detected fecal coliform in excess of the MCL.

ATTACHMENT 2

City of Malibu

Point-by-point comments for Technical Memo No. 2.

5	T2-7 and T2-73 and on		Looking at the graphs of test results with time at the end of the memo, and undertaking a more objective assessment of Pass or Fail whereby one failing test does not automatically fail the well, a significant number of wells are compliant with water quality standards. (see the figure titled *Revised Plot of Compliant and Non-Compliant Test Well Results* in Appendix 2-1 of this review memo).
5	T2-7	8	There is no drinking water quality MCL for ammonia, therefore this paragraph should be deleted from the document. Similarly, the last column should be omitted from Table 1.
6	T2-5	2	**Section 6 Conclusions:** All of the data reviewed in the Technical Memorandum is in the upper aquifer, and therefore is not pertinent to the lower aquifer, which was historically pumped as a water supply, but discontinued due to apparent saltwater intrusion. See the figure titled *Total Dissolved Solids Lower Malibu Wells Trend Line Graph, Malibu Water Co., prepared by Pomeroy & Assoc. March 1961* in Appendix 2-1.
6	T2-5		No evidence is provided to support the classification of the groundwater in the upper aquifer as a *"local resource for beneficial use of potential MUN (drinking water resource)"*.
6	T2-5		No evidence is provided to indicate that the lower aquifer is currently affected by onsite wastewater treatment systems.
6	T2-5		The conclusions need to be reconsidered after a more thorough evaluation of the water quality data.
Attachment 2-1	T2-9		**Attachment 2-1:** There appears to be an error in all of the labels of the columns containing inorganic nitrogen species. Concentrations of Ammonia, Nitrate and Nitrite are typically expressed on the basis of nitrogen they contain, and reported as Ammonia-Nitrogen (Ammonia-N), Nitrate-Nitrogen and Nitrite-Nitrogen (Nitrite-N) so the concentrations of each constituent can be compared based on nitrogen content. For example, all of the data from the 2004 Stone Risk Assessment study was expressed as nitrogen in that report. The column labels in Attachment 2-1 do not include either "-nitrogen" or "-N", therefore it appears that the labels are wrong, and the concentrations should be expressed correctly. All WDR data submitted to the regional board should be checked to ensure it is being reported and analyzed correctly. The right hand column of all of these tables contains a significant error: Total Kjeldahl Nitrogen includes Ammonia-N and Organic Nitrogen. Therefore in this column which is the sum of: "Ammonia + Nitrate+ Nitrite +TKN", Ammonia-N is erroneously counted twice.
Attachment 2-1			**The following is a well-by-well review of the tables in Attachment 2-1 and general comparison to compliance with water quality standards.**

ATTACHMENT 2

City of Malibu

Point-by-point comments for Technical Memo No. 2.

Attachment 2-1	T-2-11	Well #7B	Malibu Administrative Center Bacteria - This well is located approximately 625 feet from nearest upgradient leachfield, and is located in a driveway of the County Administrative Center. Out of a total of 26 sampling events, all but 3 detections occurred between September and March - wet weather time of year. Nitrate+Nitrite-N –Transcription error – the 11/19/03 sample was not 66.18 mg/L, it was reported as not detected per Stone (2004) This same well data was reported correctly as SMBRP-7b on page T2-63 noted as 11/18/03. No exceedances. Nitrite-N – three exceedances in 2003 & 2004 – none since then.
Attachment 2-1	T3-13	Well #8	Malibu Administrative Center Bacteria – Frequent exceedances Nitrate + nitrite-N – Frequent exceedances of nitrate + nitrite-N Nitrite-N – two exceedances of nitrite-N in 2003 & 2005 – none since then. Note: Located in close proximity and apparently downgradient of leachfields installed in mid 1960's with no pretreatment. Therefore, elevated bacteria and total nitrogen can be addressed with wastewater treatment.
Attachment 2-1	T2-15	MW-1	Malibu Country Mart Bacteria – no exceedances since 6/21/2006 Nitrate + nitrite-N – only one exceedance - in 2005.
Attachment 2-1	T2-17	MW-2	Malibu Country Mart Bacteria – only one detect (4 MPN/100 ml Total Coliform) since 6/21/2006 Nitrate + nitrite-N – **No Exceedances after correcting for Ammonia-N.**
Attachment 2-1	T2-19	MW-3	Malibu Country Mart Bacteria – No exceedances since 6/21/2006 Nitrate + nitrite-N – One exceedance on 6/21/06. None since then.
Attachment 2-1	T2-20	MW-1	Malibu Country Mart II Bacteria – no exceedances since 6/21/2006 Nitrate + nitrite-N – **No Exceedances after correcting for Ammonia-N.**
Attachment 2-1	T2-21	MW-2	Malibu Country Mart II Bacteria – intermittent exceedances through 7/2/2008 Nitrate + nitrite-N – **No Exceedances after correcting for Ammonia-N.**
Attachment 2-1	T2-22	MW-3	Malibu Country Mart II Bacteria – intermittent exceedances through 7/2/2008 Nitrate + nitrite-N – **No Exceedances after correcting for Ammonia-N.**
Attachment 2-1	T2-24	MW-1	Malibu Country Mart III Bacteria – only two detects (less than or equal to 4 MPN/100 ml) since 6/21/2006 Nitrate + nitrite-N – No exceedances.

ATTACHMENT 2

City of Malibu

Point-by-point comments for Technical Memo No. 2.

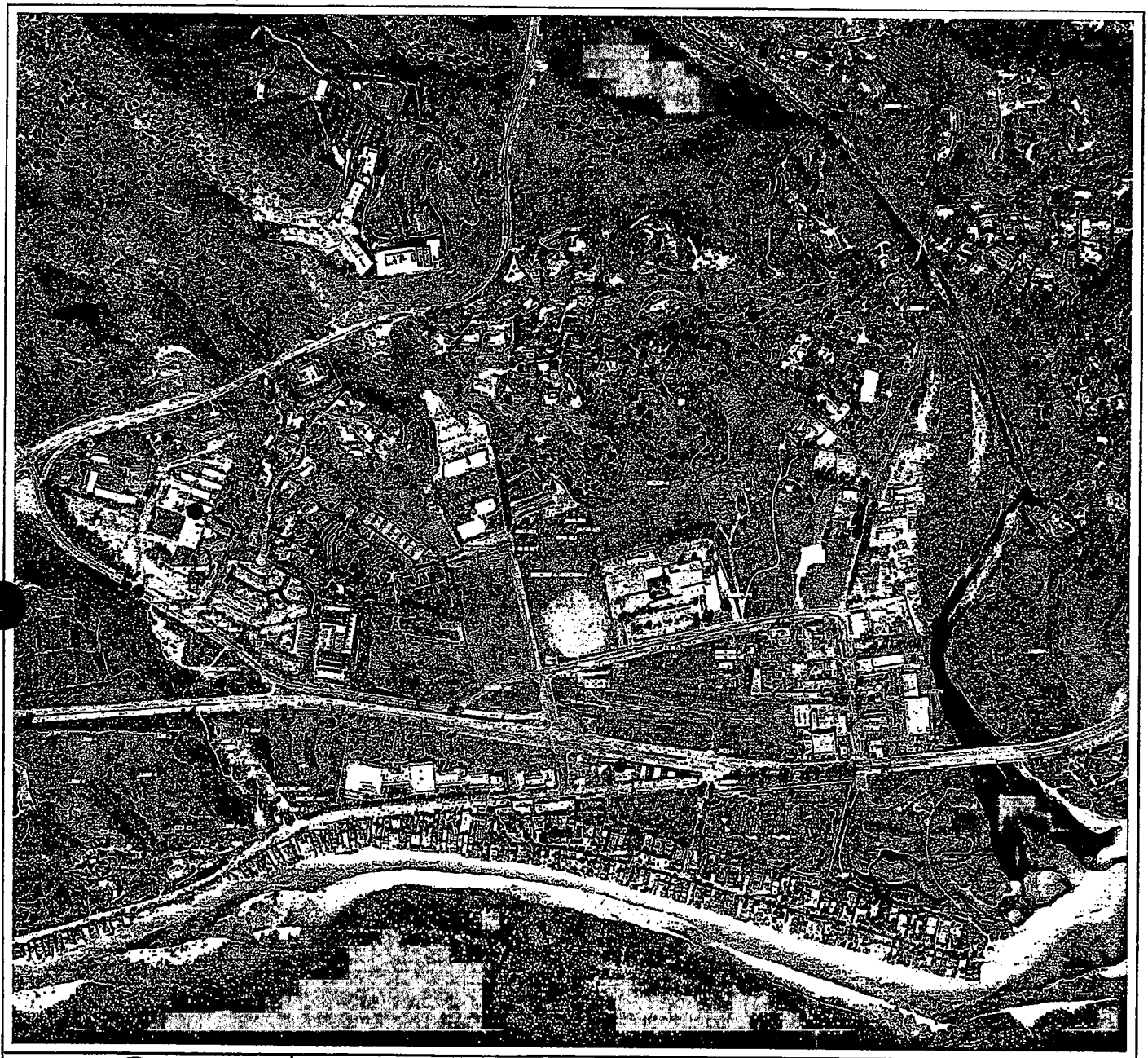
Attachment 2-1	T2-26	MW-2	Malibu Country Mart III Bacteria – Intermittent detections only 2 out of 8 since 12/27/06 (less than or equal to 30 MPN/100 ml) Nitrate + nitrite-N – No exceedances
Attachment 2-1	T2-28	MW-3	Malibu Country Mart III Bacteria – Intermittent detections only 1 out of 6 since 12/27/06 (less than or equal to 90 MPN/100 ml) Nitrate + nitrite-N – No exceedances
Attachment 2-1	T2-30	Well #1	Malibu Creek Plaza Bacteria exceedances Nitrate + nitrite-N - No Exceedances
Attachment 2-1	T2-32	Well #2	Malibu Creek Plaza Bacteria exceedances Nitrate + nitrite-N - No Exceedances
Attachment 2-1	T2-34	Well #3	Malibu Creek Plaza Bacteria exceedances Nitrate + nitrite-N - No Exceedances
Attachment 2-1	T2-36	Well #4	Malibu Creek Plaza Bacteria exceedances Nitrate + nitrite-N – **One exceedance after correcting for Ammonia-N. Nitrogen data should be checked since Ammonia-N frequently exceeds TKN.**
Attachment 2-1	T2-38	Well #5	Malibu Creek Plaza Bacteria exceedances Nitrogen – **No exceedances after correcting for Ammonia-N. Data should be checked since Ammonia-N frequently exceeds TKN.**
Attachment 2-1	T2-40	Well #6	Malibu Creek Plaza Nitrate + nitrite-N – One exceedance – 5/1/2005 **Unexplainable error in calculations of total N in 2006 results.**
Attachment 2-1	T2-42	Five Wells	Malibu Lumber Bacteria - Exceedances in all wells (2 – 84 MPN/100 ml) Nitrate + nitrite-N – One sample event. No drinking water quality exceedances for Nitrate-N or Nitrite-N. **No exceedances (after correcting well MW-3 for Ammonia-N. All TKN concentrations are the same value– data should be checked.**
Attachment 2-1	T2-44	Well #1	Malibu Colony Plaza Bacteria – Intermittent exceedances Nitrate + nitrite-N – No exceedances after correcting for ammonia-N

ATTACHMENT 2

City of Malibu

Point-by-point comments for Technical Memo No. 2.

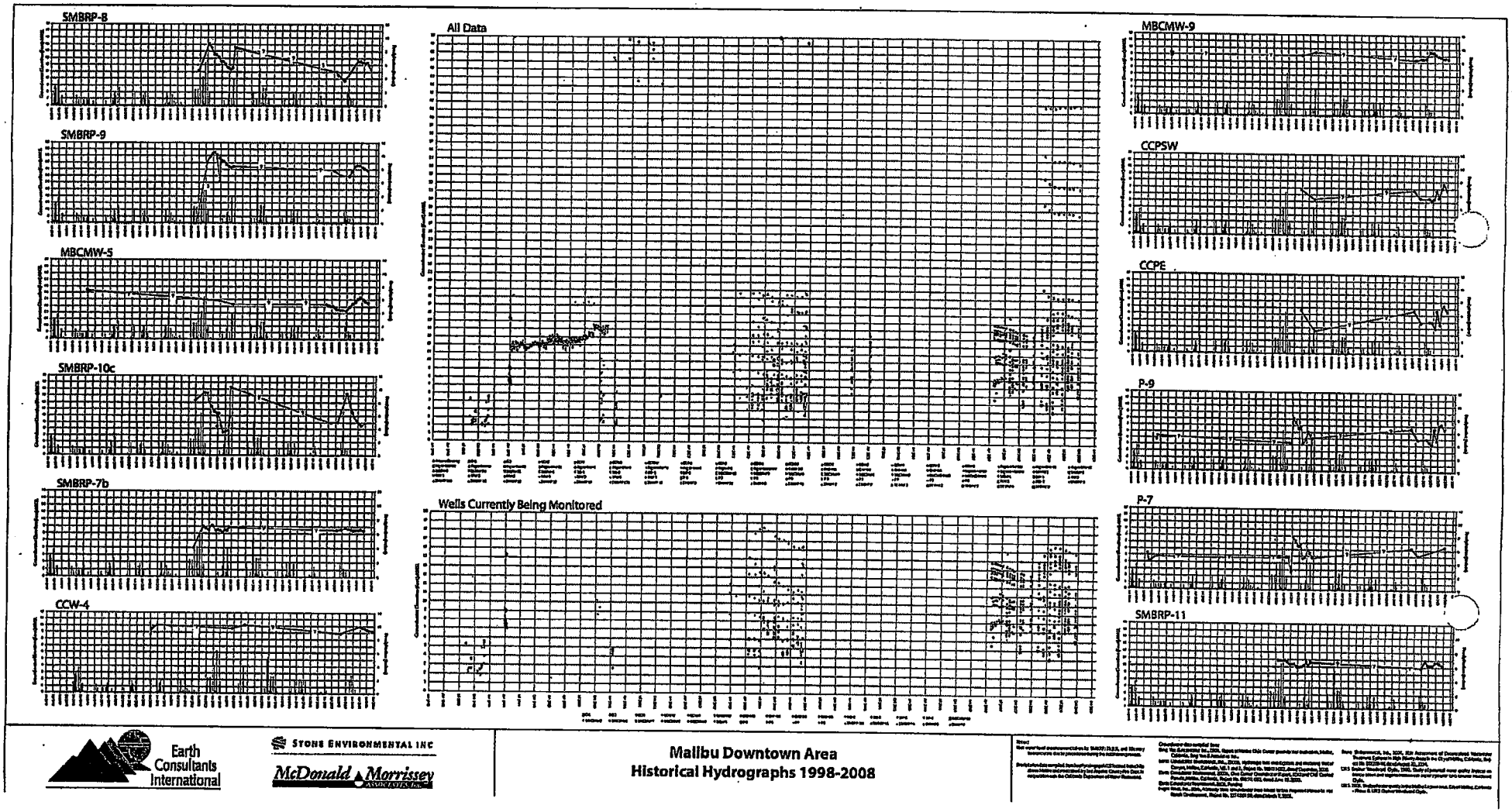
Attachment 2-1	T2-46	Well #2	Malibu Colony Plaza Bacteria – Intermittent exceedances Nitrate + nitrite-N – seven exceedances after correcting for Ammonia-N
Attachment 2-1	T2-48	Well #3	Malibu Colony Plaza Bacteria – Intermittent exceedances of fecal and total coliform. Frequent exceedances of enterococcus. Nitrate + nitrite-N – frequent exceedances due to high nitrates
Attachment 2-1	T2-50	Well #4	Malibu Colony Plaza Bacteria – Intermittent exceedances Nitrate + nitrite-N – frequent exceedances
Attachment 2-1	T2-53	Well #5	Malibu Colony Plaza Bacteria – Intermittent exceedances Nitrate + nitrite-N – only two exceedances after correcting for Ammonia-N



Earth Consultants International

Malibu Downtown Area
Well Location Map

N

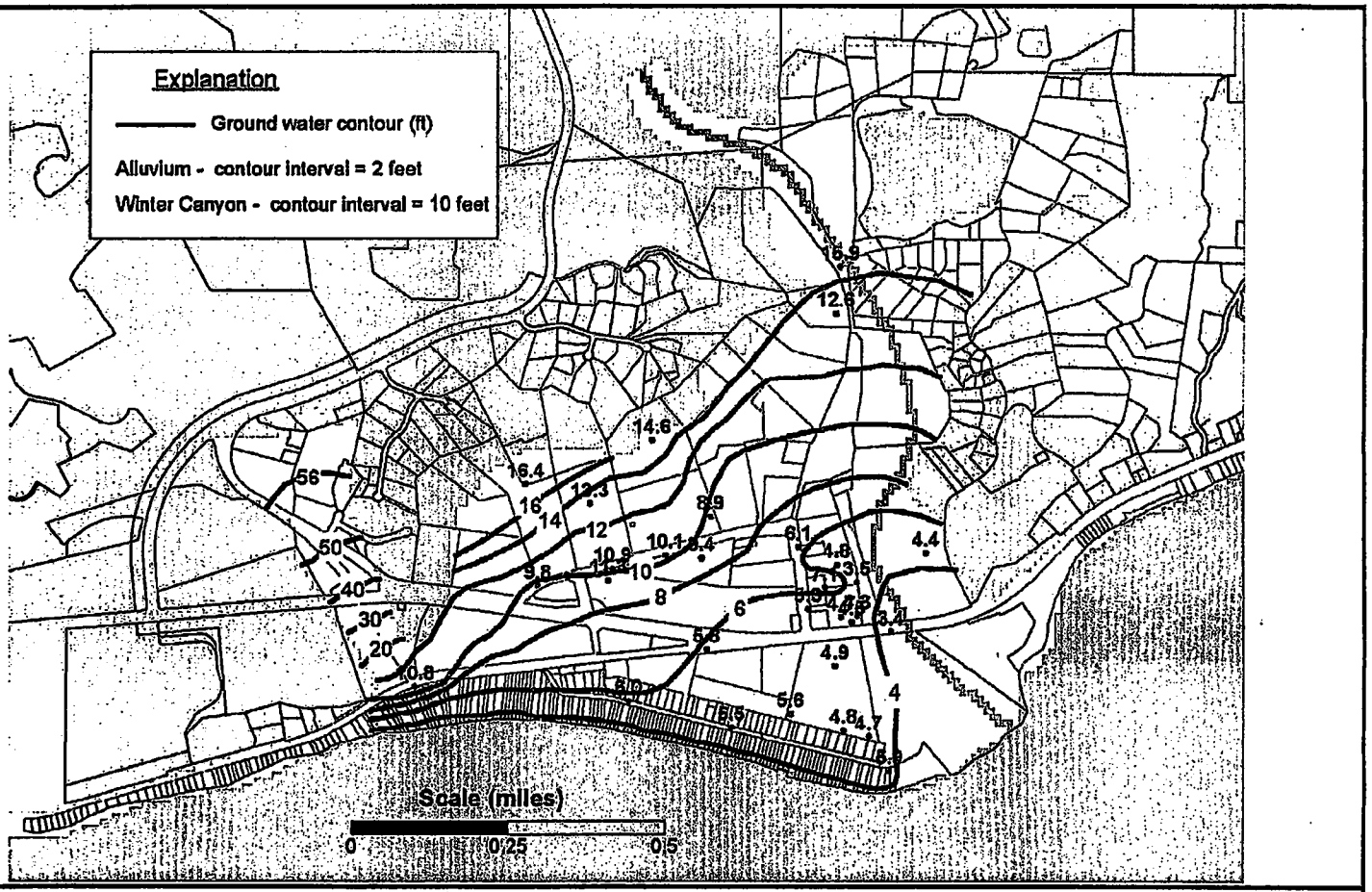


Earth Consultants International

STONE ENVIRONMENTAL INC

McDonald Morrissey Associates Inc.

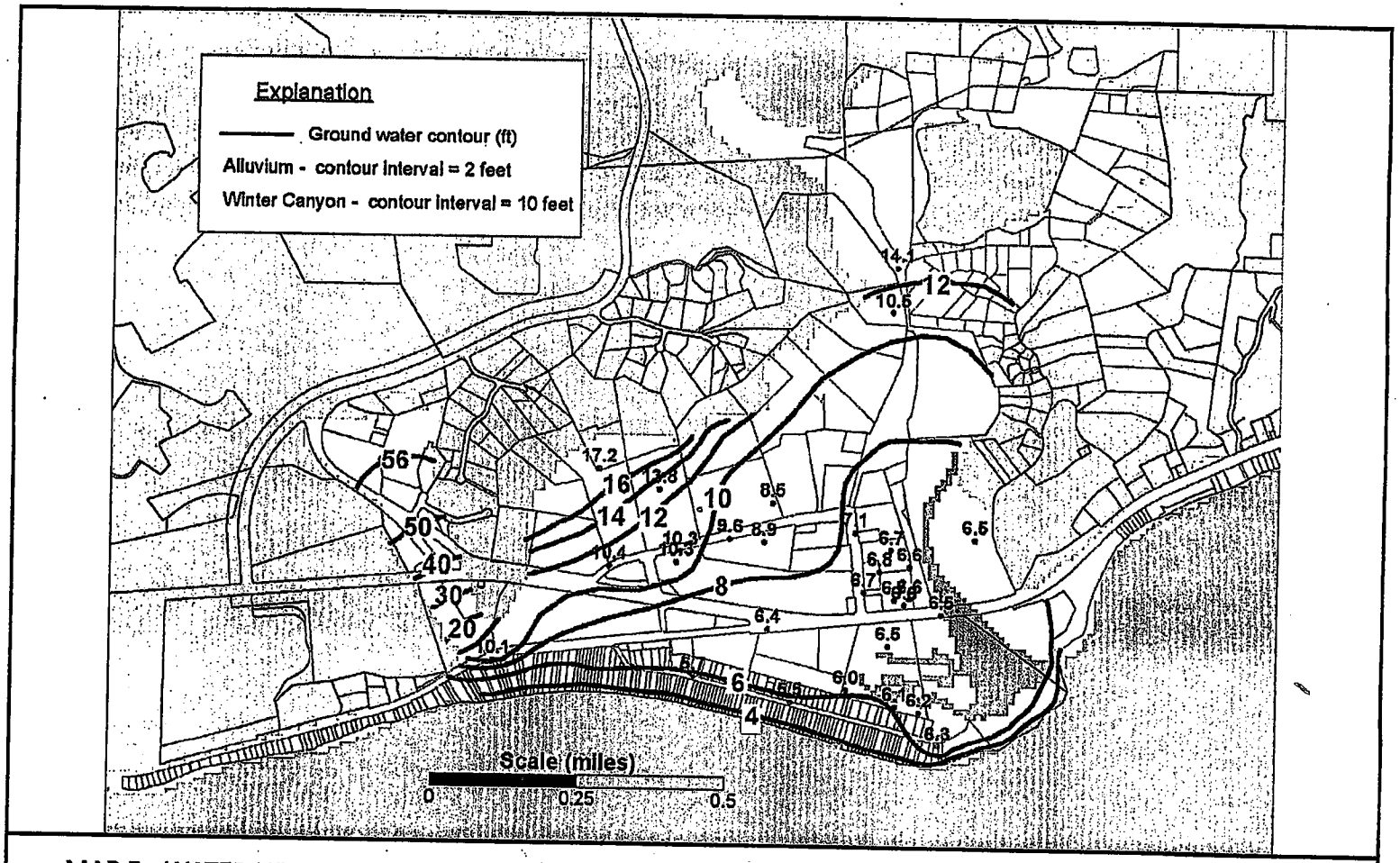
Malibu Downtown Area
Historical Hydrographs 1998-2008



MAP 6: WATER LEVELS MEASURED ON MARCH 9, 2004--BREACHED LAGOON
Risk Assessment of Decentralized Wastewater Treatment Systems in High Priority Areas
City of Malibu, California

Source: Draft Model Report Figure 9, McDonald-Morrissey Associates Inc., 2004.
Path: O:\Proj-01\1269-W-Malibu\Reports\DraftSubmittal\Maps\Map4.cdr
Date/init: 5-14-04 anm

STONE ENVIRONMENTAL INC



MAP 5: WATER LEVELS MEASURED ON SEPTEMBER 25, 2003--UNBREACHED LAGOON
Risk Assessment of Decentralized Wastewater Treatment Systems in High Priority Areas
City of Malibu, California

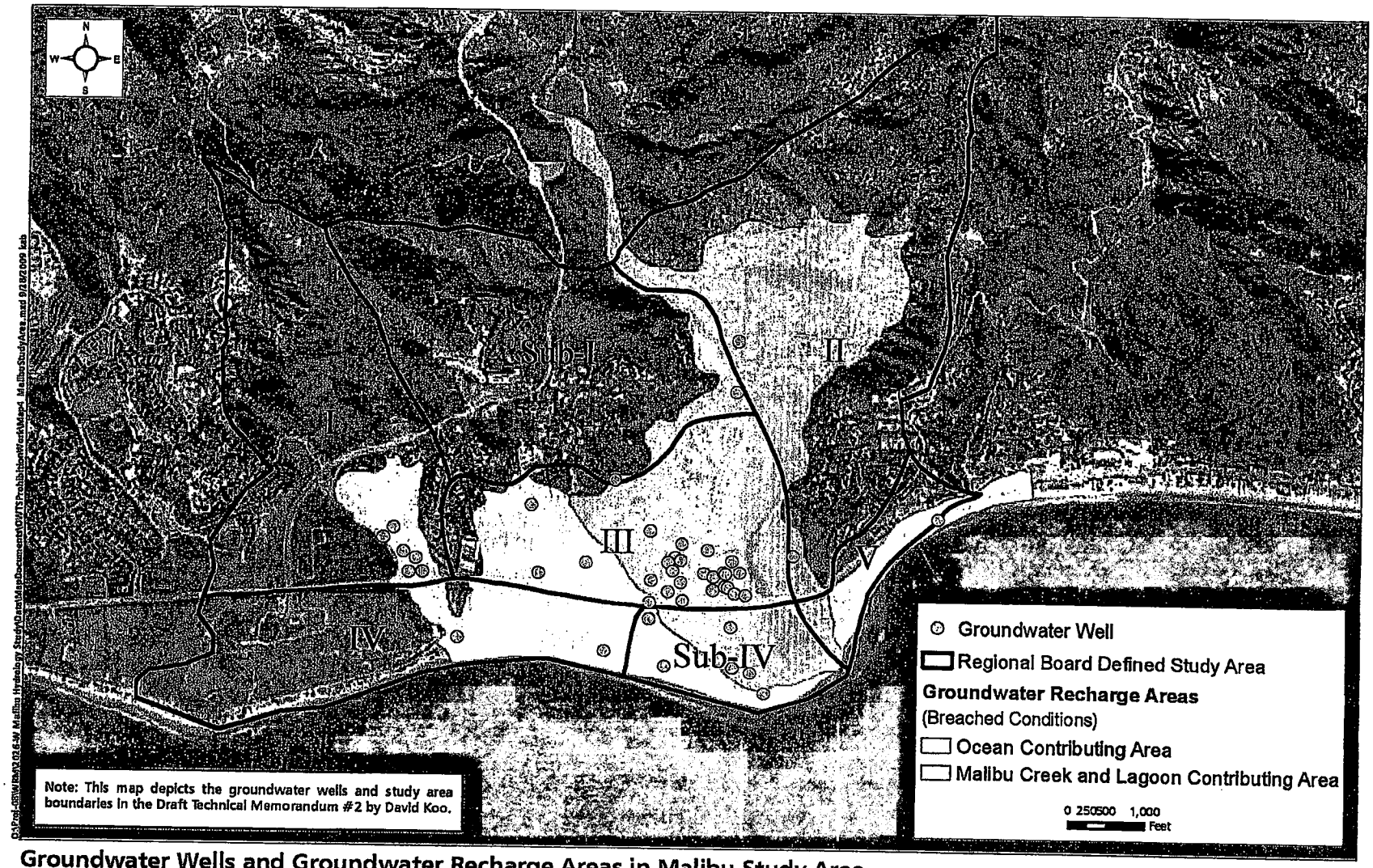
Source: Draft Model Report Figure 9, McDonald-Morrissey Associates Inc., 2004.
Path: O:\Proj-01\1269-W-Malibu\Reports\DraftSubmittal\Maps\Map4.cdr
Date/init: 5-14-04 anm

Advanced Treatment OWDS in the Malibu Civic Center Area

AIN	Street No.	Street Name	Date of Plan
4452005031	22878	PACIFIC COAST HWY	12/18/2007
4452008030	23324	MALIBU COLONY DR	8/18/2006
4452009017	23416	MALIBU COLONY RD	9/15/2006
4452009026	23414	MALIBU COLONY RD	11/14/2006
4452010027	23445	MALIBU COLONY RD	8/20/1985
4452011042	3900	CROSS CREEK RD	1/9/1998
4452011043	23359	PACIFIC COAST HWY	1/9/1998
4452012012	3635	SERRA RD	9/9/2005
4452014004	23344	PALM CANYON LANE	2/9/2005
4452015029	3551	CROSS CREEK LN	11/8/2006
4452016003	3311	SWEETWATER MESA RD	12/5/2006
4452016019	3415	SWEETWATER MESA RD	6/20/1997
4452019003	23017	PACIFIC COAST HWY	12/18/2002
4452026018	3270	SERRA RD	9/22/2009
4458002008	23681	MALIBU COLONY RD	12/7/1992
4458003014	23561	MALIBU COLONY RD	3/27/2007
4458003026	23615	MALIBU COLONY RD	1/31/2007
4458004035	23512	MALIBU COLONY DR	4/1/2002
4458004037	23520	MALIBU COLONY DR	2/9/1996
4458004045	23554	MALIBU RD	12/9/2004
4458004046	23556	MALIBU COLONY RD	7/10/2007
4458006029	23754	MALIBU RD	8/21/1986
4458006031	23750	MALIBU RD	1/8/2007
4458006035	23730	MALIBU COLONY RD	10/4/1999
4458006036	23720	MALIBU COLONY RD	12/18/1986
4458007015	23864	MALIBU RD	7/18/2006
4458007017	23910	MALIBU RD	5/26/1998
4458008015	23926	MALIBU RD	2/11/2004
4458009011	24008	MALIBU RD	4/16/2007
4458010002	24166	MALIBU RD	11/20/2006
4458020010	23410	CIVIC CENTER WAY	4/7/1997
4458020016	23641	PACIFIC COAST HWY	7/3/1995
4458021172	23825	STUART RANCH RD	9/21/2000
4458022019	23519	CIVIC CENTER WAY	2/28/1968
4458022904	23525	CIVIC CENTER WAY	2/28/1968
4458025001	23915	MALIBU KNOLLS RD	11/28/1988
4458028006		PCH and CIVIC CENTER WAY	2/13/2001
4458028020	24000	CIVIC CENTER WAY	2/13/2001
4458029006	3011	MALIBU CANYON RD	5/11/1998
4458029012	3011	MALIBU CANYON RD	5/11/1998
4458029013	3011	MALIBU CANYON RD	5/11/1998
4458029015	3011	MALIBU CANYON RD	5/11/1998
4458029016	3011	MALIBU CANYON RD	5/11/1998

Source: Malibu Integrated Wastewater Information Management System, September 2009.

Date/init: 10/1/09 anm



Groundwater Wells and Groundwater Recharge Areas in Malibu Study Area

City of Malibu, California

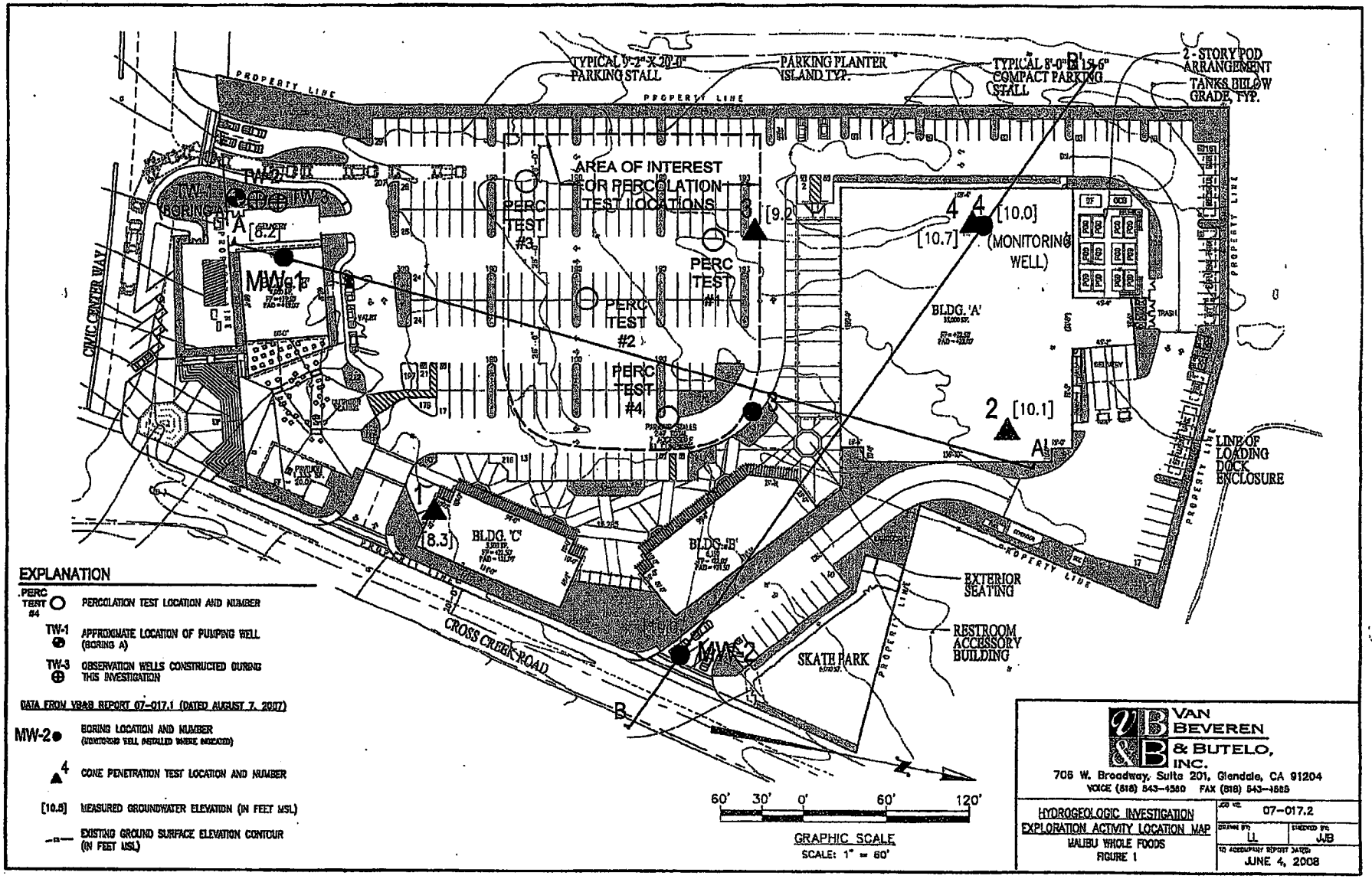
Sources: Groundwater Well Locations and Leachfields, digitized by Stone, 2009; Study Area, Regional Board; Groundwater Recharge, Stone; Imagery, ESRI.

TABLE
Summary of Aqueous Analytical Results for General Minerals
Cross Creek Civic Center Malibu, CA

General Minerals. Method: GEN.-MINERALS

Sample ID	STLC Limit mg/L	TTLC Limit mg/Kg	Units	T.W. #1
Sample Date				4/25/2008
Laboratory Job Number				47131
Bicarbonate (as CaCO3)			mg/L	241
Carbonate (as CaCO3)			mg/L	ND<1.0
Hydroxide (as CaCO3)			mg/L	ND<1.0
Total Alkalinity			mg/L	241
Anions Total (meq/L)			mg/L	21.4
Cations Total (meq/L)			mg/L	20.2
Ion Balance (percent difference)			mg/L	2.88
Chloride (Cl), Total			mg/L	182
Conductivity (umhos/cm @77F)			mg/L	2,080
Fluoride, Total			mg/L	0.300
Hardness (Ca,Mg) as CaCO3			mg/L	760
Nitrate as Nitrogen			mg/L	1.95
Nitrite as Nitrogen			mg/L	ND<0.01
Sulfate			mg/L	580
Surfactants (MBAS)			mg/L	ND<0.03
Total Dissolved Solids			mg/L	1,430
pH (pH units)			mg/L	7.20
Aluminum			mg/L	0.251
Calcium			mg/L	140
Copper	25	2500	mg/L	ND<0.01
Iron			mg/L	0.050
Magnesium			mg/L	81.3
Manganese			mg/L	0.070
Potassium			mg/L	3.26
Sodium			mg/L	146
Zinc	250	5000	mg/L	0.127

1) "ND<X" INDICATES CONSTITUENT(S) NOT DETECTED AT OR ABOVE METHOD DETECTION LIMIT.
2) "J" INDICATES ANALYTE WAS DETECTED. HOWEVER, ANALYTE CONCENTRATION IS AN ESTIMATED VALUE WHICH IS BETWEEN



EXPLANATION

- PERC TEST #4 — PERCOLATION TEST LOCATION AND NUMBER
- TW-1 — APPROXIMATE LOCATION OF PUMPING WELL (BORING A)
- TW-3 — OBSERVATION WELLS CONSTRUCTED DURING THIS INVESTIGATION

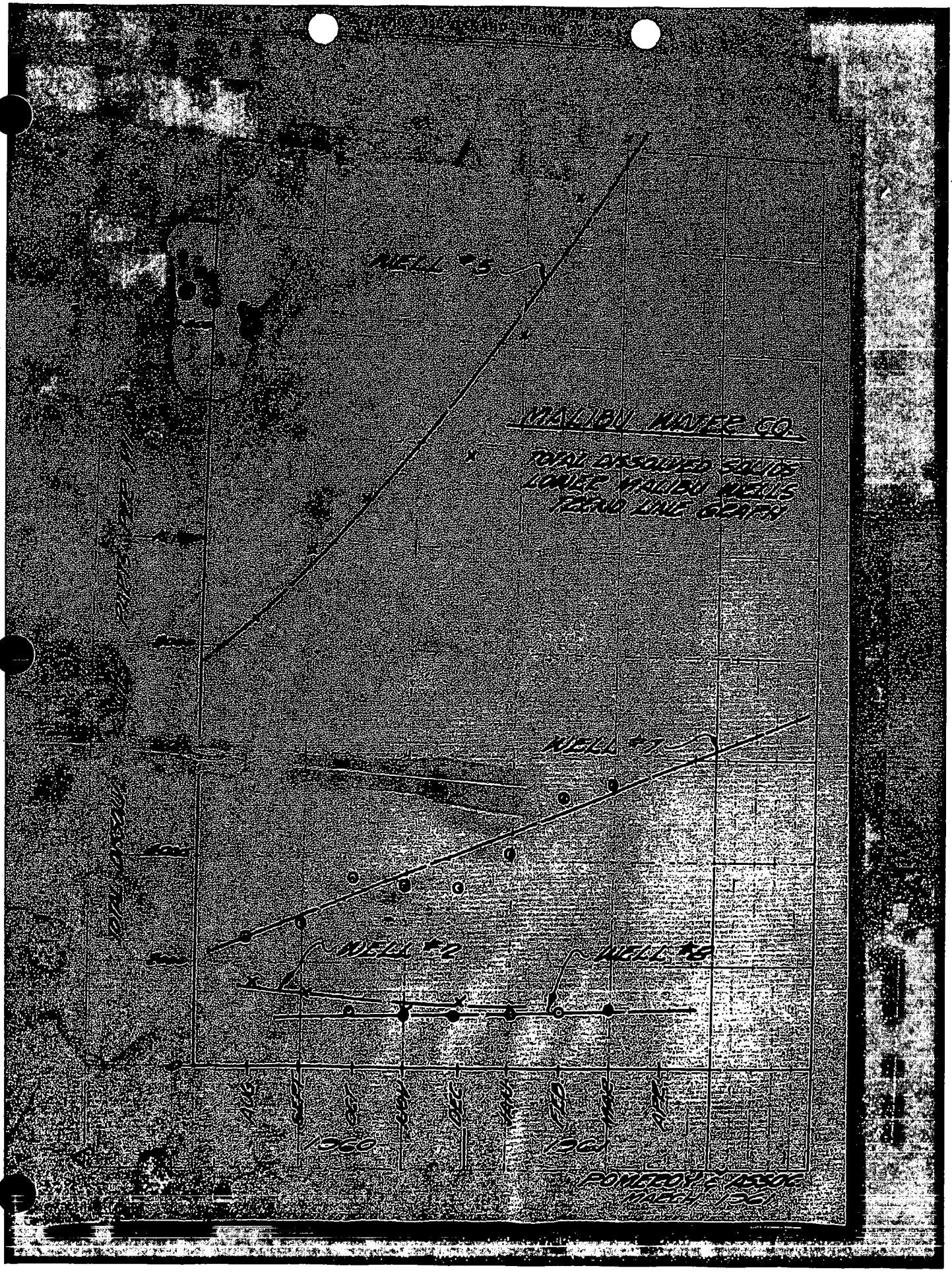
DATA FROM VBAB REPORT 07-017.1 (DATED AUGUST 7, 2007)

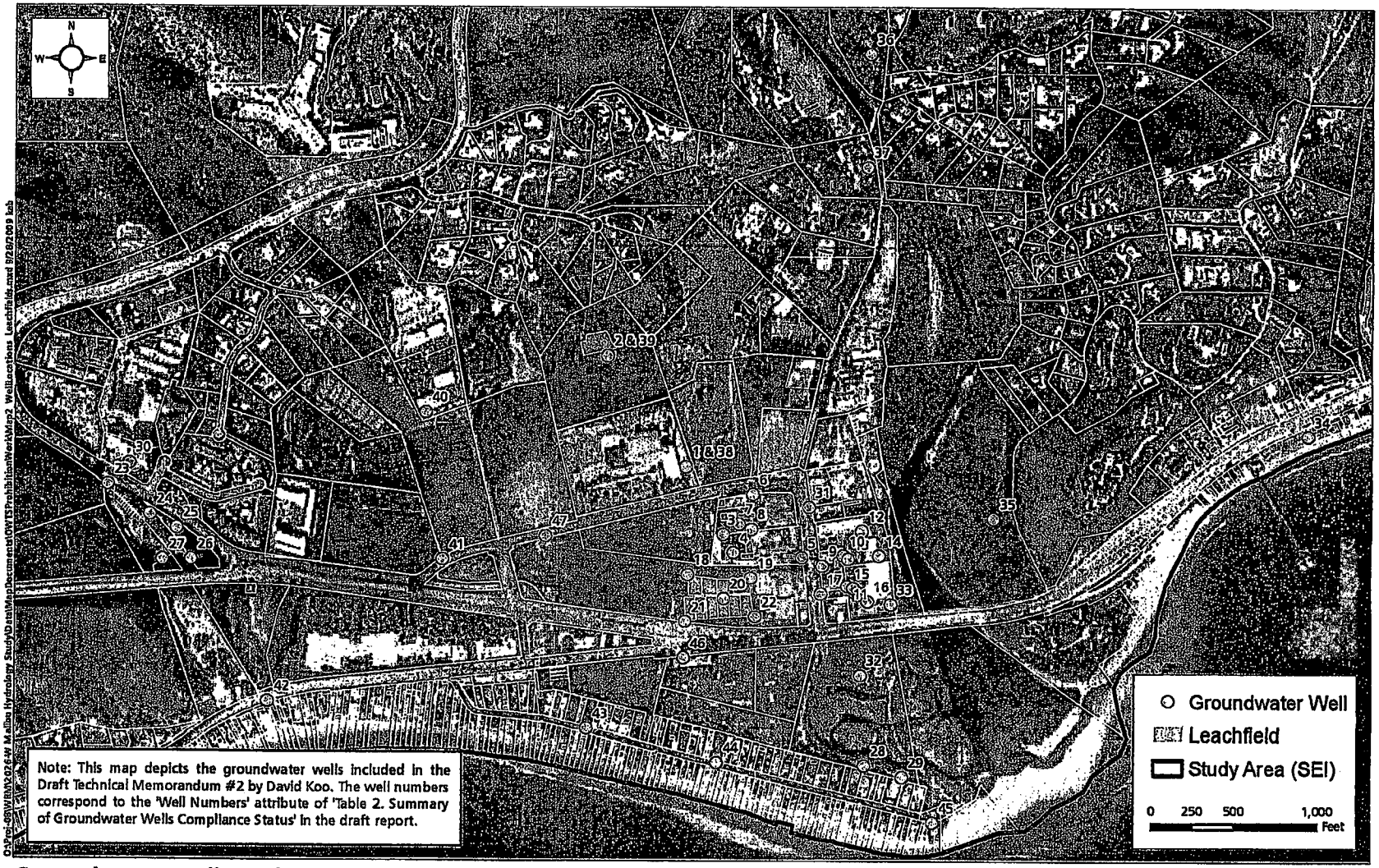
- MW-2 — BORING LOCATION AND NUMBER (MONITORING WELL INSTALLED WHERE INDICATED)
- 4 — CONE PENETRATION TEST LOCATION AND NUMBER
- [10.5] — MEASURED GROUNDWATER ELEVATION (IN FEET MSL)
- —5— EXISTING GROUND SURFACE ELEVATION CONTOUR (IN FEET MSL)

VAN BEVEREN & BUTELO, INC.
705 W. Broadway, Suite 201, Glendale, CA 91204
VOICE (818) 543-4550 FAX (818) 543-4555

HYDROGEOLOGIC INVESTIGATION
EXPLORATION ACTIVITY LOCATION MAP
MALIBU WHOLE FOODS
FIGURE 1

JOB NO. 07-017.2
DRAWN BY: LL
CHECKED BY: JJB
TO ACCOMPANY REPORT DATED: JUNE 4, 2008


WELL #5
MALIBU WATER CO
TOTAL DISSOLVED SOLIDS
LOWER MALIBU WELLS
ZERO LINE CORRECTED
WELL #7
WELL #2
WELL #6

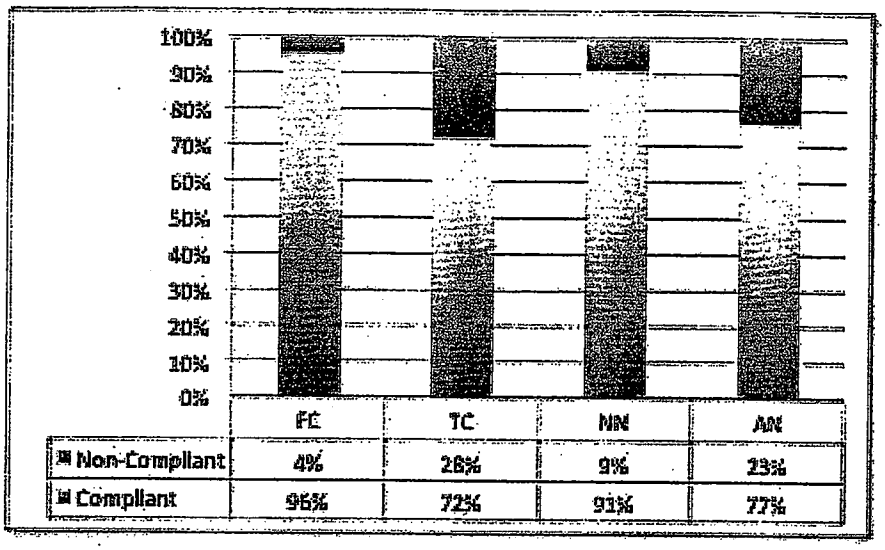


Groundwater Wells and Leachfields in Malibu Study Area

City of Malibu, California

Sources: Groundwater Well Locations and Leachfields, digitized by Stone, 2009; Study Area, Stone; Parcel boundaries, LA County; Imagery, ESRI.

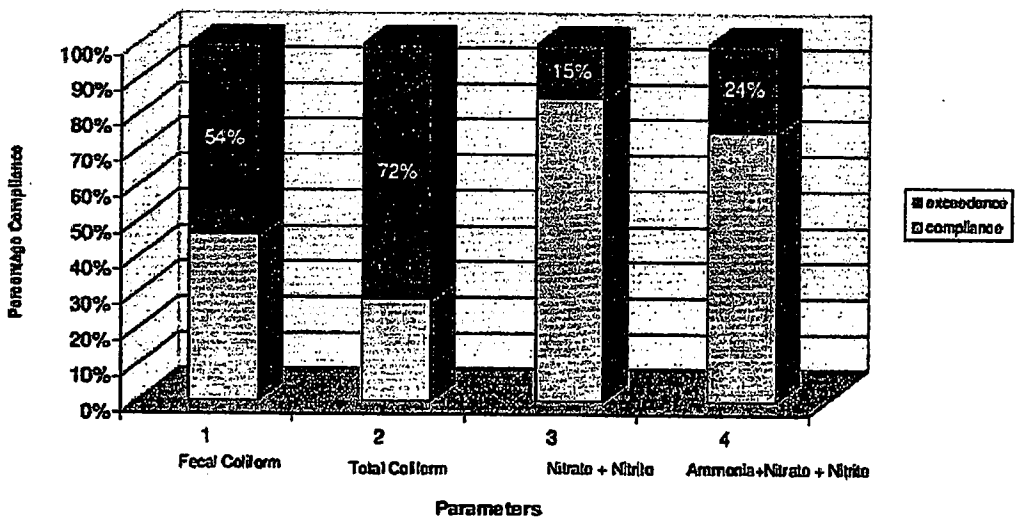
Revised Plot of Compliant and Non-Compliant Test Well Results



Above: Plot of Compliant and Non-Compliant well test results after a more objective re-examination of the plotted test results from Technical Memo #2, assuming that one failing test result does not fail the well, but a pattern of failing test results does.

Below: The Board's plot from Technical Memo #2, to illustrate the extremely conservative nature of the Board's characterization.

Figure 1 - Groundwater Quality Compliance Status



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City of Malibu

Point-by-point comments for Technical Memo No. 3.

Document Reference			Comment
Section	Page	Para-graph	
Overall			The scientific method was not followed. Proper scientific method to establish a direct relationship between a potential source of contamination (bacteria from OWTS) and resulting measurements of that contamination (bacteria in surfzone that exceeds public health standards) would include establishing a hypothesis, such as: bacteria in surfzone is only caused by bacteria discharged from OWTS. Then a series of analyses needs to be conducted to adequately confirm the cause and effect stated in the hypothesis, and also rule out other potential causes. Neither of these analyses was done.
Overall			Technical memo #3 provides no evidence for a relationship between bacteria in groundwater and bacteria in the surfzone of the beaches. Stone (2004) evaluated available data regarding hydraulic conductivity, geologic stratigraphy, and water table elevations and concluded that times of travel in the upper groundwater are on the order of years, and decades. Based a review of the literature, Stone (2004) concluded that bacteria die off is on the order of a few months, not years. Therefore, Stone estimated the boundary of a high risk area for bacteria in groundwater is 6 month time of travel zone along the creek, lagoon and the beach (see attached figure from report in Appendix 3-1). No information is provided by the LAWQCB to refute this conclusion. This is a significant gap in the study design.
Overall			Within the groundwater system, the study design did not consider the spatial and temporal relationships of the water quality data. There is no evaluation of the hydrologic relationship between the monitoring wells and the beaches, nor of previous studies that delineated areas that contribute nitrogen and/or pathogens to Malibu Creek/Lagoon and the Pacific Ocean (see the figure titled Groundwater Wells and Groundwater Recharge Areas in Malibu Study Area in Appendix 2-1).. Analyzing two distinct sets of water quality data without accounting for the movement of water does not prove that there is a hydraulic connection. The Stone Environmental, Inc. 2004 Risk Assessment Study did include a detailed evaluation of the groundwater flow system in the aquifers underlying the Civic Center area, but this and many other sources of relevant hydrologic information were ignored.

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Point-by-point comments for Technical Memo No. 3.

1	T3-1	1	This document does not achieve one of its two stated purposes: *"(a) to document the discharge of enterococcus, total coliform and fecal coliform, bacteria used to indicate risk of recreational waterborne illness, from on-site wastewater disposal systems (OWDS) in the Malibu Civic Center onto adjacent surface waters and beaches".* The major shortcoming of the analysis done by the LARWQCB is the fact that they ignored published hydrologic data and analyses (ground-water level data, lagoon stage, ocean stage, water level maps, and modeling analyses) that show the capture zone for Malibu Lagoon. Several examples of relevant documentation that was not considered in the LARWQCB's analysis are included in Appendix 3-1: • Malibu Downtown Area Well Location Map, prepared by Earth Consultants International in 2008 • Malibu Downtown Area Historical Hydrographs 1998-2008, prepared by Stone Environmental, McDonald Morrissey Associates, and Earth Consultants International in 2008 (updated with water table elevations measured through the end of 2008) • Map 5: Water Levels Measured on September 25, 2003—Unbreached Lagoon (from Stone Environmental Inc. 2004) • Map 6: Water Levels Measured on March 9, 2004—Breached Lagoon (from Stone Environmental Inc. 2004)
2	T3-1		Two of the monitoring wells sampled for the Malibu Administrative Center Waste Discharge Requirements (WDR) were also part of the 2004 Stone Risk Assessment study: Results from wells labeled #1 and #38 are from the same well and, similarly, results from #2 and #39 are the same well. Overall there is a gap in the study design. There is no evaluation of the hydrologic relationship between the monitoring wells and the beaches. Within the groundwater system, the study design did not consider the spatial and temporal relationships of the water quality data. Analyzing two distinct sets of water quality data without accounting for the movement of water does not prove that there is a hydraulic connection. See the map titled *Map 13: Bacteria Risk Assessment – 0 to 0.5 Year Time of Travel Boundary* (from Stone Environmental Inc. 2004) in Appendix 3-1.
2	T3-2	3	The early Technical Reviewers recommended that this document should serve: "(d) to verify the relationship between human illness from marine recreational activities and coastal OWDS use." However, even the epidemiological studies cited by the LARWQCB, such as Haile et al. 1999, do not make a direct connection between human illness resulting from swimming in contaminated water and the use of OWTS. Instead, they associate increased rates of human illness with swimming "in ocean water contaminated with untreated urban runoff" (Haile et al., 1999).

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Point-by-point comments for Technical Memo No. 3.

2	T3-3	Table 1	**Section 3 Results** – End of Pipe data Sufficient explanation of these data is not provided. On what dates were these measurements taken? Were these measurements taken prior to disinfection, or after disinfection? If these measurements were taken after disinfection, then what measures were taken to correct the disinfection, and were any measurements taken to confirm result of the corrective action? Also, these data are not relevant to: 1. Concentrations of indicator bacteria that are reaching the water table below a properly designed, sited, installed, and maintained drainfield after passing through an adequate thickness of unsaturated soil. 2. Concentrations of indicator bacteria that reach the beaches, because of die-off during times of travel documented in the Stone 2004 report. See the map titled *Map 13: Bacteria Risk Assessment – 0 to 0.5 Year Time of Travel Boundary* (from Stone Environmental Inc. 2004) in Appendix 3-1.
3	T3-5	Fig 2 & 3	**Section 3 Results** – Bacteria in Groundwater Figures 2 & 3 show single sample results, and compare them to recreational water geometric means. The geometric mean standard should be compared to geometric means of measurements in individual wells. We have prepared two revised figures titled *Figure 2R: Chart of Geometric Means of Enterococcus Density (MPN/100 mL) for 20 groundwater wells in the Civic Center area from Stone 2004 Study* and *Figure 3R: Chart of Geometric Means of Enterococcus Density (MPN/100 mL) for 27 permit monitoring wells in the Civic Center area* (Appendix 3-1), with the geometric means of sample results from each well plotted with the geometric mean standard.
3	T3-5	Fig. 2	Data are from Stone's 2004 Risk Assessment report. The LARWQCB provides no documentation to infer that these wells represent current groundwater quality conditions.
3	T3-5	Fig. 3	**Figure 3**, Page T3-5 shows a plot of maximum enterococcus bacteria results from the 27 surviving wells in the CC area. The use of these data is dubious because as shown in the review of Memo #2, the Board's use of "Maximum" frequently means one reading out of 5 years' worth of data for most of the wells, and/or fails to account for a managed system whereby OWDS repairs made in 2004 or 2005 result in consistent enterococcus values well below the action levels. The Board's continuation of this biased use of the data from Technical Memo 2 in Technical Memo 3 calls into question the entire conclusion of this Memo.
3	T3-6	2	**Section 3 Results** Bacteria in Surface Water - The statement: *"Malibu Civic Center groundwater discharge is a possible source of increased levels of enterococcus in the Lagoon."* is misleading because groundwater monitoring has shown that not all groundwater in the Civic Center Area flows into the lagoon (see map titled "Groundwater Wells and Groundwater Recharge Areas in Malibu Study Area", Appendix 3-1).

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3	T3-8	Table 2	**Table 2** shows the days and frequencies that the various wells exceeded the maximum values for enterococcus bacteria. It is not clear what the Board used to determine the importance or scientific reasoning for calculating "frequencies." Surfrider Beach in 2006 shows 2 days and a 6.7% frequency. This would seem to be a 0.55% frequency (2/365*100). Every other value is similarly off by large and differing amounts, and values are always towards larger values. What is the basis for these calculations?
3	T3-8	Table 2	**Table 2** labels the MC-1, 2, & 3 points, which seem like they are different (inverted) from the plot in Figure 4. On Fig. 4 the Malibu Pier site is labeled as MC-3. In Table 2, the same site is labeled MC-1. Which is correct? How does this impact the analyses by the Board that follow?
3	T3-8	Table 2	**Table 2** shows a site SMB-12 which is not shown on Fig. 4. Where is it? It seems important because it has the highest number of non-conforming days.
3	T3-8	Table 2	**Table 2** actually seems to show a progressive cleanup of the bacteria problem at the sampling sites. Three of the five sites (60%) show ZERO days of exceedance in 2008, a significant decrease in 2007, and all show declining impact days across the board. Actually, this table seems to show that the City of Malibu has been proactive in trying to solve the Board's concerns since 2006, and the plot shown in the Board's Fig. 6 demonstrates this.
3	T3-7	Figure 5	**Figure 5** should be discarded. It does not contain enough statistical data to make a broad statement about causality. Figure 5 does not contain any data that is temporally correlated, an important factor (see below). Summer 2008 had unusually low E. coli samples at station HtB-1 compared with previous and more recent samples. For example, Feb 2009 had a sample result 2-3 orders of magnitude higher than anything shown in Fig 5. Summer 2009 had significantly higher results as well. The UCLA lagoon study, sampling many points on the creek and lagoon on the same day, showed no spatial correlation of the kind claimed in Technical Memo #3. The UCLA study showed an obvious fluctuation based on sample date, seeming to invalidate the analysis and conclusions of Figure 5 based on its lack of temporal correlation.
3	T3-9	Figure 6	**Figure 6** should be discarded. It seems to be a chart that somehow displays the >104 MPN and >35 MPN geometric mean standard failures cumulatively. Many of the samples failing to meet the >104 MPN standard were also included in an instance of the >35 MPN geometric mean failure. In other words, many samples were double-counted in this frequency chart, once as >104 MPN failures and again as part of a >35 MPN geometric mean failure. These frequencies (maximum density and geometric mean) are literally the same events and cannot be added together in a defensible frequency count.
3	T3-9	Figure 6	**Figure 6** shows "Cumulative Frequency of Breaking the Ocean Standard" but the vertical scale runs from 0 to 2, with no units shown. We do not understand what it purports to show, and there is no explanation of the term "cumulative frequency" with respect to what they are accumulating.

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3	T3-9	Figure 6	**Figure 6** clearly shows that the bacterial impact days appear to be declining within the Civic Center area, even at the non-located SMB-12. Yet, the caption below the figure in the Memo states "On the beaches, bacteria are typically present at levels above water quality objectives at MC 1, 2, & 3". This statement is despite Table 2 showing *zero* impact days for MC-1 & 3. The reference to a 2002 Heal The Bay report does not reflect current, and substantially different, data that likely reflects the City's active efforts to curb the problem.
3	T3-9	Figure 6	At the Oct. 1 Public Hearing, in response to a question, Elizabeth Erickson (LARWQCB staff) showed a slide that modified Figure 6 by including a bar showing sewered beaches, and how it was lower than the Figure 6 bars. However, for 2005 and 2006, the sewered beaches' value was actually higher than the Malibu values from 2007 and 2008 (excluding SMB-12, which is not located), again reflecting the progress made by the City and invalidating the Board's own conclusions.
3	T3-10/11	Table 3	**Table 3**, Pages T3-10/11 shows extensive bacterial testing from the MC-2 site on the sand berm at the mouth of Malibu Creek. What is not clear, nor discussed, is whether a blank space is a *zero* value, a value below the threshold, or whether no test was run for that column. Based on the last line "Total Violations" it is likely that the test may have been run but not recorded because it was less than the violation limits. This is a biased way to present data, showing only those values that reflect the desired opinion. In keeping with the theme of relying more on the older data, the Board bases these tables mainly on 2006 data, the worst year, despite apparently having the data from 2007 and 2008 that they used in Table 2, and which shows substantially lower readings.
3	T3-10/11	Tables 3-5	**Tables 3, 4, & 5** should have a multivariate analysis done to allow one to understand the cause of the elevated bacteria values. • Was there a large bird population that day? • Was there a storm or storm tide? • Are these human or avian fecal bacteria? • Was the Lagoon open or closed? • Was there increased discharge from upstream? • Was there intensive beach use that week? Instead of evaluating (or allowing a reviewer to evaluate) these and more alternatives, the Board simply concludes that it is all due to the OWDS in the Civic Center area.
3	T3-10/11	Tables 3-5	**Tables 3, 4, & 5** show a majority of the violations (95%, 55%, and 80% respectively) occurring within the "30-Day Geometric Mean Result" columns, but there is no description as to whether they use 5 samples, or what they do to achieve this mean. All we know is that *"* Regional Board staff calculated the rolling 30-day geometric mean values presented."* That this was done on the basis of data that is not shown in the tables makes a review of it impossible. What is puzzling is how the geometric mean can result in so many violations when there are literally no single sample violations for MC-1 & MC-3. How does a mean value ever exceed the maximum? If this table is to be used in defending the severity of the problem, considerably more explanation should be provided.

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3	T3-14	Figure 7	**Figure 7** shows a frequency plot for the Surfrider Beach bacterial values for the summer. Despite the violation events of 2005 and 2006 being clearly higher than 2007 and 2008, they conclude, based on an analysis they do not present, that the plots have a Correlation Coefficient of between 0.82 and 0.98, from which they conclude that there has been no change, and that this is a consistent problem from year to year. Then they build upon that assumption to conclude that this is due to a consistent and pervasive problem at the beach. No source other than onsite wastewater treatment systems is ever considered. Furthermore, their frequency intervals are of differing sizes, making a visual assessment of the charts impossible because the larger values also contain larger intervals, which artificially pumps up the frequency of a value occurring within that much larger box, and skews the presentation power of a chart to look worse than it might otherwise be. Indeed, this may be why their correlation coefficients are so large, but it is not a valid use of statistics.
3	T3-15/16	Figures 8-9	**Figures 8 and 9.** Same comments as Figure 7.
3	T3-7,9, 13		There is no discussion of relationship between bacteria in surface water quality with season or hydrologic events that would indicate stormwater runoff as a potential source of pathogens in surface water.
4	T3-16	1	**Section 4 Epidemiology Evidence of Human Health Impacts in Malibu Civic Center Area** There is no data presented which tie the human health impacts to onsite wastewater treatment systems. Even the epidemiological studies cited by the LARWQCB, such as Haile et al. 1999, do not make a direct connection between human illness resulting from swimming in contaminated water and the use of OWTS. Instead, they associate increased rates of human illness with swimming "in ocean water contaminated with untreated urban runoff" (Haile et al., 1999).
4	T3-16	1	Page T3-16 refers to a 1996 epidemiology study at three locations, including Will Rogers and Malibu Surfrider beaches. The report makes a statement that *"... Malibu had more exceedances than the other two study areas."* However, in Table 6, which contains the supporting data, Will Rogers Beach exceeded Surfrider by 130% in exceedance days, and Will Rogers Beach is sewered (Attachment 3-A to Technical Memorandum #3). The report goes on to present the 1996 study's results for illness at Surfrider Beach, but does not present the results for Will Rogers Beach so one can compare them. There is mention that the EPA's national test results indicate a 19/1000 incidence of HCGI for exceedance days, but then it is not pointed out that the results for Surfrider were only 14/1000 for the HCGI category (almost 25% lower than the EPA results). This selective presentation of data, preceded by a misrepresentation and lack of full and correct representation of the data that are presented, illustrates an apparent bias in the report.

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5	T3-17 through 18		**Section 5, Discussion of Historic and Recent Studies** **Historic Studies relating Malibu Civic Center Septic Systems to Human Health Risk and Beach Pathogens".** Many of the studies cited speculate that OWTS are the source of bacteria in groundwater: In reference to the following sentence: "On January 24, 2002, the Regional Board adopted a Resolution amending the Santa Monica Beach bacteria TMDL to the Basin Plan. The staff report found that bacteria loads from OWDS systems contribute to beach pathogens.", that staff report did not provide any scientific documentation for this sweeping conclusion. The most detailed and definitive study is Stone (2004) which the Memo correctly states that the risk was potentially apparent only within a 6-month time of travel to the creek, lagoon or surfzone. (see attached figure from Stone (2004), titled: Map 13: Bacteria Risk Assessment - 0 To 0.5 Year Time Of Travel Boundary.) The LARWQCB concurred with this conclusion by signing the September 17, 2004 Memorandum of Understanding between the Regional Board and the City. Studies that "describe the ecosystem, hydrology, land use and possible mechanisms of waste water treatment" are noted, but do not appear to have been used for the analyses contained in this Memo.
	T5-19 through 20		**Table 7: Historic Findings of Human Health Risk related to Malibu OWDS System Use.** Although we have not read all of these studies, we are not aware that any of these studies conclusively links OWTS to bacteria in the surfzone. If any of these studies do that, please let us know.
5	T5-20-22		**"OWDS Systems and Transportation of Pathogens" and "Studies relating OWDS Systems to Beach Pathogens"** Although scientific studies like those presented are useful as references, no information is provided in the short summaries that proves a definitive relationship between OWTS and beach pathogens in Malibu Civic Center area.

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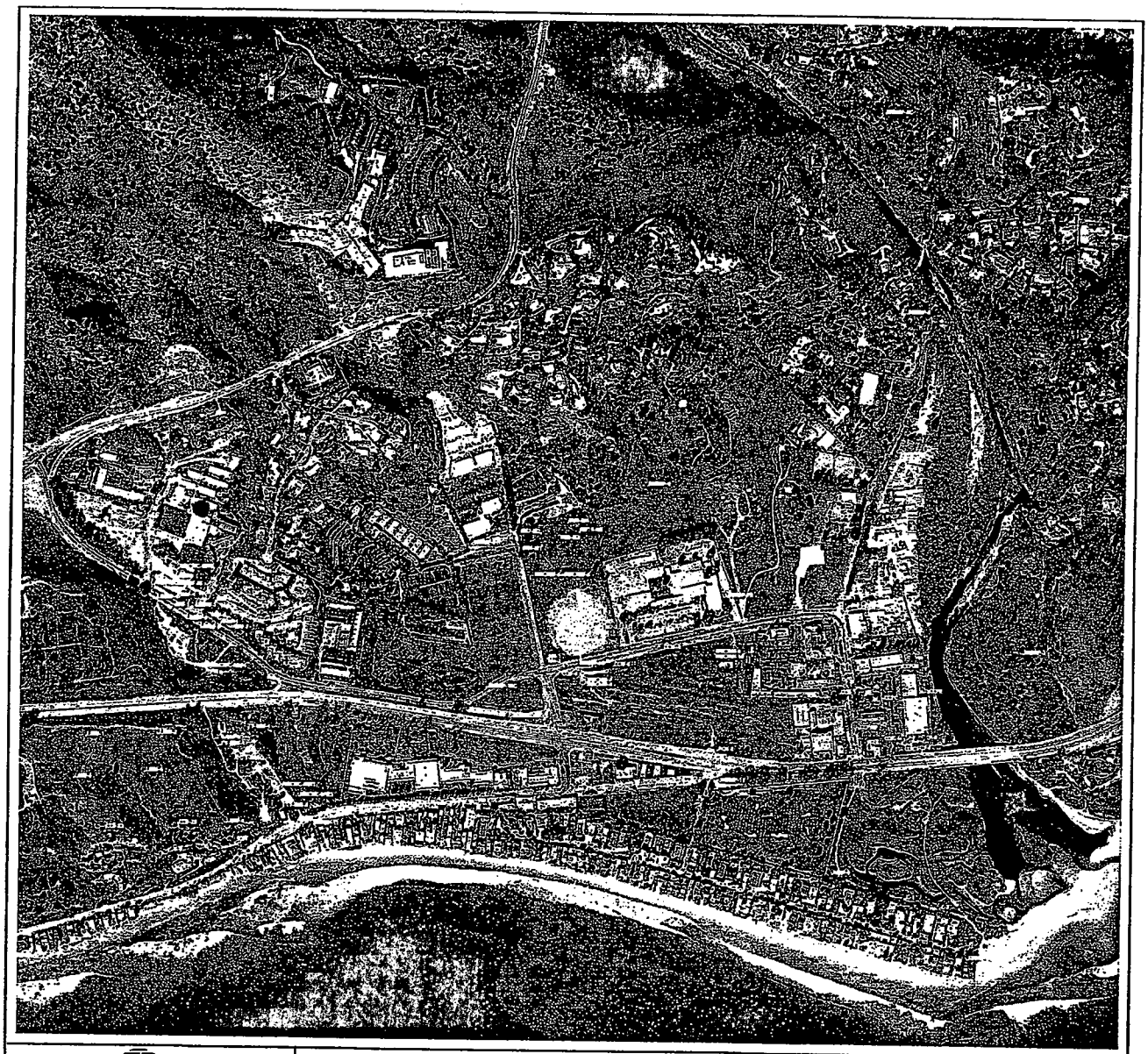
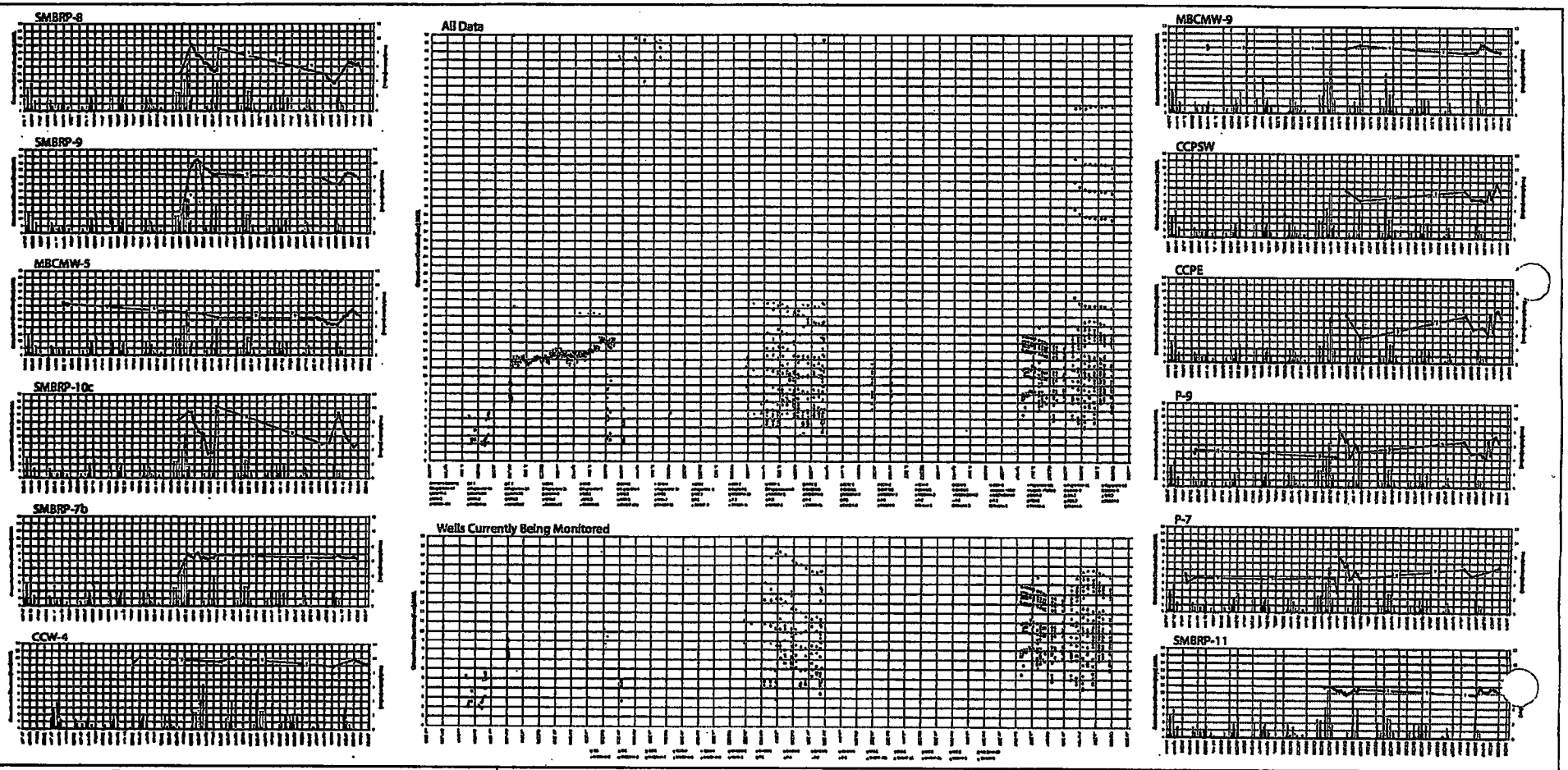
5	T3-22	Figures 10 & 11	Cross Section A-A' (Figures 10 and 11) is described as demonstrating *"movement of septic system bacteria from the Civic Center area north of Pacific Coast Highway via subsurface transport to Surfrider Beach"*. The map titled *Groundwater Wells and Groundwater Recharge Areas in Malibu Study Area* (Appendix 3-1), showing the contributing areas of the lagoon and ocean, clearly shows that A-A' is almost entirely contained within the lagoon recharge area, and is not typical of subsurface transport of bacteria to the ocean as described.
5	T3-25	Figure 11	Cross Section A-A' has no discussion as to how it was developed and what it is expected to be illustrating, no clue as to the source of the enterococcus values that are plotted on it, does not mention what the values actually mean after the named facilities, and has a 90-degree bend in it that is not even reflected in the section. There is no scale, but it purports to show some sort of impact by the Colony residences onto the Lagoon and Ocean.
6	T3-25		**Section 6. Conclusion** The following conclusion is presented: *"To examine the hydraulic connection of discharges from OWDSs through groundwater to nearby surface waters, staff evaluated more than 8,000 samples of wastewater effluent, underlying or nearby groundwater, and surface waters. Staff determined that pathogens from wastewaters likely migrate to surface waters and that, consistent with data supporting the designations of impairments, and threaten human health. This conclusion is based on our analysis of the indicator bacterium enterococcus. The levels of this bacterium do not meet standards protective of human health. Staff also determined that risks of infectious disease from water contact recreation were elevated at beaches in the Malibu Civic Center based on work by Haile et al."* The facts and analysis in this document do not support this conclusion for the following major reasons: • The apparent lack of consideration of groundwater flow data, • The apparent lack of consideration of timing of the sampling relative to seasons and hydrologic and marine events; • The lack of specificity as to details of the 8,000 sample data points (it is not appropriate scientific method to refer to data in the conclusion that has not been presented in the background, methods, results or analysis sections); • The lack of consideration of other sources of bacteria in the groundwater, lagoon and the surfzone. See Appendix 3-1



Earth Consultants International

Malibu Downtown Area
Well Location Map

N

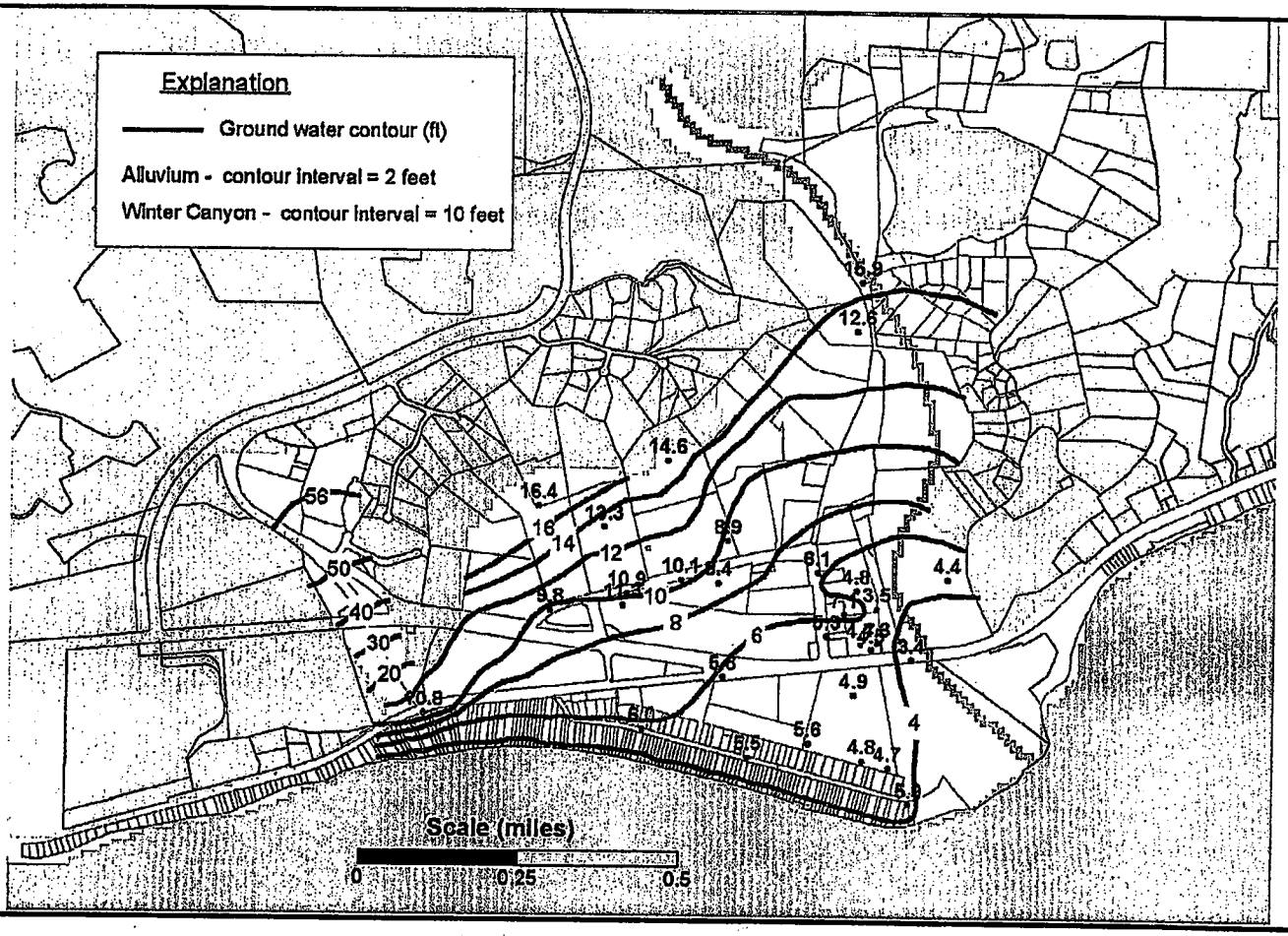


Earth Consultants International

STONE ENVIRONMENTAL INC

McDonald Morrissey Associates Inc

Malibu Downtown Area
Historical Hydrographs 1998-2008



MAP 6: WATER LEVELS MEASURED ON MARCH 9, 2004--BREACHED LAGOON
Risk Assessment of Decentralized Wastewater Treatment Systems in High Priority Areas
City of Malibu, California

Source: Draft Model Report Figure 9, McDonald-Morrissey Associates Inc., 2004.
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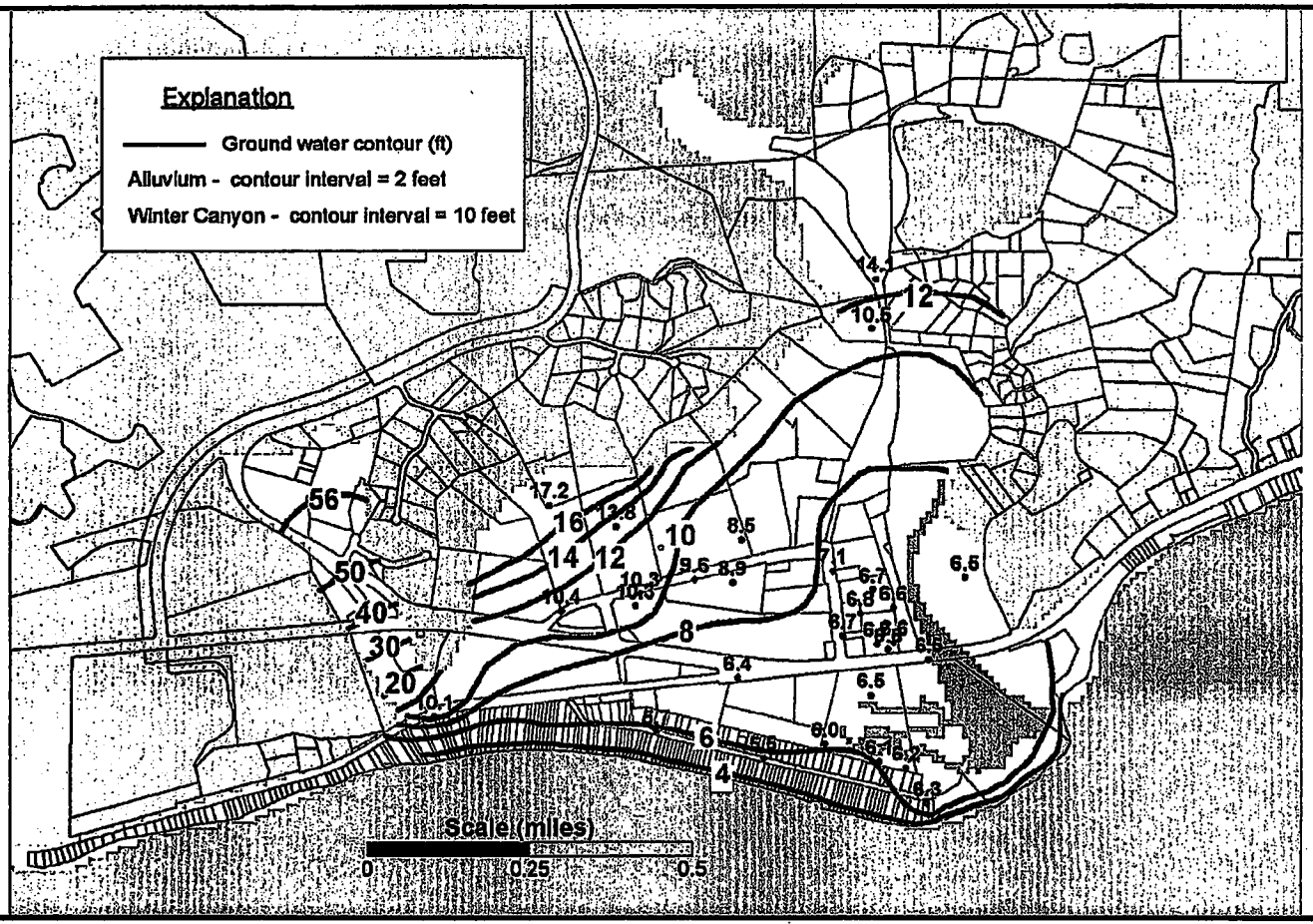
Date/init: 5-14-04 anm

STONE ENVIRONMENTAL INC



MAP 5: WATER LEVELS MEASURED ON SEPTEMBER 25, 2003--UNBREACHED LAGOON
Risk Assessment of Decentralized Wastewater Treatment Systems in High Priority Areas
City of Malibu, California

Source: Draft Model Report Figure 9, McDonald-Morrissey Associates Inc., 2004.
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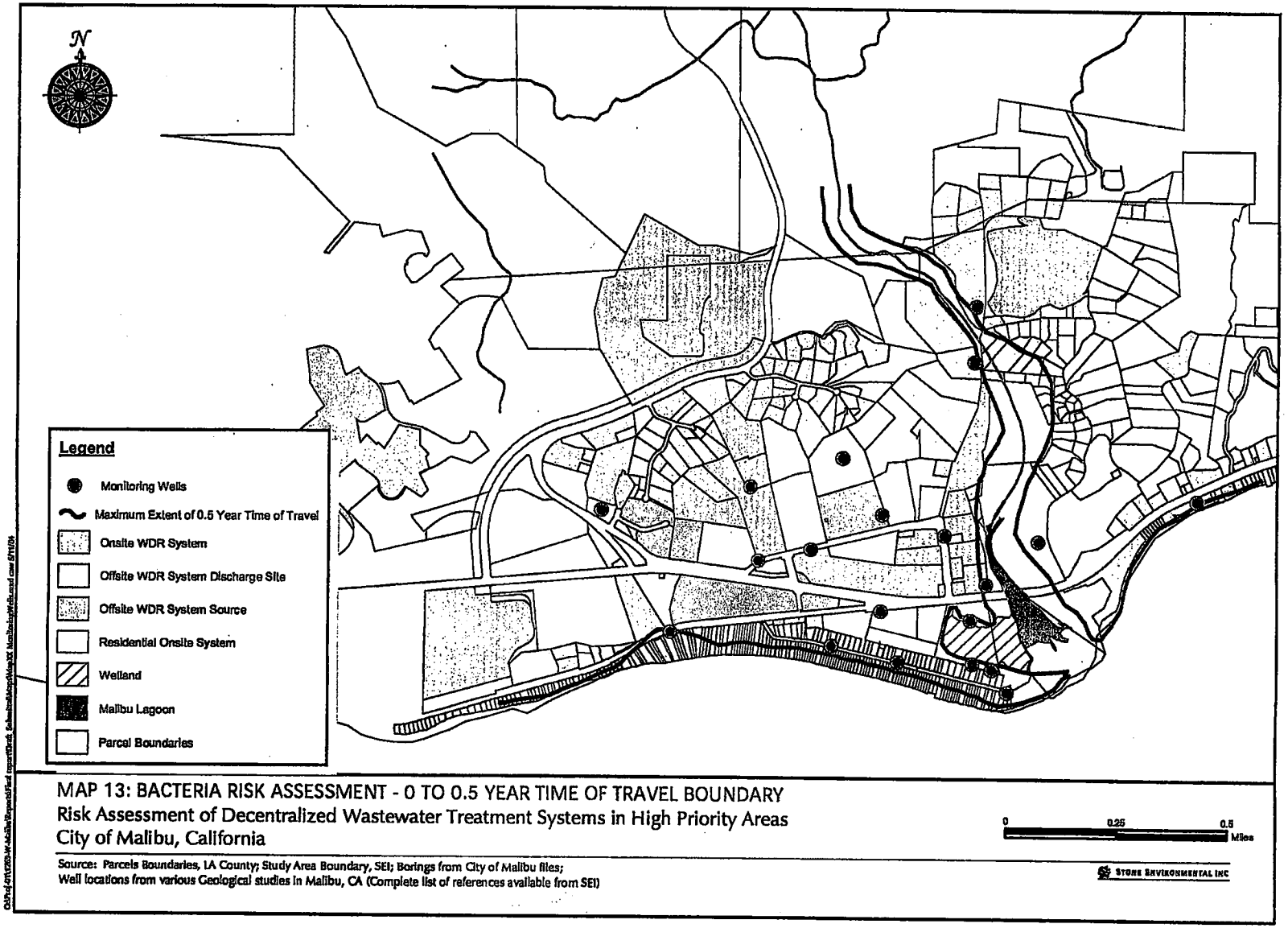


MAP 13: BACTERIA RISK ASSESSMENT - 0 TO 0.5 YEAR TIME OF TRAVEL BOUNDARY
Risk Assessment of Decentralized Wastewater Treatment Systems in High Priority Areas
City of Malibu, California

Source: Parcels Boundaries, LA County; Study Area Boundary, SEI; Borings from City of Malibu files;
Well locations from various Geological studies in Malibu, CA (Complete list of references available from SEI)

Figure 2R: Chart of Geometric Means of Enterococcus Density (MPN/100 mL) for 20 groundwater wells in the Civic Center area from Stone 2004 Study

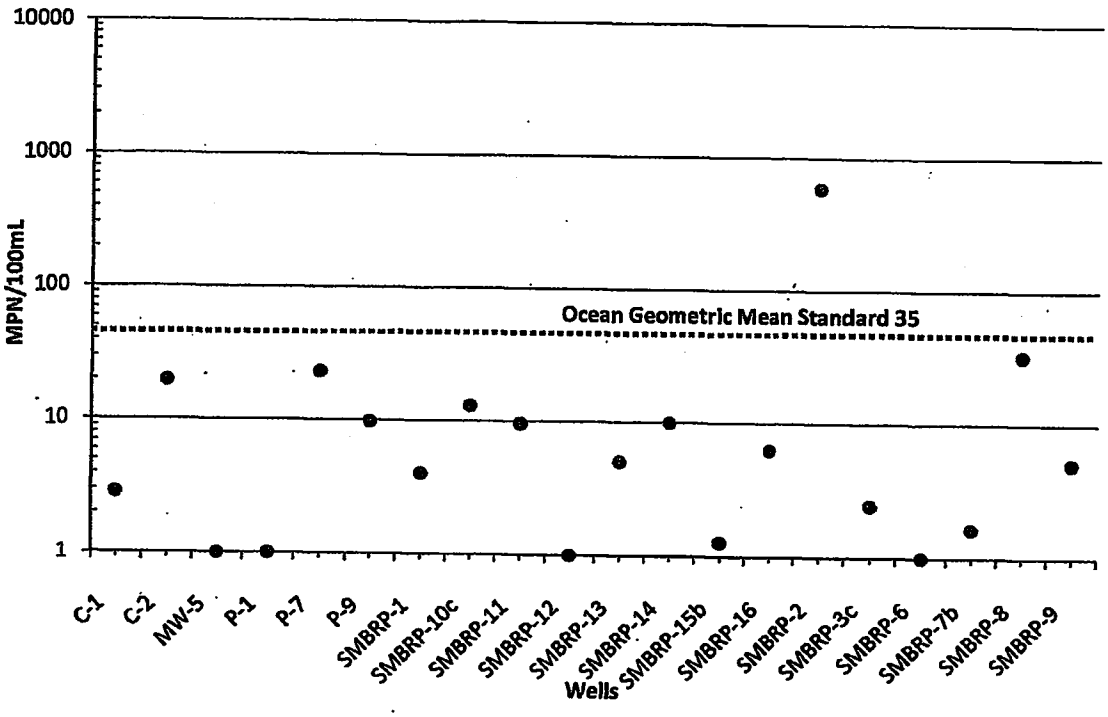
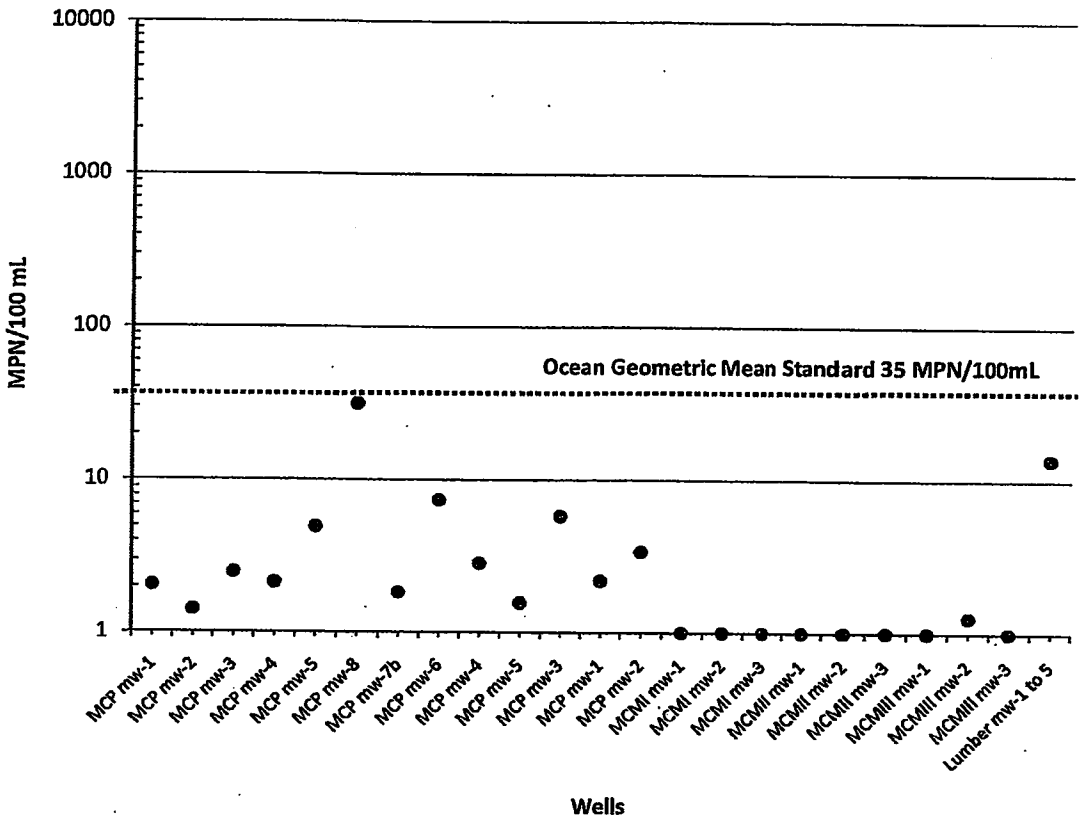
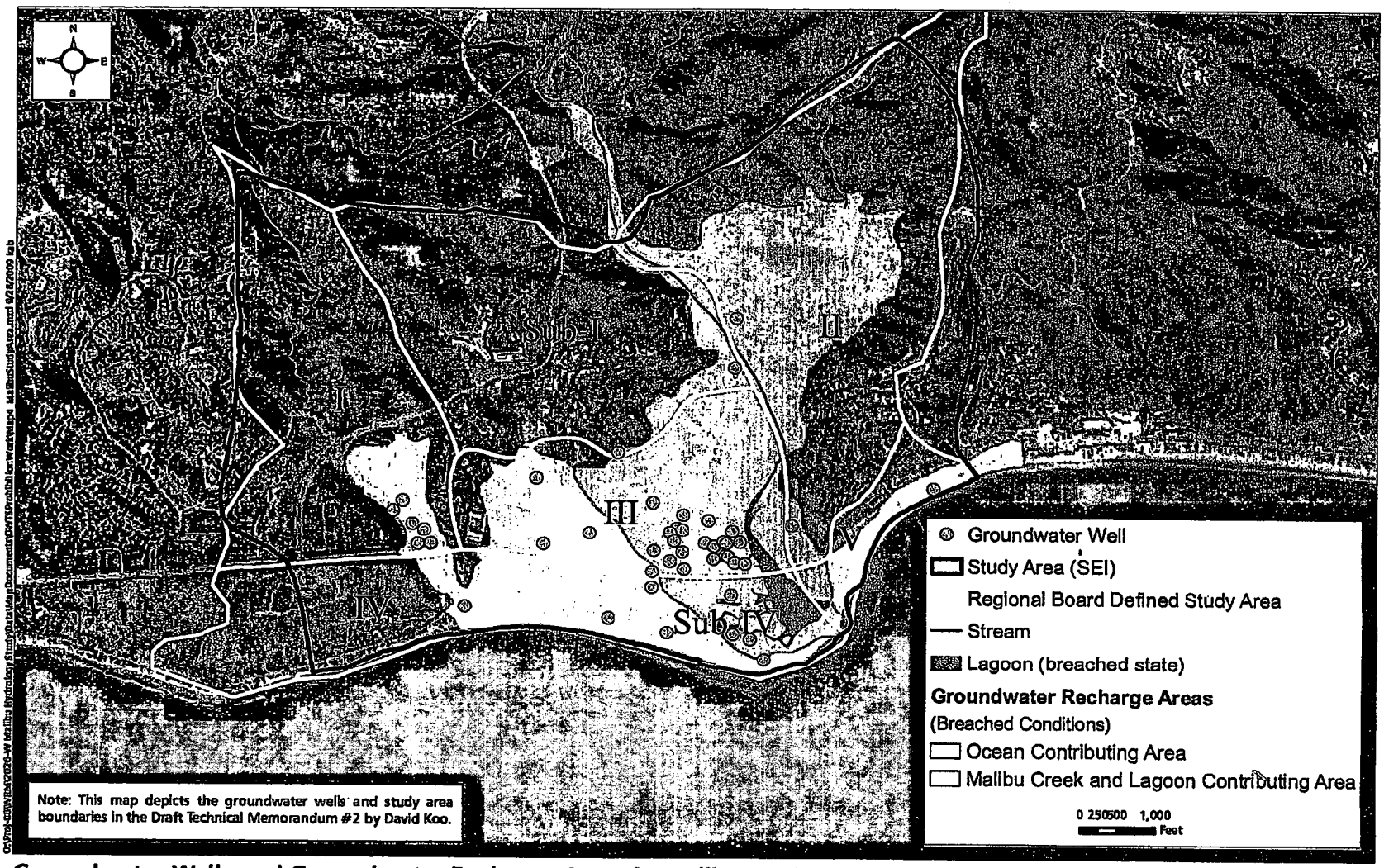


Figure 3R: Chart of Geometric Means of Enterococcus Density (MPN/100 mL) for 27 permit monitoring wells in the Civic Center area





Groundwater Wells and Groundwater Recharge Areas in Malibu Study Area

City of Malibu, California

Sources: Groundwater Well Locations and Leachfields, digitized by Stone, 2009; Hydrography, digitized by stone using LAR-IAC 2006-2007 topography, 2009; Study Area, Regional Board; Groundwater Recharge, Stone; Imagery, ESRI.

ATTACHMENT 4
City of Malibu
Point-by-point comments for Technical Memo No. 4.

1. Page T4-6, Paragraph 3, Section 2.b.i - Regional Board staff estimates there has been a 100% increase wastewater discharge volume since 2001. This estimate is based on a series of unsubstantiated assumptions and almost certainly results in an overestimate of nitrogen loading to groundwater and surface waters. Water delivery records, not new information about the number of existing commercial properties in Malibu, should be used to obtain a more accurate representation of current and historical flows.

2. Page T4-9, Paragraph 3, Section 2.c.i - The numerical fate and transport model is not explained in any reasonable level of detail to allow technical review of the nitrogen loading analysis. Therefore, the conclusions of Technical Memorandum No. 4 cannot be independently verified.

3. Page T4-9, Paragraph 4, Section 2.c.ii - The analytical (spreadsheet) fate and transport model is not explained in any reasonable level of detail to allow technical review of the nitrogen loading analysis. Therefore, the conclusions of Technical Memorandum No. 4 cannot be independently verified.

4. Page T4-13, Paragraph 1, Section 2.c.ii - No credible scientific basis is provided for estimation of the soil nitrogen load reduction factors (Regional Board staff used values ranging from 0% to 20%). Therefore, the conclusions of Technical Memorandum No. 4 cannot be independently verified.

5. Page T4-14, Paragraph 2, Section 2.c.ii - The Regional Board staff's decision to not evaluate soil nitrogen load reduction for residential properties is indefensible. By virtue of having lower rates of effluent hydraulic loading and waste strength loading into the subsurface, natural nitrogen load reduction would be greater for residential properties than for commercial properties.

6. Page T4-13, Paragraphs 4-6, Section 3 - The analytical (spreadsheet) fate and transport model is not explained in any reasonable level of detail to allow technical review of the approach, and therefore, the scientific basis for the results and conclusions cannot be validated. There is no description of the model equation(s), the model input parameters are not described, and the selection of input parameter values is not described. Apparently, a "box model" simulating mixing of groundwater with surface water was used to estimate nitrogen concentrations in Malibu Lagoon, but no description of that model is provided. Neither the main body of the Technical Memorandum No. 4 nor Attachment 4-1 provides a description of the modeling model equation(s), the model input parameters, or the selection of input parameter values. The nutrient TMDL load allocations for nitrogen are presented as though they represent a scientifically credible threshold for impairment of aquatic life, yet the 2001 TetraTech nutrient TMDL study (upon which the load allocations are based) is not peer reviewed science. The City of Malibu is on record as having commented to the USEPA Region 9 that it does not agree with significant portions of the analysis and conclusions of the 2003 nutrient TMDL

study. A rational analysis of the nitrogen load that may correspond with impairment of aquatic life, and justification for the significance of the 6 lb/day threshold applied by the Regional Board analyst, is completely missing from Technical Memorandum No. 4.

7. Page T4-15, Paragraph 2, Section 4 - The analytical (spreadsheet) fate and transport model is not explained in any reasonable level of detail to allow technical review of the approach, and therefore, the scientific basis for the conclusions cannot be relied upon. Furthermore, Technical Memorandum No. 4 includes no discussion of the scientific basis for establishing a numerical threshold for nitrogen concentrations in receiving surface water habitat with respect to the question of what aquatic toxicity endpoint is used to define impairment of aquatic life.

8. Pg. 1 erroneously states that commercial development is concentrated on Malibu Road. While there are a small number of parcels, it would be better to state that it is centered on Civic Center Way instead.

9. Pg. 2 – under the section Residential Sites, the City does not have an Assessor. This reference should be to the Los Angeles County Assessor. In addition, the Assessor's information is updated quarterly. Why aren't more recent figures than 2002 used?

10. Interesting that the memo bases its study of water use on an assumption of 100 gpd per restroom. It would seem that the use of low-flow fixtures are more prevalent now and that a more accurate number would reflect such waster conservation measures.

11. Pg. 6, paragraph 2 – area the totals listed for current wastewater generated (128,469 gpd) accurate? It is not correct to say that there has been a 100% increase in use. The calculation was done in error. A 100% increase over 75,000 gallons would be 150,000 gallons, not 128,469 gallons. The percentage increase is not actually that high.

12. Pg. 7, paragraph 1 – memo does not provide sufficient data regarding the information obtained on "site visits" to the unpermitted commercial establishments.

13. Pg. 7 – the calculations for residential use do not take into account the unique nature of Malibu in that many of these residences are second homes and are not inhabited on a daily basis. This is especially true for the properties in the Colony and along Malibu Road.

14. Pg. 9 – Sector 1. A statement is made that untreated wastewater is being discharged. By whom? Why is a portion of Pepperdine included when it is on sewer?

15. Pgs. 10-12 – give various estimations of the percentage of flows that are reaching the Lagoon from the various Sectors. What evidence are these assumptions based on?

16. Pg. 11 – statement that Malibu Colony Plaza encompasses all the commercial area between PCH and Malibu Road. This statement is not true, because there is also the 76

Station, Post Office, Urgent Care and abandoned gas station that are located in the specified area.

17. Pg. 12, paragraph 1 – in one sentence the number of residences changes from 180 to 107. It should be clarified that there are 107 homes in the main sector and 73 in the subsector. Also, there should be an explanation as to why there are subsectors. There is no map to show the locations of these areas.

18. Pg. 12, paragraph 4 – there is nothing but the Pacific Ocean south of Malibu Lagoon. The project document needs to include accurate directions throughout (i.e. PCH runs east – west and the ocean is to the south in the project area).

19. Pg. 13 – Results section, 29 lbs/day of what is transported to Malibu Lagoon? Needs to be clarified.

20. Pg. 14 – why is the last line in Table 4 different for the net load to Malibu Lagoon? An explanation should be provided.

21. Pg. 14 – the memo mentions that nitrogen concentrations for commercial discharges have decreased, but this fact was never analyzed in this document. Also this section cites that 15 new OWTS have been installed since 2004. Where? There is no evidence to support this statement.

22. Table 2 includes properties that are incorrectly categorized:

APN 4458-027-037 is actually addressed as 3547 Winter Canyon and it contains a long-standing commercial use – Malibu Glass. There is no multi-family development on that property.
APN 4458-027-025 is an elementary school and does not contain a 6 bed, 6 bath residence.
APN 4458-027-005 is a duplex, not a single-family residence.
APN 4452-019-008 is a duplex, not a single-family residence.

23. Section 2, Pages 4-5 Assumptions used in estimating nitrogen loading are explained in the Technical Memorandum and can be debated. However, it is most important to recognize that the assumptions result in estimates, not actual measurements of nitrogen loading. Therefore the language in 2.b.iii that states what flows and loads are, should be changed to document that based on the assumptions presented, the flows or loads are estimated to be the values presented. This perspective is lacking throughout this Memo.

24. Section 2, Pages 5-6. Water use data show that the amount of commercial wastewater discharge has actually gone down in the area that contributes to the lagoon. In 2003 commercial discharges averaged (annual flows per year divided by 365 days) about 88,000 gpd and have been generally decreasing to 2008 when it averaged approximately 61,000 gpd.

25. Section 2, Page 7. The use of 100 gpd/person and one person per bathroom is not an appropriate approach to estimating residential flow. Stone (2004) estimated average indoor water use as 500 gpd and 20 mg/L Nitrate-N, because a high volume of indoor water use results in diluted wastewater with a relatively low nitrate-N concentration. Another approach would be to use the average household size of 2.4 persons/household, and assume 100 gal/day/person and 45 mg/L nitrate -N. However the assumption of 1 person per bathroom and an average of 3.6 bathrooms per house (1,262 total bathrooms/349 Residential units) results in an exaggerated estimate of 3.6 people per household that will result in apparently inaccurate estimates of nitrate loading.
Section 2, Page 9. The Board staff assumes that there is loading to the Lagoon from areas that are clearly outside the contributing area for the lagoon. There is no defensible justification provided for this assumption. The map presented in Appendix 4-1, Groundwater Wells and Groundwater Recharge Areas in Malibu Study Area, provides a comparison of the sectors with the alluvial deposits and the contributing area to Malibu Lagoon.

26. Pages 9-12. In the Technical Memorandum, Board staff assumes that loading to Lagoon is distributed as follows:
1% from Winter Canyon sub sector – Sector I
45% from West Alluvium sub sector – Sector I
95% from Sector II which includes North alluvium, Malibu Tributary, Serra Retreat and East Alluvium
95% from Sector III which includes the entire valley floor on alluvium.
Plus 20% from the Racquet Club and Miramar properties on western edge.
1% of the loading from Sector IV which includes all commercial properties and residences south of PCH plus 45% of flow from 73 homes in the "Lagoon sub sector" of this area

The memo does not provide a rationale for this distribution of flow and does not provide any hydrologic data or analysis to support it. See the above-referenced maps in Appendix 4-1, as well as a selected list of relevant references that thestaffdid not include in the references for Technical Memorandum #4 or consider in their analysis, in this appendix

27. Pages 9-12. The loading calculations done by LARWQCB should be recalculated using contributing area based on the region's actual hydrogeology. See the map titled Groundwater Wells and Groundwater Recharge Areas in Malibu Study Area in Appendix 4-1.

28. Pages 9-10. Sector I.
The statement is made that "Groundwater takes the path of least resistance", and then the memo attempts to present a case, without any evidence, that the groundwater will NOT take the path of least resistance. Rather it will travel through the bedrock instead of flowing directly to the ocean down a relatively steep gradient through the permeable alluvial along the trough of Winter Canyon. No data is presented to justify the

assumption of significant flow through the fractured bedrock. The statement that there is a "super highway" within the fractured bedrock of Malibu Valley is not justified. See the two maps Appendix 4-1 showing the groundwater elevations in both breached and flooded lagoon conditions.

29. Pages 9-10. Sector I.
There was nothing in the Memo to indicate that the beach in front of Winter Canyon has ever been found to be contaminated by discharge from Winter Canyon. As such, it is not clear why this zone is included in the Prohibition Area. Winter Canyon should be deleted from the proposed Prohibition Zone. If the contribution is indeed only 1%, and may be ZERO, how does this miniscule contribution justify a prohibition? Longshore current drift from the mouth of Winter Canyon cannot enter the Lagoon, because the Lagoon is topographically higher than the ocean, and is typically blocked by a sand bar. See the map of contributing areas titled Groundwater Wells and Groundwater Recharge Areas in Malibu Study Area in Appendix 4-1.

30. Page 10. Sector II.
Reference is made to the west side of Malibu Creek and Serra Retreat. Serra Retreat is on the east side of Malibu Creek.

31. Section 3, Page 12. Results.
The analysis ignores nitrate loading from inflow of Malibu Creek to the Lagoon. Available data from Heal the Bay monitoring at Arizona Crossing shows that nitrate levels in Malibu Creek can be as high as 10 mg/l. See the chart titled NO2-N +NO3-N Concentrations Malibu Creek in Appendix 4-1, which includes water quality data downloaded from Heal the Bay's website at http://www.healthebay.org/streamteam/data/chem/query/ on October 5, 2009.

32. Section 2, Page 14. The discussion of nitrogen loading is only a repetition of various estimates without discussion of why there are differences. The analysis is presented with no clear basis for the Board's choice of estimate, and without documentation of the procedure for making the estimate of how much nitrogen is produced. The nitrogen contribution by Sector is not broken down despite 12 pages of description of how the Sectors were divided and how important they are to their model. No consideration is given as to whether existing advanced treatment systems might change the assumed nitrogen production rates. This is a very hollow results section, difficult to quantitatively review because there is no substance in it available to review.

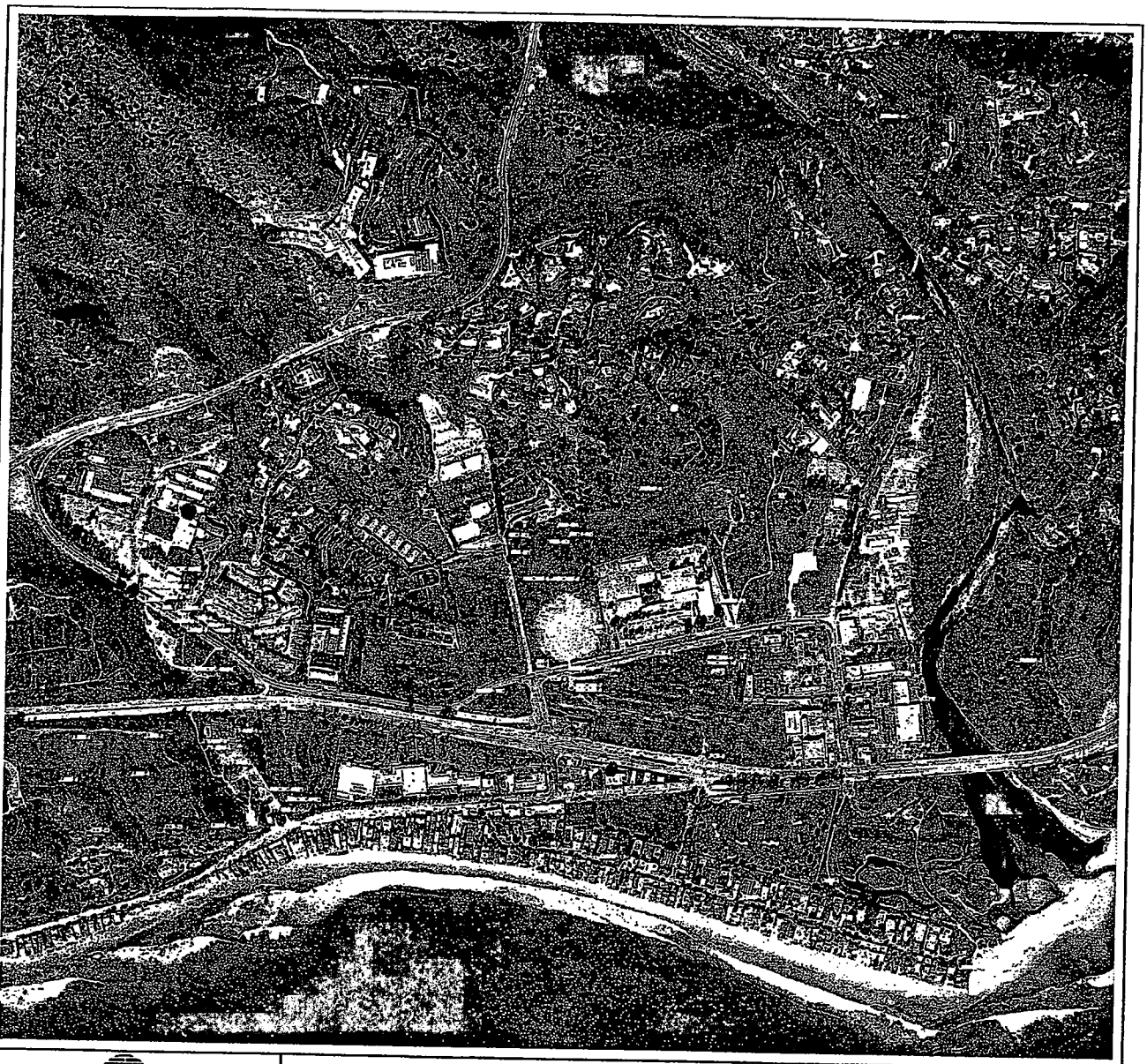
33. Section 2, Page 15. The wording in the main body of Technical Memo #4 implies that the numerical model was used by Board staff to estimate loading rates; however, his is appears to not be true and the ratio of total nitrogen load was used to calculate the load to the lagoon.

34. Section 3, Page 14. The following statement is not clear: "Since 2004, 15 additional OWTS have been installed at commercial properties in the Malibu Civic Center area." It

would appear to more accurately be stated, as follows: "Since 2004, 15 OWTS have been installed at existing commercial properties in the Malibu Civic Center area."

35. Section 4-1, Page 33. In Table 1 of the memo addendum by Lai various loading rates are compared. Rather than using the correct contributing area for the lagoon the staff simply assumed that 50% of total nitrogen produced in the project area will go to the lagoon. This assumption is arbitrary and completely ignores the mapped capture zone for the lagoon. See the mapped capture zones presented in the map titled Groundwater Wells and Groundwater Recharge Areas in Malibu Study Area, in Appendix 4-1.

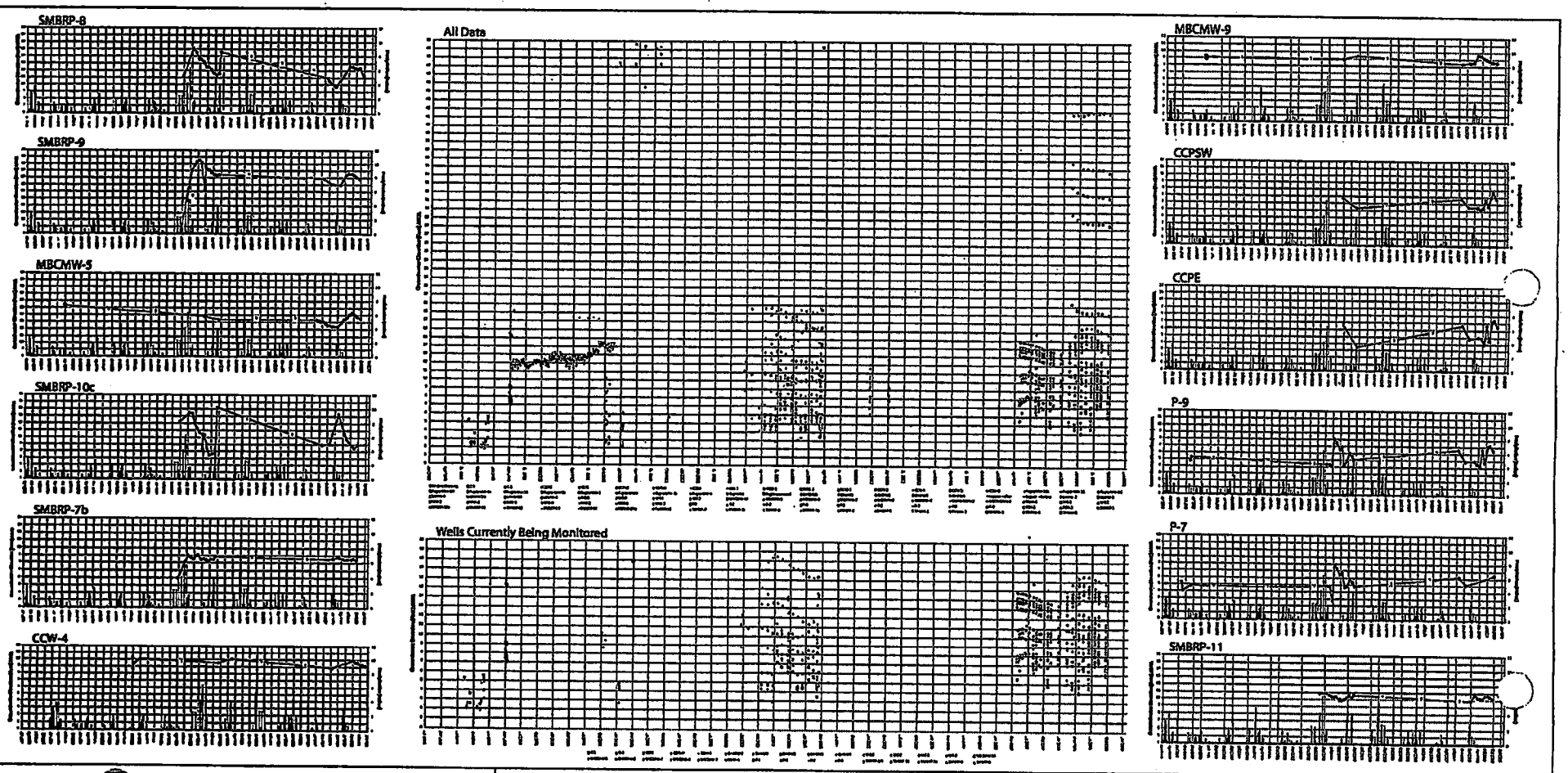
See APPENDIX 4-1 attached



Earth Consultants International

Malibu Downtown Area
Well Location Map

N

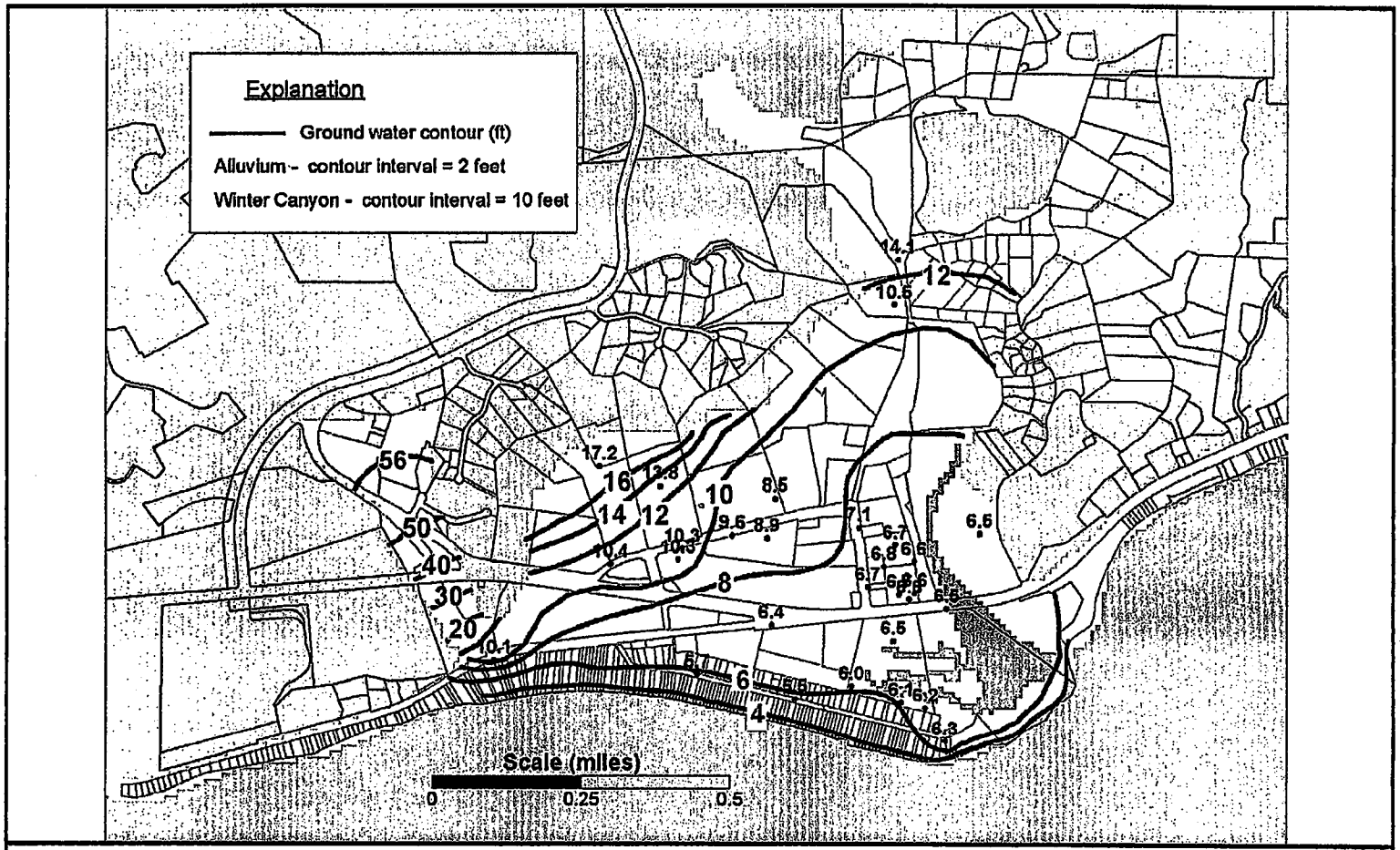


Earth Consultants International

STONE ENVIRONMENTAL INC

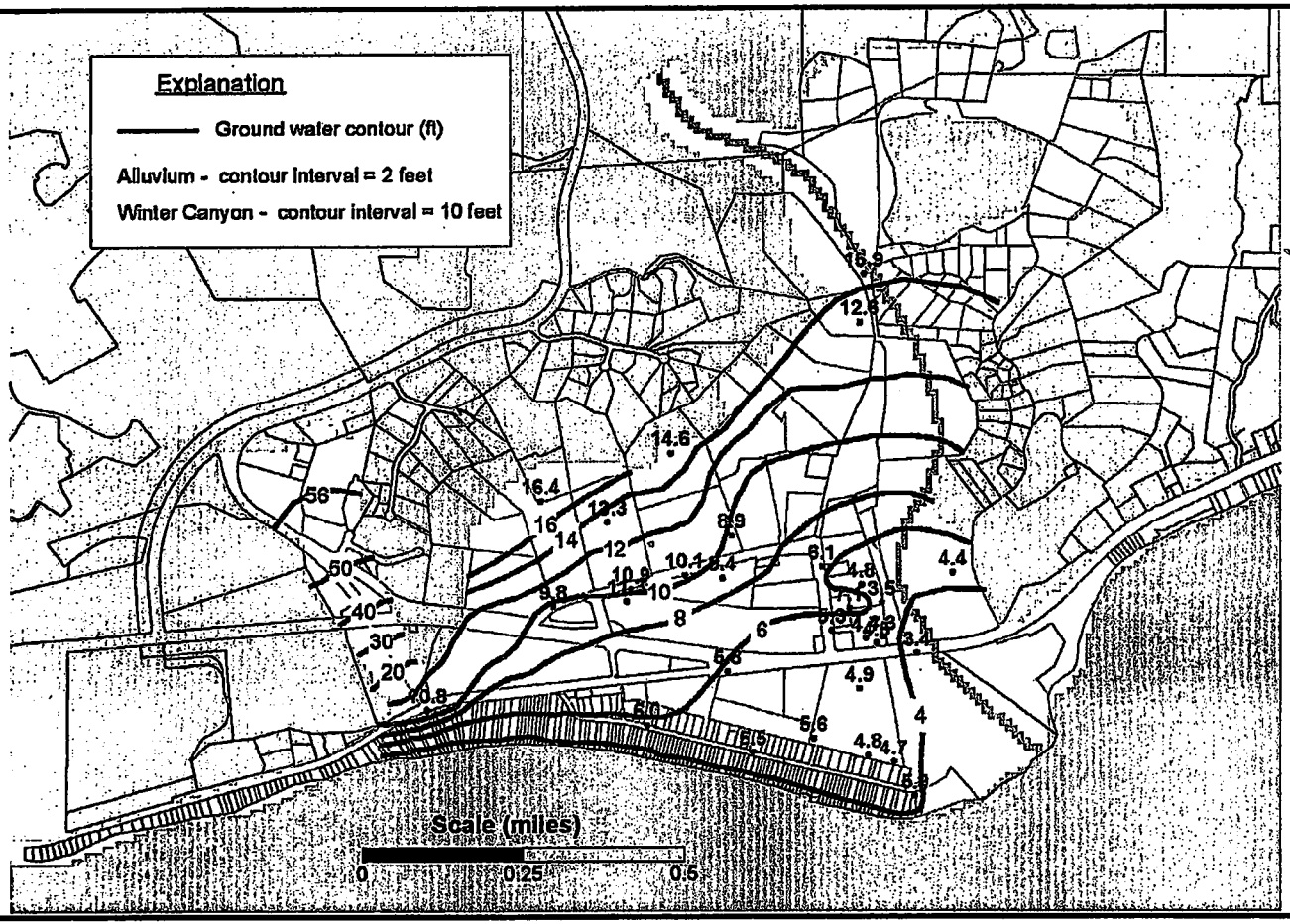
McDonald Morrissey

Malibu Downtown Area
Historical Hydrographs 1998-2008



MAP 5: WATER LEVELS MEASURED ON SEPTEMBER 25, 2003--UNBREACHED LAGOON
Risk Assessment of Decentralized Wastewater Treatment Systems in High Priority Areas
City of Malibu, California

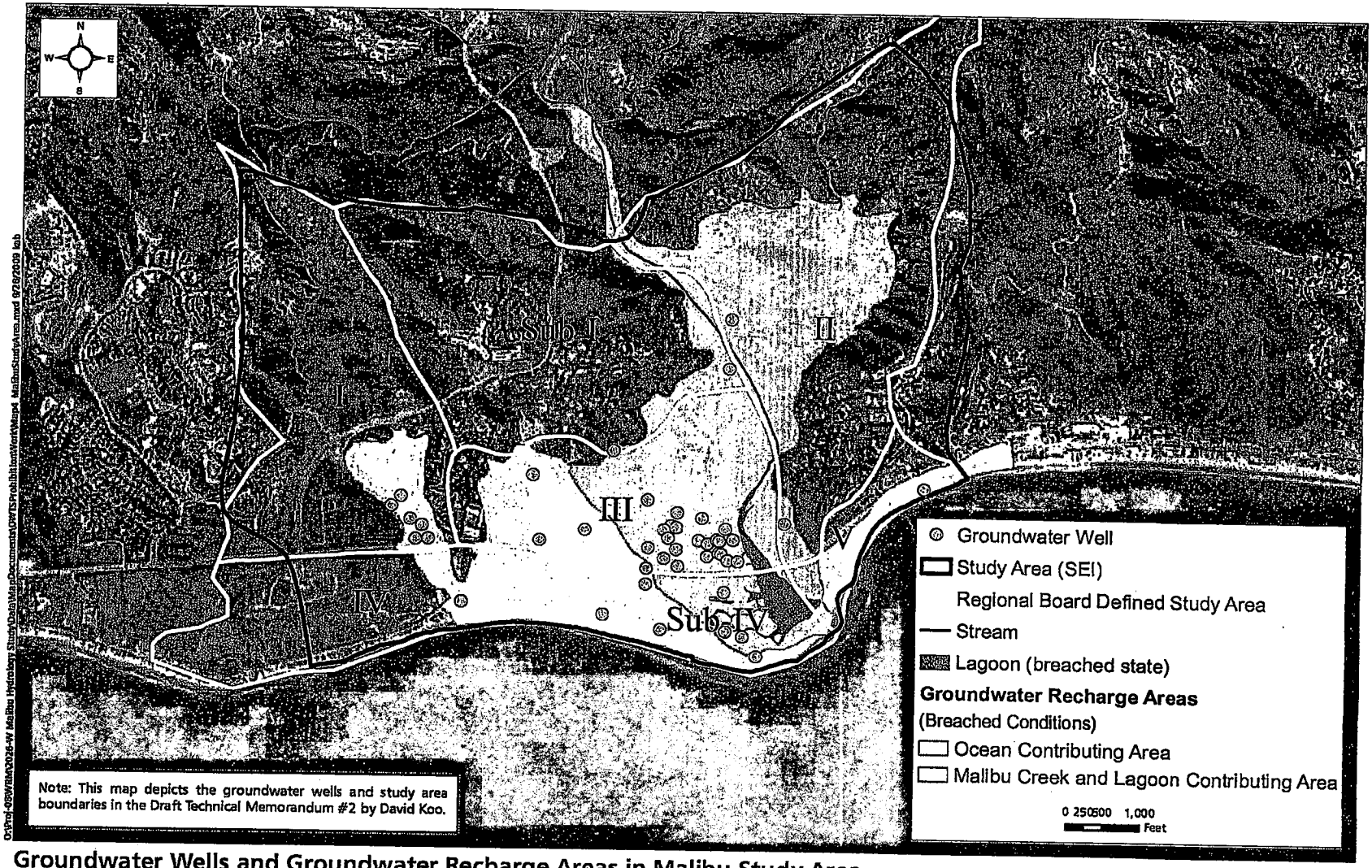
Source: Draft Model Report Figure 9, McDonald-Morrissey Associates Inc., 2004.
Path: O:\Proj-01\1269-W-Malibu\Reports\DraftSubmittal\Maps\Map4.cdr
Date/init: 5-14-04 anm



MAP 6: WATER LEVELS MEASURED ON MARCH 9, 2004--BREACHED LAGOON
Risk Assessment of Decentralized Wastewater Treatment Systems in High Priority Areas
City of Malibu, California

Source: Draft Model Report Figure 9, McDonald-Morrissey Associates Inc., 2004.
Path: O:\Proj-01\1269-W-Malibu\Reports\DraftSubmittal\Maps\Map4.cdr
Date/init: 5-14-04 anm

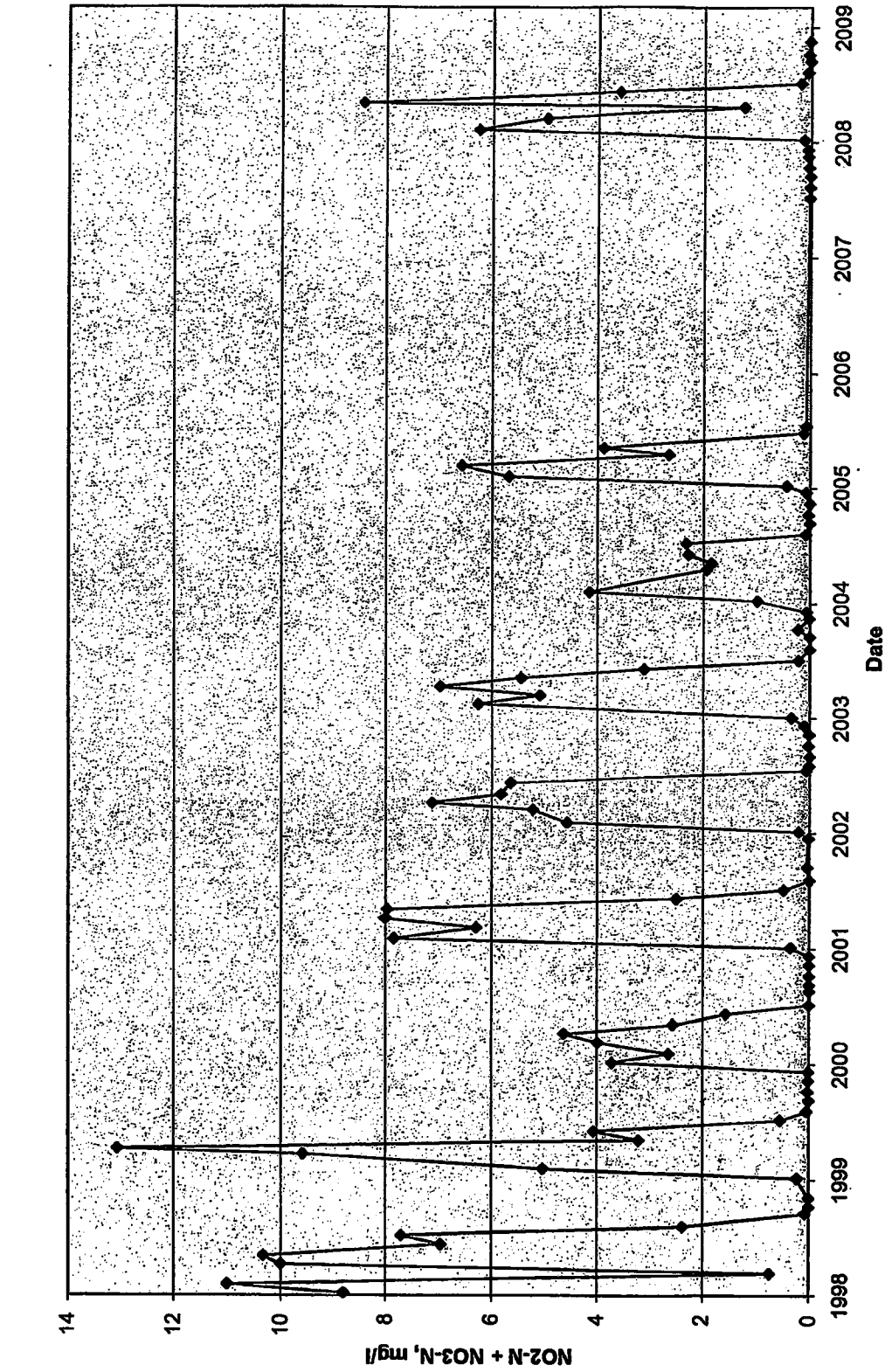
STONE ENVIRONMENTAL INC



Groundwater Wells and Groundwater Recharge Areas in Malibu Study Area

City of Malibu, California

Sources: Groundwater Well Locations and Leachfields, digitized by Stone, 2009; Hydrography, digitized by stone using LAR-IAC 2006-2007 topography, 2009; Study Area, Regional Board; Groundwater Recharge, Stone; Imagery, ESRI.


NO2-N +NO3-N Concentrations Malibu Creek
NO2-N + NO3-N, mg/l
0
2
4
6
8
10
12
14
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
Date

Advanced Treatment OWDS in the Malibu Civic Center Area

AIN	Street No.	Street Name	Date of Plan
4452005031	22878	PACIFIC COAST HWY	12/18/2007
4452008030	23324	MALIBU COLONY DR	8/18/2006
4452009017	23416	MALIBU COLONY RD	9/15/2006
4452009026	23414	MALIBU COLONY RD	11/14/2006
4452010027	23445	MALIBU COLONY RD	8/20/1985
4452011042	3900	CROSS CREEK RD	1/9/1998
4452011043	23359	PACIFIC COAST HWY	1/9/1998
4452012012	3635	SERRA RD	9/9/2005
4452014004	23344	PALM CANYON LANE	2/9/2005
4452015029	3551	CROSS CREEK LN	11/8/2006
4452016003	3311	SWEETWATER MESA RD	12/5/2006
4452016019	3415	SWEETWATER MESA RD	6/20/1997
4452019003	23017	PACIFIC COAST HWY	12/18/2002
4452026018	3270	SERRA RD	9/22/2009
4458002008	23681	MALIBU COLONY RD	12/7/1992
4458003014	23561	MALIBU COLONY RD	3/27/2007
4458003026	23615	MALIBU COLONY RD	1/31/2007
4458004035	23512	MALIBU COLONY DR	4/1/2002
4458004037	23520	MALIBU COLONY DR	2/9/1996
4458004045	23554	MALIBU RD	12/9/2004
4458004046	23556	MALIBU COLONY RD	7/10/2007
4458006029	23754	MALIBU RD	8/21/1986
4458006031	23750	MALIBU RD	1/8/2007
4458006035	23730	MALIBU COLONY RD	10/4/1999
4458006036	23720	MALIBU COLONY RD	12/18/1986
4458007015	23864	MALIBU RD	7/18/2006
4458007017	23910	MALIBU RD	5/26/1998
4458008015	23926	MALIBU RD	2/11/2004
4458009011	24008	MALIBU RD	4/16/2007
4458010002	24166	MALIBU RD	11/20/2006
4458020010	23410	CIVIC CENTER WAY	4/7/1997
4458020016	23641	PACIFIC COAST HWY	7/3/1995
4458021172	23825	STUART RANCH RD	9/21/2000
4458022019	23519	CIVIC CENTER WAY	2/28/1968
4458022904	23525	CIVIC CENTER WAY	2/28/1968
4458025001	23915	MALIBU KNOLLS RD	11/28/1988
4458028006		PCH and CIVIC CENTER WAY	2/13/2001
4458028020	24000	CIVIC CENTER WAY	2/13/2001
4458029006	3011	MALIBU CANYON RD	5/11/1998
4458029012	3011	MALIBU CANYON RD	5/11/1998
4458029013	3011	MALIBU CANYON RD	5/11/1998
4458029015	3011	MALIBU CANYON RD	5/11/1998
4458029016	3011	MALIBU CANYON RD	5/11/1998

Source: Malibu Integrated Wastewater Information Management System, September 2009.
Date/init: 10/1/09 anm

Selected References Containing Geologic and Hydrologic Data Relevant to the LARWQCB's Analyses Not Included in Technical Memorandum #4's Reference Section

Ambrose, R.F. and A.R. Orme. 2000. Lower Malibu Creek and Lagoon Resource Enhancement and Management. Final Report to the California Coastal Conservancy.

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Earth Consultants International, 2000. Hydrologic Field Investigation and Modeling, Winter Canyon, Malibu, California, Volumes I and II. Prepared for Malibu Bay Company by Earth Consultants International, Inc., December 2000.

Earth Consultants International, 2000b, Civic Center Groundwater Report, IOKI and Chili Cookoff Parcels, Malibu, California, unpublished consulting report, project number 988111-002, dated June 15, 2000.

Kowalewsky, D. B., 1994a, Engineering Geologic and Geotechnical Report, Proposed Golf Academy, Northwest Corner of Civic Center Way and Stuart Ranch Road, Malibu, California, unpublished consulting report, project no. APN 4458-021-005, dated April 29, 1994.

Kowalewsky, D.B., 1994b, Percolation Test Results, Civic Center Way and Stuart Ranch Road, unpublished consulting report, APN 4458-021-005, dated June 29, 1994.

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Leighton and Associates, Inc., 1993, Preliminary Geotechnical Feasibility Study, South Winter Mesa Property, Project No. 2930532-01, dated December 15, 1993.

Leighton and Associates, Inc., 2007a, Report of Geotechnical Investigation and Grading Plan Review for Proposed Subdivision of "the Towing Site", 23915 Malibu Road, APN 4458-018-004, Project No. 031793-008, dated March 2, 2007.

Leighton and Associates, Inc., 2007b, Feasibility-Level Grading Plan Review, Proposed Malibu Bluffs Development: 5-lot Subdivision, "The Crummer Site". APN 4458-018-019, 24200 Pacific Coast Highway, prepared for AZ Winter Mesa, LLC, dated December 5, 2007.

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McDonald Morrissey Associates, Inc., 2007, hydrogeologic investigation on IOKI property.

Pepperdine University, 2001, Hydrogeologic Monitoring Program Annual Report Water Year 1999-00, prepared by Pepperdine University and LawGibb Group, March 9, 2001. *Relevant reports also exist, and are submitted to the LARWQCB, for each water year since 2001. The latest annual report available is for the 2007-*

2008 water year.

Report of Soils Investigation Proposed Grading Development – Highway 101 (Alternative) and Malibu Canyon Road, Los Angeles County, California.

URS Greiner Woodward Clyde. 1999. Final Report, Study of Potential Water Quality Impacts on Malibu Creek and Lagoon from On-site Septic Systems. Prepared for City of Malibu by URS Greiner Woodward Clyde, Santa Ana CA.

Van Beveren & Butelo, Inc. 2008. Supporting Geology/Soils Report, Proposed Legacy Park Discharge Area. Prepared by Van Beveren & Butelo Inc for Malibu Lumber LLC, unpublished consulting report dated February 20, 2008.

Yerkes, R.F. and R.H. Campbell. 1980. *Geologic Map of East-Central Santa Monica Mountains, Los Angeles County, California.* U.S. Geological Survey Map I-1146.

October 8, 2009

California Regional Water Quality Control Board
Attn: Dr. Rebecca Chou
310 West 4th Street, Suite 200
Los Angeles CA 90013
Fax: 213-576-5777
Email: rchou@waterboards.ca.gov

Re: Proposed amendment to prohibit OWTSs in Malibu Civic Center area

Dear Dr. Chou:

There are a great many statements being made about the pollution in the Malibu lagoon and some beach areas by several organizations, including the Regional Water Quality Control Board (RWQCB). These organizations have made assumptions that Malibu's Onsite Wastewater Treatment Systems (OWTSs), are responsible for the pollution and therefore not acceptable systems. Nothing could be further from the truth. In fact, the RWQCB's own records show that of the 6,000± OWTSs under the City of Malibu's jurisdiction NONE have had incidents in which effluent has surfaced and drained to any water course or ocean during the past three years. A total of five small incidents were listed in the record but, as stated above, they had no impact on the lagoon, any beach area, or any other environmental resource area. This is a 100% clean record.

It is noted that there were 34 additional incidents reported in Malibu. However, those incidents involved OWTSs that were not under the City's jurisdiction; they were systems under the jurisdiction of the RWQCB. 23 of the incidents were in Paradise Cove. The City is not responsible for these failures.

In contrast to Malibu's 100% clean record, between 2007 and 2009 the County of Los Angeles's record reveals that there were 390 spill incidents that drained 647,000 gallons of raw sewage into rivers and oceans and which washed up onto beaches used for recreation. Malibu's exemplary record should put the City into the Hall of Fame, not the Hall of Shame.

Malibu's flawless OWTS record was not the result of luck; it is the result of a very high level of expertise and commitment to safety and the protection of the environment on the part of the City Council and its highly trained engineers, environmental health specialist, and hydrologists. The City has spent enormous amounts of money analyzing the most advanced Onsite Wastewater Treatment Systems and then demanding that the owners of property construct the systems that are most effective at eliminating all forms of pollution at great expense to the owners.

Not only are the above facts proof that the City of Malibu is protecting impaired waters from pollution with its requirement for advanced tertiary treatment of wastewater in close proximity to all streams or the ocean, but there are very strong reasons why onsite wastewater treatment systems are intrinsically more protective of the ocean and streams. If a large centralized treatment plant fails due to a major earthquake, a power outage, major fire, or other reason there is simply no way to contain 2 to 20 days of sewage flowing into the plant; hundreds of thousands of gallons of raw sewage will flow down natural drainage courses to the lagoon and ocean. It is a fact that every winter tens of thousands of gallons of raw sewage flow from the Hyperion Treatment Plant into Santa Monica Bay due to heavy rains; this cannot happen with a decentralized system like the

City of Malibu currently has. A small, onsite system can be repaired quickly and/or the users of a small system can temporarily have their tank pumped until the problem is solved. There is no solution when hundreds of thousands of gallons of raw sewage flow into a failed centralized treatment plant over the course of 2 to 20 days. The sewage will end up in the ocean or lagoon.

The presumption that the OWTSs in Malibu are responsible for the pollution in the lagoon and in the beach area is not supported by facts. The pollution is more likely to be a result of large quantities of animal fecal matter from water fowl and from terrestrial animal waste that flows down into the lagoon from tens of thousands of acres of watershed including Calabasas, Westlake, Agoura Hills, Thousand Oaks, etc.

In closing, the studies to determine the true source of the pollution are well underway and the RWQCB should wait eight months to allow the studies to be completed before voting to prohibit new projects that can prove that the effluent that they generate is 100% free of bacteria and which also satisfies the strict nitrate and phosphate limitations now in place.

A prohibition on systems that do meet clean water standards will not reduce pollution.

Sincerely,

Norman R. Haynie

Norman R. Haynie
Chair, Malibu Wastewater Advisory Committee

County of Los Angeles
CHIEF EXECUTIVE OFFICE
Kenneth Hahn Hall of Administration
500 West Temple Street, Room 713, Los Angeles, California 90012
(213) 974-1101
http://ceo.lacounty.gov

WILLIAM T FUJIOKA
Chief Executive Officer

Board of Supervisors
GLORIA MOLINA
First District

MARK RIDLEY-THOMAS
Second District

ZEV YAROSLAVSKY
Third District

DON KNABE
Fourth District

MICHAEL D. ANTONOVICH
Fifth District

October 8, 2009

Ms. Tracy Egoscue, Executive Officer
California Regional Water Quality
Control Board – Los Angeles Region
320 West 4th Street, Suite 200
Los Angeles, CA 90013

Attention: Dr. Rebecca Chou

Dear Ms. Egoscue:

ON-SITE WASTEWATER DISPOSAL SYSTEM PROHIBITION IN THE MALIBU CIVIC CENTER AREA

Enclosed are the County of Los Angeles comments on the proposed amendment to the Water Quality Control Plan for the Los Angeles Region to incorporate the on-site wastewater disposal system prohibition in the Malibu Civic Center area.

We look forward to your consideration of our comments. If you have any questions, please contact Mr. Mark Pestrella, Deputy Director, Los Angeles County Department of Public Works, at (626) 458-4001, or via e-mail at mpestrel@dpw.lacounty.gov.

Sincerely,

WILLIAM T FUJIOKA
Chief Executive Officer

WTF:LS
DSP:os

Enclosure

c: Supervisor Zev Yaroslavsky, Third Supervisorial District
P. Michael Freeman, Fire Chief
Margaret Donnellan Todd, County Librarian
Dr. Jonathan E. Fielding, Director and Health Officer of Public Health
Gail Farber, Director of Public Works
Jon Sanabria, Acting Director of Regional Planning

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"To Enrich Lives Through Effective And Caring Service"

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Intra-County Correspondence Sent Electronically Only

COUNTY OF LOS ANGELES
COMMENTS ON THE PROPOSED AMENDMENT TO THE BASIN PLAN TO INCORPORATE ON-SITE WASTEWATER DISPOSAL SYSTEM PROHIBITION FOR THE MALIBU CIVIC CENTER AREA

1. PROVISION ALLOWING THE CONTINUED USE OF ON-SITE WASTEWATER DISPOSAL SYSTEMS

The County of Los Angeles (County) owns four public facilities in the area of the proposed prohibition that are served by on-site wastewater treatment systems (OWTS). The facilities include: County Fire Station 88, Road Maintenance Yard 336, a public restroom facility located at Surfrider Beach, and the Malibu Civic Center (which houses the County library, Superior Court, and field office of Waterworks District 29). These County facilities provide critical public services. Fire Station 88 is an essential public safety facility as defined by the State of California Building Code.

The U.S. Environmental Protection Agency and both State and local health departments have all confirmed that OWTS are a safe and effective means of private sewage disposal. The OWTS serving the County facilities within the proposed prohibition area have been approved by the local building official, health officer and the Regional Water Quality Control Board (Regional Board). Additionally, the County believes it can produce evidence that these systems do not cause or contribute to exceedances of groundwater and/or surface water standards.

The County, therefore, requests the Regional Board to include a provision allowing the continued use of OWTS in the proposed prohibition area based on evidence that a site-specific OWTS does not cause or contribute to exceedances of groundwater and/or surface water standards.

2. CONCERNS RELATING TO THE MEMORANDUM OF UNDERSTANDING (MOU) BETWEEN THE COUNTY AND REGIONAL BOARD

The County and the Regional Board entered into a Memorandum of Understanding (MOU) on October 5, 2004. The MOU waives Waste Discharge Requirements (WDRs) for most single family OWTSs in the unincorporated area of Los Angeles County and designates the County as the Qualified Local Authority for the implementation of the applicable standards for siting, permitting, construction, inspection, monitoring, and performance contained in the Los Angeles County Code (including Title 11 and Appendix K of Title 28) pertaining to these systems, as well as other requirements that are set forth in the MOU. The MOU does not grant the County the authority to enforce the Regional Board's requirements. The Regional Board, and not the County, would be responsible for enforcing the Basin Plan Amendment's prohibition on the construction of new OWTSs and on discharges from existing OWTSs after five years. This would result in confusion with respect to the

County's authority to approve OWTSs in the unincorporated portion of the Malibu Civic Center area, including approvals of repairs to existing OWTSs. If the Amendment is adopted, then we believe it will be necessary to modify the MOU to carve out the portion of the unincorporated County that includes the Malibu Civic Center area.

3. NOTICE AND HEARING REQUIREMENTS

The notice and hearing provided for the proposed OWTS prohibition, while apparently in compliance with the requirements for a proposed Basin Plan amendment; do not meet the legal requirements set forth in the Administrative Procedure Act (APA) or the regulations applicable to Regional Board hearings in Title 23 of the Code of Regulations.

The County understands that notice of the proposed prohibition was provided via publication, via e-mail and to persons who had requested notice. However, it is the County's further understanding that the notice was not provided to individual homes or business owners who would be affected by the OWTS prohibition. Also, the hearing notice provides that interested persons may file written comments, and will be given an opportunity to speak at the Board meeting on November 5, 2009. These persons will not, however, be given an opportunity to present witnesses and additional written evidence to the Board or to cross-examine witnesses and rebut the evidence provided by others, including Board staff, as would be afforded in an adjudicative hearing held under the APA or the Board's own regulations. *See e.g.,* Govt. Code § 11410.10 *et seq.;* title 23 Code Reg. §§ 648-648.8.

While amendment of a Basin Plan is a regulatory act, and ordinarily not subject to an adjudicative hearing requirement, specific provisions of the Water Code require the Board to make determinations of fact before deciding to prohibit OWTS operation in the Civic Center area. The Board must make one or more findings as to the impact of OWTSs on water quality (Water Code § 13280) and must do so by considering "all relevant evidence related to the discharge," including specific issues set forth in Water Code § 13281(a), which include evidence of contamination, existing and planned land use, Water Code § 13241 factors and other issues. These findings require an adjudicative hearing, as provided in Title 23 Code Reg. § 648(a): "[A]djudicative proceeding" means an evidentiary hearing for determination of facts pursuant to which . . . a Regional Board formulates and issues a decision." *See also* Govt. Code § 11410.10 (requirement for adjudicative hearing applies to "a decision by an agency if, under the federal or state Constitution or a federal or state statute, an evidentiary hearing for determination of facts is required for formulation and issuance of the decision"). In addition, the property rights of homeowners and business owners will be affected by the proposed OWTS ban, suggesting that constitutional requirements of due process require adequate notice and hearing.

The APA provides that "the agency shall give the person to which the agency action is directed notice and an opportunity to be heard, including the opportunity to present and rebut evidence." Govt. Code § 11425.10(a)(1). The Board regulations provide that the parties to an adjudicative hearing "shall include the person or persons to whom the agency action is directed;" Title 23 Code Reg. § 648.1(a). The regulations allow the presiding officer of the hearing to control the proceedings (*see, e.g.,* Title 23 Code Reg. § 648.5-648.5) so as to secure "relevant information expeditiously without unnecessary delay and expense to the parties and to the Board." Title 23 Code Reg. § 648.5(a). Thus, the Board should have no concerns that the holding of an adjudicatory hearing will unnecessarily burden the Board or the parties. Such a hearing is, in the County's view, required before the Board can act on the proposed Basin Plan amendment. The notice and hearing that have been provided for the amendment do not meet the requirements of the APA or the Code of Regulations.

4. CONCERNS REGARDING SUBSTITUTE ENVIRONMENTAL DOCUMENT COMPLIANCE AND COMPLIANCE WITH WATER CODE § 13241

Project and Alternatives

The Environmental Staff Report ("ESR") prepared for the project does not fully define the project. According to the ESR, the project consists of the prohibition of OWTSs. The alternatives discussed include: (1) an initiative by local government to cease discharges through OWTSs by providing community services to collect and dispose/reuse wastewater; and (2) a "no action" alternative. However, since it is directly foreseeable that the community will necessarily require an alternative to OWTSs, and since the Regional Board's proposed Resolution directs the City to plan and construct a project to comply with the prohibition, Alternative 1 should be considered as part of the project and its effects on the environment should be analyzed along with the prohibition. Additionally, the ESR does not separately analyze the project and each of the three "possible projects" that are suggested under Alternative 1 in order to provide a meaningful ability to compare the impacts from each.

Further, the ESR does not analyze any alternatives involving a partial ban (for example directed toward dischargers for whom a direct link has been established with the impairments cited). The environmental impacts anticipated from a targeted prohibition would likely be less than the proposed total prohibition. A discussion of reasonably foreseeable alternative means of compliance with the prohibition is required by Public Resources Code Section 21159(a). A review of possible alternatives to achieve protection of water quality is also required by the State Board, pursuant to Section 13283 of the Water Code.

Mitigation

With respect to the project or Alternative 1, the ESR does not identify mitigation measures required which would reduce impacts to below a level of significance. The analysis of Alternative 1 contains a checklist which identifies potentially significant impacts to several areas, including water, land use, public service, utilities and service systems and recreation, as well as mandatory findings of significance. However, the discussion of these impacts, as well as specific mitigation measures designed to reduce the impacts, are deferred to project level review. Since these impacts are reasonably foreseeable as a result of the proposed prohibition on OWTSs, the impacts should be fully vetted and reasonable foreseeable mitigation measures should be identified as part of the ESR. Such analysis is required under Public Resources Code Section 21159(a). *See City of Arcadia v. State Water Resources Control Board* (2006) 135 Cal.App.4th 1392.

Similarly, for impacts identified as less than significant with mitigation incorporated, the ESR does not identify specific measures and demonstrate how they would reduce the severity of the impact to below the level of significance.

For some impact areas, for example under Aesthetics and Human Health, the ESR identifies less than significant impacts but indicates that temporary impacts "together with appropriate mitigation measures" would be considered at project level. With respect to Human Health, the analysis indicates that there may be an increased risk to the health of workers without discussing reasonably foreseeable mitigation to be implemented.

The section entitled "Discussion of Environmental Evaluation" concludes that there are mitigation measures available to reduce potentially significant environmental impacts to less than significant levels without describing the measures necessary or the manner in which they will reduce the impacts.

Unavoidable Significant Adverse Impacts

There is no discussion of which impacts would be unavoidable. This section also, appears to discuss a proposed TMDL which appears unrelated to the proposed OWTS prohibition.

Feasibility

The ESR does not contain information to demonstrate that a project could be completed within the five year period addressed in the proposed Basin Plan Amendment. In the event that proposed five year timeframe is insufficient to allow for completion of an alternative system for wastewater discharge, the ESR should identify the impact of a prohibition in the absence of another means of addressing wastewater disposal for the area subject to the prohibition.

Global Climate Change

The ESR does not address the impacts to global climate change from the project or from any of the alternatives, including construction related impacts and impacts from removal of existing equipment.

Salt Water Intrusion

Given that the Malibu Civic Center area is located in close proximity to the ocean, the proposed prohibition could have serious consequences on the underlying groundwater aquifer due to potential seawater intrusion in the long-term. The impact from possible intrusion has not been analyzed.

Recommendation

Regional Board staff concludes that the proposed project (defined solely as the prohibition) constitutes the most environmentally advantageous program. As noted above, the proposed project should include the design of a project to provide an alternative means of discharging wastewater. Notwithstanding this argument, no comparison between the impacts from the project as defined and proposed Alternative 1 is provided. Further, there is no discussion of an alternative consisting of a targeted prohibition or a possible hybrid approach which could both meet the stated goals of the project and address the dischargers which may be linked to the cited water quality impairments.

Growth Inducing Impacts

The ESR finds that the proposed prohibition is not expected to induce growth in the Civic Center area since it will not lead to additional immigration and "would not remove an obstacle to land use...". This statement has not been adequately supported.

Water Code 13241 Issues

In making the determination whether to ban discharges from OWTSs in a given area, the Regional Board is required to consider "all relevant evidence" related to the discharge, including "those factors set forth in Section 13241. . . ." Water Code § 13281(a). Nowhere in the ESR accompanying the proposed Basin Plan Amendment or in the draft Technical Report is there an adequate discussion of these factors, which are: "(a) Past, present, and probable future beneficial uses of water. (b) Environmental characteristics of the hydrographic unit under consideration, including the quality of water available thereto. (c) Water quality conditions that could reasonably be achieved through the coordinated control of all factors which affect water quality in the area. (d) Economic considerations. (e) The need for developing housing within the region. (f) The need to develop and use recycled water."

While certain aspects of these factors are discussed in the ESR (which contains a discussion of the potential costs of alternatives to OWTSs, a centralized treatment plant, sewer lines and decentralized treatment plants), that discussion is fragmented and incomplete. There also is no discussion on the need for developing housing within the region, and how a ban on OWTSs might affect that need. While the ESR proposes that the treatment plants could generate recycled water, there is no discussion of how that recycled water might be used in the Malibu Civic Center area. The ESR acknowledges, for example, that some of the recycled water generated might have to be disposed of to the subsurface due to limited availability for use. This issue requires additional consideration. And, there is no discussion of the "coordinated control of all factors which affect water quality in the area," given that no consideration is given to considering other factors that would affect water quality, including other potential sources of bacteria or using a hybrid approach (as suggested above) focusing on certain OWTSs rather than a blanket prohibition on all OWTSs in the Civic Center area.

The County notes also that the draft resolution approving the proposed Basin Plan amendment contains no findings on the Water Code § 13241 factors or on the other factual determinations required under Water Code § 13281(a) to be made by the Regional Board before it acts to ban OWTS discharges.

bay restoration commission

STEWARDS OF SANTA MONICA BAY

santa monica bay restoration commission ⁄ 320 west 4th street, ste 200; los angeles, california 90013
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2009 OCT 8 PM 1 32
CALIFORNIA REGIONAL WATER
QUALITY CONTROL BOARD
LOS ANGELES REGION

October 8, 2009

Dr. Rebecca Chou
Chief of the Groundwater Permitting Unit
California Regional Water Quality Control Board, Los Angeles Region
320 West 4th Street, Suite 200
Los Angeles, California 90013

Re: Basin Plan Amendment To Prohibit On-Site Wastewater Disposal Systems In The Civic Center Area Of The City Of Malibu

Dear Dr. Chou,

The staff of the Santa Monica Bay Restoration Commission is pleased to support the Regional Board's proposed Basin Plan amendment to prohibit on-site wastewater disposal systems (OWDS) in the Malibu Civic Center area.

Commission staff has spent years, and our Governing Board has committed millions of dollars in grant funds to help the City address septic problems in the Civic Center area. Yet, despite some laudable progress, the City has failed to develop a truly comprehensive wastewater management plan for the Civic Center area. As a result, Malibu's beaches, groundwater, the creek and lagoon remain polluted.

Additionally, the proposed amendment is consistent with one of the highest priorities in the Santa Monica Bay Restoration Plan: The elimination of OWDS in the Malibu Civic Center, and the construction of a centralized wastewater treatment facility with advanced treatment and recycling capability.

We have reviewed the evidence presented in the Draft Technical Staff Report (July 31, 2009) and agree with the Regional Board staff's conclusions that there is substantial evidence that discharges from OWDS are impairing "existing and potential beneficial uses of water..." in the Civic Center and surrounding areas.

bay restoration commission

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The Commission staff also agrees with most of the proposed requirements set forth in the resolution, including the implementation schedule. However, we recommend that the Board reject the provision allowing for the possibility of so called "zero-discharge" projects. The Bay Commission staff feels that it is unlikely that wastewater generated will not contribute to a rise in the water table, or that it can be reused (discharged) in a manner that is protective of water quality objectives. Dischargers will be forced to continue the practice of hauling wastewater to other communities.

Thank you again for the opportunity to comment on the proposed Basin Plan amendment. The staff of the SMBRC looks forward to working with Regional Board and the City of Malibu's staff in their efforts to achieve a long-term solution to the well documented septic-related pollution issues that have long plagued Malibu's surface and ground waters.

Sincerely,

JR Y

Jack Topel
Environmental Scientist
Santa Monica Bay Restoration Commission

LAS VIRGENES MUNICIPAL WATER DISTRICT
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DISTRICT
OF SOUTHERN CALIFORNIA

October 5, 2009

Ms. Tracy Egoscue, Esq.
Los Angeles Regional Water Quality Control Board
320 W. 4th Street, Suite 200,
Los Angeles, California 90013

Subject: Comments - Proposed Basin Plan Amendment to Prohibit On-Site Septic systems in the Malibu Civic Center

Dear Ms. Egoscue,

On behalf of the Las Virgenes Municipal Water District and our Joint Powers Authority (JPA) partner Triunfo Sanitation District, we are pleased to provide comments on the recent Regional Board staff proposal and supporting technical memoranda to prohibit on-site wastewater disposal systems (septic tanks) in the Malibu Civic Center. We also attended the public hearing on the proposed ban held at Peppperdine University on September 9th, 2009.

Technical findings

We strongly recommend that the Regional Board include in its technical findings the results of recent, and soon to be completed, scientific studies of direct relevance to the proposed Basin Plan amendment. The US Geological Survey will soon complete a study of groundwater and pathogen sources in the Malibu Civic Center area and adjacent shoreline, using new, state of the art techniques that have successfully identified the sources of bacteria affecting beaches in Santa Barbara. Complementing the USGS study are two additional studies by the Southern California Coastal Water Research Project (SCCWRP), tracking pathogen sources using advanced DNA testing in concert with an epidemiological analysis of health effects on local swimmers during water quality testing. These studies include sites along the Malibu shoreline and swimmers who use them.

Given the long-standing water quality problems at local beaches, we appreciate the Regional Board's desire to move forward in a timely fashion on the staff proposal. However, it seems unreasonable to ask the Regional Board to vote on the staff proposal without the information provided by these recent and soon to be completed studies of direct relevance to their decision-making process. The multi-million dollar costs associated with the proposed ban simply underscore the need to ensure that, if mandated, water quality will actually improve at local beaches[1].

[1] In 1998 the Regional Board adopted a similar prohibition on summertime releases of highly treated recycled water from the JPA's Tapia Wastewater Reclamation Facility. Ten years later, the JPA has spent nearly $10 million dollars in public funds to comply with the flow prohibition, with no significant change in bacteria levels at local beaches; bacteria levels in Malibu Creek increased. These findings and supporting analysis were communicated to the Regional Board in 2005 (attached); to date we have received no response.

Alternatives to On-Site Wastewater Disposal Systems (OWDS)

The staff report and public workshop presentation identifies the JPA's Tapia Wastewater Reclamation Facility as a potential alternative for Malibu citizens whose OWDSs would be banned under the staff proposal. However, no attempt was made by Regional Board staff to contact the JPA to ascertain the legal, environmental, technical or economic feasibility of using the Tapia WRF to treat sewage generated outside its service area. We do not know how Regional Board staff generated its cost estimate for this alternative of $80 million dollars, of which $7.8 million is the staff-estimated cost for local sewers plus $72.5 million dollars for a sewer trunk line that would need to be built along Malibu Canyon Road, a heavily-used and environmentally sensitive transportation corridor. Based upon experience, there is no guarantee the Coastal Commission would issue a permit for such a project.[2]

Furthermore, the staff cost estimates only deal with the sewer infrastructure to bring sewage to the Tapia WRF and leaves the reader with an underestimate of the total cost impact. What is not addressed here is the cost to accommodate increased flow at Tapia WRF, solids handling at our compost facility and connection fees to provide service. In addition, a flow prohibition established by the RWQCB for discharge to Malibu creek for 7 months of the year has been in place at Tapia since 1997. Taking on the additional flow generated within Malibu may jeopardize the JPA's ability in meeting its flow prohibition requirements."

Given the sensitivity of this alternative and its potential ramifications on the JPA's existing services, the JPA asks that this alternative be dropped from the staff report at this time. The JPA cannot vet this alternative in the short amount of time available before the Regional Board is scheduled to vote next month.

In closing, we restate our support for the objective in the proposed OWDS ban – clean, safe beaches. We strongly recommend the Regional Board allot the time necessary to consider not only its own staff report, but also the results of independent, scientific studies by other government agencies that share this goal. We also offer an open door to your staff should they wish to consult with us on how our facilities might be used by others working towards this same goal. As a public agency that treats some 10 MGD of raw wastewater everyday, we fully appreciate some of the challenges they face.

As always, we appreciate the opportunity to comment.

Sincerely,

[ORIGINAL HARDCOPY SIGNED BY J. MUNDY]

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[2] In 2007 the Coastal Commission overruled its staff recommendation in declining to issue a permit for a much smaller, JPA constructed wetlands project in the same biologically sensitive corridor contemplated in the staff alternatives analysis for the proposed OWDS ban.

John R. Mundy
General Manager

c. JPA Board of Directors

Attachment

(ATTACHMENT)

Bacteria levels at Surfrider Beach following the adoption of the Prohibition on Discharges from the Tapia Water Reclamation Facility

Introduction

The history of the prohibition on summer time releases of surplus recycled water from the Tapia Water Reclamation Facility is reviewed in the findings section of the Tapia NPDES permit CA0056014. Briefly, this regulation was adopted on the premise that Tapia's discharge was a contributing factor in the incidence of elevated health risks to bathers at Surfrider Beach at the mouth of Malibu Lagoon. While Tapia's treatment processes result in water that is essentially bacteria-free (i.e. within the detection limits set by the state), there are other sources of bacteria in the watershed that cause high levels of bacteria in Malibu Lagoon. When the lagoon is open to the sea, these waters mix with nearshore waters used by bathers, exposing them to these other bacteria sources. The Regional Board in 1997 made findings that Tapia's contributions of water to the creek and lagoon, regardless of its quality, increased the number of days where the lagoon is open to the sea, thereby contributing to the exposure of bathers at Surfrider Beach to unhealthy, bacteria-laden water.

This analysis poses the question of whether the years since the adoption of this regulation have yielded the result intended for the regulation: Have bacteria levels in the Surfzone and the creek actually declined? The results suggest they have not and, more significantly, that they have actually increased. While this result may be surprising, it should not in retrospect be unexpected. The prohibition effectively eliminated the cleanest source of water in the creek for the majority of the year, the only source treated by multiple unit processes of settling, filtration and disinfection.

Recognizing that this conclusion has public health ramifications, the following summary records how the analysis was conducted and what data sources were used.

Methods

Data sources

Bacteria data were obtained from the City of Los Angeles Sanitation Department records for Station S-01 at Surfrider Beach (Santa Monica Bay) located at the mouth of Malibu Creek, Los Angeles County. The data consist of daily bacteria measurements in units of colony forming units of bacteria per 100 milliliters of water.

Stream Flow data were obtained from Los Angeles County Department of Public Works records. The station used was F-130-R, located on Malibu Creek below Cold Creek. Data used for this analysis include January 1988 through December 31 2004. The data consist of daily measurements of flow at the station in units of cubic feet per second (CFS).

Analysis

The goal was to compare the levels of bacteria in Malibu Creek before and after the date when the Las Virgenes Municipal Water District was prohibited by the Regional Water Quality Control Board from discharging tertiary-treated, Title 22 compliant wastewater from their Tapia Water Reclamation Facility into Malibu Creek for much of each year. The pre-prohibition period included all data from December 1993 through April 14, 1998 and post-prohibition [insert clarification] included data from April 15, 1998 through January 2005. Initially, a simple comparison was made using the average total coliform count for all data pre-prohibition compared to the average count post-prohibition. A statistical T-test was used to further examine the mean and standard deviation of the sets of data and assess whether the results obtained departed significantly from those possible by chance (using a rejection criterion of 0.05 for the threshold probability of chance events). The summary statistics for this preliminary analysis are shown below in the results section.

The technique of dividing the data set in half and comparing the average bacteria count pre- and post-prohibition needed to consider variations in rainfall and subsequent variation in the flow rate in the creek, as this was the most obvious confounding factor based on simple inspection of the data (Fig. 1) and the mechanics of

bacterial transport in watersheds. That is, high rainfall events and the subsequent runoff result in high bacteria counts in receiving waters (streams, estuaries, lagoons, etc.) due to the rinsing of bacteria from stream banks and adjacent lands. This effect is demonstrated by the high correlation of bacteria data and stream flows. Although both the pre- and post-prohibition timeframes included high rainfall years, this potential confounding factor was of concern because of differences in rainfall amounts between years. To control for the effect of unusually high rainfall years in the analysis, the average bacteria counts for individual months were compared both with the wettest years included and then again without them (with the wettest years in the data set, 1993, 1998 and 2005; Tables 1 and 2).

To carry out the analysis in a manner relevant to public health consequences, a column was created in the spreadsheet for days that exceeded the threshold of 1,000 CFU/100 ML total coliform. There are several potential thresholds for public health effects (e.g. conditioning the total coliform counts on fecal coliform levels), but the use of a simple, single parameter variable (total coliform counts) and a conservative threshold (1000 CFU) ensured that any errors would be conservative with respect to assessing differences in the potential for increased risk of illness.

Once the data matrix was translated into exceedance days per this procedure, a time-series plot of the entire data set was plotted for all days with total coliform exceeding 1,000 CFU/ 100 ML. Next, the average number of days that exceeded the threshold within each month was calculated. This was done by assigning every day with either a one for an exceedance or a zero for no exceedance. The average number of days with an exceedance in the month was then calculated by summing the exceedance days and dividing by the total number of days in the month. Thus each month was characterized by a value, such as 0.33, meaning that 33% of the days in that month exceeded the threshold. The percentage exceedance by month was then plotted both as a bar graph and a line graph, without the years 1998 and 2005 included (Fig. 2 and 3).

Flow Data

In order to understand the influence of rainfall and creek flow on the pre- and post- prohibition bacteria counts, we examined flow data for Malibu Creek. Daily flows were averaged for each month, and then divided into pre- and post-prohibition time periods using the same periods as for the bacteria data. The average flow per month for each year was then plotted, to identify obvious differences in runoff between the pre-

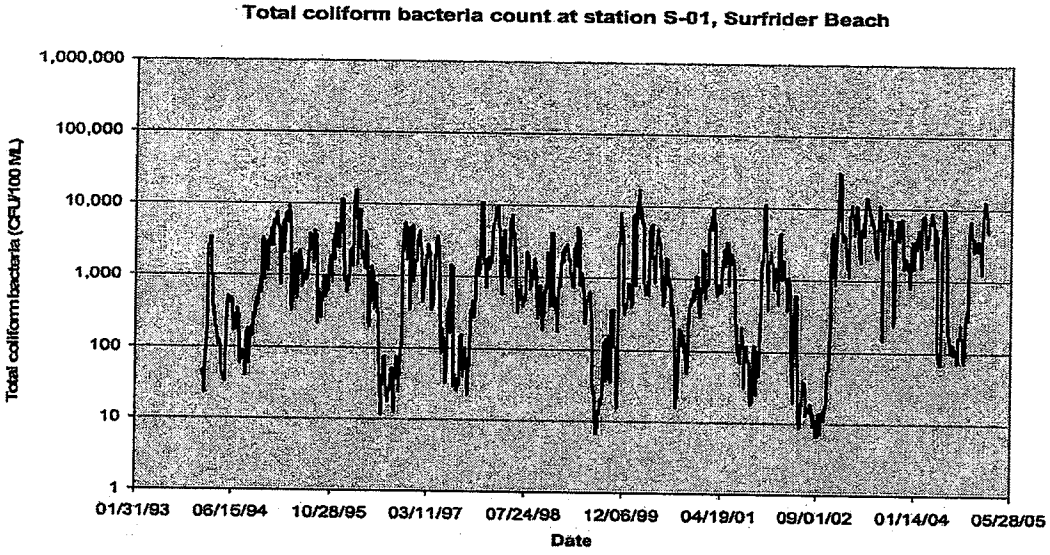
and post-prohibition periods. The decision to omit data from 1998 and 2005 was based on this information. Note that the omission of these data likely *reduced* the number of exceedance days in the post-prohibition period. Yet, as seen in the results below, the post-prohibition period saw a statistically significant higher level of bacteria at Surfrider Beach during the period and years of the flow prohibition (i.e. April through November).

Results

Pre- and post-prohibition bacteria levels

The full time-series data for total coliform bacteria levels from Station S-01 at Surfrider Beach are shown below in Figure 1 below. There are no obvious differences in bacteria levels over the entire time series.

Figure 1. Total coliform bacteria levels station S-01 Surfrider Beach



It is difficult to determine from this Figure whether there is any significant increase or decrease in bacteria levels pre- and post-prohibition. In order to better examine whether there was any significant change pre- and post-prohibition, the data and graphs using the 1000 CFU/100 ML threshold is more helpful.

The number of days that exceed the threshold of 1000 CFU/ 100 ML are presented below in Tables 1 and 2. These tables show the percentage of days per month that exceed the threshold with and without years 1998 and 2005, respectively. Overall, the deletion of these years did not change the overall results.

Table 1: Total coliform bacteria levels from Station S-01 Surfrider Beach, Santa Monica Bay California. Percent of days per month (12/93-1/05) that exceed 1000 CFU/100 ML
Data with years 1998 and 2005 included

	April	May	June	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar
Pre-Prohibition	0.26	0.13	0.11	0.10	0.03	0.05	0.12	0.40	0.41	0.33	0.33	0.44
Post-Prohibition	0.52	0.33	0.30	0.15	0.11	0.05	0.13	0.34	0.40	0.44	0.62	0.42

Table 2: Total coliform bacteria levels from Station S-01 Surfrider Beach, Santa Monica Bay California. Percent of days per month (12/93-1/05) that exceed 1000 CFU/100 ML
Data with years 1998 and 2005 NOT included

	April	May	June	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar
Pre-Prohibition	0.24	0.13	0.11	0.10	0.03	0.05	0.12	0.40	0.41	0.33	0.33	0.44
Post-Prohibition	0.50	0.30	0.34	0.13	0.09	0.03	0.11	0.37	0.47	0.38	0.59	0.45

Figures 2 and 3 show that there was a rise in the number of days per month post-prohibition that exceed the 1000 CFU threshold compared to pre-prohibition. Note that this result is true for the months of the year when there is substantial flow in the creek, primarily January through June. For example, for the month of February, the post-prohibition period has almost 60% of days exceeding the threshold, while during the pre-prohibition period the value is closer to 30%. It is worth noting that Tapia's contribution to flows in the winter were lower in the post-prohibition period than before. The percentage of days exceeding the threshold was higher in the post-prohibition period for months December, January, February, April, May, June, July and August. The month of March is unique in the pattern observed; for that month the percentage of days exceeding the threshold is approximately equal pre- and post-prohibition. In short, none of these results support the premise that the flow prohibition was effective in reducing

bacteria levels at Surfrider Beach. On the contrary, they suggest that bacteria levels and the number of unhealthy days for bathers rose.

Fig. 2.

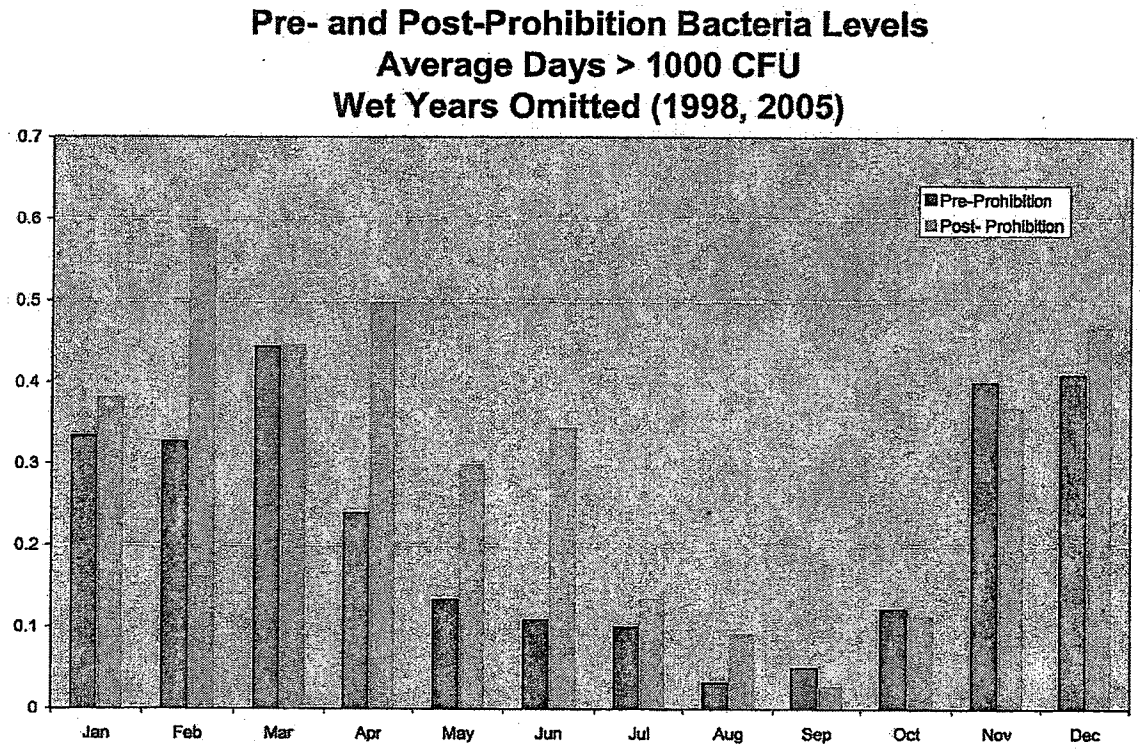
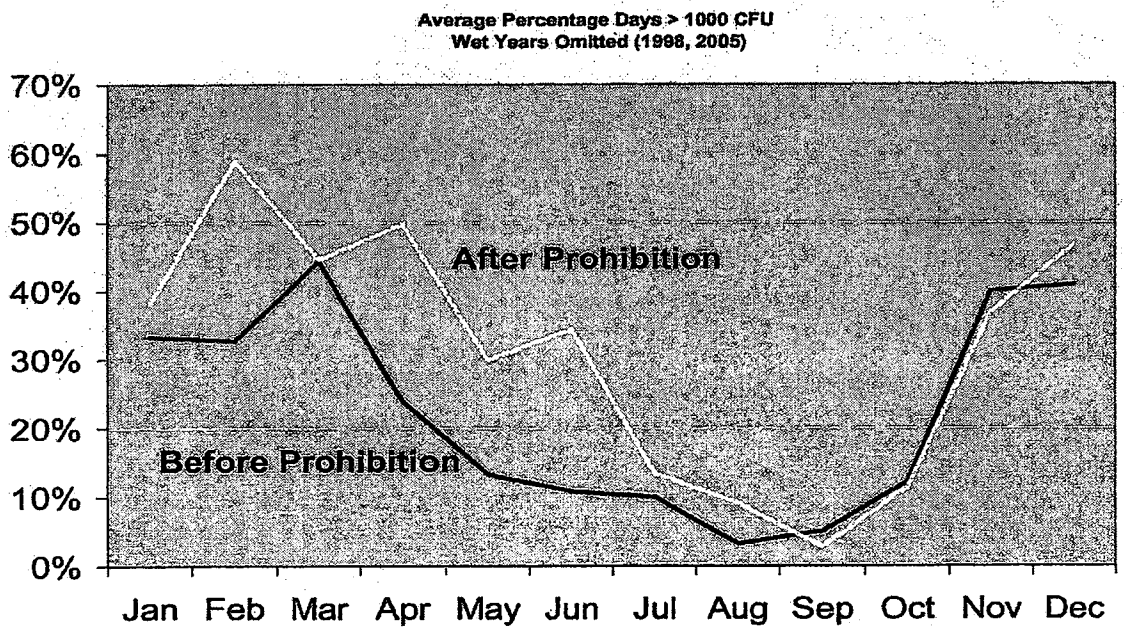


Figure 3. Pre- and post-prohibition bacteria levels, Surfrider Beach



Conclusions

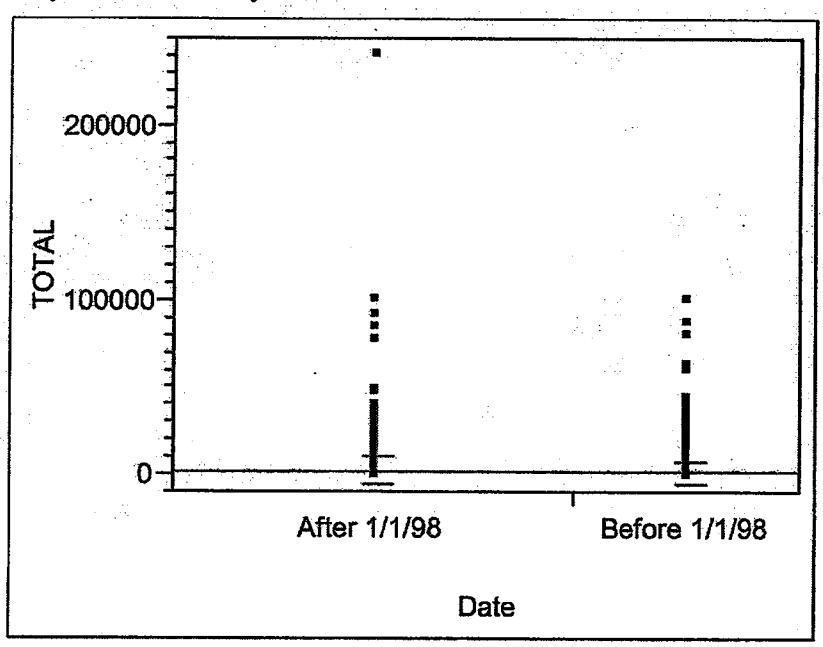
The prohibition on the discharge of surplus recycled water from the Tapia Water Reclamation Facility in 1997 has not resulted in reduced bacteria levels at Surfrider Beach in the years since the adoption of this regulation. On the contrary, the number of days exceeding 1000 CFU of total coliform bacteria have increased since then. The cause of this increase is not known, although one possibility is that bacteria levels have risen due to the reduced dilution by Tapia's effluent, which is essentially bacteria-free. Support for this interpretation is available in the form of generally higher bacteria levels in Malibu Creek upon the termination of Tapia's discharge each spring, although this effect was previously thought to be relative local in nature, and indeterminate by the time

Tapia's flows reached Malibu Lagoon. These creek monitoring station data should probably be re-examined to assess this interpretation.

Another interpretation is that no beneficial effect was observed because the underlying assumptions of the flow prohibition were incorrect. There is substantial support for this view insofar as the regulation presumed that Tapia's flows played a significant role in delaying the closure of the lagoon in spring and the breaching of the lagoon in fall. Data collected since the adoption of the flow prohibition suggest that Tapia's role was overstated. Specifically, stream flow data and lagoon depth data show that the berm seldom closes until stream flows reach about 10 cfs (LVMWD report No. 2334.00), which does not occur until well after the start date of the prohibition (April 15th) due to creek background flows independent of Tapia's discharge.

Summary Statistics for pre- and post-prohibition bacteria levels (total coliform, station S-01)

One way Analysis of TOTAL By Date



Means and Std Deviations

Level	Number	Mean	Std Dev	Std Err Mean	Lower 95%	Upper 95%
After 1/1/98	2545	2539.26	7838.35	155.37	2234.6	2843.9
Before 1/1/98	1428	1787.70	6529.15	172.78	1448.8	2126.6

T- Test results

After 1/1/98-Before 1/1/98

Assuming unequal variances

Difference	751.57	t Ratio	3.234402
Std Err Dif	232.37	DF	3415.344
Upper CL Dif	1207.16	Prob > |t|	0.0012
Lower CL Dif	295.98	Prob > t	0.0006
Confidence	0.95	Prob < t	0.9994

Santa Monica Malibu Schools
Extraordinary Public Education

October 5, 2009

Rebecca Chou, Ph.D., P.E.
Chief of the Groundwater Permitting Unit
Los Angeles Regional Water Quality Control Board
320 West 4th Street, Suite 200
Los Angeles, California 90013

Re: **Comments on the Proposed Amendment to the Water Quality Control Plan for the Coastal Watersheds of Ventura and Los Angeles Counties to Prohibit On-site Wastewater Disposal Systems in the Malibu Civic Center Area**

Dear Dr. Chou:

This letter serves as the Santa Monica-Malibu Unified School District's ("District") comments on the Los Angeles Regional Water Quality Control Board's ("Water Board") Proposed Amendment to the Water Quality Control Plan for the Coastal Watersheds of Ventura and Los Angeles Counties to Prohibit On-site Wastewater Disposal Systems in the Malibu Civic Center Area ("Proposed Amendment").

As you know, the District operates Webster Elementary School within Winter Canyon, a portion of the Civic Center area that the Water Board is proposing an eventual total ban on septic systems. Webster Elementary School has been using a septic system since 1951. If the Proposed Amendment is adopted as is, Webster Elementary School would have to stop using its septic system within five years, abandon the system, and expend substantial funds to contribute to and connect with a future localized sewer system.

The District supports the Water Board's efforts to protect our ocean and beaches and agrees that the status quo cannot continue. However, the Water Board's proposed fix by eventually banning all septic systems appears to go far beyond that necessary to achieve the Basin Plan's water quality goals. It appears that the Water Board has not sufficiently examined all feasible, less drastic alternatives to the ban. In its September 1, 2009 presentation at Pepperdine University and in its Draft Environmental Staff Report dated July 31, 2009, the Water Board presented only three alternatives to the proposed ban: (1) continued hauling (which the Water Board has declined to evaluate); (2) initiative by local entity; and (3) no action. Under the initiative-by-local-entity alternative, the Water Board further listed: action by the City of Malibu, existing or newly formed utility, existing or newly formed water authority, public benefit (non-profit) corporation, and privately-run organizations (for-profit corporations, partnerships, and proprietors). Aside from the no-action alternative, the remaining two alternatives do in fact premise themselves on a zero septic system approach. These do not cover the range of feasible alternatives. The Water Board should examine additional feasible, less drastic alternatives such as: (1) diligent investigation and enforcement to ensure the proper operation and maintenance of septic systems; and (2) practical septic system enhancements that would further reduce the pollutant load on the groundwater.

The district has received the following concerns and comments from its community:
The Proposed Amendment's draft resolution cites, among other things, imprecise records of compliance for septic systems as a contributing factor to water quality degradation and that no public agency has provided assurances that properly designed septic systems would be adequate. What improvement to water quality would occur if the Water Board took the necessary steps to ensure that septic systems are being properly operated and maintained? Further, why does the Water Board simply rely on the lack of assurances of other public agencies? Should not the Water Board itself, through its experts, determine whether properly operated and maintained septic systems would provide sufficient improvements to meet the Basin Plan's water quality objectives? Without meaningful analysis of these questions and the exploration of other feasible alternatives, as exampled above, the Water Board's decision to simply ban all septic systems in the Civic Center area would appear to be hasty and arbitrary.

The District hopes that the Water Board thoughtfully examines and develops a fix that will achieve the water quality objectives with the least financial impact on the public. Thank you for the opportunity to comment on this important matter.

Sincerely,

Janece L. Maez
Assistant Superintendent,
Business and Financial Services
Chief Financial Officer

cc: Tim Cuneo, Superintendent
Stuart Sam, Director of Facility Improvements Projects
Tom Tomeoni, Parsons/CCM
Stan M. Barankiewicz II, Esq., Orbach, Huff & Suarez LLP

Comments from
NGOs

October 8, 2009.

Dr. Rebecca Chou
Groundwater Permitting Unit
Los Angeles Regional Water Quality Control Board
320 West Fourth Street, Suite 200
Los Angeles, CA 90013

RE: Los Angeles Basin Plan Amendment to Prohibit On-Site Wastewater Disposal Systems ("OWDS") in the Malibu Civic Center Area

The Santa Monica Baykeeper ("Baykeeper") supports the Los Angeles Regional Water Quality Control Board's ("Regional Board") decision to amend the Basin Plan to prohibit OWDS in the Malibu Civic Center area.

In recognition of the impact of OWDS on the water quality of Malibu Creek, Malibu Lagoon and Malibu beaches, the Regional Board directed staff in December 1998 to develop a prohibition of OWDS for the Civic Center area. This idea was later abandoned and in the next decade the water quality degradation of these waters persisted unabated resulting in ever-increasing violations of water quality objectives and unsafe levels of pollution.

To protect the waters located in one of the most famous coastal areas of the Los Angeles Region, the Regional Board must prohibit wastewater discharge in the Malibu Civic Center area. This approach is mandated by the law and is supported by the facts and scientific evidence. The Regional Board should adopt the long-overdue prohibition on OWDS in the Malibu Civic Center area subject to the revisions discussed in sections III through IV of our letter.

I. The California Water Code and the Clean Water Act Mandate the Prohibition of OWDS in the Civic Center Area

The Clean Water Act was passed with the goal "to restore and maintain the chemical, physical, and biological integrity of the Nation's waters." 33 U.S.C. §1251 (a). These Congressional policies are attained through various Clean Water Act programs, including the National Pollutant Discharge Elimination System (33 U.S.C. § 1342), the dredge and fill permitting program (33 U.S.C. § 1344), the establishment of effluent limitations (33 U.S.C. § 1311) and total maximum daily loads ("TMDLs") to protect impaired waters (33 U.S.C. § 1313(d)). TMDLs are established for water bodies which cannot meet state water quality standards despite the imposition of technology-based limits required by section 301 of the Clean Water Act. 33 U.S.C. § 1313 (d). These waters are commonly referred to as "impaired waters."

The Regional Board and the EPA have established TMDLs for the following impaired water bodies in the Malibu Civic Center area: a Nutrient TMDL for Malibu Creek and Malibu Lagoon, a Santa Monica Bay Beaches TMDL for Malibu Beaches and a Malibu Creek and Lagoon Bacteria TMDL. Regional Board Resolution No. 02-004 (Santa Monica Bay Beaches Bacteria TMDL); Regional Board Resolution No. 2004-019R (Malibu Creek and Lagoon Bacteria TMDL); U.S. EPA TMDL for Nutrients Malibu Creek Watershed.

The Water Code was similarly adopted to ensure California waters are restored and protected from degradation. Wat. Code § 13000. The code requires that the "quality of all the waters of the state shall be protected for use and enjoyment by the people of the state." *Id.* Moreover, the "activities and factors which may affect the quality of the waters of the state shall be regulated to attain the highest water quality which is reasonable." *Id.* Responsibility for water quality control rests with the state and regional water boards who must "conform to and implement the policies" of the Water Code . *Id.*, § 13001. To achieve the goals of the Water Code, regional water boards are required "to formulate and adopt water quality control plans for all areas within the region." *Id.*, § 13240. Clearly, under the Water Code, the Regional Board must ensure that the Basin Plan, which is Los Angeles Region water quality control plan, protects the quality of waters in the region.

As amply demonstrated by the persistent violations of water quality objectives and TMDLs and the continued impairment of the Malibu Civic Center area groundwater caused in part by septic effluent discharges, the policies and mandates of the Clean Water Act and the Water Code have been consistently violated for more than a decade.

The Malibu Creek, Malibu Lagoon and Malibu beaches TMDLs are consistently violated by the discharge of wastewater from OWDS which reaches the waterbodies through shallow groundwater. Draft Technical Staff Report, *Technical Memorandum #3: Pathogens in Wastewater that are in Hydraulic Connection with Beaches Represent a Source of Impairment for Water Contact Recreation* ("Technical Memorandum #3"), at T3-8—T3-16; Draft Technical Staff Report, *Technical Memorandum #4: Nitrogen Loads from Wastewater Flowing to Malibu Lagoon are a Significant Source of Impairment to Aquatic Life* ("Technical Memorandum #4), at T4-15.

Further, despite the Waste Discharge Requirements ("WDRs") issued by the Regional Board to Civic Center area dischargers, the violations of effluent limits and effluent flows imposed on dischargers to protect the quality of ground and surface waters in the Civic Center area continue. Draft Technical Staff Report, Technical Memorandum #1: *Dischargers Have Poor Records of Compliance with Regional Board* ("Technical Memorandum #1). Clearly, as a regulatory tool, the WDRs have failed to achieve the Water Code's mandate to regulate all "activities and factors which may affect the quality of waters of the state ... to attain the highest water quality which is reasonable." Wat. Code § 13000. The section 13269 waiver for smaller OWDS which was administered by the City of Malibu under the 2004 Memorandum of

Understanding ("MOU") with the Regional Board has also failed to adequately regulate subsurface wastewater discharges.[1]

Given the clear mandate of sections 13000 and 13240 of the Water Code, the Regional Board is required to institute more stringent regulations and amend the Basin Plan to comply with the directive to protect water quality to the highest level. Wat. Code §§ 13001 (the Regional Board must exercise its authority to control water quality in a manner that conforms to and implements the policies of the Water Code). The regulatory mechanism provided by the Water Code is a prohibition on subsurface discharges as proposed in the draft Basin Plan amendment prohibiting OWDS in the Civic Center area. Wat. Code § 13243. To meet its obligations under the Water Code, the Regional Board has no other alternative but to institute the proposed prohibition.

II. The Proposed Prohibition of OWDS in the Malibu Civic Center Area Complies with the Law and Is Amply Supported By Substantial Evidence

The California Water Code ("Water Code") authorizes a Regional Board to "specify [in a Basin Plan] certain ... areas where the discharge of waste ... will not be permitted." Wat. Code § 13243. The determination to prohibit subsurface disposal "shall be supported by substantial evidence in the record that discharge of waste from such disposal systems will result in violation of water quality objectives, will impair present or future beneficial uses of water, will cause pollution, nuisance, or contamination, or will unreasonably degrade the quality of any waters of the state." *Id.* § 13280.

As demonstrated by the Draft Technical Staff Report and the five technical memoranda, the requirements of section 13280 were thoroughly satisfied and the proposed Basin Plan amendment prohibiting OWDS in the Malibu Civic Center area is supported by substantial evidence.[2] Consequently, the Regional Board should adopt the prohibition with the revisions discussed in Sections III through IV of this letter.

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[1] As discussed in Baykeeper's previous comment letter on the proposed termination of the Malibu MOU with the Regional Board, the City of Malibu has failed to comply with the majority of its obligations under the MOU, including the requirement to adopt ordinances requiring upgrades of OWDS contributing to bacterial and nitrogen impairment in Malibu Creek, Malibu Lagoon and Malibu beaches.

[2] The documentation supporting the proposed Basin Plan amendment also complies with the requirements of sections 13281 and 13283 of the Water Code.

1. Continued OWDS Discharges Will Violate Water Quality Objectives, Impair Present or Future Beneficial Uses, Cause Pollution And Will Unreasonably Degrade Water Quality

As already discussed, the Malibu Creek, Malibu Lagoon and Malibu beaches, including Surfrider are impaired waters with imposed TMDLs. Under the Basin Plan, the beneficial uses of these waters include: Water Contact Recreation: Non-Water Contact Recreation: Marine Habitat; Wildlife Habitat; Wetland Habitat; Spawning, Reproduction, and/or Early Development; Rare, Threatened, or Endangered Species Habitat. Basin Plan at 2-10, 2-19.

The groundwater in the Civic Center area has the following beneficial uses: Municipal and Domestic Supply (Potential), Industrial Process and Service Supply, and Agricultural Supply. Basin Plan at 2-17. The water quality objectives for groundwater can be found in Title 22 of the California Code of Regulations and the Basin Plan.

A. Existing OWDS Discharges Contribute to Violation of Water Quality Objectives

As evident from the most recent Notices of Violations sent to Malibu Civic Center dischargers in April 2009, the dischargers have consistently violated the nutrient and pathogen effluent limits and effluent flows required by their WDR. Technical Memorandum #1, at T1-3—T1-4. In fact, even the most recently permitted discharger in the area, the Malibu Lumber Yard, violated its WDRs immediately upon commencing discharge by exceeding its effluent limits for nitrogen, phosphorus and coliform. Regional Board Notice of Violation to Malibu Lumber Yard (June 15, 2009), at 1-2.

In addition, the City of Malibu has failed to institute nearly all of the programs which were required under the 2004 MOU with the Regional Board to ensure that smaller commercial and residential OWDS do not violate water quality objectives.[3] As a result, the majority of the small OWDS in the area covered by the proposed prohibition do not provide advanced treatment. Moreover, the wastewater discharges of these residential and commercial OWDS continue to be unregulated and consequently their impact on water quality in the Malibu Creek, Malibu Lagoon, the beaches and the groundwater is potentially disastrous.

[3] The MOU required Malibu to: draft and recommend for adoption by City Council ordinances mandating advanced treatment and disinfection by all OWDS within the six-month time-of-travel zone of the City's bacterial contributory areas by September 17, 2006; draft and recommend to City Council for adoption an ordinance requiring septic systems within the Malibu Lagoon contributory area to provide secondary treatment with denitrification and disinfection by September 17, 2007; establish denitrification standards for residential areas within the contributory area by September 17, 2006; draft and recommend for adoption ordinances establishing registration criteria and programs for all associated disciplines of OWDS installation and management by September 17, 2008. MOU, at 5-6. The City has failed to comply with these requirements.

The violations of effluent limits and the lack of regulation of the OWDS covered by the 2004 MOU translate into violations of water quality objectives and drinking water standards and impair beneficial uses.

Analysis of 2002-2009 groundwater sampling data from 47 wells in the Civic Center Area showed that Maximum Contaminant Levels ("MCLs") for nitrogen, total coliform, fecal coliform and ammonia were exceeded frequently. Draft Technical Staff Report, *Technical Memorandum #2: Pathogens and Nitrogen in Wastewater Impair Underlying Groundwater as a Potential Source of Drinking Water* ("Technical Memorandum #2"), at T2-4. The 47 wells were either designated monitoring wells pursuant to WDRs issued by the Regional Board or were identified by the 2004 Stone Report. *Id.*

Similarly, OWDS discharges which exceed effluent limits or effluent flows reaches Malibu Lagoon and Malibu Creek where it contributes to exceedances of the Nutrient TMDL loading limit and impairs beneficial uses of Malibu Creek and Malibu Lagoon. Technical Memorandum #4, at T4-9—T4-15. In fact beginning in June 2009 a large scale fish die off (including large numbers of federally endangered steelhead trout) occurred in Malibu Creek. Attachment A (Preliminary Results of Rapid Response to the Malibu Fish Decline Event by RCDSMM).188 steelhead trout were observed, down from a total of 1,300 counted in October 2008. *Id.* This die off can be largely attributed to extremely low levels of dissolved oxygen believed to be caused by decomposing algae which has created a thick layer of anaerobic muck on the bottom of Malibu Creek. *Id.*; Attachment B (muck photographs from July 2009). Dissolved oxygen levels have dropped as low as 0.5 mg/l in Malibu Creek. Attachment A. A similar large scale fish die off in Malibu Creek occurred in the summer of 2006. The 2006 fish kill was also attributed to low dissolved oxygen and high water temperatures.

Finally, because pathogens discharged from existing OWDS are in hydraulic connection with beaches adjacent to the Malibu Civic Center area, OWDS contribute to violation of the Santa Monica Bay Beaches Bacteria TMDL at Surfrider Beach, Carbon Beach and Amarillo Beach. Technical Memorandum #3, at T3-2—T3-26.

Clearly, the discharges from existing septics in the Malibu Civic Center area contribute to violations of water quality objectives and TMDLs and contribute to impairment of beneficial uses.

B. Without a Prohibition on OWDS in the Civic Center Area the Impairment of Beneficial Uses and Violations of Water Quality Objectives Will Continue

That existing permitted dischargers routinely violate effluent limits for nutrients and pathogens is of particular significance for several reasons. First, the violations show that the WDRs are insufficient to ensure that water quality objectives in the groundwater and the Nutrient and Bacteria TMDLs for Malibu Creek, Malibu Lagoon and Surfrider Beach, Carbon Beach and Amarillo Beach will be met. Second, because even the Malibu Lumber Yard OWDS, ostensibly

considered a "state-of-the-art" system, violates its effluent limits, it is clear that advanced treatment OWDS cannot ensure water quality is protected.

Continued violations are certain to occur also because small commercial and residential septic systems in the proposed prohibition area are unregulated and do not provide an advanced level of treatment to ensure water quality objectives are met.

Finally, the increased need for septic waste hauling discussed in Technical Memorandum #5 provide further evidence that continued OWDS discharges will exacerbate the current water quality problems and show that OWDS are not the lasting solution this area requires.

2. The Proposed Basin Plan Amendment Is Supported by Substantial Evidence

The five technical memoranda to the technical staff report prepared by Regional Board staff clearly show that the proposed Basin Plan prohibition on OWDS in the Malibu Civic Center area is supported by substantial evidence.

To draft the Basin Plan amendment, Regional Board staff reviewed 224 monitoring reports submitted by 20 dischargers in the Malibu Civic Center area in between 2004 and 2008. Technical Memorandum #1, at T1-1—T1-3. Staff also analyzed 671 samples from 47 groundwater wells in the Civic Center area sampled between 2002 and 2009. Technical Memorandum #2, at T2-4. To evaluate nitrogen loading from Civic Center area OWDS, staff inventoried all residential and commercial properties in the area, used actual flow data from self-monitoring reports and relied on previous US EPA and other technical studies. Technical Memorandum # 4, at T4-2, T4-6. Finally, Regional Board staff reviewed and analyzed all previous technical studies of the Malibu Civic Center area and analyzed thousands of samples to reach the conclusion that pathogens in wastewaters discharged in the Civic Center area impair Surfrider Beach, Carbon Beach and Amarillo Beach. Technical Memorandum #3, at T3-25, T3-17—T3-23.

In light of this extensive review and analysis, the City of Malibu's insistence that the Regional Board should not adopt the proposed Basin Plan amendment is entirely unwarranted. As explained by Regional Board staff at the October 1 workshop and in the technical memoranda, none of the ongoing studies will change the conclusion that OWDS contribute to violation of water quality standards and impairment of beneficial uses.

For all of the above reasons, the proposed Basin Plan amendment is required by the Clean Water Act, the California Water Code, it is supported by substantial evidence and should be adopted with the revisions discussed below.

III. The Proposed Prohibition on OWDS Should Be Expanded to Include the Dense Multi-Family and Commercial Area Between Malibu Pier and Carbon Beach.

This area should be covered by the Basin Plan amendment because it is densely developed with multi-family and commercial properties (hotels, restaurants and office buildings) which produce large volumes of wastewater effluent. In addition, several of the commercial dischargers, such as Casa Malibu Hotel, Malibu Beach Club apartments, Malibu Beach Inn among others, have recently received Notice of Violations or 13260 directives showing that violations of effluent limits and water quality objectives are presently occurring. Finally, the proximity of this area to Surfrider Beach and Carbon Beach, both with imposed TMDLs to protect recreational water contact uses, make it virtually certain that wastewater discharges from OWDS in this area contribute to current TMDL violations and impairment of beneficial uses. [4]

Including this area in the Basin Plan amendment will be a prudent and necessary step to protect beneficial uses and public health and comply with the mandates of the Clean Water Act and the Water Code.

IV. The "Zero Discharge" Exception Should Be Eliminated or Revised to Require No Discharge of Wastewater Effluent During the Winter Months (October-April)

As demonstrated by the recent WDR violations by the Malibu Lumber Yard, "zero discharge" systems cannot ensure that effluent limits are met in the Civic Center area. A true "zero discharge" system will only apply enough water and nutrients that can be fully uptaken by the vegetation on the project site without one drop of discharge connecting to groundwater. While the goal of designing such systems is admirable, in reality "zero discharge" systems are not currently possible without setting aside large amounts of property for irrigation and evapotranspiration.

To ensure that a purported "zero discharge" system functions anywhere close to its intended admirable objective, the Regional Board should prohibit such systems from discharging during the winter months of April through October and require that any "zero discharge" systems have adequate storage capability to ensure that no discharge occurs in winter. This provides the Regional Board with at least a reasonable assurance that water quality in the proposed prohibition area will be protected.

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[4] A map listing the types of land uses and demonstrating density of development along with exact locations of properties with NOVs or 13260 directive is attached to this letter as Attachment C.

V. The Basin Plan Amendment Should Prohibit New Development Until the Malibu Civic Center Groundwater Is Cleaned

As demonstrated by numerous technical studies and the technical memoranda in support of the prohibition on OWDS, the groundwater in the Civic Center area is heavily polluted and connects to the Malibu Creek, Malibu Lagoon and adjacent beaches. Any increases in effluent discharges to groundwater, which will likely occur once the wastewater treatment plant is operational and effluent is dispersed, will push existing and historical groundwater pollution to these waterbodies. This will result in violations of water quality objectives and continued impairment of beneficial uses.

It is imperative that the existing and historical groundwater pollution be cleaned up. Additionally, it is critical to establish adequate dispersal areas that do not concentrate large volumes of treated wastewater forcing groundwater flows toward Malibu Creek, Malibu Lagoon and the beaches.

The Basin Plan amendment should prohibit any new development until the above requirements are met and it is clearly established that the prohibition area has the capacity to accommodate additional wastewater effluent.

VI. The Basin Plan Amendment Should Provide a Compliance Schedule With Milestones To Establish That Progress Toward Water Quality Improvement Is Made

Currently, the Basin Plan amendment gives Malibu five years to come into compliance with the prohibition on OWDS. The proposed amendment also provides a schedule of interim and final deadlines.

Given the well-documented long-standing problems of the Civic Center area and the City of Malibu's failure to address these problems, we believe this schedule should contain concrete milestones to achieve progress towards water quality standards.

The schedule should be revised as follows:

- The wastewater treatment plant should be built and operational and the Civic Center Area, Winter Canyon and the Malibu Colony areas should be connected by October 1, 2012.
- The area east along PCH to Carbon Beach (see attached map) should be connected to the operational wastewater treatment plant by October 1, 2013.
- Serra Retreat will be connected to the wastewater treatment plant by October 1, 2014.

VII. Conclusion

The proposed Basin Plan amendment prohibiting OWDS in the Malibu Civic Center area is necessary to protect water quality and to ensure compliance with the Clean Water Act and the Water Code. The proposed amendment is supported by substantial evidence and should be adopted with the revisions described above.

We appreciate the opportunity to provide comments on this important Basin Plan amendment.

Sincerely,

Tatiana K. Gaur

Tatiana Gaur, Esq.
Staff Attorney
Santa Monica Baykeeper

Mark Abramson
Director Watershed Programs
Santa Monica Baykeeper

ATTACHMENT A

Preliminary results of Rapid Response to the Malibu Fish Decline Event

July 28 – 18 August 2009

Compiled by Rosi Dagit, RCDSMM

BACKGROUND

In 2006, all the visible aquatic life in Malibu Creek between Ridge Dam and Malibu Lagoon died over a three-month period. High water temperatures may be the final factor, combined with reduced dissolved oxygen, low flows, abundant algal growth and the presence of decomposing algae and diatoms that covered the substrate. Unfortunately, agency response to the three-month decline of trout was very slow in 2006, and many of the toxicity tests were done after the fact.

We have detailed observations and results of subsequent tests that were conducted, but ultimately the lack of timely information on dissolved oxygen made it impossible to reach any defensible conclusions about what caused the die-off. The toxicology tests were all done 1-2 months after the die-off and so it is possible that any toxins or pathogens present had disappeared by that time.

A significant effort was made to develop a rapid response protocol should this ever happen again (Dagit, Adams and Drill 2009). Three years later, we are observing similar conditions and low number of endangered *O. mykiss*, and have promptly initiated the effort to obtain relevant toxicology, bacteria, and muck samples.

Collecting and analyzing this suite of water quality and quantity parameters now while the event is in progress will provide a more detailed picture of the conditions. With this information in hand, managers can make more informed decisions on how best to prevent the continued die-off of all the fish, especially the endangered *O. mykiss*.

CURRENT CONDITIONS

SNORKEL SURVEY OBSERVATIONS

During snorkel surveys conducted 28-29 July 2009, conditions of low flow, high water temperatures (24^{o}C), and abundant distribution of decaying periphyton (diatoms and algae) referred to as the "Malibu muck" were observed. There were carcasses of dead crayfish littering the substrate. Only 188 trout were observed, down from a total of 1,300 counted in October 2008.

Snorkel surveys were repeated on 17-18 August 2009. The muck conditions continue to expand, and dead crayfish were observed. Two dead *O. mykiss* were found and collected. The 175mm (7 inch) fork length trout found upstream of the Start Pool was severely decomposed. Fin clip and scale samples were collected but it was not possible to get otoliths. The second 390 mm (16 inch) trout was found on the bottom of the Big Wide

Pool and in better condition. Fin clip and scale samples have been collected and the carcass frozen.

Trout with pale yellow patches and abraded scales were also observed. None of the trout were bright yellow as they were in 2006.

FLOW

Flow is recorded at the Los Angeles County Gage (F-130-R) and Tapia is required to release water to maintain a minimum of 2.5 cubic feet per second (cfs) at the gage as part of the operating permit with National Marine Fisheries. The level had dropped below that the week of 20-26 July, and thus there was a release pulse during 27-29 July. Presently the level back up above 2.5 cfs and the release has been discontinued at this time.

HUMAN BACTERIAL CONTAMINATION

The tertiary sewage treatment plant that discharges into Malibu Creek about a mile upstream of Ringe Dam has a direct pipeline located along the road shoulder that transports raw sewage from Pepperdine University to the Tapia Treatment Plant. This line is currently undergoing repair for small leaks. In order to rule out sewage contamination, the human bacterioides tests were deemed appropriate. Additional fecal and total coliform, E. coli and Enterococcus tests were also done by Heal the Bay, Dr. Rich Ambrose and Dr. Jed Fuhrman. We are still waiting for the results of the bacteriorides tests.

Table 1. Bacteria Test Results (courtesy of Heal the Bay and Dr. Ambrose)

Location	Date tested	Enterococcus	E. coli	Total Coliform
Start Pool	8/4/09	97	<10	24916
Lunch Pool	8/4/09	<10	21	>24916
HTB Site 15 Stream gage below Tapia	8/2/09	292	31	>24916
UCLA site below Start Pool	7/09	74	<10	>24000

Note: Limits for E. coli are 400 and Enterococcus 104

TEMPERATURE AND DISSOLVED OXYGEN

Continuously recording HOBO thermometers were installed in the water at the Start Pool, Lunch Pool, Grimmer Pool and Dam pool. An additional hobo was installed to capture air temperature at the Lunch Pool.

Two continuously recording data probes (Troll 9500 and YSI 6600) have been installed in Start Pool and Lunch Pool thanks to incredible efforts by Sean Anderson (CSUCI), Susan Teel and her assistants (NPS), Pablo Bryant (SDSU), Sean Bergquist and Jack

Topel (SMBRC), Richard Sherman (Topanga Underground), Sandra Murcia, Steve Williams, Delmar Lathers and Jayni Shuman, (RCDSMM).

The first download was obtained on Monday 17 August for the first week. Temperatures have been cooler for the past several weeks following the heat spell in mid-July. Sean, Pablo and Sandra are working out the kinks of downloading and calibrating the two sondes so that we are sure that any variability is real and not an artifact of the probes. It has taken a great deal of time and energy to install, maintain and manage these probes, all of which has thus far been volunteer effort.

Table 2. Range of Temperature and Dissolved Oxygen between 11-17 August 2009

Location	Dates	Temp Range ^{0}C	Dissolved O^2 mg/l Range
Start Pool	7/30 – 8/17/09	18.2 –21.7	0.5 - 9
Lunch Pool	8/11 – 8/17/09	18.8 –21.5	6 - 8

OTHER WATER QUALITY PARAMETERS MEASURED

Samples looking for eutrophication related toxins (domoic acid, microsistin), nutrient tests, total carbon dioxide, sulfur and chlorophyll were taken and we await results.

TOXICITY STUDIES

Samples were collected from the Start Pool and Lunch Pool on 4 August 2009. A total of 26 gallons of water and two liters of sediment were air shipped to the UC Davis Aquatic Toxicology Lab, thanks to the strength of the Topanga Stream Team volunteers, and funding provided by Sup. Zev Yaroslavsky and Trout Unlimited. Eighteen people spent the whole morning shuttling the samples in backpacks full of ice out of the creek. It was hard work!

The three tests performed were:

96 hour High Volume Fish test on juvenile rainbow trout: 100% survival
Notes from Marie Stillway (ATL): *The Rainbow Trout (RBT) test was conducted at 12°C, as RBT is a cold water fish species.*

This species can be sensitive to ammonia; however ammonia-nitrogen levels were measured in-house at ATL and both sites came up with 0.03 mg/L NH3-N. I would need a little more time to calculate the un-ionized ammonia levels from this, but I can say that in general these ammonia-nitrogen levels are pretty low/normal and I don't really think that ammonia was a factor.

Pyrethroid pesticides tend to be more toxic at colder temperatures, but with the survival as it was, I don't think they played a major role in what you're seeing at the sites, based off of the RBT test, but I should say that since RBT is such a large fish, it would need

higher concentrations of a toxicant (like a pyrethroid) to see an effect. But your chemical analysis results will tell you in more detail what's in the water.

10 day invertebrate test (*Hyalella azteca*): Negligible mortality
Notes from Marie Stillway (ATL): *The Hyalella water column test was conducted at 23°C. Let me preface this with saying that we haven't had a chance to apply statistical analyses to this test or the sediment test, but I can give you the draft raw data.*

Ave Control Survival: 98% Ave Control Weight: 0.053 g
Ave Start Pool Survival: 100% Ave Start Pool Weight: 0.091 g
Ave Lunch Pool Survival: 97% Ave Lunch Pool Weight: 0.079 g.

Overall survival was excellent, and your two ambient sites had greater average weight when compared to the control, which is typical as ambient waters tend to have more natural nutrients, which are bio-available than synthetic control water. There was measurable difference in growth when compared to animals at the start of the test, which indicate that the animals in the test grew throughout the duration of the test.

Hyalella have proven to be more sensitive an indicator species than Ceriodaphnia dubia to toxicants, so these results lead me to believe that what happened at your sites may not have been chemical-related (or, it could be a chemical with an extremely quick rate of degradation), at least with the water.

10 day invertebrate sediment test:
Notes from Marie Stillway (ATL): *Hyalella sediment tests are also conducted at 23°C. Sediments from the sites are tested using synthetic control water (same as that used in the water column test) as the overlying water.*

Again, no statistical analyses have been conducted, as this test came down yesterday, but here is the raw data.

Ave Control Survival: 93% Ave Control Weight: 0.073 g
Ave Start Pool Survival: 96% Ave Start Pool Weight: 0.070 g
Ave Lunch Pool Survival: 87.5% Ave Lunch Pool Weight: 0.081 g

Overall, survival was good. There was a bit of reduced survival in the Lunch Pool site, but I don't think it is enough of a difference to be considered statistically significant, and as you can see, average survival for that site was close to 90%. Again, there was a measurable difference in growth when compared to the animals at the start of the test, so these test animals also grew larger during the test.

Given the survival of the sediment test, I think we can probably rule out anything that might bind to the sediments. In my experience, sediment toxicity usually, when present, is pretty potent.

Some other information:
Dissolved oxygen levels were stable throughout all of the tests. I had initial concerns about the DO levels dropping in the RBT test, but they held steady at 12 and 23°C. If you experienced low DO levels while in the field, you could probably make a case for your problem being a) environmental conditions, b) your halocarbon hypothesis, or c) a combination of both.

Hardness measurements:
Lunch Pool: 916 mg/L as $CaCO_3$
Start Pool: 884 mg/L as $CaCO_3$

Alkalinity measurements:
Lunch Pool: 278 mg/L as $CaCO_3$
Start Pool: 274 mg/L as $CaCO_3$

--For the species we tested with, EPA likes to use moderately hard water. Their definition of moderately hard water is water that has a hardness of between 80-100 mg/L, and an alkalinity of 57-64 mg/L, and that's what we follow when making our synthetic control water. I would consider your waters to fall under EPA's "Very Hard" water (hardness of 280-320, alkalinity between 225-245). This shouldn't have an impact on the fish like you're seeing, unless this is a sudden significant change in overall water conditions than what the fish are used to. But I don't know enough to comment on whether this is a direct result of what you're fish are exhibiting with the off color and yellow patches.

Turbidity measurements:
Lunch Pool: 6.95 NTU
Start Pool: 1.61 NTU

--Overall I consider these turbidity measurements to be pretty low. There have been instances where we see pathogen related toxicity (PRT) in ambient samples that have high sediment, low flow and low DO. But usually there is some sort of indication of fungal growth on the fish (it doesn't seem like the yellow patches the fish are exhibiting fall under that category), and like I mentioned previously, the DO measurements in the water remained stable, and your turbidity measurements are fairly low, so you can rule that possibility out.

With this preliminary data in mind, I'm thinking that your toxicant may not be a typical chemical and could instead be biological/environmental conditions. In our lab we typically work with chemicals such as heavy metals, pesticides, herbicides, ammonia, pH, DO, salinity, etc, and based on our results, I don't think we're seeing these types of chemicals, since based on the mass mortality you're experiencing in the field, something should be showing up likewise in our tests, and we're not even seeing any sub-lethal endpoint reductions. However, it could be something entirely different; I wouldn't rule out that possibility entirely. I would be most interested in hearing the results of all your

chemical analysis data, hopefully that will give you an idea of what you're working with.

I apologize that all this data is still draft, but based on the results I believe the signals are fairly clear. "

This is really important information and tells us that whatever is killing the fish and crayfish is not detectible by the water toxicology tests.

This narrows our focus to concentrate on other possible factors such as:

a) environmental conditions (elevated temp, limited DO, or combo of both);
b) release of a quickly dissipating toxin/chemical from decomposing muck (the halocarbon hypothesis);
c) some combination of all of the above;
d) there could be toxin's present in sublethal amounts such that the cumulative stress of sublethal toxin levels AND elevated temperature might be the cause of the observed morbidity/mortality.

MUCK EXAMINATION

Muck was collected on 29 July 2009 and analysis by Dr. Robert Sheath (CSUSM) and Dr. Danutta Bennet and Dr. Tom Dudley (UCSB) indicate that the suite of species is typical of fresh water streams that are nutrient enriched. Dominant species observed included: *Enteromorpha flexuosa, Closterium acerosum, Beggiatoa sp., Pleurosira laevis, Melosira varians, Cymbella cf aspera and Rhopalodia cf. tenuissima.* None of these species are particularly toxic, however it appears that the abundant filamentous diatom *Pleurosira* and *Enteromorpha* have been shown to produce volatile halocarbons when exposed to high temperatures (Field and Sierra 2003). It is possible that natural chlorination also is playing a role in the lethal conditions as well.

Below is a list of the halocarbons that we would like to look for in Malibu creek water. Thus far I have not found a lab that can do these tests. We may not need to test for everything.

trichloromethane (CHCl3= chloroform),
trichloroethene (C2HCl3= trichloroethylene),
tetrachloroethane (C2Cl4= perchloroethylene),
tribromomethane (CHBr3= bromoform),
dibromomethane (CH2Br2),
chlorodibromomethane (CHClBr2),
bromochloromethane (CH2BrCl),
bromodichloromethane (CHCl2Br),
diiodomethane (CH2I2),
iodomethane (CH3I),
iodoethane (C2H5I),
chloroiodomethane (CH2ClI),

1-iodopropane (C3H7I),
2-iodopropane (isoC3H7I),
1-iodobutane (C4H9I)
2- iodobutane.

LIVE CAR EXPERIMENT

In addition to the water quality parameters and toxicology, the Technical Advisory Committee recommended that if die-off conditions returned, it made sense to set up live cars with sterile, triploid hatchery trout to observe their response to the conditions in the creek. There a numerous technical issues that need to be resolved in order to set this all up. To date, neither NOAA-NMFS or CDFG have come forward to implement this recommendation.

UPSTREAM CONDITIONS

Our snorkel survey team observed similar conditions of muck distribution, dead crayfish and few sunfish, carp or catfish in the 500 meters upstream of the dam.

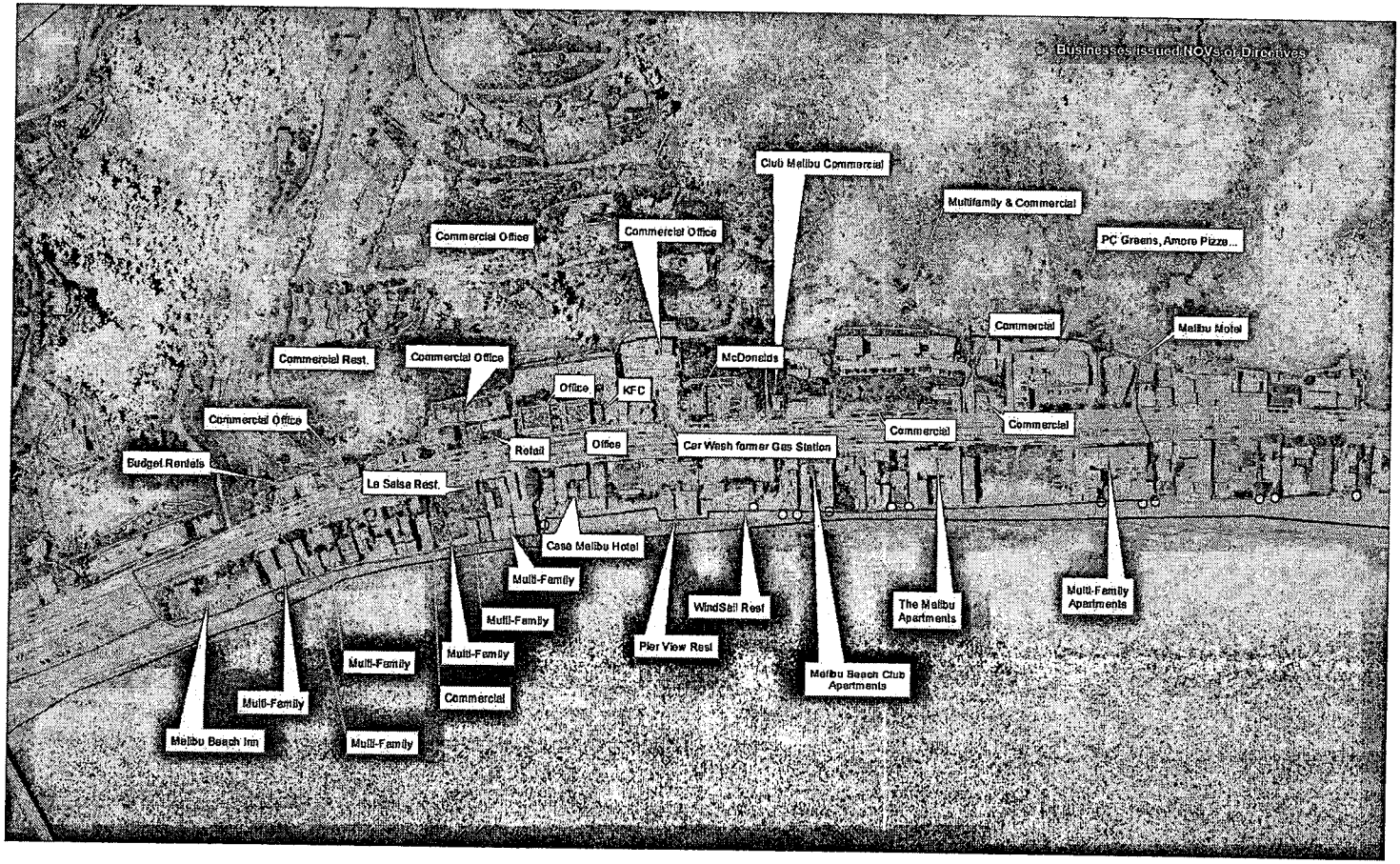
Mark Abramson and Stan Glowicki visited several locations between Malibu Lake and the stream gage below Tapia. They observed some dead crayfish near the gage and some muck. The Rock Pool in Malibu Creek State Park looked ok despite low water level and lots of algae. The pools below Malibu Dam were a nasty fluorescent green color and smelled really bad.

Malibu Lake had a fish die off during the past 3-4 weeks and have had extremely low DO levels (around 3 mg.l). The lake was treated on 8/8/09 with chealated copper (Sepro) to control algae. No further treatments have taken place.

FUNDING

We have none! Our Sea Grant emergency request was turned down. This entire effort has been completed thus far with contributions totaling $1,700 from Sup. Yaroslavsky, Trout Unlimited and SMBRC. This covers the out of pocket expenses for equipment but does not cover any time for the staff needed to maintain and monitor the probes. The RCDSMM has contributed over $2,000 of volunteer staff time to this effort thus far.

Thanks to assistance from Heal the Bay and the Coastal Conservancy, we hope to be able to cover the $5,000 cost for the toxicology and bacteriodes tests.


Business as Usual (Now or Previous)
Commercial Office
Commercial Office
Club Malibu Commercial
Multifamily & Commercial
PC Greens, Amore Pizze...
Commercial
Malibu Motel
Commercial Rest.
Commercial Office
McDonalds
Office
KFC
Commercial Office
Retail
Office
Car Wash former Gas Station
Commercial
Commercial
Budget Rentals
La Salsa Rest.
Casa Malibu Hotel
Multi-Family
Multi-Family
WindSail Rest
The Malibu Apartments
Multi-Family Apartments
Multi-Family
Multi-Family
Pier View Rest
Multi-Family
Commercial
Malibu Beach Club Apartments
Malibu Beach Inn
Multi-Family

MALIBU
CHAMBER OF COMMERCE

Regional Water Quality Resources Control Office
320 W. 4th Street, Ste. 200
Los Angeles, CA 90013
Attn: Board of Directors

October 2, 2009

RE: Wastewater Treatment Systems & STOP the Prohibition in Malibu

Dear Regional Water Quality Board of Directors;

The Malibu Chamber of Commerce represents Malibu with a mission is to provide leadership, advocacy, communication and promotion for our businesses, city, residents and visitors. We represent over 650 small and large businesses in Malibu, as well as 13,000 residents that this proposed 'Prohibition' will affect on November 15, 2009 to be implemented by the Regional Water Quality Control Board.

In recent years the Chamber has involved itself in a number of environmental issues. We have worked with the City of Malibu on the drafting and implementation of a Styrofoam ban, co-sponsored with the City and other environmental organizations a number of green building festivals and collaborated with the City on a Green Building ordinance.

At the present time the Chamber and many of its members have seen an increase in wastewater enforcement actions by the Regional Board, and our concern is that while many of our larger businesses have the knowledge and resources to take appropriate steps to make any necessary corrections to their wastewater systems or how they are maintained, we are concerned that many smaller businesses and property owners do not. Many of Malibu's smaller businesses are simply uniformed about the current requirements for wastewater permitting and the implications for their businesses.

To better understand the current situation some historical prospective is necessary. Almost all of Malibu's commercial properties were built prior to the City's Incorporation in 1991. Typically, these properties were constructed 30-50 years ago in accordance with the codes in effect at that time, which generally did not require a separate wastewater permit from the Regional Board. The standard wastewater system utilized was a septic system. Septic systems have been used successfully for decades. In reality, their main emphasis is on disposal with treatment a lesser level of concern. For the most part these

President
Heidi Bernard
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Vice-President
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Directors
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Captain Tom Martin
Yvette Gilpin
Terence Davis
Franco Simplicio
Rea Miller
Kate Novotny
John Johannessen

CEO
Rebekah Evans

23805 Stuart Ranch Road, Suite 210 Malibu, CA 90265
Tel/ 310 456-9025 Fax/ 310 456-1095 website www.Malibu.org

systems satisfactorily perform the disposal objective and do provide an effective level of treatment.

We all know that there have been many changes since then, not only from a regulatory stand point, but also from a scientific and technological prospective; however many small businesses have not stayed current with these changes. For the most part if there are small businesses or property owners who are out of compliance with the current laws it is likely they are simply unaware of the rules. Their buildings were built with all the needed permits, the wastewater systems adequately dispose of the effluent and they perform the necessary pumping their systems require.

We feel that the California Regional Quality Water Board has proposed a 'Prohibition,' for the Civic Center area without giving time to the businesses and residents to completely understand how to implement needed forms and/or a way for the City of Malibu to meet the list of recommendations of a new 'sewer system.'

One thing that Malibu businesses do understand is the importance of Malibu as a visitor destination. They know if people start avoiding Malibu beaches because of poor water quality their business will suffer. They also will be quick studies when it comes to the risk their business face by ignoring the current law. That is why Malibu is spending huge amounts of dollars on a new 'Storm water reclamation area of land', called 'Legacy Park.'

The Malibu Chamber of Commerce wants to be part of the solution. We believe the single most effective thing that can be done is to educate the Malibu business community about all things wastewater not push a prohibition or moratorium on a small community, that doesn't have the funding to make it happen overnight. With this education, it will reduce the Staff time spent on enforcement actions and likewise will allow local businesses to marshal their scarce resources on coming into compliance and avoid wasting money to defend themselves against potential fines.

We request that the RWQCB delay the actions they have deemed necessary of a prohibition, and ask that they 'partner,' with the Malibu community to create a mutual goal for all business and resident within Malibu.

You have a community that feels threatened, scared and not sure of what the next step is. Do you want to support the 'implosion' of a small community that has had to stand up against fires, transportation issues and now a down economy in only the last 3 years? We have to slow things down, and work through them, instead of shutting down this community.

Please stop this prohibition and work with us to make it a community that we can all be proud of. We look forward to working with you in a positive way to support our local businesses and residents of Malibu.

Respectfully,

Rebekah Evans

Rebekah Evans, CEO

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MALIBU
CHAMBER OF COMMERCE

Los Angeles Regional Water Quality Control Board
320 W. 4th Street, Suite 200
Los Angeles, CA 90013
Attn: Elizabeth Erickson

RECEIVED
2009 OCT 6 PM 4 40
CALIFORNIA REGIONAL WATER
QUALITY CONTROL BOARD
LOS ANGELES REGION

October 2, 2009

RE: Wastewater Treatment Systems & Prohibition in Malibu

President
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CEO
Rebekah Evans

Dear Ms. Erickson;

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In recent years the Chamber has involved itself in a number of environmental issues. We have worked with the City of Malibu on the drafting and implementation of a Styrofoam ban, co-sponsored with the City and other environmental organizations a number of green building festivals and collaborated with the City on a Green Building ordinance.

At the present time the Chamber and many of its members have seen an increase in wastewater enforcement actions by the Regional Board. While many of our larger businesses have the knowledge and resources to take appropriate steps to make any necessary corrections to their wastewater systems or how they are maintained, we are concerned that many smaller businesses and property owners do not. Many of Malibu's smaller businesses are simply uniformed about the current requirements for wastewater permitting and the implications for their businesses.

To better understand the current situation some historical prospective is necessary. Almost all of Malibu's commercial properties were built prior to the City's Incorporation in 1991. Typically, these properties were constructed 30-50 years ago in accordance with the codes in effect at that time, which generally did not require a separate wastewater permit from the Regional Board. The standard wastewater system utilized was a septic system. Septic systems have been used successfully for decades. In reality, their main emphasis is on disposal with treatment a lesser level of concern. For the most part these systems satisfactorily perform the disposal objective and do provide an effective level of treatment.

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We request that the RWQCB delay the actions they have deemed necessary of a prohibition, and ask that they 'partner,' with the Malibu community to create a mutual goal for all business and resident within Malibu.

You have a community that feels threatened, scared and not sure of what the next step is. We have to slow things down, and work through them, instead of shutting down this community.

Please stop this prohibition and start listening to the community at large? We look forward to working with you in a positive way to support our local businesses and residents of Malibu.

Respectfully,

Rebekah Evans

Rebekah Evans, CEO
Malibu Chamber of Commerce

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Heal the Bay

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October 8, 2009

Ms. Tracy Egoscue
Executive Officer
Los Angeles Regional Water Quality Control Board
320 West Fourth Street, Suite 200
Los Angeles, CA 90013

Re: Amendment to the *Water Quality Control Plan for the Coastal Watersheds of Ventura and Los Angeles Counties* to Prohibit On-site Wastewater Disposal Systems in the Malibu Civic Center Area dated July 31, 2009

Dear Ms. Egoscue:

Heal the Bay has a long history of working on water quality issues in the Malibu Creek watershed, Malibu Lagoon and Surfrider Beach. Over the last 20 years, the organization has graded water quality at Malibu beaches as part of its Beach Report Card. Staff members have served on numerous Malibu water quality committees including the Malibu Environmental Review Board for a decade and the Malibu Creek Watershed Committee. Also, our Stream Team monitoring program has collected water quality, habitat and biological data throughout the watershed for a decade. Three staff members (two are former) completed research at Surfrider Beach and in Malibu Creek that was integral to receiving their doctorates in environmental science and engineering from UCLA. In addition, two staff members were co-authors of the Santa Monica Bay epidemiology study in 1995 which included Surfrider Beach, and a staff member will be an author of the most recent Surfrider Beach epidemiology study. In the late nineties, Heal the Bay and others successfully advocated to the Regional Water Board for the cessation of dry weather wastewater discharges to Malibu Creek from April to October in order to improve water quality in the watershed and to decrease the frequency of Malibu Lagoon breaching at Surfrider Beach. Also, Heal the Bay helped author the California Clean Beach Initiative and sits on the Clean Beach Task Force that reviews all beach water quality bond grant applications. A substantial amount of funding for Malibu civic center's dry weather runoff treatment facility came from the CBI. And finally, as a long time vice-chair of the Santa Monica Bay Restoration Commission, Heal the Bay has been instrumental in helping Malibu get funds for water quality projects including Legacy Park and the dry weather runoff treatment facility. Clearly, Heal the Bay has a strong interest in the ecological health of Malibu Creek and Lagoon, and the public health of the over 1.2 million people that enjoy Surfrider Beach every year.

There is great urgency in solving the water quality issues in the Malibu Civic Center area. World-class Surfrider Beach continues to get Ds and Fs on Heal the Bay's Beach Report Card, as wastewater from commercial and residential septic systems in the area leaches into Malibu Creek

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and Lagoon and then flows into the ocean, and its poor water quality places public health at risk. Malibu Creek and Lagoon are listed on the State's 2006 303(d) List as impaired by numerous pollutants, and TMDLs were adopted five years ago by the USEPA for bacteria and nutrients. Surfrider Beach and Malibu Lagoon's legacy of polluted water has continued unabated for decades. For years, we've participated and commented on the development and implementation of plans and studies, from the 1992 Warshall study to the present. Clearly, Malibu's volunteer efforts to clean up Malibu Lagoon and Surfrider Beach have met with limited success. Yes, there have been improvements in on-site wastewater treatment systems and stormwater ordinances, the Local Coastal Plan, and dry weather runoff treatment, but the bottom line is that Malibu Lagoon and Surfrider Beach are still two of the most polluted receiving waters in the region, if not the state. The public and aquatic life should not have to wait much longer for the promise of clean water. The Regional Board's proposed prohibition of Onsite Wastewater Disposal Systems ("OWDS") in the Civic Center is a long overdue, legally enforceable action that should fulfill the promise of clean water in Malibu.

In general, Heal the Bay strongly supports the draft *Amendment to the Water Quality Control Plan for the Coastal Watersheds of Ventura and Los Angeles Counties to Prohibit On-site Wastewater Disposal Systems in the Malibu Civic Center Area* dated July 31, 2009 ("draft prohibition"). It has long been assumed and established that existing OWDS in the Civic Center area are a significant source of nutrients and pathogens to the Creek and Lagoon. The technical memos have provided the information to demonstrate that there are numerous violations of WDRs at OWDS in the civic center. Also, groundwater monitoring data frequently exceeds both drinking water standards and receiving water standards for total coliforms and total nitrogen (nitrate + nitrite, and ammonia). Studies have demonstrated that groundwater is connected to Malibu Creek and Lagoon, and that people who swim at Surfrider Beach when water quality standards are exceeded are far more likely to get sick than those that swim in clean water nearby. Moreover, the addition of discharge to the already over-taxed waste disposal systems and leach fields will lead to further water quality degradation and contribute to violations of water quality standards and TMDL requirements at a time when the City is legally obligated to reduce its nutrient and fecal bacteria contributions. Board staff's technical memos have definitely exceeded the burden to demonstrate that OWDS cause or contribute to water quality standards exceedances and beneficial use impairment in Malibu Lagoon and at Surfrider Beach.

The draft prohibition outlines a reasonable schedule, including interim and final deadlines, for developing and implementing a project to allow for a cease in discharge from existing OWDS in the Civic Center area within 5 years. Due to the pressing nature of the water pollution problems in this area, the draft prohibition appropriately calls for an immediate prohibition on new OWDS. Heal the Bay has long maintained that the city can comprehensively address the bacteria and nutrient problems and meet TMDL requirements by constructing and operating a centralized wastewater treatment plant. Although the city has promised that this is the route they plan to

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take in the Civic Center area, there has been no legally binding commitment or significant progress towards this "goal". The draft prohibition places the city on track for developing such a project.

Although Heal the Bay is very supportive of the draft prohibition, we urge the Regional Board to make two clarifications:

First, the map of the prohibition area designated as "figure 4-xx" should be discussed in more detail in the draft prohibition. Specifically, what is the justification for including Winter Canyon in the prohibition area? In general, this area has a greater depth to groundwater than most of the Civic Center area. Also, the groundwater from the Winter Canyon area does not drain into the nutrient impaired waters of Malibu Creek and Lagoon. Heal the Bay is concerned that a prohibition area that includes Winter Canyon leaves no viable disposal option for treated wastewater in the civic center area. In addition, please provide substantiation for the inclusion of so many of the residents in the Malibu Colony. We are unaware of any beach monitoring data for the Colony between Surfrider Beach and Marie Canyon. Malibu's previous groundwater studies demonstrated that about 6 or so houses near the western edge of Surfrider Beach drain into the nutrient and fecal bacteria impaired lagoon. Perhaps the houses in the Malibu Colony that do not drain to the lagoon could meet requirements by installing disinfection systems instead of tying into a new sewer in the area. A requirement to either tie into the sewer or install a disinfection system by a date certain (no more than 5 to 8 years) would be acceptable to Heal the Bay. Further, the project geographic scope should also include commercial properties south from the Civic Center on Pacific Coast Highway to at least 21237 Pacific Coast Highway, Malibu. At a minimum, within 5 to 8 years, commercial property OWDSs south of the proposed boundary on PCH should be required to disinfect their wastewater prior to leach field disposal to ensure no bacteria contribution to groundwater and surface water. This is a more cost effective approach to meeting Santa Monica Bay beach bacteria TMDL requirements. The project scope should be modified accordingly.

Second, we are concerned that the draft prohibition allows for new systems to be permitted "...if the discharger can demonstrate, to the satisfaction of the Executive Officer, that reuse, evaporation, and/or transpiration will use 100% of the wastewater generated by activities on a site, will not contribute to a rise in the water table, and will contain and properly handle any brines and/or off specification wastewaters that cannot be reused/discharged in a manner that meets water quality objectives established in the Basin Plan." How will the Regional Board ensure that there is no discharge of treated effluent from the leach fields or irrigation? The Regional Board needs to provide a clearer definition of a zero discharge facility, including monitoring requirements for water quality and depth to groundwater. Also, the zero discharge facility must perform as designed under all conditions including very wet years with high groundwater levels.

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The scientific facts are clear: dischargers of wastewater in the Civic Center area often fail to meet water quality objectives and they have the reasonable potential to cause or contribute to impairments of existing or potential beneficial uses. Thus we urge the Regional Board to approve this draft prohibition with the clarifications discussed above.

Thank you for your consideration of these comments. If you have any questions, please contact us at 310-451-1500.

Sincerely,

Mark Gold

Mark Gold, D. Env.
President

Kirsten James

Kirsten James
Water Quality Director

Malibu Surfing Association

A non-profit organization
Federal Tax ID 95-4459007

PO Box 2683
Malibu, California
90265-7683 USA

msasurfing.org

October 7, 2009

via email: rchou@waterboards.ca.gov

Ms. Rebecca Chou
Los Angeles Regional Water Quality Control Board
320 West Fourth Street, Suite 200
Los Angeles, CA 90013

Re: Amendment to the *Water Quality Control Plan for the Coastal Watersheds of Ventura and Los Angeles Counties* to Prohibit On-site Wastewater Disposal Systems in the Malibu Civic Center Area dated July 31, 2009

Dear Ms. Chou:

The Malibu Surfing Association (MSA) is one of California's oldest surfing clubs, founded by members of the Malibu community more than 40 years ago. Many of our members are residents of the City of Malibu. We are an all-volunteer organization dedicated to the fellowship of surfing and to the stewardship of our home break, Surfrider Beach. We speak on behalf of our members whose views represent those of the surfing community and the 1.6 million visitors to Malibu Surfrider Beach who should be able to use this recreational resource without fear of water-borne illness.

There is great urgency in solving the water quality issues in the Malibu Civic Center area. World-class Surfrider Beach continues to get Ds and Fs on Heal the Bay's Beach Report Card, as wastewater from commercial and residential septic systems in the area leaches into Malibu Creek and Lagoon and then flows into the ocean placing public health at risk. Malibu Creek and Lagoon are listed on the US EPA's 303(d) list as impaired by numerous pollutants, and the TMDL's that have already been adopted for bacteria and nutrients are repeatedly exceeded.

Except for the clarifications noted below, MSA wholeheartedly supports the draft *Amendment to the Water Quality Control Plan for the Coastal Watersheds of Ventura and Los Angeles Counties to Prohibit On-site Wastewater Disposal Systems ("OWDS") in the Malibu Civic Center Area* dated July 31, 2009 ("draft prohibition"). It is now established beyond doubt that existing OWDS in the Civic Center area are a major source of nutrient and pathogenic pollution of Malibu Creek and Lagoon. Moreover, the addition of any discharge to this already over-taxed area of the watershed will lead to further water quality degradation and continue to contribute to ongoing violations of water quality standards and TMDL requirements.

Staff's recommended draft prohibition outlines a reasonable schedule, including interim and final deadlines, for developing and implementing a project to allow for a cessation in discharge from existing OWDS in the Civic Center area within 5 years. Due to the pressing nature of the water pollution problems in this area, the draft prohibition appropriately calls for an immediate prohibition on new OWDS. All stakeholders agree that the City can comprehensively address the bacteria and nutrient problems and meet TMDL requirements by constructing and operating a centralized wastewater treatment plant. Although the City has "promised" that this is the route they plan to take in the Civic Center area, there has been no legally binding commitment nor has the City made any significant progress toward this "goal". The City has not chosen a site,

Re: Amendment to the *Water Quality Control Plan for the Coastal Watersheds of Ventura and Los Angeles Counties* to Prohibit On-site Wastewater Disposal Systems in the Malibu Civic Center Area dated July 31, 2009

developed a funding strategy, or approved a design since its 1991 incorporation. In fact, they currently question whether there is even a wastewater quality issue. We agree with staff's recommendation that a prohibition is the only alternative to force the City to develop and implement a wastewater solution.

MSA would urge the Regional Board to consider two clarifications:

The prohibition's geographic boundary should be expanded to include commercial properties east from the Civic Center area on Pacific Coast Highway to 22333 Pacific Coast Highway, Malibu. At a minimum commercial OWDS east of the expanded boundary on Pacific Coast Highway should be required to disinfect their wastewater prior to leach field dispersal ensuring no bacteria contribution to groundwater and surface water. The project scope should be modified accordingly.

Second, we are concerned that the draft prohibition allows for new systems to be permitted "... if the discharger can demonstrate, to the satisfaction of the Executive Officer, that reuse, evaporation, and/or transpiration will use 100% of the wastewater generated by activities on a site, will not contribute to a rise in the water table, and will contain and properly handle any brines and/or off specification wastewaters that cannot be reused/discharged in a manner that meets water quality objectives established in the Basin Plan." How will the Regional Board ensure that there is no discharge of treated effluent from the leach fields or irrigation? Beyond this, the City has repeatedly demonstrated its unwillingness or ability to enforce permits in the Civic Center.

The scientific facts are indisputable: dischargers of wastewater in the Civic Center area fail to meet water quality standards and contribute to significant impairments of water quality. We urge the Regional Board to approve this draft prohibition with the clarifications set forth.

Thank you for your consideration of our comments. If you have any questions, please contact me at 818.564.4217.

Sincerely,

Michael Blum,
President
Malibu Surfing Association

Joseph S. Melchione (S.O.)
Joseph S. Melchione
Chairman, Environmental Committee
Malibu Surfing Association

MB/JSM/so

Re: Amendment to the *Water Quality Control Plan for the Coastal Watersheds of Ventura and Los Angeles Counties* to Prohibit On-site Wastewater Disposal Systems in the Malibu Civic Center Area dated July 31, 2009

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cc: Tracy Egoscue, Executive Officer
Los Angeles Regional Water Quality Control Board
(via email: tegoscue@waterboards.ca.gov)

HAND DELIVERED

Malibu Surfing Association

A non-profit organization
Federal Tax ID 95-4459007

POB 2683
Malibu, California
90265-7683 USA

msasurfing.org

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2009 OCT 8 AM 11 24
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QUALITY CONTROL BOARD
LOS ANGELES REGION

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Los Angeles, CA 90013

Re: Amendment to the Water Quality Control Plan for the Coastal Watersheds of Ventura and Los Angeles Counties to Prohibit On-site Wastewater Disposal Systems in the Malibu Civic Center Area dated July 31, 2009

Dear Ms. Chou,

The Malibu Surfing Association (MSA) is one of California's oldest surfing clubs, founded by members of the Malibu community more than 40 years ago. Many of our members are residents of the City of Malibu. We are an all-volunteer organization dedicated to the fellowship of surfing and to the stewardship of our home break, Surfrider Beach.

MSA is a proud member of the Coalition of Surfing Clubs (CSC), an international organization which represents the interests of surfing clubs throughout California and the world. CSC acts as a united voice to address issues related to coastal water quality, beach access, development, and legislative policy. The Coalition represents surfers of all ages and exists for the betterment of the citizenship of the surfer, to improve clean water locally and globally and to promote the sport of surfing.

Both and the CSC place a special value on Malibu Surfrider Beach – the Yosemite of surfing – as an iconic, transcendant surfing location: topping any list of surfing's important beaches. It's the definitive summer beach, where the California lifestyle was defined, packaged, and then sold to the rest of the world. It's the original perfect wave.

Included please find copies of a petition signed by officers of 15 sister CSC surfing clubs, representing more than 1,000 club members as they express their, "concern[ed] about chronic water quality problems at Malibu Surfrider Beach. We sign this as a pledge for clean water at Malibu – to urge all responsible agencies to recognize the value we, and others, place on Surfrider Beach."

Specific comments from the Malibu Surfing Association on the proposed Regional Water Quality Control Board amemdment will be sent under separte cover.

Thank you for your consideration of these signed petitions. If you have any questions, please contact me at 818.564.4217.

Sincerely,

Michael Blum, President
Malibu Surfing Association

Enclosures

Malibu Surfing Association

A non-profit organization
Federal Tax ID 95-4459007

POB 2683
Malibu, California
90265-7683 USA

msasurfing.org

PLEDGE FOR CLEAN WATER AT MALIBU SURFRIDER BEACH

Why do we want clean water at Malibu? Isn't the water already clean?

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Yet for it's glory and history Surfrider is one of California's most polluted beaches, earning a dubious distinction as a listed coastal health risk.

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3. Agree to a moratorium on future development in the area until the above projects are completed.

Paul E. Moos — Signature

6-9-09 — Date

PAUL E. MOOS — Name

VICE PRESIDENT — Title

ANNAPOLIS SURF CLUB — Organization

Malibu Surfing Association

A non-profit organization
Federal Tax ID 95-4459007

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Bruce King — Signature

9/26/05 — Date

Bruce King — Name

Coalition Rep. — Title

Big Sticks Surfing Association — Organization

Malibu Surfing Association

A non-profit organization
Federal Tax ID 95-4459007

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Catherine S. Calkins — Signature

6/12/09 — Date

Catherine S. Calkins — Name

Surfing Team Competition Director — Title

Doheny Longboard Surfing Association — Organization

Malibu Surfing Association

A non-profit organization
Federal Tax ID 95-4459007

POB 2683
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Signature

9/11/04
Date

David Carvalho
Name

Team Captain
Title

Honolulu Hawaii / HLF
Hawaii Longboard Federation
Organization

Malibu Surfing Association

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Signature

7/16/09
Date

Lorraine F. Schmalenberger
Name

Community Relations Director
Title

La Jolla Shores Surfing Association
Organization

Malibu Surfing Association

A non-profit organization
Federal Tax ID 95-4459007

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Doug Robbins — Signature

9.11.09 — Date

Doug Robbins — Name

Team CHP — Title

Malibu Boardriders — Organization

Malibu Surfing Association

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Federal Tax ID 95-4459007

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Signature

6/21/09
Date

Gretchen Harris
Name

Title

Oceanside Longboard Surfing Club
Organization

Malibu Surfing Association

A non-profit organization
Federal Tax ID 95-4459007

POB 2683
Malibu, California
90265-7683 USA

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Bruce King — Signature

9/21/09 — Date

Bruce King — Name

CSC. Rep. — Title

Oxnard Waveriders — Organization

Malibu Surfing Association

A non-profit organization
Federal Tax ID 95-4459007

POB 2683
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Signature

9-3-09
Date

Gregory W Cochran.
Name

President, Petro Point Surf Club Northern Calif.
Title

Chair, Parks, Beaches & Recreation Commission City of Pacifica
Organization

Malibu Surfing Association

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Signature

6/9/05
Date

Andrew Burke
Name

Co-President
Title

Santa Barbara Surfclubs
Organization

Malibu Surfing Association

A non-profit organization
Federal Tax ID 95-4459007

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W. Olsen
Signature

8-16-09
Date

Waylon Olsen
~~Treasurer~~
Name

Treasurer
Title

Santa Cruz Longboard Union
Organization

Malibu Surfing Association

A non-profit organization
Federal Tax ID 95-4459007

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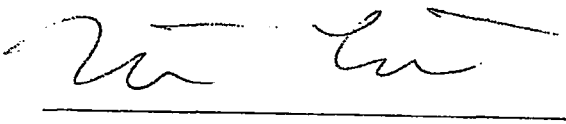

Signature

9/11/09

Date

NATHAN CINTAS

Name

Comp. Director

Title

SUNSET CLIFFS SURFING ASSOC.

Organization

619-886-5464

Malibu Surfing Association

A non-profit organization
Federal Tax ID 95-4459007

POB 2683
Malibu, California
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Signature

7/14/05
Date

John M Reinhardt
Name

Vice President
Title

Summit Surfing Assoc.
Organization

Malibu Surfing Association

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Federal Tax ID 95-4459007

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Signature

1-14-05
Date

GARY J. BRAUN
Name

President
Title

Surfrider Surfing Assoc, Inc.
Organization

Malibu Surfing Association

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Federal Tax ID 95-4459007

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JRGray — Signature

9/11/09 — Date

JAMES R GRAY — Name

BOARD MEMBER (TEAM CAPTAIN) — Title

VENTURA SURF CLUB — Organization

Malibu Surfing Association

A non-profit organization
Federal Tax ID 95-4459007

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Signature

6/8/2009

Date

MICHAEL MARIANI

Name

PRESIDENT

Title

VENTURA SURF CLUB

Organization

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Surfrider Beach is a Yosemite of surfing – iconic, transcendent, and on any list of our sport's history. It's the definitive summer beach. The beach of Dora, Carson, Gidget, and Tubesteak. It's the beach of movie stars and surf stars.

Even without surfing, Surfrider is a resource in its own right: a place where the Chumash lived and later, the Rindges did the same. Yet for it's glory and history Surfrider is one of California's most polluted beaches, earning a dubious distinction as a listed coastal health risk.

We, the undersigned, are concerned about chronic water quality impairments at Surfrider Beach. We sign this as a pledge for clean water at Malibu – to urge all responsible agencies to recognize the value we, and others, place on Surfrider Beach.

We support the efforts of organizations, agencies, and local/state governments to bring about water quality improvements in Malibu. We ask for the following:

1. Create a comprehensive solution for water treatment that fixes the chronic pollution problems caused by wastewater treatment systems in the Civic Center area, Serra Retreat, and Malibu Colony.

2. Commit to a project schedule (including timetable and funding) for a wastewater treatment / water recycling facility that addresses wastewater sources in the Civic Center, Malibu Colony, Serra Retrea, and adjoing commercial, multi-family areas.

3. Implement a moratorium on large-scale, commercial development in the Civic Center area until the above projects are completed.

Mary Knight
Signature

9-11-09
Date

MARY KNIGHT
Name

PRESIDENT VA. LONGBOARD FEDERATION
Title

VA. LONGBOARD FEDERATION
Organization

Malibu Surfing Association

A non-profit organization
Federal Tax ID 95-4459007

POB 2683
Malibu, California
90265-7683 USA

msasurfing.org

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[signature] 9-10-09

Signature Date

HAROLD REED

Name

Treasurer

Title

Windansea Surf Club

Organization

Malibu Surfing Association

A non-profit organization
Federal Tax ID 95-4459007

POB 2683
Malibu, California
90265-7683 USA

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Signature _____ Date Sept 12. 2009

OZSTAR DE JOURDAN
Name

COALITION OF SURFING CLUBS Representative
Title

Windansea Surf Club
Organization

Comments from
WDR Dischargers

MALIBU BAY COMPANY

October 8, 2009

Via Email & Messenger

Dr. Rebecca Chou
Los Angeles Regional Water Quality Control Board
320 West 4th Street, Suite 200
Los Angeles, Ca 90013

RE: **Comment Letter** --Amendment to the *Water Quality Control Plan for the Coastal Watersheds of Ventura and Los Angeles Counties* to Prohibit On-site Wastewater Disposal Systems in the Malibu Civic Center Area

Dear Dr. Chou,

Malibu Bay Company is pleased to provide comments on *Proposed* Prohibition of On-site Wastewater Disposal Systems in the Malibu Civic Center [MCC]. We have a long commitment to water quality issues in Malibu and believe that having clean water at Malibu's beaches is critical for Malibu to remain a vibrant community. While we oppose the *Proposed* Prohibition, we believe that it is essential for significant changes to be made in the way wastewater is handled in the MCC. We look forward to continuing a collaborative relationship with the Regional Board and other key stakeholders to further the goal of clean water in Malibu.

We do take note of a number of positive steps that both the City of Malibu and the Regional Board have taken in recent years. We applaud the Regional Board's latest efforts to assure compliance with their regulations by issuing Notices of Violations and 13260 Directives. While perhaps this effort has been overly aggressive in an attempt to make up for years of lax enforcement, we do think it will lead to more compliance and cleaner water. The City of Malibu has now started construction of a significant stormwater treatment facility at Legacy Park which should also make a major contribution to improving water quality in the MCC. We are also encouraged by the new scientific studies funded by the City. While only preliminary results are available at this time we believe they are important to assist in guiding their efforts to design a new community wastewater treatment facility

Malibu Bay Company is a significant stakeholder in the MCC. We have operated the Winter Canyon Treatment Facility that serves Malibu Colony Plaza and other adjacent properties for several decades. In addition, our holdings also include 5 undeveloped properties containing over 25 acres in the MCC. Currently, we are preparing an application for development entitlements in the MCC that will include a "zero-discharge"

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On-Site Wastewater Treatment Facility. Our experience in both operating and building wastewater plants and our ongoing analysis of the development potential of our vacant land gives us a unique perspective on water quality issues in Malibu.

We hope our comments will assist the Regional Board in making an accurate evaluation of the existing conditions. This will ensure that any *Proposed* Prohibition is based on significant evidence and guarantee the new policies can take effect in a timely manner. Everyone's objective is to implement Regulations that will improve water quality in the MCC in a fair and equitable manner and without unnecessary replacement of existing facilities.

Adoption of the Proposed Prohibition will cause financial hardship on public and religious educational institutions as well as many Malibu businesses that have recently constructed or will construct wastewater facilities in Winter Canyon at the direction of the Regional Board

In good faith, Malibu Bay Company built a new $2,000,000 wastewater plant in Winter Canyon in 2006 to comply with Board's WDR: R4-2000-0182. In conjunction with discussions with Regional Board Staff in 2008, an additional $250,000 was spent to improve the plant's reliability and performance. The plant has an estimated life of 25 years yet this significant investment will be lost in five years or sooner under the terms of the *Proposed* Prohibition. This will require over 35 Malibu businesses, which bear the cost of the wastewater facility, to abandon this investment only to be faced with the obligation to fund the cost of a new community sewer system. In addition, the Regional Board recently sent 13260 Directives to both the Santa Monica Malibu Unified School District and Our Lady of Malibu Catholic Church for elementary schools located in Winter Canyon. Based on preliminary discussions with Staff, it is likely the School District and Church will be required to undertake the costly construction of new wastewater facilities. If the *Proposed* Prohibition is adopted, these facilities will become obsolete almost as soon as they are put into service. Causing such a wasteful expenditure of educational funds at a time when there are insufficient resources to fund teachers and programs is inequitable and unwarranted.

The "Winter Canyon drainage" [see Technical Memorandum #4, pgs 9-10] is a separate groundwater basin. This requires an analysis of the justifications cited for the Proposed Prohibition be made independent of the conditions found elsewhere in the MCC if the boundaries of the Proposed Prohibition encompass this distinct groundwater basin.

It has long been established that the Winter Canyon Drainage [WCD] is a separate groundwater aquifer. Both the 2004 Stone Report and subsequent reports [Earth Consultants International Second Response to Questions Regarding the Towing Site dated 9/18/09, which discusses in detail the groundwater characteristics of the Winter

Canyon drainage] document that groundwater in WCD flows directly to the Ocean at Amarillo Beach. This has been acknowledged by Staff in Technical Memorandum #4 which notes that Winter Canyon is separated from the Civic Center by a bedrock ridge [t4- 9 & 10]. In addition, at the October 1st Community Meeting, Staff confirmed that the sole hydrologic connection between the WCD and the rest of the MCC was due to the "long shore currents" which some of the time move the ocean water at Amarillo Beach toward Surfrider Beach. Technical Memorandum #4 goes on to further state:

> *"Sector I [Winter Canyon] is subdivided into two subsectors with significant differences in contribution to the Lagoon. The greatest volume of wastewater from Sector I is discharged in the Winter Canyon drainage, but the Winter Canyon flow is assumed to have a relatively low contribution (1%) to Malibu Lagoon." [t4-9]*

Because there is no meaningful hydrologic connection between WCD and the rest of the MCC it is necessary to evaluate this groundwater basin independent of other portions of the MCC. The imposition of the *Proposed* Prohibition in the Winter Canyon drainage must be justified by scientific evidence that relates to this separate groundwater basin.

There is no significant evidence that the reasons for the Prohibition exist in the Winter Canyon drainage and therefore this groundwater aquifer should be excluded from the boundaries of the Proposed Prohibition.

The Regional Board Staff has established five reasons as justification for the imposition of the *Proposed* Prohibition outlined in the following Technical Memorandums:

> *Technical Memorandum #1: Permitted Dischargers Have a Poor Record of Compliance with Regional Board Orders*
>
> *Technical Memorandum #2: Pathogens and Nitrogen in Wastewater Impair Underlying Groundwater as a Potential Source of Drinking Water*
>
> *Technical Memorandum #3: Pathogens in Wastewater that are in Hydraulic Connection with Beaches are a Significant Source of Impairment to Water Contact Recreation*
>
> *Technical Memorandum #4: Nitrogen Loads in Wastewater flowing to Malibu Lagoon Are a Significant Source of Impairment to Aquatic Life*

Technical Memorandum #5: Dischargers with Unsuitable Hydrologic Conditions for High Flows of Wastewater Resort to Hauling Liquid Sewage and Sludge to Communities that have Sewer and Wastewater Treatment Facilities

There are multiple inaccuracies and incorrect assumptions in much of the data contained in the Technical Memorandums in regard to WCD and little evidence that the justifications listed above are present in WCD.

The Winter Canyon Treatment Plant that serves the Malibu Colony Plaza Shopping Center does not have a poor record of compliance with Regional Board Orders

Both Technical Memorandum #1 and Technical Memorandum #3 attempt to present the case that an important reason for the *Proposed* Prohibition in Winter Canyon is that there has been a poor record of compliance for dischargers in the Winter Canyon drainage as well as elsewhere in the MCC.

The Winter Canyon Treatment Plant [WCDTP] operated by Malibu Bay Company is permitted to discharge 45,000 gallons/day. This makes it one of the largest dischargers in Winter Canyon and the only one that requires disinfection. As required by the Regional Board's TSO R4-2003-0060, this plant was placed into service in the Fourth Quarter of 2006 after an 8 week start up period. Effluent is tested weekly in accordance with the WDR. Those results are reported quarterly to the Regional Board Staff along with a letter detailing other important operating information about the plant.

Table 1-4 and Table 3-1 purport to provide evidence of poor compliance with the Regional Board's WDR for the WCDTP. These Tables are inaccurate and misleading. Table 4 in Technical Memorandum #1 lists Malibu Colony Plaza and indicates a "Total Violation Count" of 62. The majority of these reported violations are simply due to an error made by Staff or the interns who assisted with the analysis of our quarterly reports and do not represent violations at all. As stated in the 4/24/09 NOV, Staff believed that the TSO required Malibu Bay Company to meet the discharge requirements in the WDR starting in January 2006. In fact, the Executive Director granted an extension to September 2006, a fact confirmed by a copy of the TSO Extension Letter that was attached to the NOV but apparently never reviewed by whoever compiled the list of violations. There are an additional 12 violations cited [late reporting by a few days] which are noted as "...minor violations..." in the Technical Staff Report Overview. These mistakes are presented as facts and an important justification for the *Proposed* Prohibition.

The mistaken belief that the discharge requirements were in effect in the first three quarters of 2006 lead to another misrepresentation of data which is contained in Technical Memorandum #3 *Table 1: End-of-Pipe Effluent Bacteria Densities reported*

for permitted Malibu Civic Center Commercial Facilities with Disinfection. Here the Staff cites Malibu Colony Plaza as an example of a system "...where disinfection has high failure rates..." and references levels of "Total", "Fecal" and "Enterococcus" which exceed "...the water quality objectives for protection of body contact recreation." While this data appears correct, it is inaccurate to imply that these bacteria levels indicate a disinfection failure because during this time period, no disinfection was required.

I have attached a detailed letter dated October 4, 2009, from IPC, the operator of the WCDTP, which reviews our exemplary compliance record. While our record is not perfect, we believe it is at least equal to or even better than the plant operators who manage the typical Community Wastewater Plants presented in the Program Alternatives found the Environmental Staff Report.

In short, Staff has not presented any substantial evidence that dischargers in Winter Canyon have a poor record of compliance and therefore, presents no justification for the imposition of the *Proposed* Prohibition.

Winter Canyon is not a potential source of drinking water and the application of the water quality standards for drinking water to this groundwater basin is flawed.

Technical Memorandum #2 seeks to make the case that pathogen and nitrogen contamination in excess of the limits for drinking water in the MCC, including the separate WCD, is caused by wastewater disposal. The memo concludes that this wastewater disposal needs to be eliminated or reduced. This analysis is flawed, since drinking water wells in WCD are unsustainable.

The Memorandum begins with a reference to the *Basin Plan* and alleges that "...it designates this area [the entire MCC] as having a Potential Beneficial Use for Municipal and Domestic Supply [MUN] and Industrial Supply [IND]." [t2-1]. While this is apparently true for some parts of the MCC, as indicated earlier Winter Canyon is a separate groundwater basin and is not designated as "MUN" in the *Basin Plan*.

Reference is correctly made to the fact that groundwater in the MCC is not currently a source of drinking water but goes on to assert that there is a history of drinking water wells up until the early 1960s. While this may be true in some parts of the MCC it is not the case for Winter Canyon. There is no evidence presented that shows the presence of drinking water wells in Winter Canyon. In fact, development in Winter Canyon did not begin until after the arrival of imported drinking water in 1963.

Finally, and most importantly, the use of drinking water wells in Winter Canyon is not sustainable and therefore the use of drinking water quality standards is inappropriate. A detailed hydrological analysis of the WCD is contained in both the 2004 Stone report as well as in Earth Consultants International's September 19, 2009 letter referenced earlier.

These sources agree and Staff concurs that significant groundwater recharge comes from the wastewater disposal that occurs in Winter Canyon.

The objective of the *Proposed* Prohibition is elimination of all or at least a significant portion of this recharge. If this happens the current groundwater levels will drop considerably, causing even more saltwater intrusion into the aquifer at Malibu Road. More importantly, extracting groundwater, without the beneficial recharge from wastewater disposal, will quickly drain the aquifer as there is negligible natural recharge. Therefore Winter Canyon is not a feasible source for drinking water wells.

There is no relevant evidence that there is any exceedance of Pathogens or Nitrogen limits for Water Contact Recreation is caused by wastewater disposal in the WCD.

As noted above, it is clear that the WCD is a separate groundwater basin separated from the greater Civic Center area by a bedrock ridge. The only hydrologic connection to surrounding areas is from the "long shore currents" which intermittently move ocean water from Amarillo Beach toward the Lagoon and Surfrider Beach. While a number of surrounding beaches are on the list of the Clean Water Act Section 303(d) *List of Impaired Water Bodies*, Amarillo Beach is not. No evidence of any impairment to the waters at Amarillo Beach is presented in any of the Technical Memorandum. This is to be expected since the impaired adjacent beaches are fed by separate groundwater basins. Each groundwater basin has distinct hydrology, geology and wastewater disposal influences.

There are a number of unique characteristics of the WCD that are important to the analysis of the role wastewater plays in causing pathogen and nitrogen impairment to water contact recreation. First, as shown in the 2004 Stone Report, groundwater travel times significantly exceed the accepted 6 month period that bacteria can survive. Groundwater travel time in the WCD is estimated to be a minimum of 3 to 5 years and even longer for the upper portion of the drainage. The WCDTP treats high strength commercial effluent. It is a significant source of wastewater disposal in the WCD and the closest large source to the ocean. Since the 2006 completion of a new treatment facility that provides disinfection in 2006, this plant has routinely treated its effluent to levels significantly below the bacteria standards for water contact recreation and this is at the source, not the canyon mouth at the ocean.

Technical Memorandum #2 includes water quality data from the 2004 Stone Report taken for the period April 2003 through March 2004. Among the numerous test results presented are the test results taken from the SMBRP-11 [t2-67], the groundwater well located in Malibu Road at the lower end of the Winter Canyon aquifer. The location of this well is important in being able to assess whether or not bacteria from WCD wastewater disposal could be the source of bacteria impairment at Malibu Beach, Surfrider Beach and the Malibu Lagoon. While the 2003-2004 tests show some bacteria

levels well above the REC-1 limits we believe these results are now out of date. Since the Winter Canyon Treatment Plant was upgraded in 2006 to include disinfection, the earlier results are no longer reflective of the current conditions. Also, since the 2004 Stone test results were taken, a large Animal Hospital and Boarding facility nearby [23915 Malibu Road] has closed and the building is scheduled to be demolished and replaced with four homes which will have their own advanced wastewater treatment plant.

To test our hypothesis we had SMBRP-11 and three up gradient wells tested a few days ago. The test results are shown in the attached October 7, 2009 letter from Earth Consultants International. They clearly demonstrate that there is no bacterial impact from wastewater disposal in the WCD.

As previously referenced, Technical Memorandum #4 indicates that the WCD is not a source of Nutrients which contribute to impairments found in the Malibu Lagoon or Surfrider Beach.

Lastly, we believe Technical Memorandum #4 contains a typographical error when it states, "Most of the wastewater discharged in Winter Canyon is assumed to discharge to *Malibu Beach*" [t4-9]. We believe the author meant to cite *Amarillo Beach* as the discharge point for Winter Canyon because there is ample evidence of this in the 2004 Stone Report and the 9/18/09 Earth Consultants International letter cited above. If indeed the author meant *Malibu Beach* then that assumption is not supported by any evidence and is in fact contradicted by ample evidence that Winter Canyon discharges to Amarillo Beach.

Wastewater disposal flows in Winter Canyon have shown a net reduction not a net increase. Also, the hauling of liquid sewage and sludge from the WCDTP does not indicate the existence of unsuitable hydrologic conditions.

Technical Memorandum #5 points to the significant increases in the volume of wastewater disposal between 2004 and 2008 in the MCC and concludes that the capacity of the groundwater basin to properly handle wastewater disposal has been compromised as a result. It goes on to suggest this conclusion is confirmed by the amount of liquid sewage and sludge that is hauled. The effluent hauling volumes for the WCDTP shown represent the largest single contribution to the purported "...unsuitable hydrologic conditions..." alleged in Technical Memorandum #5. Both the data shown and the analysis are flawed.

Malibu Bay Company has submitted quarterly reports of effluent volumes for the WCDTP since the 4th Quarter of 2006. The effluent volumes presented in Appendix A [t5-12] for 2007 and 2008 are simply not correct. Since there are no reported effluent volumes prior to the 4th Quarter of 2006 the Table contains estimates for the years of

2004, 2005 and 2006. The footnotes to Appendix A indicates the estimate used for 2006 was arrived at by annualizing the reported 4th Quarter volume [i.e. multiplying the actual volume by 4]. Since there are significant seasonal variations in effluent flow simply annualizing the 4th Quarter flows does not result in an accurate estimate for the 2006 flows. There is no explanation of the methodology used for the 2004 and 2005 estimates. Staff has not responded to requests for an explanation how these estimates were prepared. Appendix A suggests there has been over a 1.5 million gallon increase in effluent volumes from 2004 to 2008. This data is not correct.

By analyzing the operating records from the lift station at Malibu Colony Plaza, IPC, the plant operator has assembled the actual effluent volumes for 2004, 2005 and the first three quarters of 2006. These flows were corroborated by examining actual water meter data from Water District #29 for Malibu Colony Plaza. The attached October 4, 2009 letter from IPC shows that contrary to the data in Appendix A the effluent flows at the WCDTP have actually declined by over 2 million gallons since 2004.

Appendix A also contains incorrect values for the "Annual Total Hauling" of the WCDTP. IPC has prepared a Table in its October 4th letter which compares the actual reported hauling volumes with the incorrect data presented in Appendix A. More importantly since completion of the new WCDTP, there have not been any disposal problems. In fact, to provide a margin of safety for the groundwater disposal system the WCDTP has 10 reserve seepage pits. If has never been necessary to utilize any of these reserve pits.

While increases in hauling volumes can indicate seepage pit failures in conventional primary treatment septic systems, such failures rarely occur in plants like the WCDTP that utilize advanced treatment processes. Fluctuations in hauling activities can occur for various reasons, including construction activities as is noted in Appendix A. IPC's letter provides detailed information on the hauling activities at the WCDTP. None of the hauling at this plant is the result of any problems in the groundwater disposal system.

As documented above, the Technical Memorandums contain inaccurate and misleading data, unsupported assumptions and flawed reasoning. They do not present any significant evidence that the Proposed Prohibition boundaries should include the WCD. Furthermore, there is no basis for the Statement of Overriding Consideration and Determination [Environmental Staff Report, page 23] as it pertains to Winter Canyon.

Please let us know if we can provide any addition information.

Very Truly Yours,

David Reznick

DR:ss
Enclosures

cc: Jim Thorsen, City of Malibu

INTEGRATED
PERFORMANCE
CONSULTANTS

October 4, 2009

David Reznick
Malibu Bay Company
23705 Malibu Road, Suite D-2
Malibu, CA 90265

SUBJECT: Errors in RWQCB Technical Memoranda for Winter Canyon WTP

Dear David,

In reviewing the Technical Memoranda presented by the RWQCB in support of their proposed ban on onsite wastewater treatment systems in Malibu, I have discovered many errors, which are important as they pertain to the evaluation of Winter Canyon WTP. The errors are detailed below:

Inaccurate Representation of Sewage Flows

Technical Memorandum #5 lists incorrect flow volumes for Winter Canyon. Representative sections containing the erroneous information has been cut and pasted below for reference:

Technical Memorandum #5: Page T5-12

Discharger	Year	Annual Total Hauled(gal)	Monthly Average (gal)	Annual Waste Flow (gal)	Daily Capacity (gal)	Monthly Capacity(gal)	Percent Annual Flow Hauled
Malibu Shores Motel							
	2004			647,928	2,500		
	2005			647,928	2,500		
	2006	6,500		631,629	2,500		
	2007			625,494	2,500		
	2008	3,000		706,767	2,500		
Malibu Colony Plaza							
*	2004	918,500	76,542	5,000,000	45,000	1,350,000	18.37
*	2005	752,450	62,704	5,000,000	45,000	1,350,000	15.05
*	2006	2,359,700	196,642	5,753,176	45,000	1,350,000	41.02
	2007	515,600	42,967	6,099,999	45,000	1,350,000	8.45
*	2008	625,500	104,250	7,616,840	45,000	1,350,000	8.21

DRAFT

IPC, Inc. • P.O. Box 4362 • Mission Viejo, CA 92690-0362
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Malibu Colony Plaza

2004: Annual waste flow estimated to be 5 million gallons

2005: Annual waste flow estimated to be 5 million gallons

2006, Q4: Hauled volume estimated to be the same as Q3

2006: Annual waste flow estimated as four times the value reported in Q4 (the only quarter with data provided)

2008: Annual waste flow estimated as two times the sum of Q1 and Q2 (Q3 and Q4 waste flow data missing)

U L Y 3

The Annual waste flow estimates of 5 million gallons each year for 2004 and 2005 are inaccurate.

Records of sewage volumes pumped from Malibu Colony Plaza to Winter Canyon became available for the last four months of 2004 when a new flow meter was installed at the Malibu Colony Plaza pump station. The total volume pumped from September through December 2004 was 2,982,172 gallons. Assuming similar flow volumes for the first 8 months of the year, the total flow for 2004 would have been 8,946,516 gallons, so an estimate of 5,000,000 gallons is unjustifiably low. Further substantiating this assertion is the Malibu Colony Plaza water use record for 2004, which indicates a total potable water consumption of 13,126,161 gallons.

Records of sewage volumes pumped from Malibu Colony Plaza to Winter Canyon are available for the first 11 months of 2005. December 2005 flow meter data was lost due to a computer hard disk crash. Assuming similar flow volumes for December, the total flow for 2005 would have been closer to 11,753,171 gallons, so an estimate of 5,000,000 gallons is unjustifiably low. Further substantiating this assertion is the Malibu Colony Plaza water use record for 2005, which indicates a total potable water consumption of 11,743,673 gallons.

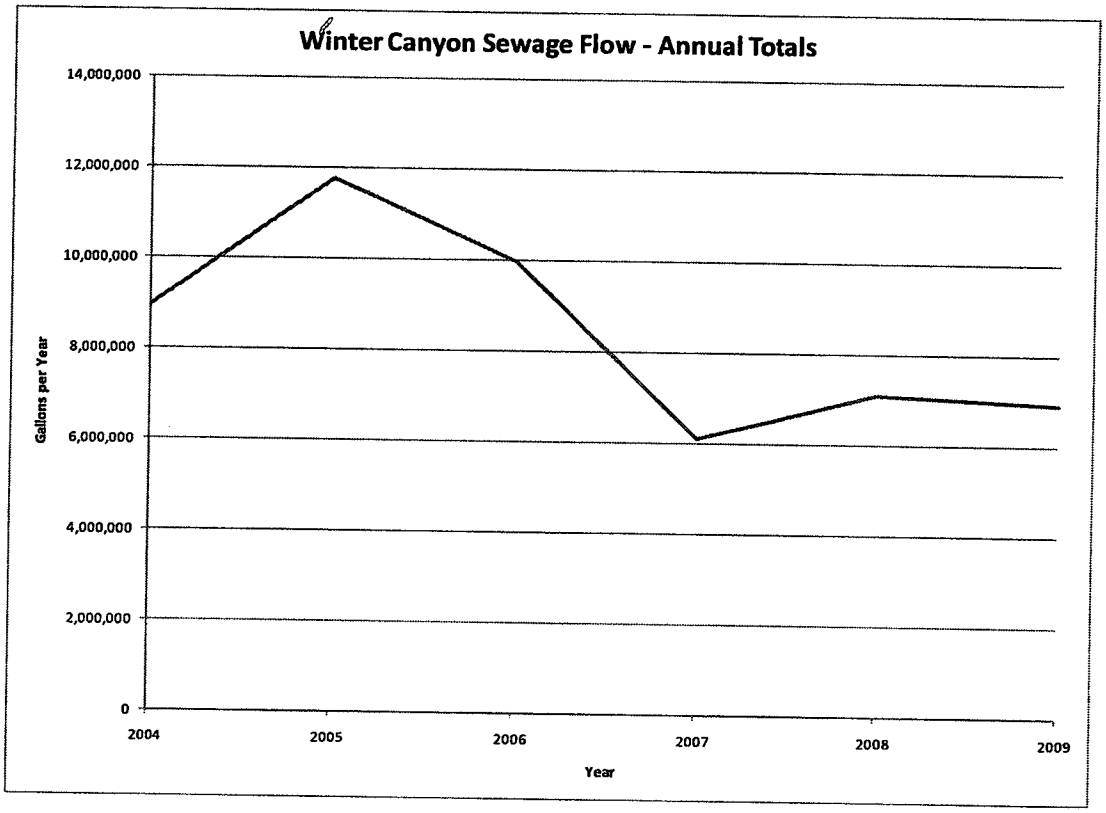
Records of sewage volumes pumped from Malibu Colony Plaza to Winter Canyon are available for all of 2006. Additionally, the new influent flow meter at Winter Canyon was placed into service in the last quarter or 2006 when the new treatment plant was finished. The metered influent sewage flow volume at Winter Canyon for the last quarter of 2006 was consistent with the flow values reported from the Malibu Colony Plaza pump station, indicating the validity of using Malibu Colony Plaza pump station flow data to determine Winter Canyon flows in previous years. Adding the first three quarters of flow data from Malibu Colony Plaza pump station to the last quarter of flow data at Winter Canyon yields an annual sewage flow of 9,962,321 gallons, so an estimate of 5,753,176 gallons is unjustifiably low

Taking the above information into account, the actual Winter Canyon influent sewage flow is summarized below:

YEAR	GALLONS
2004	8,946,516
2005	11,753,151
2006	9,962,321
2007	6,099,997
2008	7,099,977
2009	6,920,605

Note: 2009 total is projected from recorded flow through Q3.

Contrary to the general assertion in Technical Memorandum #5, subsurface discharge of OWTS effluent is not increasing. It is decreasing. This is easily seen in the graph provided below:



This is important because one element of the Technical Memoranda is that the prohibition is necessary because of an increase in discharge volumes from onsite wastewater treatment systems.

Inaccurate Representation of Hauled Volumes

Technical Memorandum #5 is similarly inaccurate in regard to reported volumes of sewage and sludge hauled off site from Winter Canyon for disposal. Our records differ significantly from those presented by the RWQCB, as indicated below:

HAULED VOLUMES

	RWQCB	ACTUAL
YEAR	*gal*	*gal*
2004	918,500	670,800
2005	752,450	752,450
2006	2,359,700	1,550,700
2007	515,600	515,600
2008	625,500	508,350
2009	No Data	250,000

Correcting the influent sewage and hauled volumes present a different picture than that portrayed in Technical Memorandum #5.

RATIO OF HAULING TO INFLUENT

	INFLUENT	HAULED	RATIO
YEAR	*gal*	*gal*	*%*
2004	8,946,516	670,800	7.50%
2005	11,753,151	752,450	6.40%
2006	9,962,321	1,550,700	15.57%
2007	6,099,997	515,600	8.45%
2008	7,099,977	508,350	7.16%
2009	6,920,605	250,000	3.61%

Note: The 250,000 gallons shown for 2009 on both tables immediately above is projected from the mid-year trend. System modifications were completed in the first quarter that allow sludge to be concentrated prior to hauling, resulting in a reduction in the volume hauled off site.

Some explanation of the hauled to influent ratio is important as it pertains to the general theme of the technical memoranda, which is that hauled volumes are increasing, and increasing hauled volumes are indicative of system failures.

The table above encompasses two distinct periods. The first period is prior to the fourth quarter of 2006, when there was only conventional treatment at Winter Canyon. Sewage was pumped to a large septic tank. Septic tank effluent was discharged to seepage pits and separated solids were hauled off site. The hauling to influent ratios shown above for the first period are typical for septic tanks serving high strength commercial systems, with the exception of the first three quarters of 2006. This was during installation of the new system, when additional volumes were pumped to accommodate construction.

The second period began in the fourth quarter of 2006, when the new treatment system was placed into service. Although the hauling to influent ratios for 2007 and 2008 are similar to the typical years of the first period (2004 and 2005), this is somewhat misleading because advanced treatment results in greater solids capture. Greater solids capture results in additional solids to haul. The only way to reduce the hauled volume is to provide a means of further concentrating solids prior to hauling. This was done in the first quarter of 2009, and the currently projected benefit is a 50% reduction in annual hauled volume.

Conclusion that the Disposal System is Failing

Technical Memorandum #5 cites increased hauling volumes as evidence that disposal systems are failing. Since the evidence is clear that hauled volumes are actually decreasing, this assertion is incorrect. In addition to the faulty overall premise, is the reality of the condition of the seepage pits at Winter Canyon WTP. Winter Canyon WTP has 75 seepage pits distributed among 15 zones. Zone flow distribution is precisely controlled by a sophisticated programmable logic controller, with level feedback. A high level in any zone disables flow to that zone until it is back within limits. Although this feature exists as a safety measure, it has never been invoked. No zone has ever been high since the new wastewater system was put into service. Zone water levels typically range between 10 and 25 feet below grade. Additionally, 2 of the 15 existing zones (10 total seepage pits) that were installed shortly before the new wastewater system was put into service have never even been used. The wastewater disposal system at Winter Canyon WTP is not failing. On the contrary, it is in excellent condition.

Inaccurate Representation of Disinfection Failures

Technical Memorandum #3 is incorrect in stating *"End-of-pipe bacteria measurements are reported for four permitted commercial sites in the Malibu Civic Center, where disinfection has high failure rate."*, on Page T3-2. The table that was provided to support this statement is shown below:

Technical Memorandum #5: Page T3-3

Table 1: End-of-Pipe Effluent Bacteria Densities (MPN/100mL) reported for permitted Malibu Civic Center Commercial Facilities with Disinfection.

Site	Total	Fecal	Enterococcus
Malibu Creek Preservation	1,600	350	46
	1,600	140	110
Malibu Beach Inn	Not measured	2	2
	Not measured	2	2
Malibu Colony Plaza	105	2	2
	4,000	2	2
	1,600	1,600	2,419
	1,600	1,600	2,419
Fire Station 88	1,600	1,600	2,419
	9,000	Not available	90,000
	24,000	24,000	24,000
	30,000	2,400	50,000
	240,000	Not available	240,000
	300,000	50,000	1,600,000

REVISED DRAFT

The values shown for Malibu Colony Plaza are irrelevant. These values were obtained before there was treatment and disinfection. It's a foregone conclusion that end of pipe bacterial results will be high without treatment and disinfection, so representing this data as evidence of disinfection failures is not appropriate.

What is appropriate is a critical analysis of bacteria removal performance since the new wastewater system with disinfection was put into service. Since the treatment system was installed and started up, there have been only two results in excess of the limits. One was on 4/27/2007, when the maximum enterococcus limit of 104 was exceeded. The reported value was 190. The other was in August 2008, when the median enterococcus limit of 24 was exceeded. The reported value was 30. Both of these violations were noted in monitoring reports, along with the causes and corrective actions taken.

Since placing the treatment system into service, we have analyzed approximately 456 samples for the indicated bacteria, with only two limit exceedences. Contrary to the assertion in Technical Memorandum #3, this is an outstanding performance record, and it is certainly not evidence of chronic disinfection system failures.

Inaccurate Representation of Nitrogen Contribution to Malibu Lagoon

Technical Memorandum #4 attempts to determine the relative contribution of nitrogen to Malibu Lagoon from a number of sources in the Civic Center. In support of this, the following table is presented:

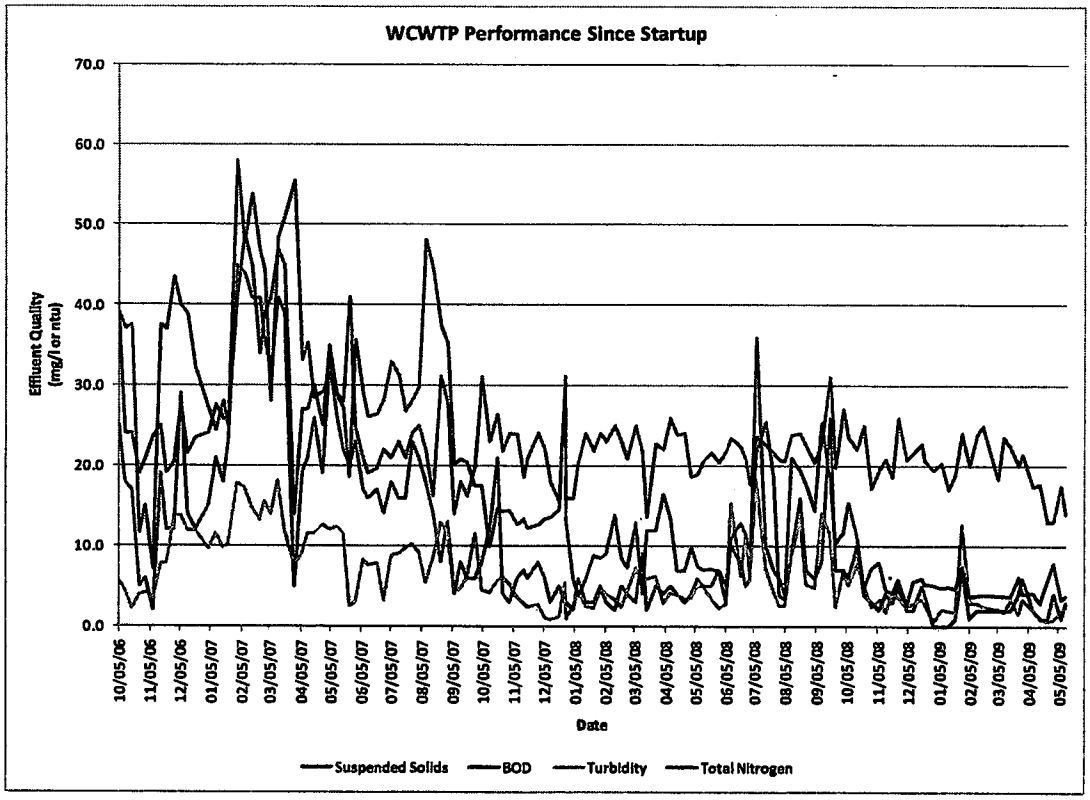
Technical Memorandum #5: Page T4-31

Table 3 Total Nitrogen Loading to the Lagoon After Adjustment of Flow and Leach Field Reduction

*Seepage Pit Disposal or Failed Leachfield = 0% soil treatment
^Calculate local waste
**Effluent facilities from northern wastewater CWTP

The table indicates that Malibu Colony Plaza is weighted at 1%, meaning that only 1% of the flow from Winter Canyon is assumed to be travelling to Malibu Lagoon. This 1% assumption is also referenced in the text of the memorandum on Page T4-9. The table then proceeds to erroneously calculate based on 10%, probably due to an error in the spreadsheet formula. All sources that are supposed to be weighted at 1% show the same error, so the total nitrogen load from the Winter Canyon area is substantially overstated.

Additionally, the stated Total Nitrogen concentration of 18.1 is incorrect. To demonstrate this, I have cut and pasted a copy of a performance chart from my NOV response in May 2009:



This chart clearly indicates that Total Nitrogen (purple line) has been predominantly lower than 10 for the last two years, and closer to 5 for the last year. The Total Nitrogen concentration is closer to one third of the 18.1 value stated in Technical Memorandum #4. This improvement is a consequence of putting the new system in service and optimizing it through subsequent modifications and experience. Note that Winter Canyon WTP does not have a nitrogen limit, so the system was not designed with nitrogen removal in mind. Nonetheless, it is performing very well in this regard.

Summary

The Technical Memoranda argue that onsite systems should be banned in the Civic Center for various reasons and supply data to substantiate the premise. As the operator of one of the largest onsite systems in the Civic Center, Winter Canyon WTP – serving Malibu Colony Plaza, I have direct access to all data that has been collected and reported since operation of the new system began in Q3 2006. Comparison of the data I reported with the data presented in the Technical Memoranda indicates significant errors have been made in the RWQCB presentation. These errors should be corrected in the permanent record, since they portray Winter Canyon WTP as a contributor to the environmental problem in Malibu. This is not correct. Winter Canyon WTP is operating very reliably and at an unusually high level of efficiency for the employed technology.

To summarize the main points:

1. Influent sewage flow to Winter Canyon WTP is not increasing. It is decreasing.
2. Hauled volumes of sludge and sewage from Winter Canyon WTP are not increasing. They are decreasing.
3. The disposal system at Winter Canyon WTP is not failing. It is in excellent condition.
4. Winter Canyon WTP does not suffer from chronic disinfection failures. The disinfection system is reliable and efficient.
5. Winter Canyon WTP does not contribute 0.25 lbs per day to Malibu Lagoon. The actual value is closer to 1/30th of that (10% flow volume error X 33% concentration error), or 0.08 lbs per day.

In light of these facts, Winter Canyon WTP cannot be portrayed as having any adverse impact on nitrogen loading in Malibu Lagoon or bacterial contamination in the Ocean.

Please feel free to contact me if you have any questions regarding this matter.

Sincerely,

Ric Vardel, IPC Inc.
Chief Plant Operator, License V-4467

Integrated Performance Consultants, Inc.
Contract Operator, License CO-0083

October 7, 2009

Earth Consultants International

To: **AZ Winter Mesa LLC**
C/O Big Rock Partners, LLC
315 S. Beverly Drive, Suite 315
Beverly Hills, CA 90212
Attn: Mr. Robert Gold

and

Malibu Bay Company
23705 W. Malibu Road, Suite D2
Malibu, California 90265
Attn: Mr. David Reznick

Subject: Summary of groundwater sample collection from Winter Canyon monitoring wells on October 1, 2009

Introduction

Earth Consultants International (ECI) was retained by AZ Winter Mesa LLC and Malibu Bay Company to collect groundwater samples from 4 groundwater monitoring wells (TY-MW-1, TY-MW-5, MBCWC-MW-2 and SMBRP-11) on October 1, 2009. Monitoring wells TY-MW-1, TY-MW-5 and SMBRP-11 are screened in the shallow section of the unconfined aquifer in the lower reaches of Winter Canyon (south of Pacific Coast Highway). Monitoring well MBCWC-MW-2 is screened in a deeper section of the same aquifer. The deeper well is screened from a depth of approximately 65 feet below top of casing (btoc) to the bottom of the well (102 feet btoc).

Groundwater sampling from the above-referenced wells was conducted by ECI at the request of the above-referenced entities. It was reported to ECI that the goal of the sampling event was to collect groundwater quality data for the unconfined aquifer of the lower reaches of Winter Canyon. Groundwater samples collected from these wells were analyzed by a State of California-certified analytical laboratory for the following constituents; Boron, Chloride, Nitrate, Nitrite, Sulfate, Total Dissolved Solids (TDS), Total Coliform and Fecal Coliform. In addition to the laboratory analyses, ECI collected several water quality parameters in the field.

Field Activities

ECI personnel arrived at the Tow Yard site at approximately 12:30 PM on the afternoon of October 1, 2009. In order to collect groundwater samples that are representative of aquifer conditions ECI purged the wells prior to the collection of groundwater samples

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that were sent to the analytical laboratory. Purging was conducted with the use of a 2-inch submersible water pump or polyethylene bailers, depending of the recharge conditions of the well.

Prior to purging of each well, groundwater levels (depth to groundwater) were collected from each well. Well purging consisted of removing of at least 2 well volumes from each well. A well volume consists of the volume of water within the saturated section of the well casing and the volume of water within the well pack (sand between the well casing and the borehole sidewalls). The well volume was calculated for each well prior to purging.

The first well that was purged and sampled on October 1, 2009 was monitoring well TY-MW-1. The depth to groundwater in this well was measured to be 28.10 feet btoc at 12:40 PM prior to purging. The water pump was set at a depth of 35 feet btoc at 12:45 AM. The pump was set at a pumping rate of approximately 1 gallon per minute (gpm). In order to determine when the well was properly purged of standing water, ECI began collecting water samples from the pump discharge line after 1 well volume (calculated to be 16 gallons of water). Water samples were collected after the purging of the following volumes of water; 1 well volume, 1.5 well volumes, 2 well volumes and 2.5 well volumes. Each of these water samples were analyzed for the following water quality parameters with the use of field equipment; temperature, TDS, Electrical Conductivity, pH and Salinity. These parameters were monitored in order to determine if the well was properly purged. The well was considered to be properly purged when subsequent parameter readings varied by less than 10%. The results of the field parameter monitoring for well TY-MW-1 are presented in Table 1 below. The maximum drawdown observed within the well during purging was 1 foot.

Table 1. Field Parameter Results for Well TY-MW-1

Volume Removed (well volume)	Time	Temperature °C	TDS (ppm)	Electrical Conductivity (µS)	pH	Salinity (ppt)
1	13:05	27.4	1,650	3,250	6.53	1.7
1.5	13:15	26.8	1,628	3,262	6.58	1.7
2	13:25	27.8	1,611	3,224	6.55	1.7
2.5	13:35	27.8	1,605	3,197	6.53	1.7

ppm – parts per million ppt – parts per thousand

After purging of the well was completed and the water level in the well had recovered to 80% of the initial level a water sample for the previously established analytes was collected with the use of a new 0.5 liter disposable polyethylene bailer. The water sample was transferred to laboratory-supplied containers with the use of the water removal tool provided with the bailer. The water sample was labeled as required by the analytical laboratory, placed in a zip-top bag and placed in a cooler with ice in preparation for transportation to the analytical laboratory (TestAmerica) in Colton, California.

After collecting a groundwater sample from monitoring well TY-MW-1, ECI personnel began the purging process of monitoring well TY-MW-5. At 2:30 PM ECI measured the depth to water in well TY-MW-5 to be 14.20 feet btoc. The pump was set a depth of 20 feet btoc at 2:35 PM. The pump was set at a pumping rate of approximately 1.7 gallons per minute (gpm). A well volume was determined to be approximately 12 gallons. The maximum drawdown observed within the well during purging was 1.2 feet. The results of the field parameter monitoring for well TY-MW-5 are presented in Table 2 below. A groundwater sample was collected for laboratory analysis after purging was completed.

Table 2. Field Parameter Results for Well TY-MW-5

Volume Removed (well volume)	Time	Temperature °C	TDS (ppm)	Electrical Conductivity (µS)	pH	Salinity (ppt)
1	14:45	26.0	1,972	3,970	6.49	2.1
1.5	14:49	24.8	1,967	3,941	6.49	2.1
2	14:53	24.9	1,988	3,935	6.55	2.1
2.5	14:58	24.6	1,992	3,999+	6.53	2.1

ppm – parts per million ppt – parts per thousand

After collecting a groundwater sample from monitoring well TY-MW-5, ECI personnel began the purging process of monitoring well SMBRP-11 on Malibu Road directly south of the Tow Yard site. At 3:40 PM ECI measured the depth to water in well SMBRP-11 to be 8.60 feet btoc. The pump was set a depth of 15 feet btoc at 3:45 PM. The pump was set at a pumping rate of approximately 1 gallon per minute (gpm). A well volume was determined to be approximately 12 gallons. After the removal of approximately 3 gallons from the well, the well pump stopped producing water. A water level measurement at that time revealed that the water level had dropped to the level of the pump. It was determined that the recharge from the aquifer to the well was much lower than 1 gallon per minute, so the purging method was modified. The pump was removed from the well and hand bailing was used to complete the well purging. It was determined that bailing rate would need to be less than 0.5 gallons per 5 minutes in order to keep the well from going dry. Hand bailing continued until approximately 6:55 PM in order to purge 2.5 well volumes from the well. The results of the field parameter monitoring for well SMBRP-11 are presented in Table 3 below. The field parameters revealed that the water quality conditions in the well were still changing after 2.5 well volumes were removed, but due to time constraints and lack of light, a groundwater sample was collected for laboratory analysis at this point.

Table 3. Field Parameter Results for Well SMBRP-11

Volume Removed (well volume)	Time	Temperature °C	TDS (ppm)	Electrical Conductivity (µS)	pH	Salinity (ppt)
1	16:40	23.9	1,501	3,004	7.30	1.6
1.5	17:20	21.9	1,428	2,830	7.16	1.5
2	17:55	22.1	1,271	2,536	7.09	1.3
2.5	18:55	21.8	1,178	2,362	7.37	0.6

ppm – parts per million ppt – parts per thousand

The purging of Well MBCWC-MW-2 was conducted simultaneously with the purging of Well SMBRP-11. At 4:25 PM ECI measured the depth to water in well MBCWC-MW-5 to be 19.20 feet btoc. The pump was set a depth of 80 feet btoc at 4:35 PM. The pump was set at a pumping rate of approximately 2 gallons per minute (gpm). A well volume was determined to be approximately 82 gallons. The maximum drawdown observed within the well during purging was 3.55 feet. The results of the field parameter monitoring for well MBCWC-MW-2 are presented in Table 4 below. A groundwater sample was collected for laboratory analysis after purging was completed.

Table 4. Field Parameter Results for Well MBCWC-MW-2

Volume Removed (well volume)	Time	Temperature °C	TDS (ppm)	Electrical Conductivity (µS)	pH	Salinity (ppt)
1	17:03	21.8	1,434	2,809	6.91	1.5
1.5	17:25	21.4	1,434	2,874	6.91	1.5
2	17:40	21.7	1,426	2,861	6.92	1.5
2.5	18:05	21.7	1,428	2,851	6.93	1.5

ppm – parts per million ppt – parts per thousand

Analytical Results

The groundwater samples collected from the above-referenced monitoring wells on October 1, 2009 were transported to TestAmerica Laboratories in Colton, California by ECI personnel under strict Chain-of-Custody protocol. The samples were kept in a cooler with ice during transportation and delivered to the laboratory at 8:47 AM on the morning of October 2, 2009.

TestAmerica issued two analytical reports for the groundwater samples on October 6, 2009. The Chain-of-Custody document appended to this report indicates that the samples were delivered intact and on ice, as required by the laboratory. The analytical results, as reported by the laboratory, are presented in Table 5 below.

Table 5. Analytical Results for Groundwater Samples

Analyte	MBCWC-MW-2	SMBRP-11	TY-MW-1	TY-MW-5	MCL
Boron (mg/l)	0.43	0.40	0.41	0.39	N/A
Chloride (mg/l)	**270**	**260**	**370**	**460**	250*
Nitrate (as N) (mg/l)	6.5	8.9	9.0	2.9	10
Nitrite (as N) (mg/l)	<0.30	<0.30	<0.75	<0.75	1
Sulfate (mg/l)	**690**	**470**	**490**	**1,000**	250*
TDS (mg/l)	**2,100**	**1,600**	**1,900**	**2,900**	500*
Total Coliform (MPN/100 ml)	<2.0	2.0	13	<2.0	
Fecal Coliform (MPN/100 ml)	<2.0	<2.0	<2.0	<2.0	

MCL – Maximum Contaminant Level for Drinking Water; *Secondary MCL; **Bold** – Above MCL; mg/l – milligram per liter; TDS-Total Dissolved Solids; MPN/100 ml) – Most Probable Number per 100 ml of sample (bacteria density)

The analytical results suggest that the aquifer waters do not meet Secondary drinking water standards due to elevated concentrations (above MCL) of chloride, sulfate and TDS. Additionally Total Coliform was detected in the groundwater samples collected from the northern-most and southern-most monitoring wells in the study area. The absence of Total Coliform in the groundwater samples collected from the two wells between the northern-most and southern-most monitoring wells suggest that Coliform entering the system from up gradient sources (north of Pacific Coast Highway) are removed before the groundwater reaches Malibu Road. The source of Coliform in the groundwater sample collected from Well SMBRP-11 appears to be the septic systems of homes directly south of Malibu Road.

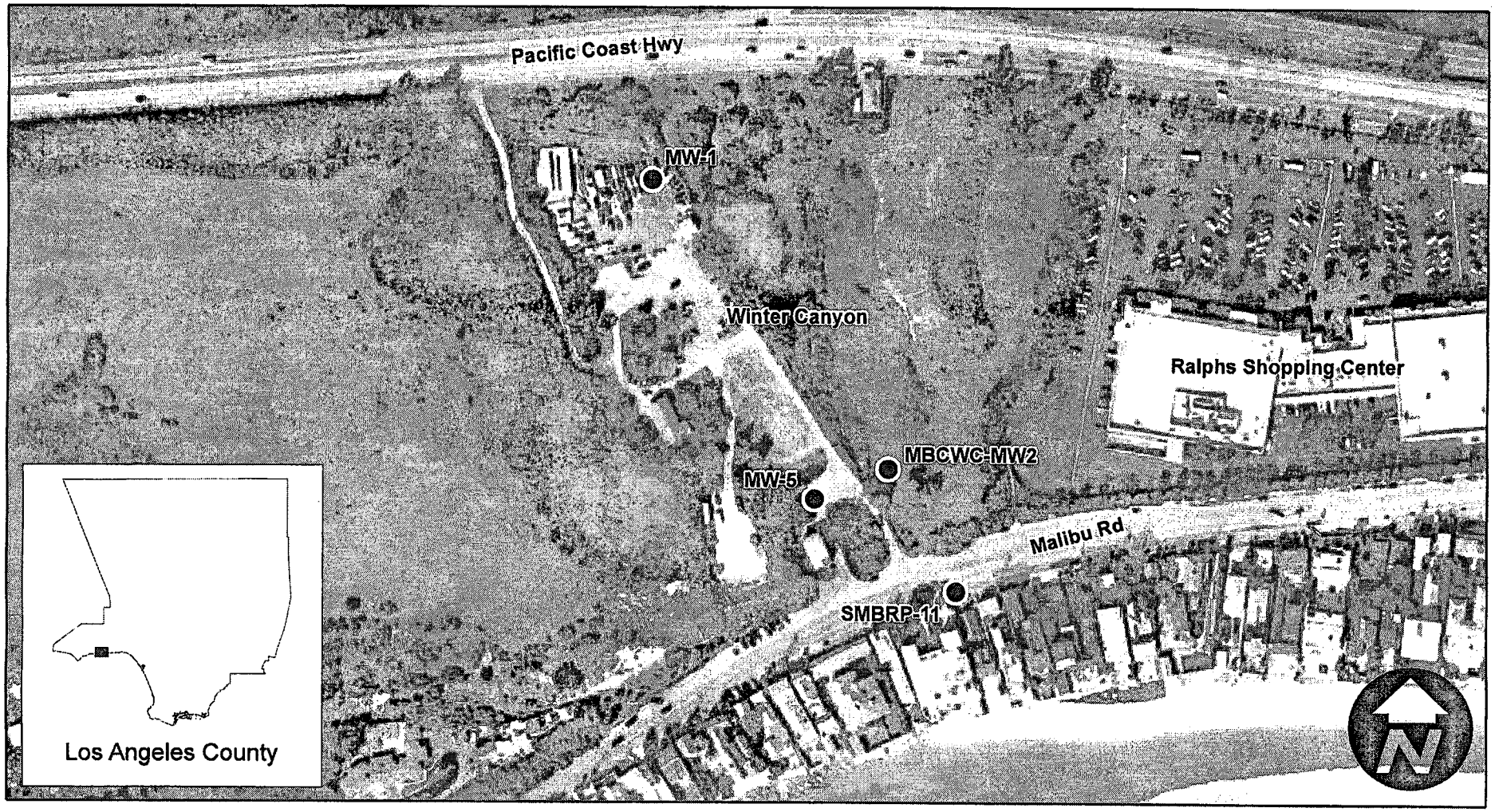
Respectfully Submitted,

EARTH CONSULTANTS INTERNATIONAL, Inc.

Dr. W. Richard Laton, PG 7098
Senior Consultant

Otto Figueroa, PG 8351
Staff Consultant

Attachments: 1) Figure 1 Groundwater Sampling Location Map
2) Analytical Reports



Aerial Photo: USGS High Resolution State Orthoimagery for Los Angeles County, California, 2006.

Earth Consultants International

Project Number:
October 2009

Groundwater Sampling Location Map

Winter Canyon
Malibu, California

Figure 1

2-290

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

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LABORATORY REPORT

Prepared For: Earth Consultants
1642 East Fourth St
Santa Ana, CA 92701
Attention: Otto Figueroa

Project: Winter Canyon

Sampled: 10/01/09
Received: 10/02/09
Issued: 10/06/09 17:08

NELAP #01108CA California ELAP#2706 CSDLAC #10256 AZ #AZ0671 NV #CA01531

The results listed within this Laboratory Report pertain only to the samples tested in the laboratory. The analyses contained in this report were performed in accordance with the applicable certifications as noted. All soil samples are reported on a wet weight basis unless otherwise noted in the report. This Laboratory Report is confidential and is intended for the sole use of TestAmerica and its client. This report shall not be reproduced, except in full, without written permission from TestAmerica. The Chain of Custody, 1 page, is included and is an integral part of this report.
This entire report was reviewed and approved for release.

SAMPLE CROSS REFERENCE

SUBCONTRACTED: Refer to the last page for specific subcontract laboratory information included in this report.

ADDITIONAL INFORMATION: This is a complete final report.

LABORATORY ID	CLIENT ID	MATRIX
ISJ0107-01	MBCWC-MW2	Water
ISJ0107-02	SMBRP-11	Water

Reviewed By:

TestAmerica Irvine
[redacted]oe
Project Manager

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Attention: Otto Figueroa

Project ID: Winter Canyon
Report Number: ISJ0107

Sampled: 10/01/09
Received: 10/02/09

METALS

Analyte	Method	Batch	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ISJ0107-01 (MBCWC-MW2 - Water)								
Reporting Units: mg/l								
Boron	EPA 200.7	9J05050	0.050	**0.43**	1	10/5/2009	10/5/2009	
Sample ID: ISJ0107-02 (SMBRP-11 - Water)								
Reporting Units: mg/l								
Boron	EPA 200.7	9J05050	0.050	**0.40**	1	10/5/2009	10/5/2009	

TestAmerica Irvine

Pat Abe
Project Manager

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Project ID: Winter Canyon
Report Number: ISJ0107

Sampled: 10/01/09
Received: 10/02/09

INORGANICS

Analyte	Method	Batch	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ISJ0107-01 (MBCWC-MW2 - Water)								
Reporting Units: mg/l								
Chloride	EPA 300.0	9J02058	25	**270**	50	10/2/2009	10/2/2009	
Nitrate-N	EPA 300.0	9J02058	0.22	**6.5**	2	10/2/2009	10/2/2009	
Nitrite-N	EPA 300.0	9J02058	0.30	ND	2	10/2/2009	10/2/2009	RL1
Sulfate	EPA 300.0	9J02058	25	**690**	50	10/2/2009	10/2/2009	
Total Dissolved Solids	SM2540C	9J05007	10	**2100**	1	10/5/2009	10/5/2009	
Sample ID: ISJ0107-02 (SMBRP-11 - Water)								
Reporting Units: mg/l								
Chloride	EPA 300.0	9J02058	25	**260**	50	10/2/2009	10/2/2009	
Nitrate-N	EPA 300.0	9J02058	0.22	**8.9**	2	10/2/2009	10/2/2009	
Nitrite-N	EPA 300.0	9J02058	0.30	ND	2	10/2/2009	10/2/2009	RL1
Sulfate	EPA 300.0	9J02058	25	**470**	50	10/2/2009	10/2/2009	
Total Dissolved Solids	SM2540C	9J05007	10	**1600**	1	10/5/2009	10/5/2009	

TestAmerica Irvine

be
Project Manager

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Attention: Otto Figueroa

Project ID: Winter Canyon
Report Number: ISJ0107

Sampled: 10/01/09
Received: 10/02/09

COLIFORMS BY MULTIPLE TUBE FERMENTATION - MPN (SM9221/40 CFR 141.21(f)(6)(i))

Analyte	Method	Batch	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ISJ0107-01 (MBCWC-MW2 - Water)								
Reporting Units: MPN/100 ml								
Total Coliform	SM9221 A,B,C,E	C9J0506	2.0	ND	1	10/2/2009	10/4/2009	
Fecal Coliform	SM9221 A,B,C,E	C9J0506	2.0	ND	1	10/2/2009	10/4/2009	
Sample ID: ISJ0107-02 (SMBRP-11 - Water)								
Reporting Units: MPN/100 ml								
Total Coliform	SM9221 A,B,C,E	C9J0506	2.0	**2.0**	1	10/2/2009	10/6/2009	
Fecal Coliform	SM9221 A,B,C,E	C9J0506	2.0	ND	1	10/2/2009	10/5/2009	

TestAmerica Irvine

Pat Abe
Project Manager

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Attention: Otto Figueroa

Project ID: Winter Canyon
Report Number: ISJ0107

Sampled: 10/01/09
Received: 10/02/09

SHORT HOLD TIME DETAIL REPORT

	Hold Time (in days)	Date/Time Sampled	Date/Time Received	Date/Time Extracted	Date/Time Analyzed
Sample ID: MBCWC-MW2 (ISJ0107-01) - Water					
EPA 300.0	2	10/01/2009 18:10	10/02/2009 08:47	10/02/2009 14:00	10/02/2009 14:37
SM9221 A,B,C,E	0	10/01/2009 18:10	10/02/2009 08:47	10/02/2009 09:26	10/04/2009 09:50
Sample ID: SMBRP-11 (ISJ0107-02) - Water					
EPA 300.0	2	10/01/2009 19:15	10/02/2009 08:47	10/02/2009 14:00	10/02/2009 14:51
SM9221 A,B,C,E	0	10/01/2009 19:15	10/02/2009 08:47	10/02/2009 09:26	10/05/2009 08:16

TestAmerica Irvine
Abe
Project Manager

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Attention: Otto Figueroa

Project ID: Winter Canyon
Report Number: ISJ0107

Sampled: 10/01/09
Received: 10/02/09

METHOD BLANK/QC DATA

METALS

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 9J05050 Extracted: 10/05/09										
Blank Analyzed: 10/05/2009 (9J05050-BLK1)										
Boron	ND	0.050	mg/l							
LCS Analyzed: 10/05/2009 (9J05050-BS1)										
Boron	0.510	0.050	mg/l	0.500		102	85-115			
Matrix Spike Analyzed: 10/05/2009 (9J05050-MS1)					**Source: ISJ0107-01**					
Boron	0.966	0.050	mg/l	0.500	0.434	106	70-130			
Matrix Spike Dup Analyzed: 10/05/2009 (9J05050-MSD1)					**Source: ISJ0107-01**					
Boron	0.930	0.050	mg/l	0.500	0.434	99	70-130	4	20	

TestAmerica Irvine

Pat Abe
Project Manager

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Santa Ana, CA 92701
Attention: Otto Figueroa

Project ID: Winter Canyon
Report Number: ISJ0107

Sampled: 10/01/09
Received: 10/02/09

METHOD BLANK/QC DATA

INORGANICS

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 9J02058 Extracted: 10/02/09										
Blank Analyzed: 10/02/2009 (9J02058-BLK1)										
Chloride	ND	0.50	mg/l							
Nitrate-N	ND	0.11	mg/l							
Nitrite-N	ND	0.15	mg/l							
Sulfate	ND	0.50	mg/l							
LCS Analyzed: 10/02/2009 (9J02058-BS1)										
Chloride	4.97	0.50	mg/l	5.00		99	90-110			*M-3*
Nitrate-N	1.15	0.11	mg/l	1.13		102	90-110			
Nitrite-N	1.52	0.15	mg/l	1.52		100	90-110			
Sulfate	9.95	0.50	mg/l	10.0		100	90-110			*M-3*
[redacted]trix Spike Analyzed: 10/02/2009 (9J02058-MS1)					**Source: ISJ0110-01**					
[redacted]oride	12.6	0.50	mg/l	5.00	7.64	98	80-120			
Nitrate-N	2.01	0.11	mg/l	1.13	0.916	97	80-120			
Nitrite-N	1.51	0.15	mg/l	1.52	ND	100	80-120			
Sulfate	37.8	0.50	mg/l	10.0	27.4	104	80-120			
Matrix Spike Analyzed: 10/03/2009 (9J02058-MS2)					**Source: ISJ0131-06**					
Nitrate-N	41.7	1.1	mg/l	11.3	30.5	99	80-120			
Nitrite-N	21.0	1.5	mg/l	15.2	ND	138	80-120			*M1*
Matrix Spike Dup Analyzed: 10/02/2009 (9J02058-MSD1)					**Source: ISJ0110-01**					
Chloride	12.5	0.50	mg/l	5.00	7.64	98	80-120	0	20	
Nitrate-N	2.03	0.11	mg/l	1.13	0.916	98	80-120	1	20	
Nitrite-N	1.54	0.15	mg/l	1.52	ND	101	80-120	1	20	
Sulfate	37.7	0.50	mg/l	10.0	27.4	102	80-120	0	20	

TestAmerica Irvine

[redacted]be
Project Manager

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TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
17461 Derian Avenue. Suite 100, Irvine, CA 92614 (949) 261-1022 Fax:(949) 260-3297

Earth Consultants
1642 East Fourth St
Santa Ana, CA 92701
Attention: Otto Figueroa

Project ID: Winter Canyon
Report Number: ISJ0107

Sampled: 10/01/09
Received: 10/02/09

METHOD BLANK/QC DATA

INORGANICS

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 9J05007 Extracted: 10/05/09										
Blank Analyzed: 10/05/2009 (9J05007-BLK1)										
Total Dissolved Solids	ND	10	mg/l							
LCS Analyzed: 10/05/2009 (9J05007-BS1)										
Total Dissolved Solids	1000	10	mg/l	1000		100	90-110			
Duplicate Analyzed: 10/05/2009 (9J05007-DUP1)					**Source: ISJ0107-01**					
Total Dissolved Solids	2080	10	mg/l		2080			0	10	

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Pat Abe
Project Manager

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Earth Consultants	Project ID: Winter Canyon	
1642 East Fourth St		Sampled: 10/01/09
Santa Ana, CA 92701	Report Number: ISJ0107	Received: 10/02/09
Attention: Otto Figueroa		

DATA QUALIFIERS AND DEFINITIONS

M1	The MS and/or MSD were above the acceptance limits due to sample matrix interference. See Blank Spike (LCS).
M-3	Results exceeded the linear range in the MS/MSD and therefore are not available for reporting. The batch was accepted based on acceptable recovery in the Blank Spike (LCS).
RL1	Reporting limit raised due to sample matrix effects.
ND	Analyte NOT DETECTED at or above the reporting limit or MDL, if MDL is specified.
RPD	Relative Percent Difference

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Project Manager

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Earth Consultants
1642 East Fourth St
Santa Ana, CA 92701
Attention: Otto Figueroa

Project ID: Winter Canyon
Report Number: ISJ0107

Sampled: 10/01/09
Received: 10/02/09

Certification Summary

TestAmerica Irvine

Method	Matrix	Nelac	California
EPA 200.7	Water	X	X
EPA 300.0	Water	X	X
SM2540C	Water	X	

Nevada and NELAP provide analyte specific accreditations. Analyte specific information for TestAmerica may be obtained by contacting the laboratory or visiting our website at www.testamericainc.com

Subcontracted Laboratories

TestAmerica - Ontario, CA *California Cert #1169, Arizona Cert #AZ0062, Nevada Cert #CA-242*
1014 E. Cooley Drive, Suite AB - Colton, CA 92324
Method Performed: SM9221 A,B,C,E
Samples: ISJ0107-01, ISJ0107-02

TestAmerica Irvine

Pat Abe
Project Manager

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CHAIN OF CUSTODY FORM

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9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851
2520 E. Sunset Rd. #3, Las Vegas, NV 89120 (702) 798-3620 FAX (702) 798-3621

TAL-0013(1007)

ISJ 0107 Page 1 of 1

Client Name/Address: ECI 1642 East 4th St. Santa Ana, CA 92701	Project/PO Number: Winter Canyon
Project Manager: Pat Abe	Phone Number:
Sampler: Nick Napoli	Fax Number:

Sample Description	Sample Matrix	Container Type	# of Cont.	Sampling Date	Sampling Time	Preservatives	Analysis Required: TDS	Boron	Sul Fate, Nitrate Nitrite, Chloride	Total Coliform 9221	Fecal Coliform 9221					Special Instructions
MBCWC-MW2	Ground Water	500ml Poly	1	10/1/09	18:10		X									
MBCWC-MW2	"	"	1	10/1/09	18:10	Nitric Acid		X								
MBCWC-MW2	"	125ml Poly	1	10/1/09	18:10				X							
MBCWC-MW2	"	Bacti Bottle	1	10/1/09	18:10					X	X					Ground water
[redacted]																
SMBRP-11	Ground Water	500ml Poly	1	10/1/09	19:15		X									
SMBRP-11	"	"	1	10/1/09	19:15	Nitric Acid		X								
SMBRP-11	"	125ml Poly	1	10/1/09	19:15				X							
SMBRP-11	"	Bacti Bottle	1	10/1/09	19:15					X	X					Ground water

10-301

Relinquished By:	Date/Time:	Received By:	Date/Time:
	10/2/09 8:47	Michael Rosso	10-2-09 8:47
Relinquished By:	Date/Time:	Received By:	Date/Time:
Michael Rosso	10-2-2009 1255		
Relinquished By:	Date/Time:	Received in Lab By:	Date/Time:
			10/02/09 1255

Turnaround Time: (Check)
same day ____ 72 hours ____
24 hours ____ 5 days ____
48 hours X normal ____

Sample Integrity: (Check)
Intact X on ice X

0.1°C
2.7°C

Note: By relinquishing samples to TestAmerica, client agrees to pay for the services requested on this chain of custody form and any additional analyses performed on this project. Payment for services is due within 30 days from the date of invoice. Sample(s) will be disposed of after 30 days.

#195

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LABORATORY REPORT

Prepared For: Earth Consultants
1642 East Fourth St
Santa Ana, CA 92701
Attention: Otto Figueroa

Project: Tow Yard

Sampled: 10/01/09
Received: 10/02/09
Issued: 10/06/09 17:11

NELAP #01108CA California ELAP#2706 CSDLAC #10256 AZ #AZ0671 NV #CA01531

The results listed within this Laboratory Report pertain only to the samples tested in the laboratory. The analyses contained in this report were performed in accordance with the applicable certifications as noted. All soil samples are reported on a wet weight basis unless otherwise noted in the report. This Laboratory Report is confidential and is intended for the sole use of TestAmerica and its client. This report shall not be reproduced, except in full, without written permission from TestAmerica. The Chain(s) of Custody, 2 pages, are included and are an integral part of this report.
This entire report was reviewed and approved for release.

SAMPLE CROSS REFERENCE

SUBCONTRACTED: Refer to the last page for specific subcontract laboratory information included in this report.

ADDITIONAL INFORMATION: This is a complete final report.

LABORATORY ID	CLIENT ID	MATRIX
ISJ0108-01	MW-1	Water
ISJ0108-02	MW-5	Water

Reviewed By:

TestAmerica Irvine

Pat Abe
Project Manager

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Earth Consultants
1642 East Fourth St
Santa Ana, CA 92701
Attention: Otto Figueroa

Project ID: Tow Yard
Report Number: ISJ0108

Sampled: 10/01/09
Received: 10/02/09

METALS

Analyte	Method	Batch	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ISJ0108-01 (MW-1 - Water)								
Reporting Units: mg/l								
Boron	EPA 200.7	9J05050	0.050	**0.41**	1	10/5/2009	10/5/2009	
Sample ID: ISJ0108-02 (MW-5 - Water)								
Reporting Units: mg/l								
Boron	EPA 200.7	9J05050	0.050	**0.39**	1	10/5/2009	10/5/2009	

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Abe
Project Manager

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Earth Consultants
1642 East Fourth St
Santa Ana, CA 92701
Attention: Otto Figueroa

Project ID: Tow Yard
Report Number: ISJ0108

Sampled: 10/01/09
Received: 10/02/09

INORGANICS

Analyte	Method	Batch	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ISJ0108-01 (MW-1 - Water)								
Reporting Units: mg/l								
Chloride	EPA 300.0	9J02058	50	**370**	100	10/2/2009	10/2/2009	
Nitrate-N	EPA 300.0	9J02058	0.55	**9.0**	5	10/2/2009	10/2/2009	
Nitrite-N	EPA 300.0	9J02058	0.75	ND	5	10/2/2009	10/2/2009	RL1
Sulfate	EPA 300.0	9J02058	50	**490**	100	10/2/2009	10/2/2009	
Total Dissolved Solids	SM2540C	9J05007	10	**1900**	1	10/5/2009	10/5/2009	
Sample ID: ISJ0108-02 (MW-5 - Water)								
Reporting Units: mg/l								
Chloride	EPA 300.0	9J02058	50	**460**	100	10/2/2009	10/2/2009	
Nitrate-N	EPA 300.0	9J02058	0.55	**2.9**	5	10/2/2009	10/2/2009	
Nitrite-N	EPA 300.0	9J02058	0.75	ND	5	10/2/2009	10/2/2009	RL1
Sulfate	EPA 300.0	9J02058	50	**1000**	100	10/2/2009	10/2/2009	
Total Dissolved Solids	SM2540C	9J05007	10	**2900**	1	10/5/2009	10/5/2009	

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Project Manager

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Earth Consultants
1642 East Fourth St
Santa Ana, CA 92701
Attention: Otto Figueroa

Project ID: Tow Yard
Report Number: ISJ0108

Sampled: 10/01/09
Received: 10/02/09

COLIFORMS BY MULTIPLE TUBE FERMENTATION - MPN (SM9221/40 CFR 141.21(f)(6)(i))

Analyte	Method	Batch	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ISJ0108-01 (MW-1 - Water)								
Reporting Units: MPN/100 ml								
Total Coliform	SM9221 A,B,C,E	C9J0506	2.0	13	1	10/2/2009	10/6/2009	
Fecal Coliform	SM9221 A,B,C,E	C9J0506	2.0	ND	1	10/2/2009	10/5/2009	
Sample ID: ISJ0108-02 (MW-5 - Water)								
Reporting Units: MPN/100 ml								
Total Coliform	SM9221 A,B,C,E	C9J0506	2.0	ND	1	10/2/2009	10/6/2009	
Fecal Coliform	SM9221 A,B,C,E	C9J0506	2.0	ND	1	10/2/2009	10/5/2009	

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Earth Consultants
1642 East Fourth St
Santa Ana, CA 92701
Attention: Otto Figueroa

Project ID: Tow Yard
Report Number: ISJ0108

Sampled: 10/01/09
Received: 10/02/09

SHORT HOLD TIME DETAIL REPORT

	Hold Time (in days)	Date/Time Sampled	Date/Time Received	Date/Time Extracted	Date/Time Analyzed
Sample ID: MW-1 (ISJ0108-01) - Water					
EPA 300.0	2	10/01/2009 14:00	10/02/2009 08:47	10/02/2009 14:00	10/02/2009 15:15
SM9221 A,B,C,E	0	10/01/2009 14:00	10/02/2009 08:47	10/02/2009 09:26	10/05/2009 08:16
Sample ID: MW-5 (ISJ0108-02) - Water					
EPA 300.0	2	10/01/2009 15:15	10/02/2009 08:47	10/02/2009 14:00	10/02/2009 15:30
SM9221 A,B,C,E	0	10/01/2009 15:15	10/02/2009 08:47	10/02/2009 09:26	10/05/2009 08:16

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Earth Consultants
1642 East Fourth St
Santa Ana, CA 92701
Attention: Otto Figueroa

Project ID: Tow Yard
Report Number: ISJ0108

Sampled: 10/01/09
Received: 10/02/09

METHOD BLANK/QC DATA

METALS

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 9J05050 Extracted: 10/05/09										
Blank Analyzed: 10/05/2009 (9J05050-BLK1)										
Boron	ND	0.050	mg/l							
LCS Analyzed: 10/05/2009 (9J05050-BS1)										
Boron	0.510	0.050	mg/l	0.500		102	85-115			
Matrix Spike Analyzed: 10/05/2009 (9J05050-MS1)					**Source: ISJ0107-01**					
Boron	0.966	0.050	mg/l	0.500	0.434	106	70-130			
Matrix Spike Dup Analyzed: 10/05/2009 (9J05050-MSD1)					**Source: ISJ0107-01**					
Boron	0.930	0.050	mg/l	0.500	0.434	99	70-130	4	20	

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Earth Consultants
1642 East Fourth St
Santa Ana, CA 92701
Attention: Otto Figueroa

Project ID: Tow Yard
Report Number: ISJ0108

Sampled: 10/01/09
Received: 10/02/09

METHOD BLANK/QC DATA

INORGANICS

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 9J02058 Extracted: 10/02/09										
Blank Analyzed: 10/02/2009 (9J02058-BLK1)										
Chloride	ND	0.50	mg/l							
Nitrate-N	ND	0.11	mg/l							
Nitrite-N	ND	0.15	mg/l							
Sulfate	ND	0.50	mg/l							
LCS Analyzed: 10/02/2009 (9J02058-BS1)										
Chloride	4.97	0.50	mg/l	5.00		99	90-110			*M-3*
Nitrate-N	1.15	0.11	mg/l	1.13		102	90-110			
Nitrite-N	1.52	0.15	mg/l	1.52		100	90-110			
Sulfate	9.95	0.50	mg/l	10.0		100	90-110			*M-3*
Matrix Spike Analyzed: 10/02/2009 (9J02058-MS1)					**Source: ISJ0110-01**					
Chloride	12.6	0.50	mg/l	5.00	7.64	98	80-120			
Nitrate-N	2.01	0.11	mg/l	1.13	0.916	97	80-120			
Nitrite-N	1.51	0.15	mg/l	1.52	ND	100	80-120			
Sulfate	37.8	0.50	mg/l	10.0	27.4	104	80-120			
Matrix Spike Analyzed: 10/03/2009 (9J02058-MS2)					**Source: ISJ0131-06**					
Nitrate-N	41.7	1.1	mg/l	11.3	30.5	99	80-120			
Nitrite-N	21.0	1.5	mg/l	15.2	ND	138	80-120			*M1*
Matrix Spike Dup Analyzed: 10/02/2009 (9J02058-MSD1)					**Source: ISJ0110-01**					
Chloride	12.5	0.50	mg/l	5.00	7.64	98	80-120	0	20	
Nitrate-N	2.03	0.11	mg/l	1.13	0.916	98	80-120	1	20	
Nitrite-N	1.54	0.15	mg/l	1.52	ND	101	80-120	1	20	
Sulfate	37.7	0.50	mg/l	10.0	27.4	102	80-120	0	20	

TestAmerica Irvine

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Project Manager

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Earth Consultants
1642 East Fourth St
Santa Ana, CA 92701
Attention: Otto Figueroa

Project ID: Tow Yard
Report Number: ISJ0108

Sampled: 10/01/09
Received: 10/02/09

METHOD BLANK/QC DATA

INORGANICS

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 9J05007 Extracted: 10/05/09										
Blank Analyzed: 10/05/2009 (9J05007-BLK1)										
Total Dissolved Solids	ND	10	mg/l							
LCS Analyzed: 10/05/2009 (9J05007-BS1)										
Total Dissolved Solids	1000	10	mg/l	1000		100	90-110			
Duplicate Analyzed: 10/05/2009 (9J05007-DUP1)					**Source: ISJ0107-01**					
Total Dissolved Solids	2080	10	mg/l		2080			0	10	

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Project Manager

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Earth Consultants
1642 East Fourth St
Santa Ana, CA 92701
Attention: Otto Figueroa

Project ID: Tow Yard
Report Number: ISJ0108

Sampled: 10/01/09
Received: 10/02/09

DATA QUALIFIERS AND DEFINITIONS

M1	The MS and/or MSD were above the acceptance limits due to sample matrix interference. See Blank Spike (LCS).
M-3	Results exceeded the linear range in the MS/MSD and therefore are not available for reporting. The batch was accepted based on acceptable recovery in the Blank Spike (LCS).
RL1	Reporting limit raised due to sample matrix effects.
ND	Analyte NOT DETECTED at or above the reporting limit or MDL, if MDL is specified.
RPD	Relative Percent Difference

TestAmerica Irvine

Pat Abe
Project Manager

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[redacted]arth Consultants	Project ID: Tow Yard	
1642 East Fourth St		Sampled: 10/01/09
Santa Ana, CA 92701	Report Number: ISJ0108	Received: 10/02/09
Attention: Otto Figueroa		

Certification Summary

TestAmerica Irvine

Method	Matrix	Nelac	California
EPA 200.7	Water	X	X
EPA 300.0	Water	X	X
SM2540C	Water	X	

Nevada and NELAP provide analyte specific accreditations. Analyte specific information for TestAmerica may be obtained by contacting the laboratory or visiting our website at www.testamericainc.com

Subcontracted Laboratories

TestAmerica - Ontario, CA *California Cert #1169, Arizona Cert #AZ0062, Nevada Cert #CA-242*
1014 E. Cooley Drive, Suite AB - Colton, CA 92324
Method Performed: SM9221 A,B,C,E
Samples: ISJ0108-01, ISJ0108-02

TestAmerica Irvine
[redacted]oe
Project Manager

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THE LEADER IN ENVIRONMENTAL TESTING

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9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851
2520 E. Sunset Rd. #3, Las Vegas, NV 89120 (702) 798-3620 FAX (702) 798-3621

TAL-0013(1007)

ISJ0108 Page 1 of 1

Client Name/Address:	Project/PO Number:
ECI 1642 East 4th st. Santa Ana, CA 92701	Tow Yard
Project Manager: Pat Abe	**Phone Number:**
Sampler: Nick Napoli	**Fax Number:**

Sample Description	Sample Matrix	Container Type	# of Cont.	Sampling Date	Sampling Time	Preservatives	Analysis Required: TDS	Boron	Sulfate, Nitrate, Nitrite, chlorite	Total coliform 9221	Fecal coliform 9221					Special Instructions
MW-1	Ground Water	500ml Poly	1	10/1/09	2:00pm		X									
MW-1	"	"	1	10/1/09	2:00pm	Nitric Acid		X								
MW-1	"	125ml Poly	1	10/1/09	2:00pm				X							
MW-1	"	Bact Bottle	1	10/1/09	2:00pm					X	X					Groundwater
MW-5	"	500ml Poly	1	10/1/09	3:15pm		X									
MW-5	"	500ml Poly	1	10/1/09	3:15pm	Nitric Acid		X								
MW-5	"	125ml Poly	1	10/1/09	3:15pm				X							
MW-5	"	Bact Bottle	1	10/1/09	3:15pm					X	X					Groundwater
																10-2-09 14:54

Relinquished By:	Date/Time:	Received By:	Date/Time:
	10/2/09 8:47		10-2-09 847
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	10-2-09 1255		
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			10/02/09 1255

Turnaround Time: (Check)
same day ____ 72 hours ____
24 hours ____ 5 days ____
48 hours X normal ____

Sample Integrity: (Check)
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Note: By relinquishing samples to TestAmerica, client agrees to pay for the services requested on this chain of custody form and any additional analyses performed on this project. Payment for services is due within 30 days from the date of invoice. Sample(s) will be disposed of after 30 days.

#195

0.1°C
2°C

2-312

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[illegible] South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851
2520 E. Sunset Rd. #3, Las Vegas, NV 89120 (702) 798-3620 FAX (702) 798-3621

TAL-0013(1007)

ISJ0108 Page 1 of 1

Client Name/Address: ECI 1642 East 4th st. Santa Ana, CA 92701	Project/PO Number: Tow Yard	Analysis Required
Project Manager: Pat Abe	Phone Number:	
Sampler: Nick Napoli	Fax Number:	

Sample Description	Sample Matrix	Container Type	# of Cont.	Sampling Date	Sampling Time	Preservatives	TDS	Boron	Sulfate, Nitrate, Nitrite, chloride	Total Coliform 9221	Fecal Coliform 9221					Special Instructions
MW-1	Ground Water	500 ml Poly	1	10/1/09	2:00Pm		X									
MW-1	"	"	1	10/1/09	2:00pm	Nitric Acid		X								
MW-1	"	125 ml Poly	1	10/1/09	2:00 pm				X							
MW-1	"	Bact Bottle	1	10/1/09	2:00pm					X	X					Ground water
MW-5	"	500ml Poly	1	10/1/09	3:15pm		X									
MW-5	"	500ml Poly	1	10/1/09	3:15pm	Nitric Acid		X								
MW-5	"	125ml Poly	1	10/1/09	3:15pm				X							
MW-5	"	Bact Bottle	1	10/1/09	3:15pm					X	X					Ground water
																10-2-09 14:54

Relinquished By:	Date/Time:	Received By:	Date/Time:	Turnaround Time: (Check)	
	10/2/09 8:47		10-2-09 847	same day ____	72 hours ____
Relinquished By:	Date/Time:	Received By:	Date/Time:	24 hours ____	5 days ____
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Relinquished By:	Date/Time:	Received In Lab By:	Date/Time:	Sample Integrity: (Check)	
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Note: By relinquishing samples to TestAmerica, client agrees to pay for the services requested on this chain of custody form and any additional analyses performed on this project. Payment for services is due within 30 days from the date of invoice. Sample(s) will be disposed of after 30 days.

#195

0.1°C 2.7°C

2-313

From: Rebecca Chou
To: GW permitting team; Phillips, Wendy; student assistant team; Villar, ...
Date: 10/8/2009 2:14 PM
Subject: Fwd: Proposed Prohibition and/or Moratorium Affecting 23901 Civic Center Way, Malibu

>>> "B O Z O" <DeleteMail@msn.com> 10/8/2009 1:58 PM >>>
R. L. Embree #346
23901 Civic Center Way
Malibu, California 90265

October 8, 2009

California Regional Water Quality Control Board - Los Angeles
c/o Wendy Phillips (wphillips@waterboards.ca.gov<mailto:wphillips@waterboards.ca.gov>)
320 W. 4th Street, Suite 200
Los Angeles, California 90013
Via Email & Facsimile (213) 576-5777
copy: Rebecca Chou via email

Re: Proposed Prohibition and/or Moratorium Affecting 23901 Civic Center Way, Malibu

Dear Los Angeles Regional Board and Staff,

I own a condominium and live at 23901 Civic Center Way, Malibu that is connected to a common, package sewage treatment facility in Winter Canyon at the corner of Vista Pacifica Street and De Ville Way. This professionally built facility exclusively serves existing residential condominium development and was rebuilt and upgraded recently to disinfection standard, currently operates by permit, and only discharges to ground. Los Angeles County professionally manages and operates the facility, and has done so for more than thirty years. I outline my comments below and request that the Board act to remove this facility from the proposed prohibition area for the following reasons:

EXISTING, UPGRADED PROFESSIONALLY-OPERATED PACKAGE TREATMENT FACILITY
In its upgraded and remodeled state, it has operated only approximately one-third of that proven cycle. Our units were assessed thousands of dollars for the $1.2 million upgrade, and continue to be assessed thousands of dollars annually for operation of this facility, which is operating fine and disinfecting its discharge underground. (There is no surface discharge permit for our common sewage treatment facility, unlike the adjacent facility at John Tyler Drive/Pepperdine's approved dumping into Marie Canyon/beach.)

RECORD OF SUCCESSFUL OPERATION
Our existing sewage treatment plant has not experiences disturbing or unacceptable operation since being rebuilt approximately 1999. Virtually no overflows, daylighting, repeat failures,

mismanagement, or non-responsive service or operation can be claimed for this modernized facility. Compared to similar package treatment facilities of its size, the performance record is exemplary.

WATERSHED

This package treatment facility is physically located in Winter Canyon, a watershed that does not drain to Malibu Creek or Lagoon. It does not drains to the Civic Center area, nor to an area with similar pollutant problems or levels of Malibu Lagoon, Surfrider Beach, or Malibu Pier. All ground discharge is within the Winter Canyon area.

DISTINCT AND DIFFERENT PERMIT, OPERATION, LANDFORM, AREA, AND BEACH

The flat, near-sea-level, commercially-zoned Civic Center developments and developable vacant properties, are distant from the properties served by the functioning, recently-rebuilt and upgraded package sewage treatment facility at Vista Pacific St and DeVille Way. There is no outfall from this plant, no surface discharge permit, no significant or reliable data from the unique and different stormwater runoff beach (Amarillo Beach), and the elevation of this facility (and all residential condominiums so connected) is uniquely different than anything in the Civic Center itself. The uses, compliance, issues, test area, data, and operation are COMPLETELY DIFFERENT THAN ANY OTHER OPERATING FACILITY OR PERMITTEE. Alleged north-to-south oceanic migration of pollutants acknowledges and injects doubt that pollutant sources may not be attributable to Winter Canyon residents, permitted ground dischargers, or even wildlife. Pepperdine's expansive grounds and known deer population has stormwater drainage and treated sewage discharge permitted to Marie Canyon, directly upcoast. Further, hundreds of beachfront septics' minimally treated discharges have exponentially-higher potential bacteria oceanic impact that has no logical or scientific nexus to the existing, Los Angeles County-operated sewage treatment plant serving the condominiums.

QUESTIONABLE AND INADEQUATE DATA

Due to no permitted discharge of treated/emergency overflow to the ocean, and no monitoring station near Winter Canyon's stormwater flow to Amarillo Beach, virtually no reliable data exists supporting a cause-and-effect relationship to oceanic bacteria level, or stormwater bacteria level (which could remain even if everything in Malibu were sewered.

The causes and types of bacteria and pollutants in Malibu Lagoon and Surfrider Beach are of a completely different signature and fingerprint than the northerly beaches. In our case, hundreds of beachfront homes, all using on-site septic discharge, inject a certain, known, and calculable level of failure completely unlike our existing, controlled, professionally-operated package sewage treatment plant and its less-significant, ground discharge in a canyon far away from the Lagoon and Surfrider Beach.

OVER-REACHING RESPONSE

Prohibition against discharge by this existing, functioning sewage treatment facility serving exclusively residential condominiums is disproportionate to the exemplary record of successful operation. This supports the assertion that this facility be excluded from any moratorium area. While other dischargers from other facilities do not share the high-level of sewage treatment

and/or successful operation by Los Angeles County engineers, those facilities should be categorized and dealt with appropriately.

THE BABY WITH THE BATHWATER

One hundred feet across the common street (Civic Center Way) a major shopping center constructed in the mid 1980's, has discharged similar quantities of sewage into pits for approximately two decades. That discharge was largely untreated for two decades, and the minimal treatment in effect today requires weekly pumping by several trucks on a given day. The odor suggest daylighting and/or repeated failures, ineffective equipment, and/or an ineffective conservation/effluent reduction plan to "live within their means" of disposal. On the other hand, I know personally that Malibu Canyon Village has reduced the quantity of discharge significantly for our approved development. For nearly 20 years, California has instituted programs and regulations for 1.6 gallon/flush toilets and low-flow showerheads. As these products are all that are available for sale and installation, the 200+ toilets, and sink aerators, showerheads, and dishwashers have virtually reduced per-person usage by 40%. As technology, DOE, and EPA regulations evolve, the potential for further reductions are certain and predictable. During the same 20 year period (1989 -2009) flows from the Malibu Colony Plaza/Malibu Bay Company to the minimally-treated septic pits did not reduce in any similar fashion, and one world-class restaurant in that shopping center, Granita, has been closed for at least the last five years, artificially lowering the significance of recent failures at the site of those pits. The RWQCB maintains jurisdiction over the Malibu Bay Company/Malibu Colony Plaza pits, and could issue a cease and desist order shutting-down the problem anytime in the last 20 years of ongoing, documented failures and enforcement action (or lack thereof). During the remodel of the restrooms at Ralphs Market three months ago, conventional, water-flush urinals remain. Why? Conversely, our existing package sewage treatment facility has only recently been targeted, with virtually all other permit holders, for relatively-minor, correctable issues, while we continue to conserve and implement water-saving technologies, such as rotary-style sprinklers installed in 2008, and prohibition on hand-washing vehicles.

ADDRESS THE MOST-EFFECTIVE, QUICKEST, AND COST-EFFICIENT OUTCOME

The fact that a "gross polluter" exists across the street at the Malibu Bay Company affords the RWQCB the biggest opportunity to achieve real, substantial, and significant reductions in both discharge quantity and quality in the immediate WINTER CANYON area. Although such improvements are technically incalculable for impact to Malibu Lagoon or Surfrider Beach (there is no outfall or permit from ground discharges within Winter Canyon area), the RWQCB is capable of similarly requiring that shopping center to install an on-site sewage treatment facility. Further, the physical location of the properties that generate that sewage, are all located in the Civic Center area (near sea level or within 20' of it) and some or all could be connected to the new sewage treatment plant being proposed by the City for Civic Center-area development of vacant property and existing shopping centers.

EXISTING PROFESSIONALLY-OPERATED ON-SITE LIFT STATION

Malibu Canyon Village completely rebuilt the lift station's operating equipment 2 years ago, upgrading to technology and estimated service life of more than 20 years. The high-quality upgrade in the 1980's lasted more than 25 years.)

HARDSHIP

Of the condominiums exclusively connected to this common package treatment plant, 79% were build in the in the 1960's, and 70's. Malibu Canyon Village's units average 900 square feet and are the most-affordable real estate housing available for miles around. Many of our residents are working-class, first-time property owners trying to make ends meet. My neighbors include teachers, service workers, clerks, students, salespersons, and retirees. The current burden of sewage assessments, combined with 5 special assessments of our Homeowner Association for repairs to our 30+ years old property average a total of $43,000. One of the assessments specifically replaced the pumps and modernized our lift station and re-piped our force main. Our Association contracts for professional operation of our lift station, and we have already paid exorbitant sums to rebuild and upgrade our existing, fully-functional package sewage treatment facility.

EQUITY AND FAIRNESS

The millions of dollars already invested in the existing sewage treatment facility, and individual Association's associated on-site equipment, would have to be added to the social cost of a sewer for the commercial Civic Center properties. Further, it is just flat out unfair and unjust to strangle the responsible condominium owners into subsidizing the major commercial shopping center properties, and future shopping center developers. Such could only be accomplished by breaking-up an existing assessment district, declaring an existing fully-functional treatment plant "dead", bulldozing it, and forcing the efficient condominium owners into a financial morass that would be of virtually no benefit over existing operations, at major expense, and of only marginal cost reduction to the Commercial Developers (based on a theory of economies of scale).

The proper solution is to:

1. Enforce the Malibu Bay Company/Malibu Colony Plaza Shopping Center to solve their sewage problems by means acceptable to the RWQCB. That action is between those two parties.

2. Enforce reductions of commercial dischargers where lack of conservation is evident, demonstrable, or where industry-available improvements are obviously not being implemented.

3. Embrace the City's proposal for a sewage treatment plant for commercial properties in the Civic Center, with potential for beachfront properties' connection.

4. Incorporate the data and findings of current studies of the immediate area that are already funded and underway, into effective solutions to achieve common goals by deferring consideration of moratorium until recent, relevant data is available.

5. Exclude from moratorium the existing dischargers under current RWQCB control that have demonstrable records of substantial compliance, or that have predicted/predictable level of compliance to known standards, and/or that currently disinfect all discharge. Such should include the existing, package sewage treatment plant located on Vista Pacifica St, commonly referred to as Malibu WWTP and/or the De Ville plant that treats Malibu Canyon Village and

neighboring condominiums. This can be implemented by altering the western boundary of the proposed prohibition area eastward, and/ or by specific reference to the above facility.

6. Exclude dischargers in the Winter Canyon watershed area from moratorium. This rebuilt package sewage treatment plant is currently permitted and regulated by RQWCB, and operated by Los Angeles County via existing assessment district.

Thank you for your consideration of the above.

Sincerely,

R. L. Embree

Morton M. Gerson
535 Ocean Avenue, #4-B
Santa Monica, California 90402
310-451-5122

RECEIVED
2009 OCT 5 PM 2 10
CALIFORNIA REGIONAL WATER
QUALITY CONTROL BOARD
LOS ANGELES REGION

October 2, 2009

10/6/09 Called Mr. Gerson re flow #s. MP (DR + RT)
David SB - response?
⇒ Follow up re file deficiency.

Rebecca Chou
California Regional Water Quality Control Board
320 W. 4th Street, Suite 200
Los Angeles, California 90013

Re: 23730 Malibu Road, Malibu, CA 90265
Parcels in Lot 1, Tract 12097
Your File No. 02-088

Dear Ms. Chou:

Last night I attended the Public Hearing for a proposed amendment to the Water Quality Control Plan to prohibit on-site wastewater disposal systems (OWDS) in the Malibu Civic Center area. After reflecting on the presentation by Wendy Phillips, the questions and comments by attendees and the responses of Staff, I have the following observations:

1. Everyone desires unpolluted ground water.

2. There seems to be a conflict as to whether or not the science used by the Board is accurate.

3. With respect to my property, the Board's published findings are incorrect.

   The Board states that my water usage is 400 GPD. My water bills, copies of which have been filed with the Board for the past 6 years, show that my building's water consumption averages far less than 200 GPD and this includes irrigation of landscapting.

   The Board states that 1% of my building's wastewater contributes to pollution in Malibu Lagoon. If in fact the building's discharge actually reaches the lagoon, the correct figure, based upon the Board's own calculations for the Malibu Civic Center area, is 0.004%.

   The Board states that my building's wastewater discharges directly to the ocean. This

is patently wrong as my building is located two houses, a road and a beach from the ocean and the waste does not flow into a water table.

4. The Board's suggestions for dealing with wastewater disposal is municipality/community based. There is no suggestion as to what an individual small property owner can do to meet the Board's objectives. It is draconian for the Board to impose its suggested prohibition on individual small property owners. Such a prohibition would be punitive as to individuals who have complied for years with existing law and who have no individual ability to provide for wastewater disposal as suggested by the Board. The Board's actions should be directed toward the City of Malibu and/or the County of Los Angeles, who have the ability to comply with the Board's mandates.

5. The Board has failed to disclose what penalties would be imposed upon property owners if compliance cannot be achieved by November 5, 2014. Since individual property owners are incapable of compliance along the lines suggested by the Board, they are dependent on the City of Malibu. In the event the City of Malibu does not have an approved wastewater disposal system in effect by November 5, 2014, it becomes important for individuals to know what penalties they are faced with. In my instance, I have a 3,300 sq. ft. office building. My tenant's lease expires next year and they would like a five year extension. How can I enter into a lease extension when I do not know to what extent I will be a victim of the proposed prohibition.

6. By the Board proposing to prohibit OWDSs knowing that individual small property owners cannot comply, as they have neither the ground nor financial resources to provide the wastewater disposal system suggested by the Board, it would seem that the Board is trying to impose a hardship on individual small property owners as leverage to obtain action by the City of Malibu.

I trust that my comments will be helpful to the Board in drafting an amendment that will facilitate achieving clean ground water but will not be oppressive to small property owners as is the current proposed amendment.

Very truly yours,

Morton M. Gerson

MMG 1
cc. Wendy Phillips

DANIEL R. ALLEMEIER, Secretary and General Counsel

HRL Laboratories, LLC
3011 Malibu Canyon Road
Mail Station-RL85
Malibu, CA 90265
(310) 317-5851

October 6, 2009

California Regional Water Quality Control Board - LA
ATTN: Dr. Rebecca Chou
320 West 4th Street, #200
Los Angeles, CA 90013

Subject: Resolution No. R4-2009-xx – Proposed Prohibition on On-Site Wastewater Disposal Systems in the Malibu Civic Center Area

Dear Dr. Chou:

The California Regional Water Quality Control Board, Los Angeles Region's (CRWQCB-LA) goal of improving nitrogen and bacteriological groundwater and surface water quality in the Malibu Civic Center is a valuable goal that HRL Laboratories has and will continue to support. In an effort to achieve this goal, the CRWQCB-LA has prepared Proposed Resolution R4-2009-xx *Amendment to the Water Quality Control Plan for the Coastal Watersheds of Ventura and Los Angeles Counties to Prohibit On-site Wastewater Disposal Systems in the Malibu Civic Center Area* (July 31, 2009) (The Proposed Resolution).

In accordance with CRWQCB-LA public comment requirements, this letter transmits a summary of general comments relating to The Proposed Resolution. The comments summarized in this letter refer to specific sections of The Proposed Resolution and/or the underlying technical documents used to support The Proposed Resolution. Where applicable, the following restates the relevant portion of the referenced documents (*in italics*) and then provides a general comment.

The Proposed Resolution, Attachment A, Septic Systems, second bullet:

> *"All wastewater discharges from existing on-site wastewater disposal systems are prohibited five yers (sic) from the date of adoption by the Region (sic) Board of this Basin Plan amendment."*

Comment:

It is understood that CRWQCB-LA desires to have a schedule to measure progress on attaining its goal for the Malibu Civic Center Area. However, the five

year schedule appears to be overly optimistic. For example, a similar project in the Oxnard Forebay was initiated in 1999 and is still not complete over 10 years later. According to the "Schedule for Compliance with Proposed Prohibition" section of the Draft Environmental Staff Report (July 31, 2009), which is referenced in The Proposed Resolution, there is a potential for CRWQCB-LA to issue Cease and Desist Orders to dischargers operating under Regional Board Orders that specify waste discharge requirements (WDRs). This type of action would seriously impact business operations for the existing WDR permit holders.

There is general agreement that progress should be made toward implementing the solution, but setting overly optimistic schedules for project completion that are likely to be unachievable could have serious negative impacts on the Community if either Cease and Desist Orders for existing WDRs are issued or a broader-based ban on operation of existing on-site wastewater disposal systems (OWDSs) are enacted.

The Proposed Resolution, Attachment A, Septic Systems, third bullet:

> *"A specific wastewater discharge may be permitted if a discharger can demonstrate, to the satisfaction of the Executive Officer, that reuse, evaporation, and/or transpiration will use 100% of the wastewater generated by activities on a site, will not contribute to a rise in the water table, and will contain and properly handle any brines and/or off specification wastewaters that cannot be reused/discharged in a manner that meets water quality objectives established in the Basin Plan."*

Comment:

There is agreement that specific wastewater discharges should be conducted in a controlled fashion to meet the goal of improving nitrogen and bacteriological groundwater and surface water quality in the Malibu Civic Center Area. The referenced exemption is one way to achieve on-site reuse of wastewater discharge on a specific property. There are however, several specific considerations that should be included in the Resolution that will achieve the overall goal for the Basin.

1) The concept of 100% reuse of wastewater may be difficult to achieve during all times of the year. In fact, according to the "Options for Compliance Projects" section of the Draft Environmental Staff Report (July 31, 2009), both the Integrated Water Resources and the Decentralized Wastewater Management Facilities projects rely on subsurface disposal for approximately 50% of the treated wastewater. Drawing a parallel, the 100% reuse could be reduced to 50% reuse goal provided that the operator of the OWDSs can treat wastewater to meet acceptable nitrogen and bacteriological discharge standards to a reliability that is similar to existing publicly operated wastewater treatment facilities.

2) The concept of no rise in the water table should not apply to wastewater that meets acceptable nitrogen and bacteriological discharge standards in areas with favorable hydrogeologic conditions for subsurface disposal. The water table rise for OWDSs would tend to be smaller than the water table rise for either the alternate Integrated Water Resources or the Decentralized Wastewater Management Facilities Projects.

The Proposed Resolution, Attachment A, Exemptions:

Other than the exemption described in Bullet 3 above, there are no other exemptions provided for as part of the Proposed Resolution. During the October 1, 2009, Public Meeting, Ms Wendy Phillips indicated that the apparent failure of septic systems in the Malibu Civic Center Area is related to small lot sizes. She further indicated that effective treatment can be attained with larger lot sizes. Resolution 99-13 for the Oxnard Forebay prohibition recognizes this and provides an exemption for lots over 5 acres. The Proposed Resolution should be amended to include a similar exemption in considering lot size and should also include consideration for the minimum depth to groundwater.

The Proposed Resolution and Environmental Staff Report, Program Alternatives Section:

The State Water Resources Control Board has prepared proposed state-wide regulations for OWDSs including those for impaired water bodies (AB885). The Proposed Resolution and the Environmental Staff Report do not appear to reference the proposed state-wide regulation. Program Alternatives or The Proposed Resolution Exemptions should include exceptions for individual treatment systems such as those contemplated as part of proposed state-wide AB885 Regulations for OWDSs.

The CRWQCB-LA is thanked for providing an opportunity to comment, and HRL looks forward to continued involvement in the Proposed Resolution process. Your favorable consideration of our recommendations is appreciated.

Very truly yours,

From: Rebecca Chou
To: Allemeier, Daniel R
CC: Phillips, Wendy; Villar, Rosie
Date: 10/7/2009 4:14 PM
Subject: Re: HRL Laboratories Comments to Resolution No. R4-2009-xx

Hi, Daniel

Thank you very much for your comment. We will include your comment and our response for our board's consideration on November 5, 2009.

Rebecca Chou, Ph.D., P.E.
Chief of Groundwater Permitting Unit
California Environmental Protection Agency
Regional Water Quality Control Board - Los Angeles Region
320 W. 4th Street, Suite 200
Los Angeles, CA 90013
Phone: (213) 620-6156
Cellular: (213) 305-2301
Fax: (213) 576-5777
Email: rchou@waterboards.ca.gov

>>> "Allemeier, Daniel R" <DRAllemeier@hrl.com> 10/7/2009 3:49 PM >>>
Dr. Chou:

Please find attached HRL Comments. A hard copy was also sent by courier.

Sincerely,

Daniel R. Allemeier
Secretary & General Counsel
HRL Laboratories, LLC

ROSS MORGAN
& COMPANY, INC.
Property Management

Sherman Oaks Calabasas Valencia Palmdale

23901 Calabasas Road, Suite 2004
Calabasas, CA 91302
P.O. Box 8782, Calabasas, CA 91372
(Please forward all mail to P.O. Box address)
(818) 225-9191
(805) 581-4833
Fax (818) 591-3044

October 6, 2009

To: CA Regional Water Quality Control Board
Attn: Dr. Rebecca Chou
320 West 4th Street, #200
Los Angeles, Ca 90013
Via Email: rchou@waterboards.ca.gov
Via Facsimile: 213-576-5777

To Whom It May Concern,

Please be advised that Malibu Canyon Village Homeowners Association (MCV) located at 23901 Civic Center Way is opposed to the Proposed Prohibition for On- Site Wastewater Disposal System in the Malibu Civic Center Area.

The Board of Directors requests that Malibu Canyon Village be exempt from this prohibition and that the boundary line be moved east of our community. Malibu Canyon Village is currently part of the Maison DeVille Sewage Treatment Plant in which the homeowners of MCV have been paying for since the year 2000 as part of their property tax bill. The new proposed system does not directly benefit MCV in any capacity and would be a financial and logistical detriment to the community. MCV feel that the proposed prohibition is not necessary due to the fact that our current treatment plant is in compliance. Therefore why would the Regional Water Quality Control Board request that Malibu Canyon Village be included and connected to this new proposed system?

If you have any further questions regarding this issue as it pertains to Malibu Canyon Village please feel free to call Ross Morgan and Company at (818) 225-9191 Ext 113.

Thank you very much for your anticipated consideration,

Micah Eigler
Community Manager

"Service, our commitment to you".
Proudly serving our clients since 1982

PEPPERDINE UNIVERSITY

GOVERNMENTAL AND REGULATORY AFFAIRS

Dr. Rebecca Chou
Chief Groundwater Permitting Unit
California Regional Water Quality Control Board, Los Angeles Region
320 West 4th Street, Suite 200
Los Angeles, CA 90013

RE: Water Quality Control Plan for the Coastal Watersheds of Ventura and Los Angeles Counties to Prohibit On-site Wastewater Disposal Systems in the Malibu Civic Center Area, Resolution No. R4-2009-xx

Dear Dr. Chou:

This letter presents comments by Pepperdine University ("Pepperdine" or "University") to the proposed Amendment to the Water Quality Control Plan for the Coastal Watersheds of Ventura and Los Angeles Counties to Prohibit On-site Wastewater Disposal Systems in the Malibu Civic Center Area, Resolution No. R4-2009-xx (the "Resolution"). The proposed Resolution, which would amend the applicable Basin Plan, is aimed at prohibiting, within a specific boundary, on-site wastewater disposal systems ("OWDSs") that discharge wastewater directly into the subsurface. The Resolution purports to prohibit discharges from "individual/group septic/disposal systems in the Civic Center area."

We are concerned that a portion of our property is included within the boundary of the proposed prohibition area even though Pepperdine is not a discharger of wastewater, has no OWDSs, sends all of its wastewater to wastewater treatment facilities for tertiary treatment, and retains the resulting recycled water onsite for use in irrigation. Existing wastewater treatment capacity at both the Malibu Mesa Wastewater Reclamation Facility ("Malibu Mesa") and Tapia Water Reclamation Facility ("Tapia") is sufficient to meet the University's current and planned future wastewater needs. Since there is no reason to include the University within the prohibition boundary, we ask that the boundary be moved to avoid University.

If Pepperdine is not excluded, we ask that it be made absolutely clear that the wastewater discharge prohibition does not apply to the University's use of recycled water for irrigation, which has been undertaken since the Malibu campus opened in 1972. Pepperdine University has a long history of sustainable environmental practices and the cornerstone is our use of recycled water to irrigate campus landscaping. Pepperdine is a user of this tertiary treated recycled water, which is fully permitted pursuant to California Regional Water Quality Control Board, Order No 00-167 and Order No 94-055 (W.R.R.). (See, Attachment A, RWQCB Order No. 00-167).

While we believe it is the intent of the Regional Board to prohibit wastewater discharges to the subsurface from underground OWDSs or septic systems, we are concerned that the Basin Plan amendment may be wrongly interpreted to apply to Pepperdine's irrigation system. We ask that either Pepperdine be excluded from the prohibition boundary or specific language be placed

24255 Pacific Coast Highway, Malibu, California 90263-4702 ▪ Telephone: 310-506-4702 Fax: 310-506-7768

in the Resolution, which makes it crystal clear that the use of recycled water is not a discharge of wastewater and is outside the reach of the Basin Plan amendment. Absent such specific language, the record of these proceedings should reflect that the use of recycled water for irrigation is outside the reach of the Basin Plan amendment.

A. Pepperdine Should Not Be Included Within The Prohibition Boundary

There is no reason to include any portion of the Pepperdine campus within the prohibition boundary. The proposed boundary appears to bisect several campus facilities so the rationale for including some portions of the campus is unclear. There is no development proposed in area within the proposed boundary in Pepperdine's Long Range Development Plan nor does the University have any current plans to develop that area. There is sufficient wastewater treatment capacity at Malibu Mesa and Tapia for all existing and future planned University development so there is no need or intent to tie in to any future sewer system infrastructure proposed for the Malibu area. To the extent that the prohibition boundary is intended to help define the area requiring future wastewater treatment infrastructure, that rationale is not applicable to the Pepperdine property.

Moreover, we understand from conversations with City of Malibu environmental manager Craig George that the funding of a future regional wastewater system does not include plans to seek financial contribution from the University. Nonetheless, we are concerned that our inclusion within the boundary could leave us potentially exposed to assessment for funding a regional wastewater system which the University does not need or intend to use. This would be an unfair result as the University has already undertaken to ensure responsible wastewater treatment through the construction of Malibu Mesa, connections to Tapia, and all related infrastructure for both systems.

We understand from RWQCB staff that the prohibition is not intended to affect Pepperdine's ongoing operations. Section Chief Wendy Phillips stated publicly in a presentation at the Pepperdine campus on October, 1 2009 that "while the prohibition boundary includes a portion of the Pepperdine campus, it is not anticipated to impact campus operations." If that is the case, then is there really any reason to include Pepperdine within the boundary at all? We suggest not and ask that the University be removed from within the prohibition boundary.

B. The Recycled Water Used By Pepperdine For Irrigation Is Not A Discharge Of Wastewater And Therefore Not Subject To The Proposed Prohibition

Pepperdine's recycled water use is not a discharge of wastewater subject to the prohibition under any reasonable reading of the Resolution. First, as distinguished within the language of the W.R.R. recycled water is not wastewater. In addition, the prohibition is intended to ban wastewater discharges to the subsurface and there are no subsurface discharges of any type at the University. Moreover, use of recycled water for conservation is in the public's best interest and should not be jeopardized by a prohibition intended to improve water quality.

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The Resolution amends a section entitled "Septic Systems" found in Chapter 4 of the Basin Plan. By its terms, the ban prohibits "on-site wastewater disposal systems (OWDSs)." These systems discharge wastewater to the subsurface. Water Code § 13290 defines "onsite sewage treatments systems" as follows: "Onsite sewage treatment systems" includes individual disposal systems, community collection and disposal systems, and alternative collection and disposal systems **that use subsurface disposal** (emphasis added)." This Water Code definition includes the OWDSs that are the subject of the Resolution and is evidence of its intent to affect subsurface wastewater discharges. Pepperdine's irrigation system cannot be considered an OWDS. The irrigation system does not discharge wastewater nor does it discharge directly to the subsurface. All of Pepperdine's wastewater is sent off-site to Malibu Mesa or Tapia for treatment and returned as tertiary treated recycled water.

By its very nature, Pepperdine's recycled water irrigation system is not a discharge or disposal of wastewater and it is certainly not a discharge to the subsurface. This is made clear by the Regional Board order that authorizes the irrigation program. The recycled water used by Pepperdine is tertiary treated and used consistent with the stringent requirements of the W.R.R., which Pepperdine is in full compliance with. The recycled water program includes careful monitoring via the hydrological monitoring program (HMP) in place since 1987. The W.R.R. contains stringent effluent limitations on the recycled water and distinguishes between wastewater and recycled. According to Pepperdine's hydrogeological consultants, the recycled water does not pose the same threat to water quality as wastewater from OWDSs. (See Attachment B, Letter from Daniel B. Stephens & Associates)

In fact, the State Water Resources Control Board's ("SWRCB") Recycled Water Policy ("Policy") recognizes that the use of recycled water consistent with the Policy is presumed to have a beneficial impact. The requirements of the W.R.R. and the HMP which implements the recycled water program management protocols are consistent with the practices for landscape irrigation projects as set forth in the Policy. The beneficial use of recycled water consistent with the W.R.R. and the Policy are strong evidence that Pepperdine's use of recycled water for irrigation is not disposal or discharge of wastewater intended to be regulated by the proposed Resolution. So, there is no on-site disposal of wastewater taking place on University property.

The thrust of the Resolution is to prohibit direct on-site discharges of wastewater to the subsurface. The Resolution includes conclusions that the discharges of wastewater from OWDSs (by definition on-site subsurface discharges) in the Civic Center area fail to meet water quality objectives and contribute to impairments of existing and potential beneficial uses of water resources. In contrast, the University's irrigation system spreads water on landscaping on the surface and is designed to minimize percolation through the subsurface through the implementation of its HMP. (See Attachment B) The HMP includes management techniques for recycled water use, which ensure that irrigation avoids, to the maximum extent possible, any contribution of irrigation water to the groundwater system underlying and surrounding the University. Pepperdine's Irrigation Services Staff use HMP data to prescribe only the amount of irrigation necessary to maintain healthy vegetation accounting for evapotranspiration. Due to these and a number of other factors as outlined in the attached letter from Daniel B. Stephens &

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Associates, it is unlikely that the use of recycled water for irrigation at Pepperdine is adversely impacting water quality in the Civic Center area.

Finally, it is in the public's best interest to ensure that responsible use of recycled water under stringent requirements and as verified by an HMP is continued as a substitute for potable water. California is facing yet another year of drought. Governor Schwarzenegger has declared a state of emergency. Likewise, Senator Pavley has stated that recycled water use is one of the answers to this growing crisis. Senator Pavley recently proposed SB 565 to the SWRCB to ensure that 50% of wastewater discharged to the ocean is recycled and reused by 2030. Pepperdine has been recycling wastewater and reusing it onsite since 1972. We respectfully request that the RWQCB's efforts to improve water quality not jeopardize the equally necessary water conservation efforts of institutions like ours who have conserved for decades.

Consequently, it would not be reasonable to conclude that the use of recycled water for surface irrigation by Pepperdine is a subsurface disposal of wastewater intended to be prohibited by the Resolution.

C. Conclusion

Based on the above, Pepperdine respectfully requests that its property be excluded from the boundary affected by the Resolution. In the absence of a boundary change, Pepperdine asks that language be included in the Resolution which specifically excludes the use of recycled water for irrigation from its reach to ensure the availability of water resources for future generations. At a minimum, the record should clearly reflect that recycled water used for irrigation is not disposal of wastewater and not impacted by the Resolution.

Thank you for your attention and we look forward to working with you to resolve our concerns.

Sincerely,

Rhiannon L. Bailard
Assistant Vice President, Governmental & Regulatory Affairs

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Attachment A

State of California
CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD, LOS ANGELES REGION

ORDER NO. 00-167

State Of California
CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION

ORDER NO. 00-167

WASTE DISCHARGE REQUIREMENTS AND WATER RECYCLING REQUIREMENTS FOR COUNTY OF LOS ANGELES DEPARTMENT OF PUBLIC WORKS AND PEPPERDINE UNIVERSITY, MALIBU CAMPUS (Malibu Mesa Wastewater Reclamation Facility) (File No. 70-060)

The California Regional Water Quality Control Board, Los Angeles Region (Regional Board), finds:

1. The County of Los Angeles Department of Public Works (Recycler) operates and maintains the Malibu Mesa Wastewater Reclamation Facility (Reclamation Facility), located at 3863 Malibu Country Drive, Malibu, California (Figure 1). The Reclamation Facility has a design capacity of 0.2 million gallons per day (mgd) and has an approximate effluent flow of 0.177 mgd. The Recycler provides tertiary treatment producing effluent that complies with the water recycling requirements of Title 22 of the California Code of Regulations. The Recycler uses a portion of the recycled water for landscape irrigation of approximately 1.6 acres of the Reclamation Facility.

2. Pepperdine University (User) uses recycled water produced by the Recycler for landscape impoundment and landscape irrigation of approximately 126 acres of the approximately 300 developed acres of the Pepperdine University, Malibu Campus, located at 24255 Pacific Coast Highway, Malibu, California. The User operates and maintains the recycled water storage reservoirs and landscape irrigation facilities.

Regulation of Discharge

3. Section 13523 of the California Water Code provides that a Regional Board, after consulting with, and receiving the recommendations of the California Department of Health Services (CDHS), and after any necessary hearing, shall, if it determines such action to be necessary to protect the public health, safety, or welfare, prescribe Waste Discharge Requirements and Water Recycling Requirements for water which is used, or proposed to be used, as recycled water. Section 13523 further provides that such requirements shall include, or be in conformance with, the statewide recycling criteria.

4. The use of recycled water for landscape impoundment or for landscape irrigation at Pepperdine University, Malibu Campus could affect public health, safety and welfare, therefore, requirements for such use are needed in accordance with Section 13523 of the California Water Code.

October 30, 2000
Revised: November 9, 2000

5. Pursuant to Section 13523 of the California Water Code, the production and use of the recycled water are regulated under Water Recycling Requirements contained in Order No. 94-056, adopted by this Regional Board on June 13, 1994.

6. The amount of recycled water used for landscape irrigation at Pepperdine University varies with demand. During summer, approximately 0.3 mgd of recycled water is needed. At peak demand, approximately 70% of the recycled water used for irrigation is produced at the Reclamation Facility, and 30% is imported from the Las Virgenes Municipal Water District (Las Virgenes), Tapia Water Reclamation Facility (Tapia). The use of the recycled water from Tapia for irrigation is regulated under separate Water Recycling Requirements contained in Order No. 94-055, adopted by this Regional Board on June 13, 1994.

7. California Water Code Section 13263(e) provides that all waste discharge requirements shall be reviewed periodically, and, upon such review, may be revised by the Regional Board. Following a review of the requirements in Order No. 94-056, and inspections of the Reclamation Facility, storage reservoirs, and irrigation areas, this Order updates Order No. 94-056 and includes additional findings, effluent limitations, updated standard provisions, updated specifications for recycled water use, and an expanded monitoring and reporting program.

8. During the wet season (November 1 through April 15 of each year), when irrigated areas are saturated and the storage reservoirs are in imminent danger of overtopping, the recycled water is discharged (emergency discharge) either to Marie Canyon or an unnamed canyon adjacent to the Reclamation Facility. This emergency discharge is currently regulated under separate Waste Discharge Requirements and National Pollutant Discharge Elimination System (NPDES) permit contained in Order No. 94-027 (NPDES No. CA0059099), adopted by this Regional Board on April 4, 1994.

Reclamation Facility Description

9. The Reclamation Facility serves a population of approximately 3,360 persons at Pepperdine University and the Malibu Country Estates. All domestic wastewater generated by Pepperdine University is collected at the flow equalization station. The majority of the wastewater is then sent to the Reclamation Facility, and any portion of wastewater over 0.165 mgd is sent to Tapia. Domestic wastewater generated by Malibu Country Estates flows directly to the Reclamation Facility.

   All laboratory waste generated by Pepperdine University is stored in 55-gallon drums and hauled offsite to a legal point of disposal.

10. The Reclamation Facility provides primary, secondary and tertiary treatment, with disinfection by an ultraviolet system (Figure 2).

11. Primary treatment consists of the headworks with a comminutor and a bypass channel with bar screen. An influent flow meter is located after the bypass channel. Secondary treatment consists of the Walker Process packaged activated sludge plant that includes an aeration basin with coarse bubble diffusers, two aeration blowers (one of which is a stand-by), an aerobic digester, and a secondary sedimentation basin. Return activated sludge and waste activated sludge are pumped by airlift pumps. Tertiary treatment is provided through coagulation, rapid mix, flocculation, and sand filtration. Filtration consists of three continuous backwash Dynasand® filters.

12. Disinfection is provided by four ultraviolet lamps in series. The Recycler began using ultraviolet disinfection on June 12, 1998. The CDHS approved the use of the ultraviolet disinfection system in a letter dated February 5, 1998.

13. The waste activated sludge is aerobically digested and pumped to a centrifuge for partial dewatering. The dewatered, digested sludge is stored in a 10,000-gallon underground storage tank prior to hauling to the Donald C. Tillman Water Reclamation Facility located at 6100 Woodley Avenue, Van Nuys, California.

14. In the event of upsets or other operational emergencies at the Reclamation Facility, wastewater from Pepperdine University can be pumped to Tapia for treatment under an agreement between Pepperdine University and Las Virgenes. The wastewater from Malibu Country Estates can be diverted to the sludge storage tank and hauled to the Donald C. Tillman Water Reclamation Facility for treatment. In the event of a power failure the Recycler has an emergency diesel-powered generator onsite to prevent the discharge of raw or inadequately-treated sewage.

Landscape Impoundments and Irrigation Facility

15. Prior to distribution for landscape irrigation, recycled water is stored in two landscape impoundments (also known as reservoirs). The reservoirs have double 20-mil polyvinyl chloride liners to prevent percolation. From the reservoirs, the recycled water is pumped into the irrigation distribution system. The distribution system is divided into two pressure zones, a lower zone and upper zone. The lower zone irrigates the lower portion of the campus through four pressure regulators. In the upper zone, the recycled water is pumped to a 10,000-gallon underground storage tank, then distributed to the irrigation system for the upper portion of the campus by gravity flow.

16. In a letter dated July 21, 2000, the User informed the Regional Board that under normal conditions the reservoirs are maintained at an equivalent of 5.2 million gallons of water. The User further stated that to maintain the pumps in the reservoirs in proper working condition, the water level can only be lowered to an equivalent of 3.5 million gallons. The reservoirs' combined storage capacity is approximately 8 million gallons. However, previous documentation made available to the Regional Board indicates the reservoirs can be filled to a level equivalent to 12 million gallons. Therefore, in the tentative

requirements for the renewal of the emergency discharge permit (NPDES No. CA0059099), the User is required to conduct a survey to determine the actual storage capacity of the reservoirs.

17. During a meeting on October 25, 2000, the User informed the Regional Board that the survey had been completed. The User stated (and confirmed in a letter transmitted via facsimile on October 26, 2000) that the total storage volume of both reservoirs is approximately 8.4 million gallons at an elevation of 245.56 feet. To maintain proper operation of the pumps, the water level can only be lowered to an elevation of 239.0 feet, which is approximately 0.6 million gallons total volume for both reservoirs. In addition, three inches of freeboard (0.25 feet) should be left in each reservoir to accommodate wind generated waves, which is approximately 0.4 million gallons total volume for both reservoirs. Therefore, the available wet weather storage capacity is approximately 7.4 million gallons at an elevation of 245.31 feet. This is equivalent to approximately 40 days of wet weather storage capacity at 0.177 mgd average effluent from the Reclamation Facility.

18. In 1985, the User initiated a hydrogeologic monitoring program to provide information on the soil moisture conditions and groundwater levels of the irrigated areas, to ensure that the infiltration due to irrigation does not affect geologic stability. The User manages the landscape irrigation system based on this hydrogeologic monitoring program.

19. The hydrogeologic monitoring program uses two direct and two indirect methods to determine how much infiltration occurs beneath the irrigated areas, either as a result of irrigation or precipitation. One of the direct methods consists of measuring soil moisture content monthly in nine access casings from 3 feet to 20 feet below ground surface using a portable neutron probe. The other direct method is measuring the depth to groundwater monthly in 17 onsite monitoring wells and five offsite monitoring wells located south of Pacific Coast Highway. The indirect methods consist of mathematical calculations for water and salt balance equations. Some of the parameters required for the water and salt balance equations include, but are not limited to: rainfall; evaporation; transpiration; runoff; subdrain outflow; deep percolation; recycled water usage; soil moisture; groundwater levels; and groundwater and runoff conductivity.

20. The Reclamation Facility and landscape irrigation areas are located within the Corral Canyon Hydrologic Subarea of the Point Dume Hydrologic Area of the Malibu Hydrologic Unit (404.31). The Reclamation Facility and landscape irrigation areas are generally located in Section 30, T01S, R17W, San Bernardino Base and Meridian at the approximate latitude and longitude of 34° 2' 31" and 118° 42' 33", respectively.

21. The Regional Board adopted a revised *Water Quality Control Plan for the Coastal Watersheds of Los Angeles and Ventura Counties* (Basin Plan) on June 13, 1994. The Basin Plan contains the designated beneficial uses and water quality objectives for the groundwater within the Point Dume area.

    The beneficial uses of the groundwater in the Point Dume area are:

    Existing: Municipal and domestic supply (MUN), and Agriculture.

    Potential: Industrial service supply.

    There is no current MUN use in the immediate area due to seawater intrusion and poor groundwater quality.

22. Based on data from the *Hydrogeologic Monitoring Program, Annual Report, Water Year 1997-98*, dated August 23, 1999, the recycled water does not infiltrate to groundwater. Therefore, groundwater quality monitoring is not required at this time. The User is required to continue implementing the hydrogeologic monitoring program. In the future, if the hydrogeologic monitoring demonstrates that the recycled water is infiltrating to the groundwater, then a groundwater quality monitoring program may be required.

23. This update of the Waste Discharge Requirements and Water Recycling Requirements for an existing facility is exempt from the provisions of the California Environmental Quality Act (Public Resources Code, Section 2100 et seq.) in accordance with California Code of Regulations, Title 14, Chapter 3, Section 15301.

The Regional Board has notified the Recycler and User and interested agencies and persons of its intent to revise Waste Discharge Requirements and Water Recycling Requirements for this discharge and has provided them with an opportunity to submit their written views and recommendations.

The Regional Board, in a public meeting, heard and considered all comments pertaining to the discharge and to the tentative requirements.

IT IS HEREBY ORDERED that the County of Los Angeles Department of Public Works and Pepperdine University shall comply with the following:

I. INFLUENT LIMITATIONS

A. Waste discharged to the Reclamation Facility shall be limited to domestic wastewater only. No water softener regeneration brines, laboratory chemicals, or industrial wastes shall be discharged to the Reclamation Facility.

B. The maximum daily flow of influent from the collection system to the headworks of the Reclamation Facility shall not exceed the design capacity of 0.2 mgd.

II. EFFLUENT LIMITATIONS

A. Recycled water shall at no time contain any substances in concentrations toxic to human, animal, plant or aquatic life.

B. Recycled water shall at no time contain any substances or agents that would produce offensive or unsightly conditions in the storage reservoirs or the irrigation areas.

C. Recycled water shall not contain pollutants in excess of the following limits:

Pollutant	Units	Monthly Average	7-Day Average	Daily Maximum
$BOD_5$20°C	mg/L	20	30	45
	lbs/day[1]	33	50	75
Suspended solids	mg/L	15	40	45
	lbs/day[1]	25	67	75
Oil and grease	mg/L	10	—	15
	lbs/day[1]	17	—	25
Total dissolved solids	mg/L	—	—	1,000
	lbs/day[1]	—	—	1,668
Chloride	mg/L	—	—	250
	lbs/day[1]	—	—	417
Sulfate	mg/L	—	—	250
	lbs/day[1]	—	—	417
Boron	mg/L	—	—	1.0
	lbs/day[1]	—	—	1.7
Total organic carbon	mg/L	—	—	20
	lbs/day[1]	—	—	33

D. Recycled water shall at all times be within the range of 6.5 to 8.5 pH units.

E. Recycled water shall not contain organic chemicals, inorganic chemicals (i.e., heavy metals, arsenic, or cyanide), or general minerals in concentrations exceeding the limits contained in the current California Drinking Water Standards, Title 22, Division 4, Chapter 15, Sections 64431, 64444, and 64449, of the California Code of Regulations, or subsequent revisions.

[1] The mass-based discharge limit is based on the design flow of 0.2 mgd and remains the same during storm events.

F. Radioactivity of the recycled water shall not exceed the limits specified in Title 22, Division 4, Chapter 15, Article 5, Sections 64441 and 64443, of the California Code of Regulations, or subsequent revisions.

III. RECYCLED WATER SPECIFICATIONS FOR LANDSCAPE IMPOUNDMENTS AND LANDSCAPE IRRIGATION

A. Recycled water used for irrigation of food crops, parks, playgrounds, schoolyards, residential landscaping, and unrestricted access golf courses shall at all times be adequately oxidized, coagulated, clarified, filtered, and disinfected domestic wastewater.

1. An oxidized wastewater means wastewater in which the organic matter has been stabilized, is nonputrescible, and contains dissolved oxygen.

2. A coagulated wastewater means an oxidized wastewater in which colloidal and finely divided suspended matter have been destabilized and agglomerated, upstream from a filter, by the addition of suitable floc-forming chemicals.

3. A filtered wastewater means an oxidized, coagulated, clarified wastewater that has been passed through natural undisturbed soils or filter media, such as sand, activated carbon, or diatomaceous earth, so that the turbidity as determined by an approved laboratory method does not exceed any of the following:

   (a) a daily average turbidity of 2 NTU;
   (b) 5 NTU more than 5% of the time during any 24-hour period; and,
   (c) 10 NTU at any time.

4. The wastewater shall be considered adequately disinfected if the 7 day median number of coliform organisms in the effluent does not exceed 2.2 per 100 milliliters, as determined from the bacteriological results of the last 7 days for which analyses have been completed, and the number of coliform organisms does not exceed 23 per 100 milliliters in more than one sample in any 30-day period. No sample shall exceed the number of coliform organisms of 240 per 100 milliliters.

B. Recycled water produced at the Reclamation Facility shall not be used for purposes other than for landscape impoundment and landscape irrigation until requirements for such purposes have been established by this Regional Board in accordance with Section 13523 of the California Water Code, or unless the Regional Board finds that the above-cited standards are applicable to those purposes.

C. There shall be no cross-connection between piping used for potable water supply and piping containing recycled water.

D. Recycled water uses shall meet the requirements specified in the *California Health Laws Related to Recycled Water*, 1st Edition, dated January 1, 1998, issued by the CDHS.

E. Recycled water used for irrigation shall be retained on the areas of use and shall not be allowed to escape as surface flow, except as provided for in a NPDES permit.

For purposes of this requirement, however, minor amounts of irrigation return water from peripheral areas shall not be considered a violation of this Order.

F. To prevent erosion and earth movement of the irrigated areas, recycled water shall be applied at such a rate and volume as to not exceed the vegetative demand and soil moisture conditions as determined by the User's hydrogeologic monitoring program. Special precautions must be taken to prevent clogging of spray nozzles, to prevent overwatering and the production of runoff. Pipelines shall be maintained so as to prevent leakage and pressure build-up.

G. All areas where recycled water is used, and that are accessible to the public, shall be posted with conspicuous signs, in a size no less than 4 inches high by 8 inches wide, that include the following wording: "ATTENTION: NON-POTABLE RECYCLED WATER - DO NOT DRINK" or "RECYCLED WATER - DO NOT DRINK." Each sign shall display the international symbol for recycled water shown in Figure 3.

H. Adequate freeboard shall be maintained in all storage reservoirs to ensure that direct rainfall does not cause overtopping.

IV. GENERAL REQUIREMENTS

A. Standby or emergency power facilities or storage capacity or diversion capabilities shall be provided so that in the event of plant upset or outage due to power failure or other cause, discharge of raw or inadequately-treated sewage does not occur.

B. Adequate facilities shall be provided so that the sewage treatment and recycling facilities shall be protected from inundation, washout, or other damage caused by storm or storm flows.

C. Any increase in wastewater treatment beyond the current design capacity of 0.2 mgd will require revised waste discharge requirements.

V. PROHIBITIONS

A. The discharge or recycling of raw or inadequately-treated sewage from the Reclamation Facility and from sewers comprising the wastewater collection system for the Reclamation Facility at any time is prohibited.

B. Recycled water irrigation shall not be conducted during periods of extreme rainfall and/or runoff.

C. Irrigation or discharge of recycled water to geologically unstable areas is prohibited. Irrigation or discharge of recycled water shall not result in earth movement.

D. Recycled water shall not be used for irrigation or impoundment within 100 feet of any domestic water supply well.

E. Recycled water use shall not result in problems due to breeding of mosquitoes, gnats, midges, or other pests.

F. Recycled water use shall not impart tastes, odors, color, foaming, or other objectionable characteristics to receiving groundwater.

G. Recycled water use that could affect receiving groundwater shall not contain any substance in concentrations toxic to human, animal, or plant life.

H. Odors of sewage origin shall not be perceivable beyond the limits of the property owned or controlled by the Recycler.

I. Raw sewage or partially dried waste sludge shall not be sprayed on the ground surface.

J. The discharge of recycled water at any point(s) other than specifically described in this Order is prohibited, and constitutes a violation of this Order.

K. The storage reservoirs for recycled water shall not contain floating materials, including solids, liquids, foams, or scum, in concentrations that cause nuisance, adversely affect beneficial uses, or serve as a substrate for undesirable bacterial and algae growth and insect vectors.

VI. PROVISIONS

A. The Recycler and User shall each establish a responsible party or parties to comply with this Order and the monitoring and reporting program. This information shall be provided to the Board within 30 days of receiving this Order.

B. This Order includes the *Standard Provisions Applicable to Waste Discharge Requirements* (Standard Provisions). If there is any conflict between provisions stated herein and the Standard Provisions, the provisions stated herein will prevail.

C. The Recycler and User shall file with the Regional Board technical reports on self-monitoring work performed according to the detailed specifications contained in the Monitoring and Reporting Program, or as directed by the Executive Officer. The results of any monitoring done more frequently than required at the locations and/or times specified in the Monitoring and Reporting Program shall be reported to the Regional Board.

D. A copy of this Order including the Standard Provisions and Monitoring and Reporting Program shall be maintained at the reclamation and reuse facilities so as to be available at all times to operating personnel.

E. The Recycler shall submit to the Regional Board, within 60 days of the adoption of this Order, procedures that will be, or have been, taken to ensure that no discharge or recycling of any untreated or partially-treated sewage, will result from the Reclamation Facility, in the event of equipment failure.

F. To provide maximum storage capacity during wet weather, the User shall monitor and properly maintain the level of water in the storage reservoir.

G. The Recycler shall immediately notify the Regional Board, by telephone, of any confirmed coliform counts that could cause violations of coliform requirements in this Order, including the date(s) thereof. This information shall be confirmed in a written report within five working days of verbal notification. In addition, for any actual coliform limit violations that occurred, the report shall also include the reasons for the high coliform results, the steps being taken to correct the problem (including dates thereof), and steps being taken to prevent a recurrence.

H. The Recycler and User shall take all reasonable steps to minimize or prevent any discharge that has a reasonable likelihood of adversely affecting human health or the environment.

I. Bypass (the intentional diversion of waste streams from any portion of a treatment facility) is prohibited. The Regional Board may take enforcement action against the Recycler for bypass unless:

1. Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage. (Severe property damage means substantial physical damage to property, damage to the treatment facilities that causes them to become inoperable, or substantial and permanent loss of natural resources

that can reasonably be expected to occur in the absence of bypass. Severe property damage does not mean economic loss caused by delays in the operation of the Reclamation Facility.);

2. There were no feasible alternatives to bypass, such as the use of auxiliary treatment facilities, retention of untreated waste, or maintenance during normal periods of equipment down time. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgement to prevent a bypass that could occur during normal periods of equipment downtime or preventive maintenance; and,

3. The Recycler submitted a written notice to the Regional Board for a bypass at least ten days in advance of the need for a bypass.

The Recycler may allow a bypass to occur that does not cause recycled water limitations to be exceeded, but only if it is for essential maintenance to ensure efficient operations. In such a case, the above bypass conditions are not applicable.

J. Any offsite disposal of sewage sludge shall be made only to a legal point of disposal, and in accordance with the provisions of Division 7.5 of the California Water Code. For the purpose of these requirements, a legal point of disposal is defined as one for which Waste Discharge Requirements have been established by a California Regional Water Quality Control Board, and which is in full compliance therewith. Any sewage or sludge handling shall be in such a manner so as to prevent its reaching surface waters or watercourses.

K. A revised Engineering Report which addresses the elements outlined in the CDHS *Guidelines for the Preparation of an Engineering Report for the Production, Distribution and Use of Recycled Water*, dated September 1997, shall be submitted to the CDHS and the Regional Board within 120 days of adoption of this Order. The report shall include an operation and maintenance manual that specifies operational monitoring to verify compliance with applicable ultraviolet disinfection criteria.

L. In accordance with Section 13522.5 of the California Water Code, and Title 22, Division 4, Chapter 3, Article 7, Section 60323, of the California Code of Regulations, the Recycler shall file an engineering report, prepared by a properly qualified engineer registered in California, of any material change or proposed change in character or volume of the recycled water produced, with the Regional Board and the CDHS. The CDHS *Guidelines for the Preparation of an Engineering Report for the Production, Distribution and Use of Recycled Water*, dated September 1997, or revised versions thereof, shall be followed. Revised Waste

Discharge Requirements and Water Recycling Requirements are required prior to implementation of such material change.

M. In accordance with Section 13522.5 of the California Water Code, and Title 22, Division 4, Chapter 3, Article 7, Section 60323, of the California Code of Regulations, the User shall file an engineering report, prepared by a properly qualified engineer registered in California, of any material change or proposed change in the location or volume of the recycled water used, with the Regional Board and the CDHS. The CDHS *Guidelines for the Preparation of an Engineering Report for the Production, Distribution and Use of Recycled Water*, dated September 1997, or revised versions thereof, shall be followed. Revised Waste Discharge Requirements and Water Recycling Requirements are required prior to implementation of such material change.

N. For any extension or expansion of the recycled water distribution system, the User shall submit a report detailing the extension or expansion for the approval of the Executive Officer and the CDHS Office of Drinking Water. Following construction, as-built drawings shall be submitted to the Executive Officer and the CDHS Drinking Water Field Operations Branch for approval prior to use of recycled water.

O. The Recycler or User must notify the Regional Board, in writing, at least 30 days in advance of any proposed transfer of this Order's responsibility and coverage to a new recycler or user. The notice must include a written agreement between the existing and new recycler or user, containing a specific date, for the transfer of responsibility for compliance with this Order.

P. The Recycle and/or User shall furnish, within a reasonable time, any information the Regional Board or the CDHS may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this Order. The Recycler and/or User shall also furnish to the Regional Board, upon request, copies of any records required to be kept by this Order.

Q. After notice and opportunity for a hearing, this Order may be terminated or modified for cause, including, but not limited to:

1. Violation of any term or condition contained in this Order;

2. Obtaining this Order by misrepresentation, or failure to disclose all relevant facts; and,

3. A change in any condition that requires either a temporary or permanent reduction or elimination of the authorized discharge.

R. This Order does not alleviate the responsibility of the Recycler or User to obtain other necessary local, state, and federal permits to construct facilities necessary for compliance with this Order; nor does this Order prevent imposition of additional standards, requirements, or conditions by any other regulatory agency. Expansion of the facility from its current capacity shall be contingent upon issuance of all necessary permits, including a Conditional Use Permit.

VII. RESCISSION

Except for enforcement purposes, Order No. 94-056, adopted by this Board on June 13, 1994, is hereby rescinded.

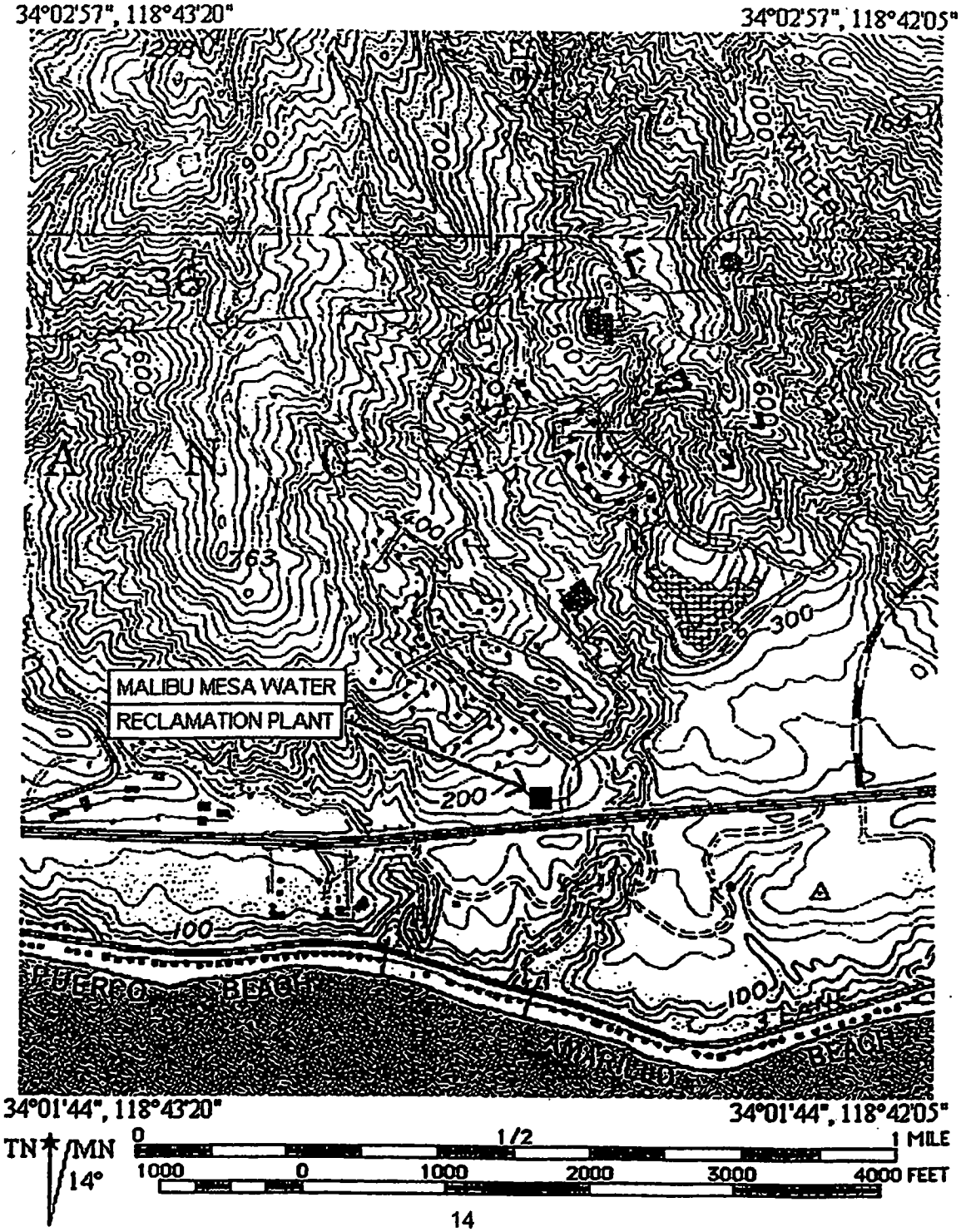
VIII. APPEAL OF ORDER

Pursuant to California Water Code Section 13320, any aggrieved party may seek review of this Order by filing a petition with the State Board. A petition must be sent to the State Water Resources Control Board, P.O. Box 100, 901 P Street, Sacramento, California, 95812, within 30 days of adoption of this Order.

I, Dennis A. Dickerson, Executive Officer, do hereby certify that the foregoing is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, Los Angeles Region, on November 9, 2000.

Dennis A. Dickerson
Executive Officer

FIGURE 1


34°02'57", 118°43'20"
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MALIBU MESA WATER
RECLAMATION PLANT
34°01'44", 118°43'20"
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4000 FEET

14

FIGURE 2

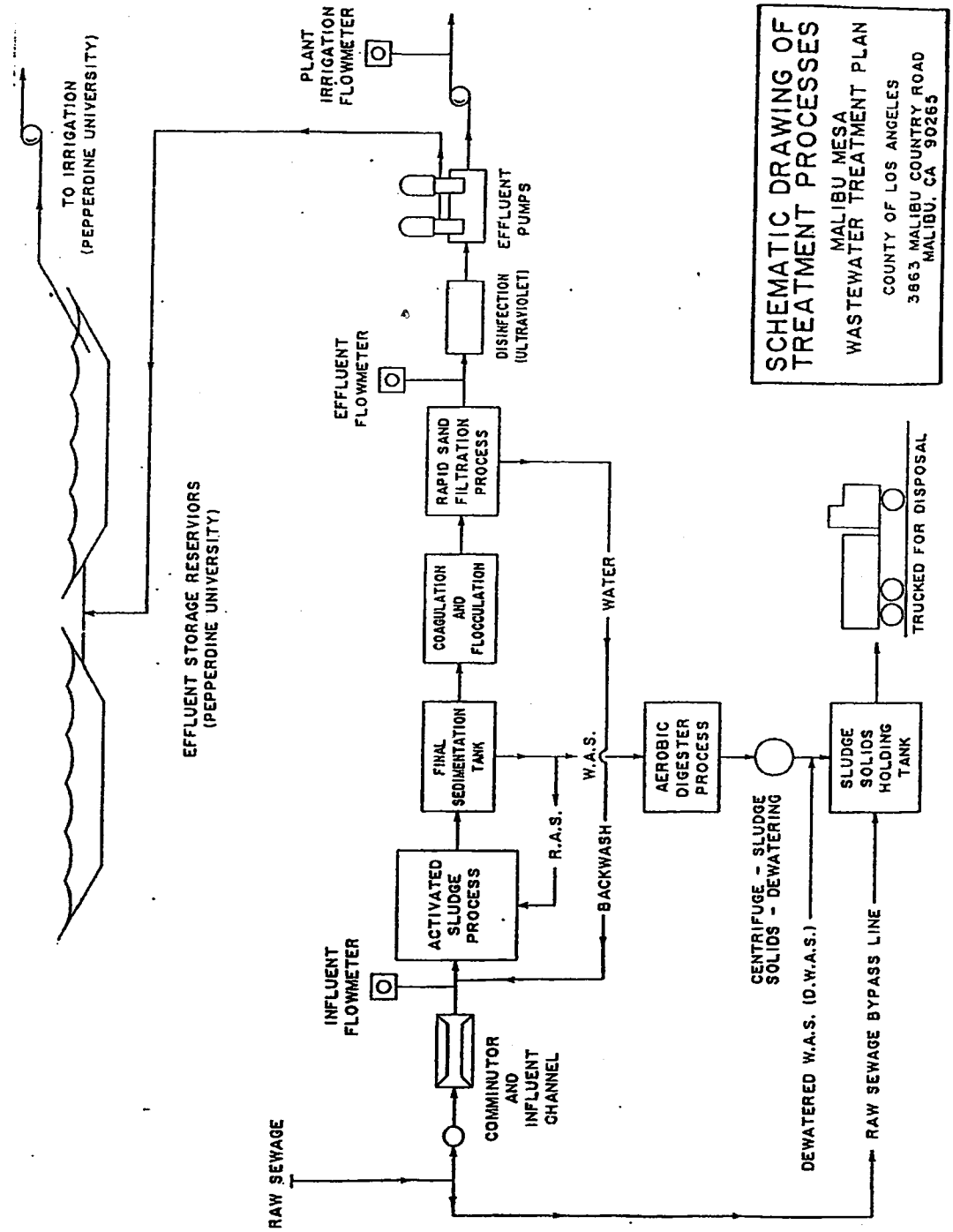
SCHEMATIC DRAWING OF TREATMENT PROCESSES
MALIBU MESA WASTEWATER TREATMENT PLAN
COUNTY OF LOS ANGELES
3863 MALIBU COUNTRY ROAD
MALIBU, CA 90265
TO IRRIGATION (PEPPERDINE UNIVERSITY)
PLANT IRRIGATION FLOWMETER
EFFLUENT PUMPS
DISINFECTION (ULTRAVIOLET)
EFFLUENT FLOWMETER
RAPID SAND FILTRATION PROCESS
COAGULATION AND FLOCCULATION
FINAL SEDIMENTATION TANK
ACTIVATED SLUDGE PROCESS
INFLUENT FLOWMETER
COMMINUTOR AND INFLUENT CHANNEL
RAW SEWAGE
EFFLUENT STORAGE RESERVIORS (PEPPERDINE UNIVERSITY)
R.A.S.
W.A.S.
BACKWASH
WATER
AEROBIC DIGESTER PROCESS
CENTRIFUGE - SLUDGE SOLIDS - DEWATERING
DEWATERED W.A.S. (D.W.A.S.)
SLUDGE SOLIDS HOLDING TANK
TRUCKED FOR DISPOSAL
RAW SEWAGE BYPASS LINE

FIGURE 3

State of California
CALIFORNIA REGIONAL WATER QUALITY CONTROL
BOARD, LOS ANGELES

ORDER NO. 94-055

State of California
CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD, LOS ANGELES

ORDER NO. 94-055

WASTE DISCHARGE REQUIREMENTS
WATER RECLAMATION REQUIREMENTS
FOR
LAS VIRGENES MUNICIPAL WATER DISTRICT
AND
PEPPERDINE UNIVERSITY, MALIBU CAMPUS
(Tapia Water Reclamation Facility)
(Files Nos. 64-104 & 70-060)

The California Regional Water Quality Control Board, Los Angeles Region, Finds:

1. The Las Virgenes Municipal Water District (Reclaimer) operates Tapia Water Reclamation Facility (Plant), located at 731 Malibu Road, Calabasas, California (Figure 1). The treatment plant has a design capacity of 16.1 million gallons per day (mgd). During 1993, the Reclaimer produced an average of 4.4 mgd of tertiary treated effluent for reclamation by spray landscape irrigation, agriculture, and industrial use under separate Waste Discharge Requirements contained in Orders Nos. 79-35, 79-107, 87-86 and 89-76 (File No. 64-104) adopted by this Regional Board on February 26, 1979, June 25, 1979, June 22, 1987, and February 25, 1989, respectively.

2. Pepperdine University (User) uses reclaimed water produced by the Reclaimer for landscape irrigation. The amount of reclaimed used supports approximately 60 of the 830 acres of the Pepperdine University - Malibu Campus, located at 24255 Pacific Coast Highway, Malibu, California, under Water Reclamation Requirements contained in Order No. 86-97, adopted by this Regional Board on November 24, 1986.

3. The User also receives reclaimed water produced at the Malibu Mesa Wastewater Treatment Facility operated by the County of Los Angeles - Department of Public Works, Engineering Services Division under separate Waste Discharge Requirements/Water Reclamation Requirements contained in Order No. 86-38, adopted by this Regional Board on June 23, 1986.

4. The California Water Code Section 13263(e) provides that all requirements shall be reviewed periodically, and, upon such review, may be revised by the Regional Board. A review of the current requirements, followed by a site inspection, was conducted by Regional Board staff and no violations were observed.

May 11, 1994

These Waste Discharge Requirements/Water Reclamation Requirements have been revised to include additional findings, effluent limitations, updated standard provisions, and an expanded monitoring and reporting program.

5. The Reclaimer operates a tertiary wastewater treatment plant in order to provide an effluent that complies with all Title 22 Water Reclamation Requirements.

6. The treatment plant is located in Section 19, T1S, R17W, San Bernardino Base & Meridian at latitude 34° 4' 37", longitude 118° 42' 15". The landscape irrigation areas are generally located in Section 30, T1S, R17W, at the approximate latitude 34° 2' 31" and longitude 118° 42' 33".

7. The wastewater treatment process consists of primary, secondary, and tertiary treatment. Primary treatment includes coarse screening, grit removal, and primary skimming and sedimentation using rectangular clarifiers. Secondary treatment employs activated sludge with single-stage nitrification followed by secondary clarification. Tertiary treatment includes the use of coagulation chemicals, flocculating, filtering, chlorination and de-chlorination. Sludge from the primary and secondary clarifiers is treated by anaerobic digestion, then dried in sludge drying beds at the Plant. The sludge is either transported to a landfill for disposal or composted and used for landscape soil amendment.

8. Prior to use for landscape irrigation, reclaimed water is stored in landscaped holding ponds with a combined storage capacity of approximately 12.4 million gallons. Reclaimed water is then pumped to a 10,000 gallon below-ground storage tank, that provides for gravity flow to the landscape irrigation systems.

9. The amount of reclaimed water used for landscape irrigation varies with demand, up to 300,000 gallons per day (gpd). Approximately 70% of the reclaimed water used is produced at the Malibu Mesa Wastewater Treatment Facility, and 30% is produced at the Las Virgenes Municipal Water District, Tapia Water Reclamation Facility. At times, 100% of the reclaimed water is supplied by Malibu Mesa Wastewater Treatment Facility.

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10. Section 13523 of the California Water Code provides that a Regional Board, after consulting with, and receiving the recommendations of the State Department of Health Services, and after any necessary hearing, shall, if it determines such action to be necessary to protect the public health, safety, or welfare, prescribe Waste Discharge Requirements/Water Reclamation Requirements for water which is used, or proposed to be used, as reclaimed water.

    Section 13523 further provides that such requirements shall include, or be in conformance with, the statewide reclamation criteria.

11. The Regional Board has consulted with the State Department of Health Services (DHS) regarding the current reclamation of tertiary-treated wastewater, and has incorporated the DHS findings and recommendations.

12. The use of reclaimed water for surface impoundments or for landscape irrigation could affect the public health, safety, or welfare; requirements for such use are therefore necessary in accordance with Section 13523 of the California Water Code.

13. The Plant is located within the Monte Nido Hydrologic Subarea of the Malibu Creek Hydrologic Area. The Users storage ponds and landscape irrigation areas are located within the Corral Canyon Hydrologic Subarea of the Point Dume Hydrologic Area, and overlies the Malibu Valley Groundwater Basin.

14. Groundwater in the Malibu Valley Groundwater Basin is beneficially used for agricultural supply.

15. The Board adopted revised Water Quality Control Plan for the Los Angeles River Basin on June 3, 1991. The Water Quality Control Plan contains beneficial uses and water quality objectives for groundwater within the Malibu Valley Groundwater Basin. The requirements contained in this Order, as they are met, will be in conformance with the goals and objectives of the Water Quality Control Plan.

16. This project involves an existing facility, and, as such, is exempt from the provisions of the California Environmental Quality Act (Public Resources Code, Section 2100 et seq.) in accordance with Title 14, California Code of Regulations, Chapter 3, Section 15301.

The Regional Board has notified the Reclaimer, User and interested agencies and persons of its intent to revise Waste Discharge Requirements/Water Reclamation Requirements for this discharge and has provided them with an opportunity to submit their written views and recommendations.

The Regional Board, in a public meeting, heard and considered all comments pertaining to the discharge and to the updated requirements.

IT IS HEREBY ORDERED that Las Virgenes Municipal Water District and Pepperdine University, Malibu Campus, shall comply with the following:

A. EFFLUENT LIMITATIONS

1. Reclaimed water shall be limited to treated domestic and commercial wastewater only, as proposed.

2. Waste discharge shall not contain constituents in excess of the following limits:

Constituent	Unit	Maximum Effluent Limitations
Total dissolved solid	mg/L	2,000
Chloride	mg/L	500
Sulfate	mg/L	500
Boron	mg/L	2
BOD_5 20°C	mg/L	30
Oil & grease	mg/L	15
Suspended solids	mg/L	30
Total organic carbon	mg/L	20

3. The pH of reclaimed water shall at all times be within the range of 6.5 to 8.5 pH units.

4. Reclaimed water shall not contain heavy metals, arsenic, or cyanide in concentrations exceeding the limits contained in the current California Drinking Water Standards.

5. Radioactivity shall not exceed the limits specified in Title 22, California Code of Regulations, Chapter 15, Article 5, Sections 64441 and 64443, or subsequent revisions.

B. SPECIFICATIONS FOR USE OF RECLAIMED WATER

1. Reclaimed water used for the irrigation of parks, playgrounds, schoolyards, and other areas where the public has similar access or exposure shall be at all times an adequately disinfected, oxidized, coagulated, clarified, filtered wastewater or wastewater treated by a sequence of unit processes that will ensure an equivalent degree of treatment and reliability.

The wastewater shall be considered adequately disinfected if the 7-day median number of coliform organisms in the effluent does not exceed 2 per 100 milliliters, as determined from the bacteriological results of the last 7-days for which analyses have been completed, and the number of coliform organisms does not exceed 23 per 100 milliliters in any sample.

An oxidized wastewater means wastewater in which the organic matter has been stabilized, is nonputrescible, and contains dissolved oxygen. For the purpose of these requirements, an oxidized wastewater shall be equivalent to secondary effluent with the following characteristics:

(a) a biological oxygen demand, BOD_5 20°C, value of less than 30 mg/L;

(b) a suspended solids (SS) content of less than 30 mg/L; and

(c) total organic carbon (TOC) value of less than 20 mg/L.

A coagulated wastewater means an oxidized wastewater in which colloidal and finely divided suspended matter have been destabilized and agglomerated by the addition of suitable floc-forming chemicals or by an equally effective method.

A filtered wastewater means an oxidized, coagulated, clarified wastewater which has been passed through natural undisturbed soils or filter media, such as sand or diatomaceous earth, so that the turbidity as determined by an approved laboratory method does not exceed an average operating turbidity of 2 turbidity units and does not exceed 5 turbidity units more than 5 percent of the time during any 24-hours period.

2. Reclaimed water shall not be directly used for uses other than those enumerated above until requirements for these uses have been established by this Regional Board, in accordance with Section 13523 of the California Water Code, unless the Regional Board waives such requirements or finds that the above cited standards are applicable to these uses.

3. Reclaimed water uses shall meet the requirements specified in the "Guidelines for Use of Reclaimed Water" issued by the State Department of Health Services.

4. Reclaimed water used for irrigation shall be retained on the areas of use and shall not be allowed to escape as surface flow, except as provided for in a National Pollutant Discharge Elimination System (NPDES) Permit.

   For the purpose of this requirement, however, minor amounts of irrigation return water from peripheral areas shall not be considered a violation of this Order.

5. Reclaimed water shall be applied at such a rate and volume as not to exceed vegetative demand and soil moisture conditions. Special precautions must be taken to prevent clogging of spray nozzles, to prevent over-watering and to exclude the production of runoff. Pipelines shall be maintained so as to prevent leakage.

6. Reclaimed water used for irrigation shall not be allowed to run off into recreational lakes unless it meets the criteria for such lakes.

7. Reclaimed water shall not be used for irrigation within 150 feet of any water well or mineral spring.

8. At locations within the facility, along the perimeter, at points of access to the area where reclaimed water is used, signs shall be posted with the following warning: "ATTENTION: RECLAIMED WASTEWATER—AVOID CONTACT - DO NOT DRINK".

C. GENERAL REQUIREMENTS

1. The discharge or use of raw or inadequately treated sewage at any time is prohibited.

2. Reclaimed water shall not be used for irrigation during periods of extreme rainfall and/or runoff.

3. Standby or emergency power facilities and/or sufficient capacity shall be provided for reclaimed water storage during rainfall or in the event of plant upsets or outages, and at times when spray irrigation cannot be practiced.

4. Reclaimed water use or disposal shall not result in earth movement in geologically unstable areas.

5. Adequate facilities shall be provided to protect the sewage treatment and reclamation facilities from damage by storm flows and runoff.

6. Adequate freeboard shall be maintained in the reclaimed water holding pond to ensure that direct rainfall will not cause overtopping.

7. Neither treatment of waste nor any reclaimed water use or disposal shall cause pollution or nuisance.

8. Water reclamation and reuse or disposal shall not result in problems due to breeding of mosquitoes, gnats, midges, or other pests.

9. Reclaimed water use or disposal shall not impart tastes, odors, color, foaming, or other objectionable characteristics to receiving groundwater.

10. Reclaimed water use or disposal, which could affect receiving groundwater, shall not contain any substance in concentrations toxic to human, animal, or plant life.

11. Odors of sewage origin shall not be perceivable beyond the limits of the property owned or controlled by the Reclaimer.

12. At a minimum, a certified Grade IV Wastewater Treatment Plant Operator shall inspect the treatment plant, on a weekly basis, to ensure that the treatment processes are working properly, and that the plant effluent wastewaters are in compliance with this Order.

D. PROVISIONS

1. A copy of these requirements shall be maintained at the reclamation and discharge facilities so as to be available at all times to operating personnel.

2. In accordance with Section 13522.5 of the California Water Code, and Section 60323 of the Wastewater Reclamation Criteria, the Reclaimer shall file an engineering report, prepared by a properly qualified engineer registered in California, of any material change or proposed change in character, location or volume of the reclaimed water or its uses to the Regional Board and to the State Department of Health Services.

3. The Reclaimer and User shall file with the Board technical reports on self-monitoring work performed according to the detailed specifications contained in the Monitoring and Reporting Program, as directed by the Executive Officer.

   The results of any monitoring done more frequently than required at the locations and/or times specified in the Monitoring and Reporting Program shall be reported to the Regional Board.

4. The Reclaimer and User shall notify this Board, by telephone within 24 hours, of any violations of reclaimed water use conditions or any adverse conditions as a result of the use of reclaimed water from this facility; written confirmation shall follow within one week.

5. The Reclaimer and User shall notify Board staff, by telephone, immediately, of any confirmed coliform counts that could cause a violation of the Waste Discharge Requirements, including the date(s) thereof. This information shall be confirmed in the next monitoring report; in addition, for any actual coliform limit violations that occurred, the report shall also include the reasons for the high coliform results, the steps being taken to correct the problem (including dates thereof), and steps been taken to prevent a recurrence.

6. These requirements do not exempt the Reclaimer and/or User from compliance with any other laws, regulations, or ordinances which may be applicable; they do not legalize this reclamation and discharge facilities, and they leave unaffected any further constraint on the use of reclaimed water at this site which may be contained in other statutes or required by other agencies.

7. The Reclaimer shall be responsible to ensure that all users of reclaimed water comply with the specifications and requirements for such use.

8. This Order does not alleviate the responsibility of the Reclaimer or User to obtain other necessary local, state, and federal permits to construct facilities necessary for compliance with this Order; nor does this Order prevent imposition of additional standards, requirements, or conditions by any other regulatory agency. Expansion of this facility from its current capacity shall be contingent upon issuance of all necessary permits, including a Conditional Use Permit.

9. For any extension or expansion of the reclaimed water discharge system, the User shall submit a report detailing the extension or expansion for the approval of the Executive Officer. Following construction, as-built drawings shall be submitted to the Executive Officer for approval prior to use of reclaimed water.

10. The Reclaimer shall submit to the Regional Board, within 60 days of the adoption of this Order, procedures that will be (or have been) taken to ensure that discharge of untreated sewage from the treatment facility, in the event of equipment failure, will not occur.

11. Raw sewage or partially dried waste sludge shall not be sprayed on ground surface.

12. Any offsite disposal of sewage sludge shall be made only to a legal point of disposal, and in accordance with provisions of Division 7.5 of the California Water Code. For the purpose of these requirements, a legal point of disposal is defined as one for which Waste Discharge Requirements have been established by a California Regional Water Quality Control Board, and is in full compliance therewith.

13. Any discharge of reclaimed water at any point(s) other than specifically described in this Order is prohibited, and constitutes a violation of the Order.

14. After notice and opportunity for a hearing, this Order may be terminated or modified for cause, including, but not limited to:

    (a) Violation of any term or condition contained in this Order;

    (b) Obtaining this Order by misrepresentation, or failure to disclose all relevant facts;

    (c) A change in any condition that requires either a temporary or permanent reduction or elimination of the authorized discharge.

15. The Reclaimer and User shall furnish, within a reasonable time, any information the Regional Board may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this Order. The Reclaimer and User shall also furnish to the Regional Board, upon request, copies of records required to be kept by this Order.

16. The Reclaimer and User shall take all reasonable steps to minimize or prevent any discharge that has a reasonable likelihood of adversely affecting human health or the environment.

17. Bypass (the intentional diversion of waste streams from any portion of a treatment facility) is prohibited. The Regional Board may take enforcement action against the Reclaimer for bypass unless:

    (a) Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage. (Severe property damage means substantial physical damage to property, damage to the treatment facilities that causes them to become inoperable, or substantial and permanent loss of natural resources that can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.);

    (b) There were no feasible alternatives to bypass, such as the use of auxiliary treatment facilities, retention of untreated waste, or maintenance during normal periods of equipment down time. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass that could occur during normal periods of equipment downtime or preventive maintenance; and

    (c) The Reclaimer submitted a notice at least ten days in advance of the need for a bypass to the Regional Board.

    The Reclaimer may allow a bypass to occur that does not cause reclaimed water limitations to be exceeded, but only if it is for essential maintenance to ensure efficient operation. In such a case, the above bypass conditions are not applicable.

18. The Reclaimer and User shall establish a responsible party to comply with this Order and the monitoring and reporting program. This information shall be provided to the Board at least 30 days of receiving this Order.

    Thereafter, the responsible party must notify the Board, in writing, at least 30 days in advance of any proposed transfer of this Order's responsibility and coverage to a new Reclaimer and/or User. The notice must include a written agreement between the existing and new Reclaimer containing a specific date for the transfer of responsibility under this Order and compliance between the current and new Reclaimer and/or User.

19. This Order includes "Standard Provisions Applicable to Waste Discharge Requirements". If there is any conflict between provisions stated herein and the "Standard Provisions Applicable to Waste Discharge Requirements", these provisions stated herein will prevail.

E. RESCISSION

Order No. 86-97, adopted by this Board on November 24, 1986, is hereby rescinded.

I, Robert P. Ghirelli, Executive Officer, do hereby certify that the foregoing is a full, true, and correct copy of a revised Order adopted by the California Regional Water Quality Control Board, Los Angeles Region, on June 13, 1994.

Robert P. Ghirelli

ROBERT P. GHIRELLI, D.Env.
Executive Officer

/MB

Attachment B

October 8, 2009

Rhiannon Bailard
Assistant Vice President, Governmental & Regulatory Affairs
Director, Center for Sustainability
Pepperdine University
24255 Pacific Coast Highway
Malibu, California 90263

Re: Response to RWQCB Resolution R4-2009-XX;
Proposed Amendment to the Water Quality Control Plan for the Coastal Watersheds of Ventura and Los Angeles Counties to Prohibit On-Site Wastewater Disposal Systems in the Malibu Civic Center Area

Dear Ms. Bailard:

Daniel B. Stephens & Associates, Inc. (DBS&A) has reviewed the Regional Water Quality Control Board (RWQCB) proposed amendment to the *Water Quality Control Plan for the Coastal Watersheds of Ventura and Los Angeles Counties* to prohibit on-site wastewater disposal systems in the Malibu Civic Center area. We have also reviewed the supporting technical memoranda, and the *Risk Assessment of Decentralized Wastewater Treatment Systems in High Priority Areas in the City of Malibu, California* by Stone Environmental, Inc (SEI) (2004), which serves as the technical basis for much of the proposed amendment.

Personal and Company Background

I am a Principal Hydrogeologist and Senior Vice President with DBS&A in Goleta, California (see attached résumé for in-depth professional and technical background). DBS&A has conducted technical aspects of the University's Hydrogeologic Monitoring Program (HMP) since the year 2000. The HMP was initiated in late 1987 with the objective of guiding and ensuring responsible and efficient water use that has no adverse effect on Pepperdine University's Malibu campus or the surrounding environment. With the goal of monitoring and documenting water use on campus, the HMP prescribes monitoring of precipitation, irrigation, runoff, evapotranspiration, soil moisture content, and shallow and deep groundwater elevations. Data on individual parameters that effect campus irrigation are regularly collected on hourly to monthly intervals (depending on the parameter). The data are synthesized and reported on a semiannual basis to the Los Angeles RWQCB.

Comments to RWQCB Resolution R4-2009-XX

Based on the findings of SEI (2004) and the results of Pepperdine's HMP, we find it unlikely that the University is contributing to the water quality degradation found in the Civic Center area. The basis for this opinion is provided below.

Daniel B. Stephens & Associates, Inc.
5951 Encina Rd., Suite 208 805 683-2409
Goleta, CA 93117 FAX 805 683-2419

Reason 1

The University irrigates with tertiary-treated effluent ("recycled water" under Title 22, California Code of Regulations) that is received from either Malibu Mesa or Tapia Treatment Plants. Recycled water does not pose the water quality threat of septic systems or other raw-sewage disposal systems. For example, recycled water discharged from Malibu Mesa to Pepperdine is required by RWQCB Order No. RS-2007-0002 to contain less than 10 milligrams per liter (mg/L) of nitrogen (nitrate + nitrite).

Reason 2

Recycled water is applied to vegetated portions of campus only. Travel through the root zone is known to decrease levels of nutrients by plant uptake.

Reason 3

Recycled water is applied to areas that lie between approximately 28 and 100 feet above the closest water table. Percolation through a thick vadose zone is known to decrease levels of pathogens.

Reason 4

Groundwater beneath the Pepperdine Campus flows either south through Winter Mesa toward the Pacific Ocean, or southeast, through Alluvium in Winter Canyon. SEI found that travel times from Pepperdine to the Pacific Ocean through Winter Canyon Alluvium are on the order of 10 to 30 years. Groundwater travel times across Winter Mesa are unknown, but they are likely to be similar because the distance, hydraulic gradient, and geologic materials are all similar to those found in the Winter Canyon flow path. It is very unlikely that pathogens and nutrients found at the low levels that exist in recycled water would remain after 10 to 30 years.

Reason 5

The Pepperdine HMP performs campus-wide monitoring of recycled water use through a combination of water metering, climate monitoring, soil moisture measurements, groundwater level measurements, and water balance modeling. The intention of the HMP is to ensure that irrigation is conducted in a manner that avoids, to the maximum extent possible, any contribution of irrigation water to the groundwater system underlying the University. Pepperdine Irrigation Services Staff use HMP data to guide irrigation practices and to help ensure that no more water is added to the vegetation than is required for their health and to meet water consumptive use requirements driven by vegetation evapotranspiration.

Reason 6

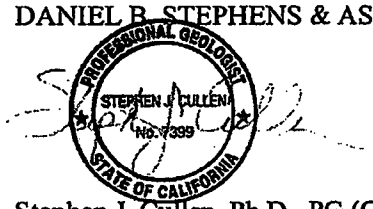
Historical groundwater elevation data from the HMP indicate that groundwater elevations are inversely related to irrigation and directly related to precipitation; water levels generally decrease during the high irrigation summer months and increase during the low irrigation (and high precipitation) winter months.

In summary, due to the relatively high quality of water used for irrigation, plant nutrient uptake, thick vadose zone, long groundwater travel times, and lack of groundwater level response to

irrigation, we find it unlikely that Pepperdine is adversely impacting water quality in the Civic Center area.

Sincerely,

DANIEL B. STEPHENS & ASSOCIATES, INC.



Stephen J. Cullen, Ph.D., PG (CA)
Senior Vice President

SJC/rpf
Attachment

Stephen J. Cullen, PhD, PG (CA), REA II, CPSS, CEM (NV)

Specialization

Dr. Cullen is a Principal Hydrogeologist with the firm with over 30 years experience. Areas of expertise include hydrocarbon and halocarbon site investigations, contaminant source identification, hazardous and solid waste landfill investigations and monitoring systems, metals and radionuclide investigations, land disposal of biosolids and sewage effluent, vadose zone and groundwater flow and transport modeling, land treatment facilities, intrinsic bioremediation as well as active approaches to soil and groundwater remediation. Expert opinions and testimony: resolution of a wide range of groundwater and vadose zone characterization, monitoring, and remediation problems.

Academic Degrees

Ph.D., Geography, University of California at Santa Barbara, 1996
Dissertation title: Field and Laboratory Investigations of Contaminant Natural Attenuation and Intrinsic Remediation in Soils and the Vadose Zone

M.Sc., Soil Physics, Montana State University, 1981

B.Sc., Soil Science and Hydrology, University of California at Davis, 1977

Professional Registration

California Professional Geologist, No. 7399

California Registered Environmental Assessor – Level II, REA II- No. 20107

Certified Environmental Manager, State of Nevada, No. 1839

Certified Professional Soil Scientist, Reg. No. 03169, ARCPACS

Registered Nuclear Soil Water and Density Gauges, CPN No.19336

Representative Professional Assignments

- ***Expert Panel Member, Single-Shell Tank Integrity Program (SSTIP), U.S. Department of Energy Facility at Hanford, Washington.*** Sits on panel of experts tasked with providing leak integrity and structural integrity recommendations to guide implementation of an enhanced SSTIP for the River Protection Project. The SSTs at Hanford have been used to store up to 56 million gallons of high-level radioactive waste until future site closure is implemented. Dr. Cullen provides expertise on soils and the vadose zone.

- ***Principal Hydrogeologist, Investigation of Historic Sources of Arsenic, Basic Remediation, Inc., Henderson, Nevada:*** Reviewed and assessed the site data, along with historical and current site conditions, to determine if the presence of arsenic is anthropogenic or naturally occurring. Evaluated site geology (including pedogenic, hydrogeologic and geochemical site conditions), summarized and evaluated site use history (including potential anthropogenic sources and potential arsenic mobilization and/or accumulation mechanisms), and conducted supplemental sampling and lab analyses.

- ***Principal Hydrogeologist, Investigation of Sulfometuron methyl pesticide (SM) movement in rangeland soils, farm plaintiff group, Southeastern Idaho.*** Evaluated the subsurface environmental fate of SM after aerial application to rangeland. Conducted vadose zone flow and transport modeling using Hydrus-1D to simulate the movement of water and contaminant in the subsurface. Evaluated effect of farm tillage and irrigation on SM leaching. Wrote expert rebuttal reports, gave expert deposition testimony, and provided expert testimony in federal court.

Stephen J. Cullen, PhD, PG (CA), REA II, CPSS, CEM (NV)

Representative Professional Assignments Continued

- ***Principal Hydrogeologist, Investigation of Historic Sources of Solvent Releases, Crown City Plating Company, El Monte, California.*** Provided historical review and evaluation of soil, soil vapor, and groundwater data to determine the location and timing of solvent releases relative to insurance coverage in place during the period of operational activity. Provided consultation and expert trial testimony.

- ***Principal Hydrogeologist, Wastewater Holding Pond Evaluation, Confidential Wastewater Agency, CA.*** Evaluated the integrity of wastewater pond liners; evaluate potential impacts of pond effluent on vicinity water production wells; development of monitoring program to evaluate groundwater quality over time; reporting and consultation with staff and Board of Directors.

- ***Principal Hydrogeologist, CERCLA-compliant Hydrogeologic Characterization, Magnesium Processing and Chemical Production and Distribution Effluent Disposal Facility, Basic Management, Inc., Henderson, Nevada***: Lead hydrogeologist for program to characterize impacted soil and groundwater on a 2,332-acre redevelopment site including: Interpretation of geologic, soil, groundwater, hydrologic, chemical, and geotechnical data to support the description of the conceptual site model; design and oversight of intrusive field investigation utilizing multiple drilling techniques; characterization of multiple aquifers; development of site-specific soil background concentrations for metals (including arsenic) and radiochemicals; design and oversight of an aquifer testing and soil hydraulic testing program; manage development and QA of analytic and numerical groundwater flow and contaminant fate and transport models; participation in public accountability meetings with technical, legal, and public representatives of State, County, and City governments, other potentially responsible parties, and the local citizen Remediation Advisory Board; database and GIS development and support. Site Closure Plan approved by NDEP.

- ***Principal Hydrogeologist, CERCLA-compliant Hydrogeologic Characterization, Corrective Action Management Unit (CAMU), Basic Management, Inc., Henderson, Nevada***: Lead hydrogeologist for program to characterize impacted soil and groundwater in support of permitting of a 114-acre CAMU proposed to receive waste soils resulting from remediation of a nearby redevelopment site. Work included: Interpretation of geologic, soil, groundwater, hydrologic, chemical, and geotechnical data to support the description and reporting of the hydrogeologic conceptual site model; design and oversight of intrusive field investigation utilizing multiple drilling techniques; characterization of multiple aquifers; development of site-specific soil background concentrations for metals (including arsenic) and radiochemicals; fate and transport analysis of Site and Off-Site impacts; review and analysis of Groundwater Treatment system performance; participation in public accountability meetings with technical, legal, and public representatives of State, County, and City governments, other potentially responsible parties, and the local citizen Remediation Advisory Board; database and GIS development and support.

- ***Principal Hydrogeologist, remediation of lead-impacted soils, Havlik Group, Santa Barbara, CA:*** Site investigation, regulatory negotiations, risk assessment, statistical analysis, groundwater monitoring, fate and transport analysis, remedial action plan developed to conduct hot spot excavation beneath existing structure.

- ***Principal Hydrogeologist, remedial alternatives evaluation of VOC-impacted soils, Confidential Client, Richmond, CA.*** Evaluation of the technical and financial feasibility of conducting 1) In-Situ Thermal Desorption (ISTD) and 2) Excavation with Off-Site Disposal to remediate chlorinated hydrocarbons at a site adjacent to the San Francisco Bay ("bay muds") and slated for redevelopment. Tasks included: current and historical geologic/hydrogeologic data evaluation; calculation of seepage velocity; evaluation of the presence of DNAPL; evaluate compliance with CERCLA and the National Contingency Plan (NCP); remedial cost estimation and evaluation; estimation of remedial volumes and removed

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Representative Professional Assignments Continued

groundwater; evaluate remedial performance monitoring alternatives; evaluate compliance with Regional Water Quality Control Board orders. Settlement achieved, and the Site is undergoing redevelopment.

- ***Principal Hydrogeologist, RI/FS Remedial Alternatives, Operable Unit No. 2, Confidential Client, Brown & Bryant Superfund Site, Arvin, California.*** Evaluation and comment as to the technical and financial feasibility of conducting Pump and Treat in a shallow aquifer, Monitored Natural Attenuation (MNA) in a deeper aquifer, and removal of a deep municipal supply well as a mean of remediation and prevention of exposure to chloroform, 1,2-DBCP, 1,2-DCP, 1,3-DCP, Dinoseb, EDB, and 1,2,3-TCP. Task included: remedial cost evaluation; historic geologic/hydrogeologic data evaluation; municipal well abandonment protocols evaluation and recommendation; surface cap effectiveness evaluation; surface runoff evaluation; fate and transport analysis. Comments submitted to EPA on behalf of client.

- ***Chlorinated Hydrocarbon Site Characterization, Remediation, and cost evaluation, Confidential Client Aerospace Manufacturer, Santa Ana, California.*** Evaluated historical environmental sampling data and interpreted fate and transport of site constituents at a former electronics and aerospace manufacturing facility operational since 1959; researched historical regulatory & commercial documents to interpret use of chemicals at site; evaluated site characterization data to adequacy as the basis for remedial cost estimation; prepared remedial action plan that proposed enhanced bioremediation of PCE, TCE, Freon-113 and related breakdown products; provided an federal court expert opinion report and deposition testimony; directed groundwater flow (MODFLOW96) and PCE transport (MT3DMS) modeling (GWVISTAS pre/post processor) to quantify PCE travel time to the supply well perforations under various assumed hydraulic conditions; client achieve favorable settlement.

- ***Principal Hydrogeologist, basin-scale perchlorate groundwater investigation, Confidential Client:*** Basin-scale groundwater investigation, vadose zone source identification, forensic data analysis, flow and transport analysis, source identification, remediation alternatives study, regulatory negotiation, client consultation.

- ***Principal Hydrogeologist, former illegal methamphetamine lab, Solvang, CA:*** Forensic data analysis, regulatory negotiation, assisted client with closeout of regulatory case file. Residential redevelopment proceeded.

- ***Technical Specialist, CERCLA remedial investigation, Pantex Plant, Carson County, Texas, Department of Energy:*** Feasibility study and implementation, conceptual site model development, design, test and implement soil vapor extraction system for chlorinated hydrocarbon soil impacts. Remediation O&M ongoing.

- ***Technical Specialist, design and implementation of innovative in-situ TCE remediation, Garden Plaza, Santa Barbara, California:*** In-situ remediation of tetrachloroethene via electron donor injection in a guaranteed-price remediation program in support of Site redevelopment. Site closure granted by Regional Water Quality Control Board and site is redeveloped as retail shopping center.

- ***Technical Specialist, innovative reduction of ammonia IDLH health and safety hazard, Equilon Lube Plant, Carson, California:*** Designed in-situ vadose zone remediation via hydrolysis used to induce transformation of the ammonia gas to the nongaseous ammonium at an industrial redevelopment site. Ammonium was oxidized to nitrate that subsequently served as electron acceptor for biodegradation of benzene in underlying groundwater. IDLH conditions removed such that Level D excavation and redevelopment activities proceeded.

- ***Principal Hydrogeologist, Texaco Exploration and Production, Inc., Santa Maria California:*** Site Characterization, Feasibility Study, Remedial Action Plan, Statistical Sampling Design and Analysis,

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Modeling, Expert Testimony, Oilfield Restoration. Site closure and redevelopment achieved. Jury verdict rendered. Trial defense named one of the Top 20 Defense Cases in 2002 by the National Law Journal.

- ***Principal Project Hydrogeologist, Chlorinated Hydrocarbons, Aerospace and Electronics manufacturing, Litton Industries, Santa Clara, California***: Forensic Data Evaluation, Fate and Transport Analysis, expert testimony. Settlement achieved.
- ***Principal Hydrogeologist, Chlorinated Hydrocarbons, Norvell Bass Dry Cleaner, Santa Barbara, California***: Site Characterization, Remedial Design Development, Cost Allocation, Expert Testimony. Settlement achieved. Site is currently undergoing redevelopment.
- ***Principal Hydrogeologist, Chlorinated Hydrocarbons, Aerospace Manufacturing Facility, Rockwell Collins, Santa Ana, California***: Site Characterization, Forensic Data Evaluation, Remedial Design Development, Remedial Action Plan, Remedial Cost Estimation, Expert Testimony at redeveloped industrial site. Settlement achieved.
- ***Principal Project Hydrogeologist, Hydrogeologic Site Characterization, Confidential Client, Santa Barbara, California***: Evaluation of conditions conducive to Mold Invasion in a coastal multi-unit dwelling, hydrogeologic assessment, aerial photo evaluation, calculation of water vapor flux through concrete, Expert Testimony. Judgment verdict rendered.
- ***Principal Project Hydrogeologist, Chlorinated Hydrocarbons, Law Office of DeLoreto and DeLoreto, Dutch Maid Dry Cleaners, Santa Barbara, California***: RCRA remedial investigation, DNAPL sampling, limited access indoor soil matrix and soil vapor sampling, development of site conceptual model, aquifer testing, groundwater monitoring well network design, geologic fault investigation, feasibility study, remedial design, treatability study, soil vapor pilot testing, soil excavation, indoor air sampling, forensic data evaluation, fate and transport analysis, expert testimony, regulatory negotiation. Settlement achieved.
- ***Principal Project Hydrogeologist, Gasoline Service Stations, Petroleum Hydrocarbons, UNOCAL, Stockton, California***: RCRA remedial investigation, remedial alternatives evaluation for petroleum hydrocarbons, Corrective Action Plan development, Intrinsic Bioremediation Study, regional hydrogeologic characterization, evaluation of saltwater intrusion, client consultation, expert testimony to California State Water Resources Control Board. Site granted MNA status.
- ***Principal Project Hydrogeologist, chlorinated hydrocarbons, aerospace manufacturing site, Hawker Pacific, Inc., Sun Valley, California***: RCRA remedial investigation, remedial alternatives study, regional hydrogeologic and contaminant plume investigation, 3-D vadose zone modeling, litigation support, presentation to Special Master. Site closure achieved; settlement achieved.
- ***Principal Project Hydrogeologist, petroleum hydrocarbon, Kern County School District, Bakersfield, California***: RCRA remedial investigation, feasibility study, soil vapor/air sparging extraction pilot test, in-situ bioremediation.
- ***Principal Project Scientist, Irvine Bus Base Closure, Orange County Transit Authority, Irvine, California***: Groundwater monitoring, geochemical analyses and evaluation for bioattenuation activity, free product removal evaluation, MTBE evaluation, dissolved phase diesel plume remediation, regulatory negotiations. Site closure achieved.
- ***Principal Hydrogeologist, former aerospace manufacturing facility, AlliedSignal, Los Angeles, California***: RCRA remedial investigation, feasibility study, fate and transport analysis (including assessment of the effects of the West Coast Basin saltwater intrusion barrier wells), and conceptual remedial action plan of soils and multiple aquifers impacted by chlorinated hydrocarbons, petroleum hydrocarbons, 1,4-dioxane adjacent to LAX. Evaluation of historic aquifer testing data. Evaluation of

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offsite impacts; evaluation of potential downgradient liabilities. Pilot and treatability testing included soil vapor extraction, dual phase extraction, groundwater circulation wells, and enhanced in-situ bioremediation followed by polishing with monitored natural attenuation. Remedial action objectives successfully negotiated with LA Regional Water Quality Control Board.

- ***Principal Hydrogeologist, former aerospace facility, AlliedSignal Aerospace Equipment Systems, Rancho Dominguez, California***: RCRA remedial investigation to delineate the extent of chlorinated VOC impacts to groundwater and the feasibility of remediation by monitored natural attenuation (MNA). Site closure achieved.
- ***Principal Hydrogeologist, perchlorate treatability study, Edwards Air Force Base, California***: Environmental tracer study of long-term recharge rates in the Mojave Desert using chloride balance method, bomb tritium, CFC profile analysis, unsaturated flux calculation. Results submitted to Army Corp of Engineers; presentation to California Groundwater Association.
- ***Project Hydrogeologist, DBCP Impacts to Groundwater; FMC Corp., multiple locations, USA***: Forensic data analysis, vadose zone fate and transport modeling, insurance cost recovery evaluation.
- ***Principal Hydrogeologist, Sulfometuron methyl (SM) pesticide migration and crop damage, multiple farm corporations, Southern Idaho.*** Designed and conducted vadose zone numerical modeling study of a rangeland applied post-fire pesticide application using Hydrus-2D. Evaluated V2DT modeling work, wrote two expert opinion reports, deposition testimony. Site reconnaissance and court testimony are scheduled.
- ***Principal Project Hydrogeologist and Team Leader, multiple locations in Arizona, California, Nevada, New Mexico; New York Orion Power Holdings, LLP.*** Power generation asset acquisition due diligence, manage air emissions control evaluation, hydrogeologic environmental site assessment, remedial cost estimation, assess NPDES requirements, evaluate seller EIRs, participate in asset auction bid preparation, manufactured gas plant, steam and combustion turbines, ,.
- ***Principal Project Hydrogeologist, chlorinated hydrocarbons, historic manufacturing activities, Confidential Regional Medical Center, Los Angeles Metro Area***: Real estate development due diligence and acquisition consultation, property historical research, environmental compliance assessment, streamlined feasibility study and remedial cost estimation; developed 3-secenario remedial economic/risk analysis. Property purchased.
- ***Principal Hydrogeologist, Intrinsic Remediation Sites, Texaco, Victorville, California; Roadway, Fresno, California***: Demonstrated viability of intrinsic natural attenuation mechanisms at two operating service stations (Texaco) and an operating trucking terminal (Roadway) to remediate petroleum hydrocarbons. Utilized innovative monitoring networks including soil vapor monitoring, barometric and thermal monitoring, neutron monitoring, and numerical fate and transport modeling that coupled vadose zone and groundwater transport. Site closures achieved.
- ***Technical Specialist, Refinery Remediation, Bakersfield Refinery, Bakersfield, California.*** Designed a pilot soil vapor extraction test along with vapor recovery by condensation and return to refinery operations; developed final design of a remediation recovery system for petroleum reformate impacting the vadose zone and groundwater (annual fluctuations up to 100 feet). Final extraction system design addressed impacted soils 90 feet deep over an area 25 acres in size. Enhanced by air sparging, the system has recovered over 1.5 million gallons of petroleum reformate from the well field.
- ***Principal Hydrogeologist, waste soil pile remedial investigation, Bakersfield, California.*** Directed CERCLA-based remedial investigation at a former waste recycling/treatment facility for soils impacted by

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metals, VOCs chlorinated hydrocarbons, petroleum hydrocarbons, fuel oxygenates, semivolatile organic compounds (SVOC), polynuclear aromatic hydrocarbons (PAH), PCBs, pesticides, and herbicides. Developed an innovative field-sampling plan using a custom-made hybrid between a direct push rig and an extending fork lift to extract samples. Conducted a statistical analysis of the sampling data used to identify the appropriate method of waste disposition. Remediation by excavation and off-site treatment. Communicated with PRP group and interacted with DTSC.

- ***Technical Specialist, EG&G, Rocky Flats Nuclear Manufacturing Facility, Colorado.*** Principal reviewer of performance evaluation modeling of vadose zone and groundwater modeling to assess viability of remediation by entombment of radionuclides and mixed wastes under alternative cap at low-level radioactive waste disposal site, Rocky Flats plant, Colorado.
- ***Principal Investigator, metals soil column study, Springfield Township Committee, Springfield, Michigan.*** Managed controlled laboratory study to design, implement, and report on comparison of soil column leaching to the Synthetic Precipitation Leachate Procedure batch testing methodology (EPA Method 1312). Demonstrated attenuation of metals and PCB's within soil media through soil sorption.
- ***Technical Specialist, petroleum hydrocarbon fate and transport analysis, Farmland Industries, Coffeyville, Kansas.*** Modeled the potential impacts to groundwater of residual vadose zone concentrations of petroleum hydrocarbons at an 85-year old refinery operated by Farmland Industries in Coffeyville, Kansas.
- ***Technical Specialist and Reviewer, DTSC California school siting, William S. Hart Union School District, Santa Clarita, California.*** Preliminary Endangerment Assessment (PEA). Project challenges included: rugged inaccessible terrain; oil drilling and production, and explosives manufacture and testing on adjacent properties; active community participation in the siting process; and an aggressive overall construction schedule. Ambient air monitoring systems were deployed at strategic site locations. Over 100 soil and 150 soil-gas samples collected from over 50 borings within and around the 50-acre school site. Based on the project findings, the school district funded the final construction of the school.
- ***Technical Specialist, low-level radioactive waste disposal, EG&G, Rocky Flats Nuclear Manufacturing Plant, Golden, Colorado.*** Designed a vadose zone characterization and monitoring program. Identified contaminant release sources, developed conceptual model of the subsurface geology, mechanisms and pathways for contaminant migration, candidate remedial approaches, and viable monitoring approaches during closure and post closure. Contaminants of concern included nitrates and a variety of actinides.
- ***Principal Hydrogeologist, biosolids land application, City of Santa Barbara, Santa Ynez, California.*** Evaluated suitability of the land application of dewatered anaerobically digested sewage sludge. Developed model to calculate, assess, and forecast nitrogen balance for the site. Made recommendations for site-specific agronomic loading rate, Determined maximum annual and cumulative biosolids application rates. Designed and implemented a surface-water, groundwater, soils, and soil pore liquids monitoring system.
- ***Principal Project Hydrogeologist, TCE Joplin, Missouri***: Ball bearing manufacturing site, fate and transport analysis in area of karst hydrogeology, litigation support.
- ***Principal Project Hydrogeologist, pesticide formulation and distribution site, Great Lakes Chemical, Irvine, California***: Fate and transport analysis, forensic data evaluation. Allocation of liability.
- ***Collaborating Principal Investigator and Co-Author, Lawrence Livermore Reports, State of California***: State Water Resources Control Board, University of California and Lawrence Livermore National Laboratory Study, State-wide Investigation of Leaking Underground Fuel Tanks Impact on Groundwater.

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Conducted study that determined that passive bioremediation of petroleum hydrocarbons leaked from underground fuel tanks is an effective alternative to active engineered remediation approaches. As a result of the study, the State Water Resources Control Board recommended to its nine regional water boards that passive remediation should be considered the primary remediation tool in most cases once the fuel leak source has been removed.

- ***Collaborating Principal Investigator for Multi-Agency Petroleum Hydrocarbon Remediation Demonstration Project, Department of Defense (DOD) sites throughout the state of California:*** Conducted site inspections and met with base civilian and military personnel. Participated in expert panel demonstration of innovative and alternative risk-based cleanup strategies and recommended alternative innovative remediation approaches to cleanup petroleum hydrocarbons that contaminated soils and groundwater at the respective base sites.
- ***Technical Specialist, petroleum hydrocarbon fate and transport, Western States Petroleum Association, California.*** Initiated study to determine fate and transport of heavy crude oil products and byproducts and coordinated exchange of data with the American Petroleum Institute in Washington, DC.
- ***Technical Specialist, vadose zone monitoring, US EPA, Alton, Missouri.*** Demonstrated and installed a vadose zone monitoring system at a Superfund hazardous waste land treatment site for polychlorinated biphenyls (PCB).
- ***Technical Consultant, national lab site characterization, Lawrence Livermore National Laboratory, Livermore, California.*** Served as reviewer and consultant to LLNL, designed infiltration experiment to determine the influence of precipitation on the migration of chemicals, including radionuclides, through the vadose zone. Developed laboratory protocols for hydrologic testing of soil core samples
- ***Principal Investigator, tritiated water vapor diffusion, University of California, Santa Barbara.*** Designed an experiment to measure diffusion coefficients of tritiated water vapor in undisturbed soil cores.
- ***Principal Hydrogeologist, heap leach mining, confidential client, Kingman, Arizona.*** Managed installation, testing, and reporting of vadose zone monitoring systems including suction lysimeters and gypsum block arrays for a heap leach mining facility in Kingman, Arizona.
- ***Principal Investigator, vadose zone monitoring, Santa Barbara County, Santa Ynez, California.*** Provided neutron moderation logs to document background soil moisture conditions in the vadose zone below a leaking underground storage tank contaminating groundwater at Santa Ynez Airport.
- ***Technical Specialist, tritium migration modeling, Brookhaven National Laboratory, Upton, New York.*** Modeled and provided opinion of the significant factors affecting tritium migration beneath the High Flux Beam Reactor at Brookhaven National Laboratories.
- ***Principal Investigator, USEPA, Santa Barbara, California.*** Supervised a comparison of three functional forms for representing soil moisture characteristic curves.
- ***Technical Specialist, vadose zone transport modeling, Spokane Regional Solid Waste Disposal Project, Spokane, Washington.*** Developed and wrote a predictive scenario model to approximate the time-dependent travel distance of a wetting front below a breach in an earthen liner at three potential solid waste landfill disposal sites.
- ***Principal Investigator, Geographic Information System, Multiple Agencies, Santa Barbara County, California:*** Developed an interagency cooperative agreement between UCSB, USEPA, the US Bureau of Reclamation, and the US Air Force Space Command to develop GIS suitable for use in decision-making in ground water and vadose zone characterization and remedial investigations.

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Representative Professional Assignments Continued

- ***Principal Investigator, Geographic Information System (GIS), Vandenberg Air Force Base.*** Conducted a one-day GIS workshop at VAFB on developing groundwater and vadose zone remedial action plans. Subsequently managed development of GIS suitable for use in decision-making in ground water and vadose zone characterization and remedial investigations. Designed a GIS to facilitate remediation of approximately 1,000 underground storage tanks (USTs) at VAFB. Reviewed USBR field investigation strategies and protocols and served in a training capacity with respect to vadose zone hydrogeology.
- ***Principal Investigator, Vadose Zone Research Laboratory, University of California, Santa Barbara.*** Conducted research under USEPA cooperative agreement funding and lectured in Engineering Geology, Hydrogeology, Geography, and Environmental Engineering courses on the subject of vadose zone hydrologic processes. Conducted course instruction for upper division course on soil processes.
- ***Principal Author, EPA Guidance Document, USEPA, Washington, D.C.*** Wrote guidance document under RCRA Subtitle C entitled "Vadose Zone Monitoring at Hazardous Waste Sites". The work was a compilation of research efforts conducted at the Vadose Zone Monitoring Lab at the University of California at Santa Barbara.
- ***Principal Author, Vadose Zone Monitoring Case Studies, USEPA.*** Provided vadose zone monitoring case histories for the purpose of developing an agency position and rationale upon which national vadose zone monitoring regulatory requirements have been developed and promulgated under the RCRA.
- ***Principal Author, Environmental Standards Development, ASTM.*** Developed national standards for vadose zone monitoring through ASTM (formerly the American Society of Testing and Materials) and served as task force leader for D-18.04 Hydrologic Properties of Soil - Laboratory Techniques. Authored or co-authored four national standards:
  - Standard Test Method for the Determination of a Soil Water Retention Curve by Pressure Plate Extraction, ASTM D2325
  - Standard Test Method for the Determination of Soil Water Retention Curve by Pressure Membrane Extraction, ASTM D3152
  - Standard Guide to Soil Pore-Liquid Sampling in the Vadose Zone
  - Standard Guide to Soil Core Sampling in the Vadose Zone, and reviewed numerous others
- ***Principal Investigator, lysimeter evaluation, USEPA.*** Evaluated use of pressure-vacuum lysimeters for obtaining representative vadose zone water samples containing volatile organic compounds.
- ***Principal Investigator, reclaimed water irrigation, Facilities Management, University of California, Santa Barbara.*** Studied feasibility of using reclaimed wastewater for landscape irrigation.
- ***Project Scientist, solid waste assessment tests, Kern County, Bakersfield, California.*** Participated in Solid SWAT Investigations, monitoring programs, and closure plans for landfills. Assisted with the preparation of a Report of Waste Discharge, Report of Disposal Site Information, CEQA Documents (Negative Declaration), Auto-Shredder Feasibility Study, and Infectious Waste Feasibility Study. Assisted in preparing detailed site expansion plans for both vertical and horizontal expansion of the landfill. Participated in the completion of a Final Closure Plan, Post-Closure Maintenance Plan, Vadose Zone Monitoring Program Report, Gas Monitoring Program Report, Buffer Zone Evaluation Report, Special Impact Studies, and Supplemental Groundwater Monitoring Report.
- ***Principal Investigator, solid waste landfill monitoring, Calaveras County, Angels Camp, California.*** Supervised installation of an innovative, automated vadose zone monitoring system at a Calaveras County solid waste landfill used remote-deployed neutron probe.

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Representative Professional Assignments Continued

- ***Principal Investigator, landfill monitoring system design, Johnson Canyon Road Landfill, Monterey County.*** Designed, constructed and installed a unique vadose zone monitoring system that combined direct pore-liquid, indirect pore-liquid, and soil-gas monitoring techniques with retrofit installations of these monitoring devices completed to depths of over 300 feet below grade.
- ***Technical Specialist, landfill monitoring system design, Woodward Clyde, Flagstaff, Arizona.*** Technical Advisor and Lead Designer for the design and installation of a vadose zone monitoring system at a landfill in Arizona. The design was notable in that it was implemented as a preventative plan and used in lieu of a groundwater monitoring system.
- ***Technical Advisor, vadose zone landfill monitoring system design, Santa Barbara County, Santa Barbara County, California.*** Advised Santa Barbara County Solid Waste Disposal Unit regarding application of vadose zone monitoring techniques to the groundwater monitoring strategy being developed for use at Foxen Canyon Landfill.
- ***Technical Specialist, instrumentation development, Soilmoisture Equipment Corp., Santa Barbara, California.*** Managed research and monitoring instrumentation product and market development for applications including hydrogeology, environmental engineering, research, well drilling, oil exploration, and natural resource management in over 50 countries.
- ***Technical Specialist, landfarm monitoring system design, wood treatment facility, Alton, Missouri.*** Developed instructional videotape for the USEPA Region VII Laboratory that demonstrated vadose zone monitoring techniques and methodologies.
- ***Principal Laboratory Investigator, laboratory soil hydrologic studies, Oklahoma, Michigan.*** Developed the conductivity-pressure head relationship for mine spoils in Oklahoma and a compacted clay liner in Michigan.
- ***Principal Investigator, instrumentation design and development, USEPA.*** Conceived an innovative air permeameter in which the soil-water matric potential can be precisely controlled, permitting quantification of soil air permeability under changing pore liquid content conditions. Patent pending.
- ***Principal Hydrogeologist, Water Master Plan Update 2007-2008, Big Bear Community Services District, Big Bear City, CA.*** Principal in charge of team that conducted work that evaluated: water system service area review; population projections ad future water use, source of water supply; storage requirement reviews; water distribution systems review, analyses, and projection; update of drought contingency plan; new water systems facilities and construction costs; systems operations evaluation; improvement review; fee review; and, financing alternative review. Dr. Cullen also headed up the evaluation of long term recharge for the Big Bear Valley using the Distributed Parameters Watershed Model, a water balance approach that uses fine level of spatial discretization.
- ***Principal Hydrogeologist, strategic long-term groundwater management plan, Owens Valley, Los Angeles Department of Water and Power (LADWP), Los Angeles, California.*** Conducted a study of a technical groundwater management guidance protocol for the management of Owens Valley groundwater resources. Performed detailed analysis of hydrologic instrumentation used in Owens Valley, conducted mathematical analysis of the algorithms used to make groundwater pumping decisions, and evaluated the scenarios that would result from following the management protocols. Evaluated the state-of-the-art methodologies for measuring and estimating evapotranspiration. Proposed approach to the strategic management of groundwater in the Owens Valley subsequently recommended for adaptation.
- ***Principal Hydrogeologist, Quantification of Nitrogen Removal, Eastern Municipal Water District (EMWD), Perris, CA.*** Performed subsurface evaluation associated with recycled water storage ponds.

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Project involved data collection and review, conceptual modeling, pressure/vacuum lysimeter and monitoring well installation, sampling, analysis and reporting. Data evaluation demonstrated total inorganic nitrogen removal from recycled water during recharge on the order of three times the default reduction values used in Regional Water Quality Control Board (RWQCB) models. Tasks included: project design; drilling and lysimeter installation oversight; weekly and monthly monitoring and sample collection; data evaluation using comparison of boron to chloride ratios and stiff water quality diagrams comparisons to native water; control duplicate sampling; presentations of project findings to stakeholders from the RWQCB, Technical Oversight Committee, and EMWD Board and Staff personnel.

- ***Principal Hydrogeologist, Watershed Management and Hydrologic Monitoring, Confidential Client, Southern California.*** Oversee hydrologic monitoring program and water balance modeling effort to document and ensure that irrigation of reclaimed wastewater does not result in downslope geotechnical instability. Task included: development of a water balance model; monitoring of irrigation, ET, surface runoff, soil storage, and deep percolation; monitoring of perched and regional groundwater elevations; water quality sampling and reporting; support NPDES permit requirements; semiannual and annual reporting to regulatory agencies and community groups; general hydrologic advice regarding recycled water demand, water conservation, water quality enhancement, and operational efficiency measures aimed at saving money.
- ***Principal Hydrogeologist, Installation and Testing of the Vadose Zone Monitoring System, Los Angeles County Sanitation District, Water Reclamation Facility (WRF), Effluent Management Site, Palmdale, California.*** Installed and tested vadose zone monitoring instrumentation in soils receiving treated water from the Palmdale PWRP. Tasks included: project management, monitoring system design and instrumentation selection review; monitoring instrumentation testing, calibration, and installation; soil sampling and analysis; field data collection; reporting. Instrumentation included: percolation samplers; pressure/vacuum lysimeters; ECHO soil moisture sensing probes; data loggers.
- ***Principal, natural resource inventory, Santa Cruz, Inc., Cazadero, California.*** Performed investigation of the geologic, hydrologic, soils, and biological resources on a 3,000 acre ranch in northern California and wrote a plan to develop the water resources and a profitable agricultural enterprise.
- ***Lead Scientist, agricultural and irrigation management, Various Private and Corporate Farms, Montana and South Dakota.*** Supervised an interdisciplinary team that studied and consulted in the areas of dryland soil water management, irrigation management, and the use and management of pesticides.
- ***Assistant Research Scientist, Hydrologic, soil and geotechnical research, U.S. Forest Service, Libby, Montana; Darby, Montana; Bozeman, Montana.*** Designed, conducted, and wrote research on the effect of heavy machine traffic on the hydrologic, chemical, physical, and engineering properties of compacted soils. Lectured to introductory soil science classes and soil physics laboratory sessions.
- ***Project Scientist, geologic, hydrologic, and soil resource inventory, Tongass National Forest, U.S. Forest Service, Sitka, Alaska.*** Surveyed watershed resources and conducted project level planning. Wrote technical manuals on slope stability, floodplain logging, and soil and hydrologic survey work. Co-authored the first detailed soils maps of northeast Chichagof and Admiralty Islands, southeast Alaska.
- ***Assistant Project Scientist, hydrologic and soil resource inventory, U.S. Bureau of Land Management, Salem, Oregon.*** Conducted watershed surveys and wrote a soils handbook and map of the Mollala area and watershed in the Western Cascades with associated management guidelines. Developed a detailed map of road engineering feature the resulted in stream sediment loading.

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Additional Professional Training

OSHA 40-hour Health and Safety Training

OSHA Hazardous Waste Supervisor Training

National Groundwater Association Webinar, A Practitioner's Guide to Isotope Hydrology; NGWA Webinar No. 825, Instructor Ian Clark, PhD.

Professional Affiliations

American Society of Agronomy (ARCPACS)
American Society of Testing and Materials, 1985 - 2000
- Soil and Rock Committee (full voting member)
- Hydrologic Properties of Soils Subcommittee
- Chairman of Task Group on Hydrologic Properties of Unsaturated Soils
- Vadose Zone Monitoring Subcommittee
- Waste Disposal Committee (full voting member)
- Environmental Assessment of Commercial Real Estate Transactions Committee (full voting member)

Association of Groundwater Scientists and Engineers (National Groundwater Association), No. 121697
Coast Geologic Society
Groundwater Resources Association of California
Soil Science Society of America
Southern California Water Utilities Association

Professional Experience

Daniel B. Stephens & Associates, Inc., Santa Barbara Co., California, September 2004 to present
Hydrogeologist, Senior Vice President, California Operations

MWH Americas, Inc., Santa Barbara Co., California
Principal Hydrogeologist, Vice President, Domestic Energy & Infrastructure, June 2002 - September 2004
Director, National Experts Group, June 2002 to September 2004

IT /Shaw Group, Santa Barbara, California, May 2000 to August 2002
Principal Hydrogeologist, Vice President, Environment and Infrastructure

Arcadis Geraghty & Miller, Inc., Santa Barbara, California
Principal Hydrogeologist, Associate Vice President, February 1998 to May 2000
Principal Hydrogeologist, Area Operations Manager, June 1997 to February 1998
Principal Scientist, Office Manager, November 1992 to February 1998

University of California, Santa Barbara, Vadose Zone Monitoring and Research Laboratory, Institute for Crustal Studies, Faculty, Assistant and Associate Research Hydrologist, August 1989 to 1996

Metcalf & Eddy, Santa Barbara, California, November 1990 to November 1992
Senior Environmental Scientist

Kaman Sciences Corporation, Santa Barbara, California, August 1989 to November 1990
Senior Environmental Scientist

Soilmoisture Equipment Corp., Santa Barbara, California, June 1985 to August 1989
Director of Technical Marketing and Product Development

Private Environmental Consultant, Santa Rosa, California, June 1984 to August 1985

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Professional Publications and Presentations Continued

Steffen Robertson Kirsten, Lake County, California, March to June 1984
Geotechnical Laboratory Support, Heap Leach Mining

Centrol, Inc., Webster, South Dakota, September 1981 to February 1984
Lead Soil Scientist, Consultant, and Operations Manager

Montana State Cooperative Extension, Fairfield, Montana, May to August 1981
Extension Specialist, Irrigation Management and Nitrate Groundwater Pollution

Montana State University, Bozeman, Montana, September 1979 to April 1981
Faculty, Assistant Research Soil Scientist

United States Forest Service, Tongass National Forest, Sitka, Alaska, January 1978 to September 1979
Forest Soil Scientist

United States Bureau of Land Management, Salem, Oregon, July to September, 1977
Soil Scientist

United States Forest Service, Klamath National Forest, Seiad Valley, California, June to August, 1976
Soil, Geologic, Hydrologic, and Timber Survey Intern

Professional Publications and Presentation

Schnaar, Gregory, and S. Cullen, 2009. *The Hydrology of Geologic Sequestration*. Southwest Hydrology, Vol. 8, No. 5, September/October 2009.

Stephens, D.B., S. Moore, and S. Cullen, 2009. *Artificial Recharge Using Water Harvesting and Dug Wells*. Presentation to Ground Water for the Americas Conference, National Groundwater Association, Panama City, Panama, June 8 to 10, 2009.

Kear, J., F. Manghi, S.J. Cullen, P.M. Kaiser, 2009. *Quantification of Nitrogen Removal under Recycled Water Recharge Ponds*. Invited presentation to California 09 Section Conference of the WaterReuse Association, March 22-24, 2009. Intercontinental Mark Hopkins Hotel, San Francisco, California.

Cullen, S. J., Todd G. Umstot, and Daniel B. Stephens, 2009. *Parameter Estimation or Measurement for Vapor Transport Modeling?* Invited presentation to The 19th Annual AEHS Meeting and West Coast Conference on Soils, Sediments, and Water, March 9-12, 2009 Mission Valley Marriott, San Diego, California.

Cullen, S.J., J. Kelsey, N. Blandford, D. Reaber, 2007. Principal Workshop Developer and Instructor, *Vadose Zone Hydrology: Principles and Practices*, two day workshop co-sponsored by Wyoming Department of Environmental Quality, Sheridan, Wyoming, October 25-26, 2007.

Sahu, R., Cullen, S.J., M. Jones, D. Reaber, 2007. Development of a Conceptual Site Model of Chemical Migration in Groundwater Adjacent to the Las Vegas Wash, *Bringing Water To The Desert, Spring Conference, American Water Works Association*, April 19, 2007, Las Vegas, Nevada.

Cullen, S.J., R. Sahu, M. Jones, D. Reaber, 2006. Invited speaker, Investigating Paleochannel Occurrence Near The Las Vegas Wash, *High Resolution Site Characterization & Monitoring*, California Groundwater Resources Association, November 14, 2006, Long Beach, CA

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Professional Publications and Presentations Continued

Cullen, S.J., R. Sahu, M. Jones, D. Reaber, 2006. Invited speaker, An Investigation of Perchlorate Impacts to Groundwater in the Las Vegas Vicinity, *2006 Water Quality / Regulatory Conference*, East Valley Water District, October 26, 2006, Ontario, California.

Cullen, S.J. 2005. Invited speaker, The Driving Force to Perchlorate Leaching: Application of Methods To Date Historic Meteoric Recharge Travel Time to Groundwater, *"Environmental Forensics: Focus on Perchlorate"*, Workshop sponsored by the International Society of Environmental Forensics, La Fonda on the Plaza, Santa Fe, New Mexico, September 21- 22, 2005

Sahu, R., S. Cullen, and M. Jones. 2005. An Update on Remedial Investigations of the BMI Site Common Areas Properties, Henderson, Nevada, presented to the BMI and Vicinity - All Companies Meeting, May 24, 2005, Henderson, Nevada.

Cullen, S.J. 2005. Invited speaker, Theory and Application of Vadose Zone Instrumentation, *The Santa Barbara Groundwater and Vadose Zone Instrumentation Workshop*, Soilmoisture Equipment Corp., May 17, 2005, Goleta, California.

Cullen, S.J. 2005. Invited speaker, Commercial Applications of Laboratory and Field Groundwater and Vadose Zone Instrumentation, *The Santa Barbara Groundwater and Vadose Zone Instrumentation Workshop*, Soilmoisture Equipment Corp., May 17, 2005, Goleta, California.

Cullen, S.J. 2005. Invited speaker, Theory and Application of the Guelph Permeameter, *The Santa Barbara Groundwater and Vadose Zone Instrumentation Workshop*, Soilmoisture Equipment Corp., May 17, 2005, Goleta, California.

Cullen, S.J. 2005. Invited speaker, The Importance of Environmental Protection of Soil and Groundwater Worldwide, *The Santa Barbara Groundwater and Vadose Zone Instrumentation Workshop*, Soilmoisture Equipment Corp., May 16, 2005, Goleta, California.

Cullen, S.J., W. Allmon, and T. Battey. 2005. An Evaluation of Baseline Recharge Conditions at a Perchlorate-Impacted Site in an Arid Environment, a technical poster presentation to the California Groundwater Resources Association meeting, "Artificial Recharge: Nexus of Quantity and Quality in California", March 16-17, 2005, Sacramento, California.

Cullen, S.J. 2004. Fate and Transport of Perchlorate in the Subsurface. Invited presentation to the American Chemical Society, Annual Meeting, March 31, 2004, Anaheim, California.

Cullen, S.J. 2002. Dry Cleaners: Characterizing and Remediating Multiple Sources of PCE in a Complex Hydrogeologic and Legal Environment. Invited presentation to Entech West 2002, November 12, 2002, Long Beach, California.

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McNab, W.W., Jr., B.P. Dooher, D.W. Rice, S.J. Cullen, L.G. Everett, M.C. Kavanaugh, W.E. Kastenburg, M.C. Small, and P.C. Johnson. 1998. Risk-Based Assessment of Appropriate Fuel Hydrocarbon Cleanup Strategies for the Base Exchange Service Station at Vandenberg Air Force Base, California. Report submitted to the Air Force Center for Environmental Excellence, Environmental Restoration Directorate, Technology Transfer Division, Brooks Air Force Base, Texas. Lawrence Livermore National Laboratory, Livermore, CA.

Everett, L.G., S.J. Cullen, D.W. Rice, W.W. McNab, Jr., B.P. Dooher, M.C. Kavanaugh, P.C. Johnson, W.E. Kastenberg, and M.C. Small. 1998. Risk-Based Assessment of Appropriate Fuel Hydrocarbon Cleanup

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Kavanaugh, M.C., D.W. Rice, W.W. McNab, Jr., M.C. Small, S.J. Cullen, P.C. Johnson, L.G. Everett, and W.E. Kastenburg. 1998. Risk Based Assessment of Appropriate Fuel Hydrocarbon Cleanup Strategies for Site 390, Marine Corps Air Station (MCAS), El Toro, California. Report submitted to the U.S. Navy, Southwest Division, Naval Facilities Engineering Command, San Diego, CA. Lawrence Livermore National Laboratory, Livermore, CA.

Small, M.C., W.W. McNab, Jr., D.W. Rice, S.J. Cullen, L.G. Everett, M.C. Kavanaugh, W.E. Kastenburg, and P.C. Johnson. 1998. Risk-Based Assessment of Appropriate Fuel Hydrocarbon Cleanup Strategies for Presidio at San Francisco, Building 637 Area. Report submitted to the U.S. Army Corps of Engineers, Sacramento District, Sacramento, California. Lawrence Livermore National Laboratory, Livermore, CA.

Kavanaugh, M.C., W.W. McNab, Jr., D.W. Rice, P.C. Johnson, M.C. Small, W.E. Kastenburg, L.G. Everett, and S.J. Cullen. 1998. Risk-Based of Appropriate Fuel Hydrocarbon Cleanup Strategies for China Lake Naval Air Weapons Station Navy Exchange Gas Station Site. Report submitted to the U.S. Navy, Southwest Division Naval Facilities Engineering Command, San Diego, California. Lawrence Livermore National Laboratory, Livermore, CA.

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Cullen, S.J., and J.C. Michaelsen, 1997. Factors affecting the Occurrence and Distribution of Selected Petroleum Hydrocarbon Compounds in California's Alluvial Aquifers (in review).

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Comments from
Other Dischargers

From: Rebecca Chou
To: GW permitting team; Phillips, Wendy; student assistant team; Villar, ...
Date: 10/8/2009 11:11 AM
Subject: Fwd: Water Quality Control Plan

>>> <MEBARCH@aol.com> 10/8/2009 10:12 AM >>>
Dr.Rebecca Chou

I am a architect who has lived and worked in Malibu since the sixties. I also live in Malibu Knolls, I am opposed to a moratorium and a resulting sewer system for Malibu Knolls because your staff have failed to show the science that would prove that the septic systems in the Knolls are polluting in the Lagoon. The City of Malibu is having five studies conducted that have reached a preliminary conclusion that disagree with your staff's findings.

If the Board makes a decision to imposed the moratorium on the civic center area without evaluation these additional reports it would be a "rush to judgement" based on incomplete science. At your workshops Dr. Richard Ambrose stated regarding his testing of the Malibu Lagoon that "To me that means the human contamination can't be very much or else we would have found it".

The Board needs to get all of the facts before making the decision regarding a civic center moratorium. The financial impact of a sewer system for the areas adjacent to the civic center will impose a economic hardship on the Malibu Knolls residents. I trust the Board Members will take the time to wait until the five reports are completed and evaluate the additional information.

Sincerely

Mike Barsocchini AIA

From:	Rebecca Chou
To:	GW permitting team; Phillips, Wendy; student assistant team; Villar, ...
Date:	10/8/2009 10:29 AM
Subject:	Fwd: Civic Center Septic System Prohibition
Attachments:	Virginia VDH Letter.txt; Bringing Them Back Article.txt; Copy of Journal Sentinel Article.txt; Features & Benefits.txt

>>> "Sally & Chris Benjamin" <indyjo@earthlink.net> 10/8/2009 8:54 AM >>>
October 8, 2009 at 8:50 AM

Dear members of the Regional Water Quality Board,

I am writing to address the proposed amendment to the Water Quality Control for the Los Angeles Region to prohibit on-site waste water disposal systems in the Malibu Civic Center area. The on-site waste water disposal system in the Civic Center should be able to continue. Septic system when managed correctly can co-exist next to the ocean or a stream without causing ill effects.

Thus far the Regional Water Quality Control Board hasn't taken any active steps to promote clean water and ensuring the safety of our current systems whether it be sewer or septic. What education has the RWQB done to inform the public that septic systems are different than sewers and need to be treated differently? What fliers or videos have you circulated to the Malibu residents or to the public or required Malibu to post in public areas? Malibu is an interface between people who use sewers and those who don't. RWQB should play a major part in educating the public about the management of waste via sewer/septic systems and how to manage them.

The RWQB says, it knows of specific offenders which are polluting the ocean and stream and has not cited/ restricted their outflow or septic system use. If you can show that an owner of a septic system is actually polluting the ocean or stream why haven't you declared that a public health violation and closed the system down until it works properly? What mechanism does the RWQB have in place for notification of septic system overflows to protect the public? Where are you posting this information so the public can notify you of blatant septic system problems?

Because a few septic systems are/ or have failed, it doesn't mean that ALL septic systems within the "declared Civic Center Area" are failing or have failed. Your proposal requires that every septic system, failed or not, be abandoned. It also implies a failed system can't be restored and can never work properly once it has failed. This couldn't be further from the truth. There is a method to correct the problem for less cost and less environmental impact to the area. People could continue using their septic systems and the outflow can be clean; clean enough to use as irrigation water.

Will the RWQB repay the homeowners and commercial property owners when the "sewer system" doesn't solve the pollution problem? What will the RWQB do when the sewer system

spills gallons and gallons into the waterways, as we read about other sewer systems doing? Or do you think that Malibu's system will be different? A sewer system brings problems of its own; spillage, getting rid solid waste, building a size to accommodate unforeseen needs and disposing of its waste water. RWQB is asking Malibu citizens to invest in a system which will bring more and bigger problems and CAN NOT guarantee that this request will solve the problem at hand.

Does the Regional Water Control Board know that residents receive flyers from pumping companies stating that it is time to pump? I received one about 3 months ago stating "we haven't pumped in 3 years isn't it about time?" With this type of solicitous propaganda a home owner might think they should be pumping whether they have a problem or not. The Regional Water Quality Board better be careful when concluding that a home owner has septic problems if they are having their system pumped. The homeowner might just be answering to the Septic Company desire for additional income.

Has the Regional Water Quality Board reviewed the wildlife statistics in the area to determine if due to our draught conditions that more wildlife are coming down to the stream and ocean to drink? With more wildlife hunting for water and entering our streams and oceans they also leave behind scat containing e.coli; raccoons, and deer are animals which carry e.coli; not just humans as is being conveyed to the public. Has the RWQB done DNA testing of the e.coli to determine its' origin before drawing the conclusion that it is human based? Warm blooded animals carry e.coli not just humans and Malibu has allot of wildlife.

Currently the Water Quality Board is thinking linearly, mandating common solutions of society "the only way to cleanup water is to ban septic systems and force Malibu into a sewer system." This is an easy, managerial solution and a very costly one for the City and its citizens. RWQB is not able to determine or accurately estimate the cost of such a project. More importantly, RWQB can NOT affirm such a solution will solve the problem. The cost figures given at this time is $12,000 per year per household. How many years will that have to be paid, and how accurate is that figure? Given the history with the County trying to place a sewer system in Malibu, those figures will be out dated the first year of planning. This is Bureaucracy gone mad; not one searching for alternative methods of solution, or lower cost solutions, or truly desiring to clean-up the ocean and stream, or working with its people.

There are other successful ways to clean-up our ocean and continue to have septic systems. If one takes out the nitrates and nitrites out of the water, the bacteria are not able to survive. Septic system failure occur when the system turns anaerobic causing a bio-film to form. This film build ups and the septic system back-up. By creating an environment that causes the septic system to become aerobic; the bacteria eat up the sludge (bio-film), cleaning the water and allowing the plume to flow naturally and cleanly into the soil. The system costs $1,075 to $1,300 per household and slightly more for a commercial business. A septic system can be turned around into an aerobic system in 12 months and benefits seen in just a few weeks. An anaerobic septic system can be aerobic in 4 days.

The system is designed by Aero-stream, found at www.aero-stream.com. They work globally and patents are pending on their design. I found this reviewing septic system articles while

attempting to arrive at a better solution than mandating that Malibu Civic Center HAS to connect to a sewer system. A sewer system, which at this point in time, is being located close to the Malibu fault line. How can the RWQD think that is okay with the risk of quakes, fracturing structures and spilling waste all over the Civic Center, into the stream and ocean?

Aero-stream places oxygen into an anaerobic environment which brings aerobic bacteria to life breaking down the waste, eliminating 95% of the nitrates and nitrites in the septic system. By eliminating nitrates and nitrites the bad bacteria have lost their food source to grow and multiply. This is much simpler solution than asking homeowners to fund a sewer system especially when their septic systems are working fine. Several articles are attached explaining the system, the benefits, saving failed systems using this method and approval from Virginia's Health Department.

I strongly believe that Malibu can have septic systems and safe water for swimming and clean ground water. RWQD needs take a roll in educating the public and Malibu residents, place several effective alternative systems before the residents rather than a sewer system, limit construction, establish a lot size requirement for septic systems ownership and continue to monitor our water. Malibu can be the environmental example of the future with your help.

Thank you for reviewing, and evaluating this position.
Sally Jo Benjamin
3216 Colony View Circle
Malibu Knolls Resident for 26 years

Aero-stream www.aero-stream.com
Don Burcham
Technical Support
1-877-254-7093
1-262-583-4093 FAX
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Men are won, not so much by being blamed, as by being encompassed with love.

William Ellery Channing

techtopics
Bringing Them Back

Aerobic treatment of effluent proves successful in rejuvenating failed drainfields, after accurate diagnosis of the cause of the failure

By William L. Stuth and Matt M. Lee

W
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hen faced with a failed drainfield, a home

owner has a choice.

Replacing the drainfield isn't cheap, and in some situations it isn't even feasible. Remedies like lateral line jetting, soil fracturing, and biological remediation cost a great deal less, but they may not work, and if they do, perhaps not for long.

In recent years, another rejuvenation method has gained attention: aerobic treatment of effluent. The placement of an aerobic treatment unit at the septic tank outlet has been shown to restore drainfields that failed from organic overloading and the buildup of a heavy biomat. Where it's feasible, this method splits the cost difference between outright field replacement and the shorter-term measures.

An important caveat applies: Aerobic effluent treatment — or any other method of drainfield restoration — should not be used without a thorough diagnosis to determine why the system failed.

It is not possible to recover all failing systems using aerobic effluent. Before attempting recovery, it's essential to perform a comprehensive investigation and to analyze all the information gathered.

Three cases in point

Three case studies illustrate a variety of circumstances in which aerobic-treated effluent can be used for drainfield restoration. The sites are:

- A residential system with a conventional gravity drainfield.
- A residential mound system.
- A cafe with a gravity drainfield.

All three were restored using one aerobic treatment unit (ATU) product line that includes a residential model and a commercial model. The models shared several features, including control of system flow, reduction of BOD5, discharge of effluent very high in dissolved oxygen (DO) and with near-neutral

pH, and discharge aerobic microorganisms.

In all three cases, the drainfield restoration plan included provisions for a drainfield expansion, but in each case, the expansion turned out to be unnecessary: The aerobic treatment unit by itself solved the problem.

Case Study 1: Residential Gravity System

A 6-year-old gravity septic system failed at a three-bedroom home occupied by two adults and two teenagers. The septic system design was based on a flow of 360 gpd with a loading rate of 0.8 g/sf over 450 square feet of drainfield. The system had a 1,000gallon, two-compartment septic tank and a 225-foot, 2-foot-wide serial distribution drainfield. Drainfield line lengths were 28, 30, 70, and 97 feet.

At the first inspection, all drainfield lines were flooded, and the lowest line was surfacing. The owner reported that the system had been pumped three times since installation, at two, three-and-a-half, and five years. Each time, sewage had backed up into the home.

A soil investigation between drainfield lines one and two showed soils with the characteristics of loamy sand to a depth of 60 inches, verifying the 0.8 g/sf loading rate called for in the design. This was underlain by hardpan or glacial till between 60 and 64 inches below the surface.

The evaluation concluded with an analysis of the effluent for BOD5, (biochemical oxygen demand), TSS (total suspended solids), FOG (fats, oils, grease), pH, temperature, and DO (dissolved oxygen). Water district records indicated the actual flow to be 300 gpd. The Washington state regulation defined the maximum residential BOD5 waste strength as 230 mg/l but gave no clear definition for TSS and FOG.

From its own database of residential waste strengths analyzed in Washington, Aqua Test deter-

Aerobic effluent treatment — or any other method of drainfield restoration — should not be used without a thorough diagnosis to determine why the system failed.

mined the maximum residential waste strengths to be 76 mg/l for TSS and 25 mg/l for FOG. Based upon the frequency of pumping and the analytical test results, Aqua Test and the local health regulator concluded that the likely cause of the failure was organic overloading, resulting in formation of a heavy biomat.

The evidence indicated that the construction of an additional drainfield with no change in the waste stream would lead to another failure relatively soon. An alternative was to recover the existing drainfield using an ATU, and add 100 feet of new drainfield. Table 1 summarizes the waste strengths and loading rates for three phases of operation: design, failure and recovery.

The repair started with vacuum pumping of the septic tank and the first line of the drainfield. An ATU was then installed in the second compartment (outlet) of the septic tank, and 100 feet of drainfield was added. After 30 days, there was only a small amount of ponding in each drainfield line. Within 90 days, the only line showing ponding was the first line. The total flow from the home, averaging 313 gpd, was being completely absorbed in the first 28 feet of drainfield.

TABLE 1. TESTING RESULTS: RESIDENTIAL GRAVITY SYSTEM

Mode			
Flow			
Unit flow			
BOD5			
BOD5 #			
BOD5 # per ft2			
TSS			
FOG			
pH			
Temp			
DO			
(gpd)			
(gal/ft2)			
(mg/l)			
per day			
per day			
(mg/l)			
(mg/l)			

(C) (mg/L)
Design
360
0.80
230
0.69
0.0015
76.0
25.0
NA
NA
NA
Failure
300
0.66
340
0.85
0.0019
24.7
57.7
6.6
18 degrees
0.3
Recovery
313
5.59
61.7

0.16

0.0029

35.0

26.0

7.6

20 degrees

5.5

Available Area

313

0.48

61.7

0.16

0.00024

Case Study 2: Residential Mound System

Aqua Test investigated a failing onsite mound system serving a three-bedroom house built in 1990 and home to two adults and two small children. The system had begun surfacing when the home was two years old. The system was designed for 360 gpd with a loading rate of 1.2 g/sf over 300 square feet of disposal bed. It had a 1,000-gallon, two-compartment septic tank, a 250-gallon pump tank, and a 1/3 hp, float-controlled pump.

Effluent samples were collected from the pump tank, and an hour meter was installed on the pump. Over one month, the flow averaged 196 gpd. The pump was delivering 52 gallons in a 2.5-minute cycle

— half what the pump was discharging at installation. There was ponding in the gravel bed in the top of the mound. The amount of effluent surfacing was about 10 gallons per cycle. This meant the mound was absorbing 42 gallons per cycle.
Further investigation showed that the mound sand had the proper composition for the area. Table 2 summarizes the waste strengths and loading rates for the design, failure and recovery modes.

Aqua Test and the health regulator concluded that organic overloading and the formation of a heavy biomat probably caused the failure. To correct the problem, Aqua Test recommended recovery of the drain-field using an ATU and the installation of additional drainfield, if needed.

Work began with pumping of the septic tank and the gravel bed of the mound. An ATU was then installed. One week after the ATU began operating, effluent was no longer surfacing. The system was then monitored twice a year, and no surfacing was detected. Therefore, the additional drainfield did not have to be built.

This diagram shows the site of the failed mound system in Case Study 2. The new drainfield shown in the diagram did not need to be built because the ATU installed after the septic tank produced clean effluent that allowed the mound to recover.

Case Study 3: Commercial Gravity System

Aqua Test investigated a system failure at a 45-seat cafe serving typical American dishes for lunch and dinner, seven days a week, ten hours

per day (150 meals per day on average). The design flow used to size the system was 1,100 gpd. The system had separate 1,000-gallon septic tanks for black water and gray water.

A common line ran from the tanks to the drainfield, a gravity serial distribution system using drop boxes between the lines. There were eight trenches, each 3 feet wide and 65 feet long, for a total of 1,560 square feet,

corresponding to a loading rate 0.70 g/sf.

Within two years of installation, the drainfield failed, and citizens complained to the local health department about odors. To determine the effluent strength, the health department sampled the flow entering the first drop box. The department ordered the owner to fix the problem within 30 days or the cafe would be closed. Table 3 summarizes the waste strengths and loading rates for the design, failure, and recovery modes.

Aqua Test was asked to design a system compliant with health department requirements. A drainfield investigation identified the soil as loamy sand from the surface to 52 inches, and glacial till or hardpan to 60 inches.

The drainfield was installed in the top 24 inches, meeting local regulations for drainfield separation.

To remedy the failure, Aqua Test recommended a phased approach. The first phase called for installation of an ATU to reduce the waste strength of the gray water to residential levels, vacuuming of the drainfield, and weekly monitoring of the system for two months. The second phase — drainfield replacement — would be implemented if sewage surfaced or if drainfield lines seven and eight ponded during the monitoring period.

After startup, monitoring never found more than four lines ponded. The replacement drainfield was not needed. (The routine pumping of this system includes vacuuming of drainfield lines one and two.)

A workable alternative

These case studies show that aerobic-treated effluent can help restore drainfields that fail because of organic

overloading, leading to formation of a heavy biomat. However, before attempting recovery of any onsite system using aerobic effluent, it is necessary to establish whether an excessive biomat is truly the problem.

If the biomat is verified to be the cause, it is necessary to evaluate the extent of the clogging. If the disposal system will not hydraulically accept any flow, it may not be recoverable without adding more disposal area. Review of records from many recovered systems shows that the fastest recoveries occur when the treatment or disposal system is vacuumed out before aerobic effluent is introduced to the system.

William L. Stuth is president and Matt M. Lee is general manager with Aqua Test Inc. in Black Diamond, Wash. The firm specializes in onsite system design and drainfield rejuvenation, and also supplies Nibbler aerobic treatment systems.

TABLE 2. TESTING RESULTS: RESIDENTIAL MOUND SYSTEM

Mode	
Flow	
Unit flow	
BOD5	
BOD5 #	
BOD5 # per ft2	
TSS	
FOG	
pH	
Temp	
DO	
(gpd)	
(gal/ft2)	
(mg/l)	
per day	
per day	
(mg/l)	

(mg/l)

(C)
(mg/L)
Design

360

1.20

230

0.69

.0023

76.0

25.0

NA

NA

NA

Failure

196

0.65

262

0.43

.0014

36.0

61.0

7.4

16 degrees

0.2

Recovery

319

0 .94
63.5

0.17

.00056

31.3

10.1

7.7

23 degrees

6.3

TABLE 3. TESTING RESULTS: COMMERCIAL GRAVITY SYSTEM

Mode

Flow

Unit flow

BOD5

BOD5 #

BOD5 # per ft2

TSS

FOG

pH

Temp

DO

(gpd)

(gal/ft2)

(mg/l)

per day

per day

(mg/l)

(mg/l)

(C)
(mg/L)
Design

1100

0.64

230

2.11

0.0014

76

25

NA

NA

NA

Failure

1013

0.64

4900

41.39

0.027

1700

130

NA

NA

NA

Recovery

891

1.14

130.74

0.97

0.0012

99.4

13.84

7.03

17

0.96

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By Kathleen Gallagher of the Journal Sentinel
Posted: Nov. 21, 2008

Pumping life into septic tank

Company's product adds oxygen to extend system's existence

Thoughts of gurgling toilets, sewage backup and foul-smelling liquid saturating the lawn flashed across Karl
Holt's mind when he realized his septic tank was nearly full. It was potentially a very dirty problem, but Holt said he didn't like the available remedies.

Pumping the tank is a short-term solution, and additives can hurt more than they help, he reasoned. Replacing the system would cost a minimum of $15,000 -not including re-seeding the lawn and replacing the
deck. "I was looking to save that $15,000," said Holt, 45, president of Aero-Stream LLC in Hartland. So he began tinkering. The result is a patented product that sells for less than $1,000 that Holt says homeowners
can use to revive failed septic systems and avoid more expensive alternatives.

"One of the difficult things about this business is you have to educate people," Holt said. "They won't think twice about putting a coat of paint on the house or getting an oil change every 3,000 miles, but they just want to flush their toilet and not think about their septic tank."

Janet Vance was one of those people, until the septic system at her second home in Kentucky failed. "We couldn't do laundry and we flushed once a day. It was pretty much a goner, " Vance said. She did extensive research and found Aero-Stream® on the Internet. Holt's solution seemed too good to be true, and Vance said her husband and other family members discouraged her from pursuing it. It seemed worth a try, though, and Holt offers a refund if customers aren't satisfied at the end of a year, she said. It worked, and now the water in the septic tank is clear with no odor, Vance said.

Aero-Stream®'s product, called a Remediator, transforms a septic system into one that is filled with oxygen-loving bacteria instead of less efficient, oxygen-hating bacteria, Holt said.
Users plug the Remediator into an outside electrical outlet, he said.

Call it aerobic exercise for a septic system; the Remediator pumps oxygen into the tank through a hole customers drill in its cover.

Holt says that destroys within 48 hours the oxygen-hating bacteria in the tank that have been eating the waste and encourages the growth of oxygen-loving bacteria.

Oxygen-rich liquid begins to flow out of the tank into the leach field. The oxygen-loving bacteria are so much

more efficient at gobbling up waste they cut off the oxygen-hating bacteria's food source by 70% to 80%, Holt
said. They also eat the black slimy mix of oxygen-hating bacteria and their secretions that have been clogging the soil, and treated water starts flowing again down into the water table.

"Many people, even in the industry, do not understand the mechanics of the process and therefore find it difficult to comprehend the simple solution," Holt said.

Ken Adamec, manufacturing manager at Aero-Stream® LLC, uses a drill press at the company's factory, where the Remediator oxygen-injecting system is built.

Professional doubt

The way Holt's product works is theoretically possible, but experts who aren't familiar with it wonder how the Remediator can get enough oxygen into the leach field to fix the problem quickly. Can it really unclog a drain field, given all the organic matter that stops water from flowing through it in a failing septic system, asked Brian Holmes, a professor of biological systems engineering at the University of Wisconsin-Madison.

It would seem more promising if the oxygen were being delivered directly to the field, said Rick Reichardt, an environmental engineer with the state Department of Natural Resources.

Karl Holt is president of Aero-Stream® LLC, a Hartland company that sells a patented product for making

Holt says once it's aerated, the liquid -known as

septic systems more efficient. Holt says his product

effluent -flows fairly quickly out of the tank to help

helps homeowners avoid having to replace failed septic get rid of oxygen-hating bacteria. Soggy lawns with systems. surface ponding will lose their odor within two weeks, and dry out in six to eight weeks, he said.

Ten reviews of Aero-Stream's product on www.ratepoint.com are all positive, as is Linda Paun, owner of the
Merton Custard Shoppe. Cut her costs

Paun says she wouldn't have been able to build her restaurant if she'd had to install the as-much-as $75,000
system Waukesha County initially wanted instead of the non-industrial system she installed that uses two Remediators.

"I don't know where Karl comes up with all these ideas, and I don't know how he figures out how to design and build them, but it works," Paun said.

Holt has a mechanical engineering degree from Milwaukee School of Engineering, and he's done product development at Harley-Davidson Inc., Strattec Security Corp. and other companies. Holt says he's also made
a Zamboni out of a garden tractor to shovel an ice rink on the lake near his home, and made progress developing an electric drive system for pontoon boats. The simpler, the better is his motto, he said.

Aero-Stream is distributing the Remediator across North America, including Canada, which now provides about 20% of sales, Holt said. Aero-Stream has five employees and is producing revenue, said Greg Reuter,
an accountant at EWH Small Business Accounting in Waukesha, which does the company's accounting work. "If he can hit the right marketing streams, I think it's got unlimited potential basically because he's

looking at anyone who isn't hooked up to a city sewage system, " Reuter said.

For more information:
Aero-Stream®, LLC.
1-877-254-7093
info@aero-stream.com

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system regains its functionality, the Aero-Stream. system begins building your reserve capacity, restoring your system to a worry free condition. U.S. Patent 7,264,727 Aero-Stream. is the pioneer of homeowner friendly aerobic remediation products. We also have several U.S, and World patents pending. Our goal is to provide homeowners with facts, not unsubstantiated claims or

gimmicks. We provide high quality products and the technical expertise to put an end to your septic system problems. UL listed corded appliance for outdoor use. No expensive electrical contractor required for installation. Simply plug the Aero-Stream. equipment into your existing 115 volt outlet. The equipment will use as little power as a light

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CALIFORNIA REGIONAL WATER
QUALITY CONTROL BOARD
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September 22, 2009
Steven and Helen Clarke (age 72)
3752 Serra Rd
Malibu CA 90265

Dr. Rebecca Chou
Cal. Regional Water Quality Control Board
320 West 4th Street, #200
Los Angeles, CA 90013

RE: Malibu Septic Issues

Dear Dr. Chou

I attended the September 1st, workshop at Pepperdine concerning the above situation. It was a wonderful presentation and your teams' slides and oral comments were quite professional. This does not mean that we agree with the conclusions and remedies as it concerns us and many senior citizens that will be profoundly affected as to their financial well being and quality of life.

We like many others have lived in our house for over 32 years. Our kids went to school here and have since moved away. We have never had a septic problem and we suspect our discharge footprint is very small in relation to the total Civic Center. You may not know that according to the last U.S. census that there are 12,575 people in all of Malibu and that 14% were over age 65. Of these, 8 % of all seniors were classified below the poverty line (please see attachment).

The stock market crash and negligible rates on savings have had a profound effect on seniors' financial outlook. When you add the sharp decline of housing prices and the forthcoming cut in Medicare that congress is talking about, making a $500 billion reduction to help pay for the new health care initiative is another huge unknown. Refinance the house? Can't really assume that credit will be available at that time, can you?

It is the cost of a new, personal waste water system that was mentioned as being from $100,000 to $1,000,000 that is of grave concern. The Board can't seriously believe that everyone is just super rich and can afford this. Many will have to move at the most venerable time of their life. At our age we face severe life and health challenges and the prospect of, in home, care. I know several seniors who are looking at this.

We propose that seniors over the age of 75 have an extra 5 years to meet the Board's goals. Yes, that includes us and a few others. The harsh reality of human mortality should cure most of the issues by the new expiration date. Senior exemptions are very common.

Respectfully,

Steve Clarke – Helen Clarke

uniformly north-south. Around Malibu (and Santa Barbara) the coastline runs almost entirely east-west, as does its main artery, Pacific Coast Highway. While traveling northbound on PCH through Malibu, one is actually traveling west. Likewise, the Pacific Ocean is due south and the inland Santa Monica Mountains are north. The result of this is many, not all, of Malibu's beaches actually face south.

Carbon Beach, Paradise Cove, Escondido Beach, Surfrider Beach, Broad Beach, Pirate's Cove, Westward Beach, Zuma Beach, and Trancas are places along the coast in Malibu. Point Dume forms the northern end of the Santa Monica Bay, and Point Dume Headlands Park affords a vista of stretching to the Palos Verdes Peninsula and Santa Catalina Island. Directly below the park, on the western side of the point, is Pirates Cove, named for rumrunners during prohibition who liked the secluded beach for offloading their cargo. Because of its relative seclusion, Pirate's Cove was previously used as a nude beach, but because nudity is now illegal on all Los Angeles County beaches, nude sunbathers are subject to fines and/or arrest. On the eastern side of the point is "Little Dume", a surf spot which is accessible only by an unmarked trail below Wildlife Drive which has a locked gate. Surfers often paddle out from Paradise Cove to the area when the waves are breaking.

Like all California beaches, Malibu beaches are technically public land below the mean high tide line. Many large public beaches (Zuma Beach, Surfrider Beach) are easy to access, but such access is sometimes limited in some of the smaller and more remote beaches. Although access to most all Malibu beaches can be obtained after a bit of a walk, the issue of expanded public access is continuously addressed and debated by the City. Many Malibu homeowners favor limited public access expansions to some beaches, claiming that many visitors are less likely than residents to respect the beaches or private property.

Demographics

As of the census[42] of 2000,[43] there were 12,575 people, 5,137 households, and 3,164 families residing in the city. The population density was 244.4/km² (632.9/mi²). There were 6,126 housing units at an average density of 119.0/km² (308.3/mi²). The racial makeup of the city was 91.91% White, 8.49% Asian, 0.90% African American, 0.21% Native American, 0.10% Pacific Islander, 1.67% from other races, and 2.72% from two or more races. Hispanic or Latino of any race were 1.48% of the population.

There were 5,137 households out of which 25.3% had children under the age of 18 living with them, 51.5% were married couples living together, 6.7% had a female householder with no husband present, and 38.4% were non-families. 27.3% of all households were made up of individuals and 6.7% had someone living alone who was 65 years of age or older. The average household size was 2.39 and the average family size was 2.86.

The age distribution was 19.6% under the age of 18, 7.9% from 18 to 24, 26.4% from 25 to 44, 32.0% from 45 to 64, and 14.0% who were 65 years of age or older. The median age was 43 years. For every 100 females there were 97.8 males. For every 100 females age 18 and over, there were 95.6 males.

The median income for a household in the city was $102,031, and the median income for a family was $123,293. Males had a median income of $100,000+ versus $46,919 for females. The per capita income for the city was $74,336. About 3.2% of families and 7.6% of the population were below the poverty line, including 6.8% of those under age 18 and 1.1% of those age 65 or over.

80% OF SENIORS BELOW POVERTY LINE

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Government and infrastructure

Local government

Rosie Villar - Feedback on Tuesday's Malibu meeting

From: "Ken Duzy" <kskd2@ix.netcom.com>
To: <wphillips@waterboards.ca.gov>
Date: 9/2/2009 11:02 AM
Subject: Feedback on Tuesday's Malibu meeting
CC: <jthorsen@ci.malibu.ca.us>

Ms. Phillips-

I'm a homeowner in the Malibu Knolls area and I attended Tuesday morning's meeting at Pepperdine.

By way of feedback, I'd like to suggest that in future meetings:

1) Spend less of the limited time available proving the existence of pollutants since countless studies have shown that they exist.
2) Spend more time on identifying the major sources of pollution. In your prohibition, every homeowner is treated the same as every current violator of standards like Jack in the Box or every high volume water user like the many restaurants.

For example, our house, according to your map, is 3,500 feet from the ocean and 2,700 feet from Malibu Creek, and I know that we are at 300 feet above sea level. In the 19 years that just my wife and I have lived there, we've never had so much as a damp spot over our drainage field.

I'm far from convinced that we, or even our entire neighborhood, should be treated the same as the many high traffic restaurants that are within 10 feet of sea level and not far from Malibu Creek. And I'm also not convinced that the 30 or 50 or $70,000 that each homeowner will pay to build and connect to the sewer system will, in the end, improve water quality by more than a few percent beyond the gains made from addressing the core civic center area.

One alternative is to approach the problem in two phases, first the commercial, apartment, condominium and substandard beach properties and second, if it is proved necessary, the outlying residences. Properties bordering Webb Way could be part of a northern boundary for separating phase 1 and phase 2, with perhaps the exception of Hughes Research Lab. I suspect that it will take the full 5 years to build out phase 1 and begin to measure its effect.

We need more flexible solutions than the "one size fits all" prohibition, and 5 weeks is not going to be enough time to develop them if the next public information meeting is not until October 1 and the deadline for comments is only a week after that.

Finally, if your staff is considering solutions that involve Tapia without ever having contacted the manager there, as he stated, that is a red flag that the process is moving too fast. More time and more flexible solutions are needed.

Regards,

Ken Duzy

From: Rebecca Chou
To: GW permitting team; student assistant team; Villar, Rosie
Date: 10/7/2009 4:28 PM
Subject: Fwd: Written comments on amendment to prohibit On-Site Wastewater Disposal systems in the Malibu Civic Center Area

>>> "Ken Duzy" <kskd2@ix.netcom.com> 10/7/2009 4:19 PM >>>
Written comments on the amendment to prohibit On-Site Wastewater Disposal systems in the Malibu Civic Center Area

A Simple and Practical Improvement to the Prohibition

First Focus on the Sources of 90% of the Pollution

According to the RWQCB's presentation slide titled "#3 Is there a pathway from OWDSs in the Civic Center to the beaches?", the civic center commercial properties produce 10 times the pollution produced by residences (110,000,000 vs 11,500,000 MPN/100 ml of enterococcus).

This validates the common sense conclusion that restaurants and other businesses that are closer to the ocean, near sea level and use large volumes of water to prepare food, wash dishes and flush the toilets used by many hundreds of customers a day do indeed contribute far more to the civic center's water pollution than residences that can be 3,000 feet from the ocean and 200 or 300 feet above sea level.

If money were no object, then drawing the prohibition boundaries based on watershed ridgelines, as the RWQCB has done, would make perfect sense. But the prohibition will have a huge financial impact on the residents of the civic center area-perhaps $100,000 per residence to fund a wastewater treatment plant.

Given the enormity of the financial impact on residents, doesn't it make great sense to first focus the prohibition on the commercial properties that

the RWQCB says generate 90% of the pollution? Once that has been done, if levels of pollution are still not acceptable, then impose the prohibition on residences.

Not all residents are the rich and famous. Among my fellow residents of Malibu Knolls are a librarian, an electrician and a gardener. Residences are not businesses that can raise prices on items sold to pay for the wastewater system.

A simple, practical and humane starting point for the northern boundary of the prohibition would be to use properties bordering Civic Center Way as the initial northern boundary. Since that will include virtually all commercial properties, it should eliminate 90% of the current pollution according to the RWQCB's own study cited at the beginning of these comments.

Ken Duzy

23837 Harbor Vista Dr.

Malibu, CA 90265

October 7, 2009

Rosie Villar - Postponing the RWCB vote to prohibit Malibu Civic Center spetic systems

From: <busurfmd@aol.com>
To: <rchou@waterboards.ca.gov>, <eerichson@waterboards.ca.gov>, <rvillar@waterboards.ca.gov>, <drice@wateroards.ca.gov>
Date: 10/8/2009 3:12 PM
Subject: Postponing the RWCB vote to prohibit Malibu Civic Center spetic systems
Attachments: SCRWQCB10809.doc

Thursday 10/08/09

Dear Dr. Chou:

I am attaching a written memo for you, the Board members and staff to incorporate in your evalutions on the proposed amendment to the Basin Plan.

I originally was one of the activists that stimulated the Malibu Creek Watershed evalutions and discussions. I have been relatively inactive in recent studies and discussions in part due to illness, family, and a grwoing appreciation that water related illnesses have sharply declined since the Malibu Lagoon berm has been allowed to remain intact more often and other improvements have been made.

I look foward to working with you, other staff and the Board members on our common goals..

Thanks,

Jeff Harris MD MPH

PS Please ackonwledge receipt of my submission.

310-456-1891

Jeff Harris MD MPH
23712 Malibu Road
Malibu CA 90265

RE Proposed Amendment to Prohibit OWDSs in Malibu 10/8/09

Dear Board Members, Staff and Stakeholders:

I am recommending that you postpone any action on the proposed amendment to prohibit septic systems in the Malibu Civic Center area. Pending results by many qualified scientists on Malibu Creek's lower watershed pathogens, water hydraulic pressures, nutrient sources etc. should be evaluated by you before any vote is taken. These results are due to be published early next year.

My perspective comes from many years of treating surfers and swimmers for infections at Surfrider Beach; I can confidently announce that I have not seen nor heard of water related infections for at least the past five years during the peak use summer months.

I expect the latest epidemiological study done this summer at Surfrider Beach will indicate little if any water related illness when it is published early next year. The Regional Board, SMBRP, Heal the Bay, Baykeeper, LVRCD and other activist stakeholders will deserve accommodations for this accomplishment early next year.

The Board and others must realize that they cannot get current human pathogen risk assessments relying on outdated and invalidated fecal and coliform bacteria indicators. As you know the many lagoon birds and small animals cause high levels of these indicators.

The Board should insist that present and future monitoring for Malibu Creek, Lagoon and Beach should be done with rapid pathogen specific indicators currently in use by UCSB, UCLA and the EPA.

The recent fish and crayfish kills in lower Malibu Creek and Lagoon emphasize the need for understanding the relative contributions of nutrients to algae growth and eutrophication. Again pending studies with the latest testing methods will be due next year.

Now is the time to wait for definitive study results, not vote to proceed.

Tamar/ Sean,

Rosie Villar - FW: Malibu Community Meeting for Prohibition: Public Comment

From: "Chris Deleau" <cdeleau@schmitzandassociates.net>
To: "Wendy Phillips" <wphillips@waterboards.ca.gov>
Date: 9/14/2009 4:34 PM
Subject: FW: Malibu Community Meeting for Prohibition: Public Comment
CC: "Elizabeth Erickson" <eerickson@waterboards.ca.gov>, "Rebecca Chou" <Rchou@waterboards.ca.gov>, "Don Schmitz" <DonS@schmitzandassociates.net>, "Donna Shen" <dshen@schmitzandassociates.net>, "Sharon Martin" <smartin@schmitzandassociates.net>, "Julie Crooks" <jcrooks@schmitzandassociates.net>, "Stein, Tamar C." <TStein@coxcastle.com>, <jrepking@coxcastle.com>, "Paradise, Kate J." <KParadise@coxcastle.com>, "Tracy Egoscue" <tegoscue@waterboards.ca.gov>

Ms. Phillips,

I offer the following comments on behalf of Malibu La Paz Ranch, LLC, who as you know owns property located in the Malibu Civic Center Prohibition Area, said land being commonly referred to as Los Angeles County Assessor Parcel Numbers 4458-022-023 and 4458-022-024 totaling 15.29 acres in size:

I. THE OCTOBER 1, 2009 MEETING SHOULD BE RESCHEDULED TO PROVIDE FOR AMPLE OPPORTUNITY FOR THE PUBLIC TO ADDRESS THE BOARD:

I note that the next monthly Board Meeting will take place on October 1, 2009 (the same day as the proposed Community Meeting on the Prohibition). I am to understand that the Regular Board Meeting will occur in the AM while the Community Meeting will occur in the PM? If you could confirm that both meetings will in fact take place on the same day it would be very helpful. I think it would be prudent of the Board to schedule the Community meeting on a different day than the regular Board Meeting as I believe that many residents would like to attend both meetings and that this may be difficult for some to do. If the idea is to provide ample opportunity for public participation I believe a different date should be made for the community meeting.

Thank you for your call on September 2, 2009 wherein you acknowledged that during the Community Meeting which took place the prior day at Pepperdine University I had submitted a speaker slip but that due to time constraints I (among others) had been unable to present my comments. I hope to have the opportunity to present my more substantive comments to the Board both verbally and in writing at the next meeting.

That said I do have several comments that go more towards the decorum of the September 1, 2009 Community Meeting which I feel are time sensitive and warrant immediate discussion.

II. THE SEPTEMBER 1, 2009 MEETING WAS TOO SHORT AND THE VENUE WAS INAPPROPRIATE:

Given the extreme importance of community discussion on the proposed septic prohibition, ample time and opportunity needs to be afforded the general public for a meaningful discussion of the prohibition. The last hearing had 100 or so residents in attendance and it lasted only 2 hours with members of the public such as myself (representing *several* commercial and residential property owners in the prohibition area) being unable to comment due to time constraints. Over half of that two hour meeting was dedicated to staff PowerPoint presentations leaving only minimal time for public discussion.

We expect a much larger turnout at the next Community Meeting and expect that more people will wish to speak including some who were allotted only 1 minute of time at the previous September 1, 2009 Community Meeting. I would recommend that the Board avail itself of the City's facilities so as to avoid any scheduled interruptions such as the class that interrupted the last community meeting at Pepperdine. Malibu High School or Middle School Gymnasiums would be good potential locations for the meeting as they will have the potential to seat the hundreds of people that will be in attendance. I just received the Board's notice of hearing and I am displeased to note that again, only two hours has been allocated for public discussion (and presumably, as currently envisioned, this will be the last scheduled community meeting). How much of this time will be allocated towards staff/ City presentations and how much time will be allocated towards public discussion/ Q&A? ***Two hours is an insufficient amount of time for the public to become educated and discuss the proposed prohibition.*** In allocating only 4 hours of total meeting time prior to hearing on the prohibition, this gives the impression that the Board is purposefully rushing through the public comment phase. This impression is only made worse by the fact that the draft prohibition, its proposed boundaries and its supporting technical documents have been and continue to be substantively revised (all the more reason for extensive public discussion/ Q&A).

I would also request that any and all members of the ***public be allowed at least 5 minutes to speak*** as was the case with the first meeting. It is only fair that all members of the public be provided with the same opportunity to address the Board and staff on these issues. As several members of the public were already provided with approximately 5 minutes time (technically there were no time limits in the beginning of the meeting for public comment), it would be inappropriate to provide others with less time to speak as occurred during the last meeting. Additionally, for those who spoke at the last meeting and who were not afforded a complete opportunity to voice their thoughts (i.e., were afforded less time than other individuals) I would ask that those individuals be provided with additional time to speak should they so desire. ***These meetings should be expected to take at least 4 hours*** and they may run longer. A shorter time allotment will not provide ample time for meaningful discussions (back and forth) on the subject matter or public education. This is especially true when Staff has substantive presentations to make which consume a great deal of time.

III. MORE WORKSHOPS AND "TOWN HALL" MEETINGS ARE NEEDED TO PROPERLY EDUCATE THE PUBLIC AND PROVIDE THE PUBLIC WITH AN ADEQUATE OPPURTUNITY TO BE HEARD

I would ask that the Board hold ***at least two more community workshops*** to help facilitate a discussion between the City, the Board and the residents/stakeholders in the City. While there may be disagreement on the impacts of the prohibition (i.e., negative or positive), I think everyone can agree, including the Board, that this prohibition will have a significant impact on the Community of Malibu. The subject matter is of the utmost importance and the costs of the City and State to achieve compliance with the mandates of the prohibition are substantial (in the tens of millions of dollars). Due to the significance of the subject matter and the potential ramifications of the Board's proposal, La Paz would like to respectfully request that 2 members of the Regional Board be present at the next Community Meeting on October 1, 2009. This occurred previously when Commissioners Glickfeld and Lutz attended a "town hall" format meeting which was held a few months ago at the City to discuss general water quality matters. Its my feeling that when the Board members are present and directly involved in these meetings it conveys to the residents of Malibu that their interests and concerns are being taken very seriously by the decision makers. That is helpful for everyone.

IV. STAFF MADE INACCURATE AND UNSUBSTANTIATED ALLEGATIONS AT THE HEARING WHICH WERE MISLEADING TO THE GENERAL PUBLIC:

For the Record, I strongly object to Ms. Erickson and Ms. Chou's characterization of various forms of bacteria in Malibu Lagoon and Surfrider Beach as being ***"Septic Bacteria"*** **or waste from septics**. With several epidemiological studies having been conducted to date (and several pending), none of those scientific studies to my knowledge have been able to demonstrate that septic systems in the Civic Center are conveying <u>human fecal bacteria</u> into those listed water bodies. The Board's technical memoranda do not support this conclusion either, at least not in a manner that is close to being scientifically acceptable. What has been offered to date to support this allegation remains highly speculative, based upon correlation loosely derived from data, and is inconclusive at best. It is therefore a complete misstatement of fact, proffered without reservation or proper context, that there are "septic bacteria" in the Lagoon and at Surfrider Beach.

V. <u>THE PUBLIC DESERVES TO BE PROVIDED WITH HONEST ANSWERS AS TO WHAT THE BOARD INTENDS TO PROSCRIBE AND WHAT THE PRECISE CONSEQUENCES OF THAT PROSCRIPTION WILL BE.</u>

It was irresponsible to advise the property owners within the prohibition area (as staff did during the last meeting) that the Board will likely not take a strict approach towards enforcement. In fact, you suggested that the Board would refrain, at least for an indeterminate period of time, from processing NOVs, levying Fines or pursuing other possible enforcement measures. I would first note that this is contrary to past prohibitions that have been passed in this and other districts in California where Board enforcement staff did in fact serve several NOVs on private property owners (residential properties included).

How the Board staff envisions enforcement practices 5 years+ out from the present day is not the issue at all and is a matter of pure speculation. What is the only item of any real consequence is that ***<u>residents within the prohibition area will be legally required to cease all discharges within 5 years of the enactment of the prohibition by the LARWQCB</u>***. This leaves residents and business owners with two alternatives to comply with the law as I see it: 1. Keep their septic tanks and/or expand them to ***<u>store</u>*** more effluent, eliminate their leach fields and pits and use the tanks for storage only, and then pump the tanks regularly and Truck 100% of their effluent off site to a licensed treatment facility or; 2. Abandon the premises as inhabitable (de facto red tag). This is what the Board staff should be advising residents within the prohibition area as these are their only legal alternatives to achieve compliance with your intended mandates. Advising them implicitly as you did that they would be able to discharge during the prohibition without penalty or consequence and lulling them into a false sense of security could also potentially undermine the legal validity/enforceability of the prohibition itself.

I offer these comments on behalf of Malibu La Paz, LLC ("La Paz") for inclusion in the Administrative Record. La Paz would greatly appreciate it if staff could provide La Paz with copies of any comment letters or correspondence on the moratorium/prohibition that are received by staff as those documents become available.

I look forward to seeing you at the next meeting. Should you have any questions please do not hesitate to contact us.

Regards,

Christopher M. Deleau
Special Projects Manager
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October 8, 2009

File No. 47864

VIA E-MAIL

Los Angeles Regional Water Quality Control Board
320 West 4th Street
Suite 200
Los Angeles, CA 90013
Attn: Dr. Rebecca Chou

Re: Proposed Los Angeles County Basin Plan Amendment to Prohibit Onsite Wastewater Disposal Systems in the Malibu Civic Center Area

Dear Dr. Chou:

We represent Malibu La Paz Ranch, LLC ("La Paz"). This letter contains La Paz's comments on the Environmental Staff Report, which constitutes the CEQA review for the proposed prohibition of Onsite Wastewater Disposal Systems in the Malibu Civic Center area ("the Prohibition"). For the reasons which follow, the Environmental Staff Report is inadequate and must be significantly revised and made available for another public review.

Although the basin planning process of the State Board and Regional Boards is a certified regulatory program (14 Cal Code Regs ("CEQA Guidelines") § 15251(g)), the preparation and approval process for basin plans and their amendments is the "functional equivalent" of the preparation of an EIR contemplated by CEQA. (*City of Arcadia v. State Water Resources Control Board* (2006) 135 Cal.App.4th 1392, 1408 ("*City of Arcadia*").) First and foremost, CEQA requires an analysis of the significant environmental effects of the entire project. (CEQA Guidelines, §§ 15126, 15165.) Under this test, future actions must be treated as part of the project and included in the impact analysis if those actions are likely to result from an approval of the project. (*See National Parks and Conservation Association v. the County of Riverside* (1996) 42 Cal.App.4th 1505, *Del Mar Terrace Conservancy, Inc. v. City Council* (1992) 10 Cal.App.4th 712.) Here, the project would immediately prohibit all new discharges from onsite wastewater disposal systems in the Malibu Civic Center area and would establish a five year schedule to cease discharges from existing systems. Despite the breadth of the project, nowhere in the Environmental Staff Report is there any analysis of the potentially significant environmental impacts that would result if, in five years, all existing systems must cease discharges because the Prohibition's schedule for implementation of a community sewer collections system is not met.

Second, throughout the Environmental Staff Report, staff takes the position that its analysis of impacts can only be conceptual because there is no way to examine project level impacts which are claimed to be entirely dependent upon the speculative possibilities of how subsequent

decision makers may choose to comply with the Prohibition. However, even if a tiered environmental analysis is appropriate, the Environmental Staff Report is not an adequate first level EIR or its functional equivalent. This can be seen in the following respects.

The Alternatives Discussion is Inadequate

The Environmental Staff Report looks at only two program alternatives, one of which is the required "no project" alternative. Under alternative number one, a municipality, utility or other local authority would provide community services to collect and dispose/reuse wastewater in order to replace on-site septic systems. This is not a true alternative; it is merely an alternate means for complying with the prohibition. In other words, the means of compliance with the project and the alternative means of complying with the project are identical. The only difference is that the Prohibition would be initiated by the Board while, under alternative one, the same thing would occur via a voluntary action by a local agency. In any event, alternative one is rejected out of hand, without any environmental analysis, because "such a voluntary, or discretionary effort is not currently available." (Report, p. 15.)

This analysis does not comply with CEQA. An EIR or the functional equivalent thereof must contain sufficient information about each alternative to permit an evaluation of the relative merits of the alternatives and the project. (CEQA Guidelines, §15126.6(a).) The analysis must contain concrete information about each alternative sufficient to allow a fact-based comparison of the project alternatives. (*Id.*) The significant adverse environmental effects of each project alternative must be discussed, albeit in less detail than is required for the project's effects. (*Id.*) Information sufficient to allow an informed comparison of the impacts of the project with those of the alternatives should be provided. (*Kings County Farm Bureau v. City of Hanford* (1990) 221 Cal.App.3d 692, 733 (absence of comparative data precluded meaningful consideration of alternatives).) The analysis of alternatives must compare the adverse impacts of the alternatives with the adverse impacts of the proposed project, which are determined by comparing the project's impacts against existing baseline physical conditions. (*In re Bay-Delta Programmatic Environmental Impact Report Coordinated Proceedings* (2008) 43 Cal.4th 1143, 1168.) A conclusory discussion is not adequate. (*Laurel Heights Improvement Association v. Regents of the University of California* (1988) 47 Cal.3d 376, 404.) Public Resources Code § 21159(a) mandates an analysis of "reasonably foreseeable alternative means of compliance with the rule or regulation." Alternative one flunks this test.

Further, the Environmental Staff Report dismissed out of hand an alternative that assumes that dischargers would haul quantities of sewage offsite, based on speculative numbers that are unsupported by any of the studies in the record. There is no data substantiating staff's assumption as to the impacts that presently occur, nor with respect to travel time to other facilities or the possibility for noise and odor.

There are other obvious alternatives to the Prohibition, including the imposition of more stringent regulations on proposed and existing on-site waste disposal systems or other cooperative approaches that are not an outright prohibition. These alternatives are wholly ignored.

Put simply, the alternatives analysis is neither an objective nor good faith effort to compare the environmental impacts of the proposed Prohibition with those of the reasonably foreseeable alternative means of compliance.

The Analysis of Reasonably Foreseeable Environmental Impacts of the Methods of Compliance is Inadequate

The environmental checklist utilized by the Environmental Staff Report assumes that compliance will occur in a vacuum, such that the analysis of impacts cannot be taken beyond a conceptual level. The checklist maintains this position, even though it specifies Legacy Park is a possible site for integrated facilities. (*See* checklist at page 40, and others in this record have suggested a portion of the La Paz site.) The Malibu Civic Center is a relatively small area; nevertheless, neither of these sites is used as the basis for an examination of reasonably foreseeable environmental impacts. Indeed, there is no discussion of the baseline conditions against which any impacts would be measured. The air quality portion of the checklist has no data supporting its conclusion that impacts would be less than significant with mitigation incorporated. The section on water admits that a portion of the 300,000 GPD flow may need to be discharged either in areas with favorable hydrogeologic conditions for sub-surface disposal or into the ocean. Yet, there is not even the most general attempt to assess whether there are favorable hydrogeologic conditions in the small Malibu Civic Center area, nor what the impacts might be if treated wastewater is discharged into the ocean. The water section concedes that the Prohibition would alter the direction and rate the flow of groundwater in the Civic Center area and suggests that delivery of potable water to the community by Los Angeles County Waterworks District No. 29 may be disrupted. Nevertheless, evaluation of these impacts in their entirety is dumped into the lap of those handling project level planning and design.

Moreover, the analysis fails to take into account other impacts. In five years, the Prohibition would apply to existing systems, and everyone would be required to place their wastewater in holding tanks, which would need to be regularly pumped and trucked to licensed treatment/disposal sites outside the City limits. This substantial additional truck traffic would cause air quality impacts, contribute to global warming, and cause traffic impacts. Additionally, there would be a potential for spills from the storage tanks and trucks. The increased pumping activity would cause a significant increase in odor problems within the Civic Center which might deter tourist traffic and shoppers from retailers in the area. In fact, due to the additional costs, the Prohibition could force businesses in the Civic Center to shut down, causing urban blight and decreasing commercial and other visitor-serving activities in violation of the Coastal Act and the City's Local Coastal Program.

Likewise, the prohibition could cause several utilities and other public facilities to be closed, including one Fire Department Station on Malibu Road, the Malibu City Hall, the Malibu Library, the County Court House, the Los Angeles County Water Works District 29, Charter Cable, and other various utilities, emergency services and public entities,. The Board did not analyze the impacts of emergency services and public utilities and facilities being lost due to the impact of the prohibition.

The Analysis of Mitigation Measures and the Statement of Overriding Considerations are Inadequate

The checklist assumes, without foundation, that every impact can be mitigated to a less than significant level, including impacts such as construction, air quality and noise, and traffic and circulation. The checklist does not propose any specific mitigation measures whatsoever, let alone include any analysis of whether those mitigation measures will reduce impacts to a less than significant level. Mitigation measures must not be remote or speculative. (*Federation of Hillside & Canyon Ass'ns v. City of Los Angeles* (2000) 83 Cal.App.4th 1252, 1260.) An agency cannot use vague or incomplete mitigation measures as a means of avoiding evaluating project impacts. (*Stanislaus Natural Heritage Project v. County of Stanislaus* (1996) 48 Cal.App.4th 182, 195.) Furthermore, CEQA prohibits deferring the formulation of a mitigation measure to a future date. (CEQA Guidelines, § 15126.4(a)(1)(B).)

This failure to determine whether impacts are significant and whether specific mitigation measures can reduce those impacts to a less than significant level undermines the statement of overriding considerations. A statement of overriding considerations is allowed where an agency finds "that specific overriding economic, legal, social, technological, or other benefits of the project outweigh the significant effects on the environment." (Pub. Resources Code, § 21081(b).) However, before making this determination, the agency must identify significant impacts and all feasible mitigation measures and alternatives to reduce those impacts. (See *Woodward Park Homeowners Ass'n v. City of Fresno* (2007) 150 Cal.App.4th 683, 717.) "The statement's purposes are undermined if . . . it misleads the reader about the relative magnitude of the impacts and benefits the agency has considered." (*Id.*) The purpose of the statement of overriding considerations is to "rub" the decisionmakers "noses . . .in those environmental effects" before making their decision to approve the project despite those effects. (*Id.*) Here, it is impossible to tell from the checklist or the statement of overriding considerations which impacts remain significant. Therefore, the entire impacts analysis needs to be redone before a statement of overriding considerations can be adopted.

The Board Has Failed to Take Economic Issues Into Account

The proposed Prohibition fails to take into account economic and practical issues relating to its implementation. The economic impacts of a septic prohibition must be analyzed in accordance with California Water Code Sections 13243 and 13281. The foreseeable closing of businesses and the greatly diminished sales tax revenues accruing to the City could further delay and frustrate a working solution to the existing wastewater problem. The City estimates that it will cost at least 30-40 million dollars to construct a centralized plant. If all residents and businesses were forced to comply with the Prohibition and incurred substantial economic losses as the result thereof, it is foreseeable that Assessment Districts could not be formed as there would be no discretionary income to provide for their formation.

The failure of the prohibition on on-site wastewater systems in Los Osos shows why the proposed Malibu Civic Center Prohibition will also fail. The Los Osos prohibition was put into

effect in the early 1980s, but a centralized plant has still not been constructed. The Los Osos prohibition shows that outright prohibitions do not expedite community goals and plans for improving wastewater management, but, instead, cause confusion, resentment and delays.

The Prohibition Should Include A Reasonable Exemption

The Board should adopt a moratorium that provides a meaningful exemption for systems that meet specified criteria. For example, a meaningful exemption would allow for systems that treat effluent to Title 22 standards and which propose to recycle and reuse 100% of their water). The current proposed exemption is impossible to meet in that it requires an applicant to recycle and "evapotranspire" one hundred percent of their reclaimed water. One hundred percent evapotranspiration is scientifically impossible because maximum irrigation efficiency ranges depending upon climate, landscape palettes, soil types and various other factors. In other words, some small amount of water is neither absorbed by plants (transpired) nor evaporated but instead makes its way to the groundwater (irrigation return flow). Additionally, it is standard practice to slightly over-irrigate landscaping so as to flush accumulated salts out of soils which accumulates over time with standard irrigation practices regardless of whether potable water or reclaimed water is used for irrigation. Salt flushing is a necessary practice on routine irrigation projects. Therefore, the exemption, as currently drafted, is impossible to meet. Furthermore, the lack of a meaningful exemption discourages water recycling and reuse in contravention of Water Code § 13241, as well as the State Water Board's recently enacted Water Recycling Policy

La Paz requests that the exemption language be revised as follows:

> An exemption would allow for projects that propose to recycle and reuse 100% of the wastewater generated by the project. To comply with California State Health Code, projects would be required to provide for 60 days of storage for off-specification wastewater; emergency discharge of off-specification wastewater will not be permitted. Projects seeking exemption qualification shall demonstrate to the City of Malibu and the Board through the use of transient hydrogeologic modeling that use of reclaimed (Title 22) water on the project site for irrigation purposes will not cause a significant rise in groundwater; in making this significance determination, the City and the Board shall use the City's significance criteria which is found in the City of Malibu's Local Coastal Program at Sections 18.4(D) & (F).

For all of the reasons above, La Paz requests that the Environmental Staff Report be revised and made available for another public review before taking any further action to approve the Prohibition.

Very truly yours,

JR for

Tamar C. Stein

TCS/nmg

47864\1429860v6

Dear Ms. Rodriguez:

Thank you for giving me the opportunity to voice my questions from the recent meeting that went unspoken when time ran out for public comments. Note that while I am representing Our Lady of Malibu Church (OLM), I actually come from the world of Aerospace (I'm one of those "rocket scientists"), and, as such, I am only beginning to learn the language of "your" world, so forgive me if my questions are not posed precisely. I have only recently become involved with the wastewater treatment and Prohibition proposals and I know that there is a huge amount of background data that has been developed over the years - my experience is limited to what I have heard at this meeting (September 1) and at the recent City of Malibu meeting (August 25). In my current studying of the topic, I have derived several additional questions beyond that original one.

1) In this meeting, I heard that the presence of the enterococcus bacteria is is used as a measure of human fecal contamination in the Malibu Lagoon and the adjacent ocean water, as it is elsewhere. The data presented implied a very significant amount of such contamination. On the other hand, presentations (a UCLA study and a U.S. Geological Survey study) at the earlier meeting and as Mr. Thorsen summarized at the recent meeting, implied that Human Specific Bacteroides (HSB) play only a minor role in the contamination of the Lagoon and ocean waters.

Now to my uneducated ears, these seem to be conflicting results. According to MedicineNet.com, the definition of enterococcus is that it is a "Bacteria normally found in the feces of people and many animals" and another reference states that "enterococci are benign bacteria when they reside in their normal habitat such as the gastrointestinal tracts of human or animals." (ref.: http://www.sourcemolecular.com/newsite/index.php?option=com_content&task=view&id=28&Itemid=17).
This latter reference goes on to say that: ". . it has been hypothesized that relative levels of human pollution can be interpreted by the proportion of the esp human gene biomaker found in E. faecium relative to the total population of E. faecium in the water sample. Nonetheless this data should serve only as a preliminary indicator of relative human pollution in the water sample. Furthermore, the context of the sample should be taken into account when interpreting the relative percentage provided."

How does your data reconcile these apparent discrepancies? It seems that the mere presence of enterococus bacteria is not completely indicative

of the extent of human specific pollution - it could very likely include a significant amount of animal sources of enterococcus. Did your research separate out the presence of human pollution vs, animal pollution?

2) During the public comments, the speaker stated that how the boundaries of the Prohibition area were defined and how they were established would be made available. Where is that description published?

It would appear that the boundary includes those watershed areas that do not contribute to the Civic Center and Lagoon pollution. Specifically, I refer to the Winter Canyon watershed area (please see attached Google Earth image which depicts what I believe to be the Canyon view looking south). This region clearly drains directly into the ocean, being bounded on the west by the Malibu bluffs and on the east by the ridge extending from the mountains. This ridge is plainly shown in the 1938 image of Malibu (please see the attached photo) just beyond the flooded area of the flatlands. OLM is located in the relatively flat area about two-thirds of the way up and beyond the ridge. This geography is also clear on your "Malibu Civic Center Area - Parcels" map, JFL08/25/09. To include this area west of the natural ridge just doesn't make sense as it is a natural barrier to wastewater flowing in to the lagoon area.

This, then, raises another dilemma. Since this area drains directly into the ocean, it would seem to appear that it falls into the same category as the properties extending east for several miles from the general Malibu Pier area which have been excluded from the Prohibition area. How is this discrepancy been justified?

3) A fully enacted sewer system does not seem to be a complete answer, also. The attached map of sewer overflows from May - August 2009 clearly shows that sewered beaches are not immune from pollution. These are events directly associated with sewerage overflows, not implied merely by the presence of enterococcus bacteria.

4) What constitutes a "Notice of Violation (NOV)?" I have heard that a septic tank pumping event results in an NOV, not just a spill or overflow.

5) Where are meetings such as the one on September 1 advertised? I can only find reference to the one scheduled for November 5.

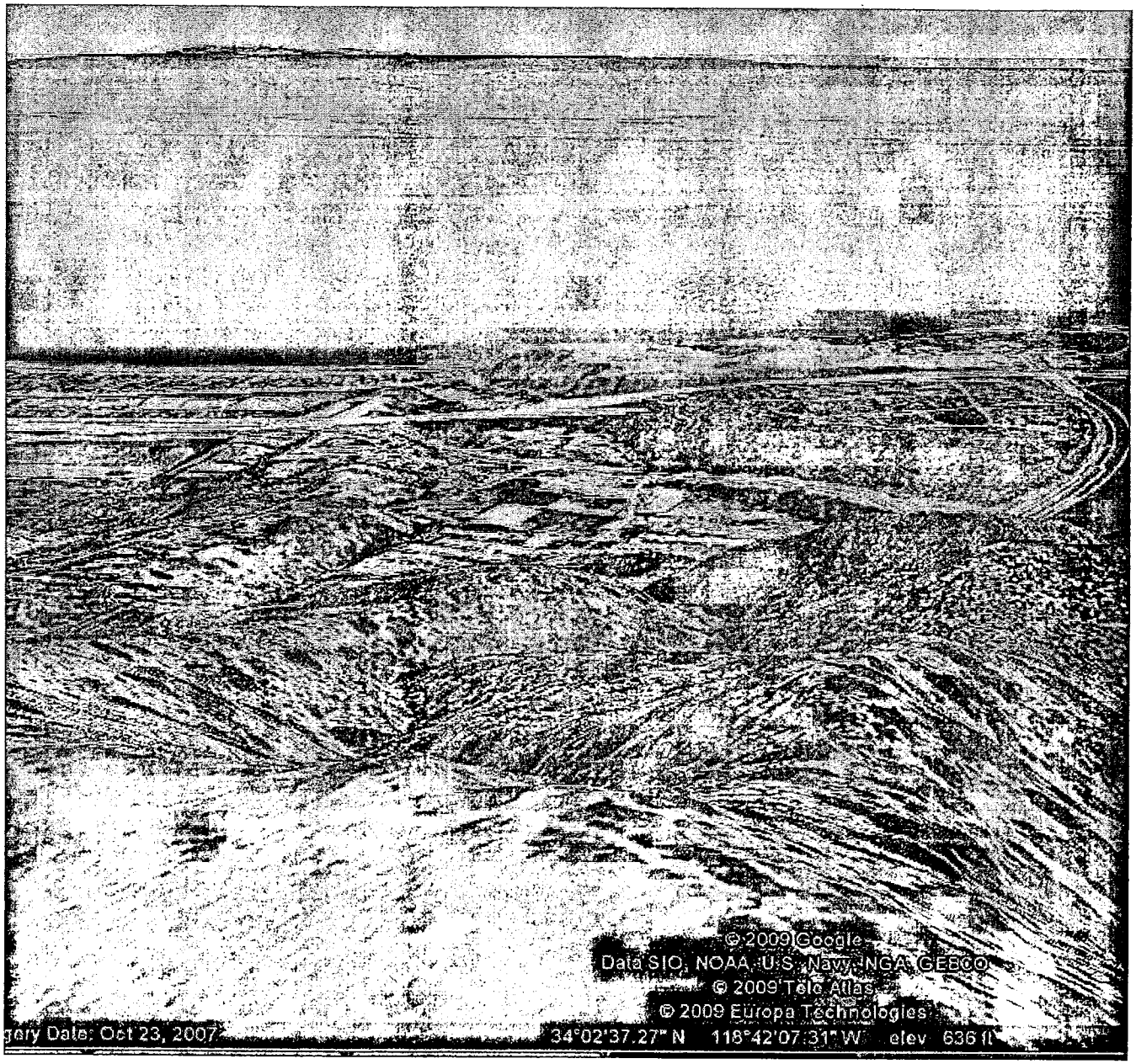
6) Finally, has opening the berm at the mouth of the Lagoon been considered? This would enable a twice daily flushing action in the Lagoon and relieve the results of the current water stagnation. At present, there is no flow through the Lagoon for several months - a

natural effect, however - but there is little about the Lagoon that is natural any more, anyway. This would also allow steelhead trout a year round access to the creek.

Thanks again for giving me this opportunity.

Regards,

Carl Ehrlich
818-880-1759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Data SIO, NOAA, U.S. Navy, NGA, GEBCO
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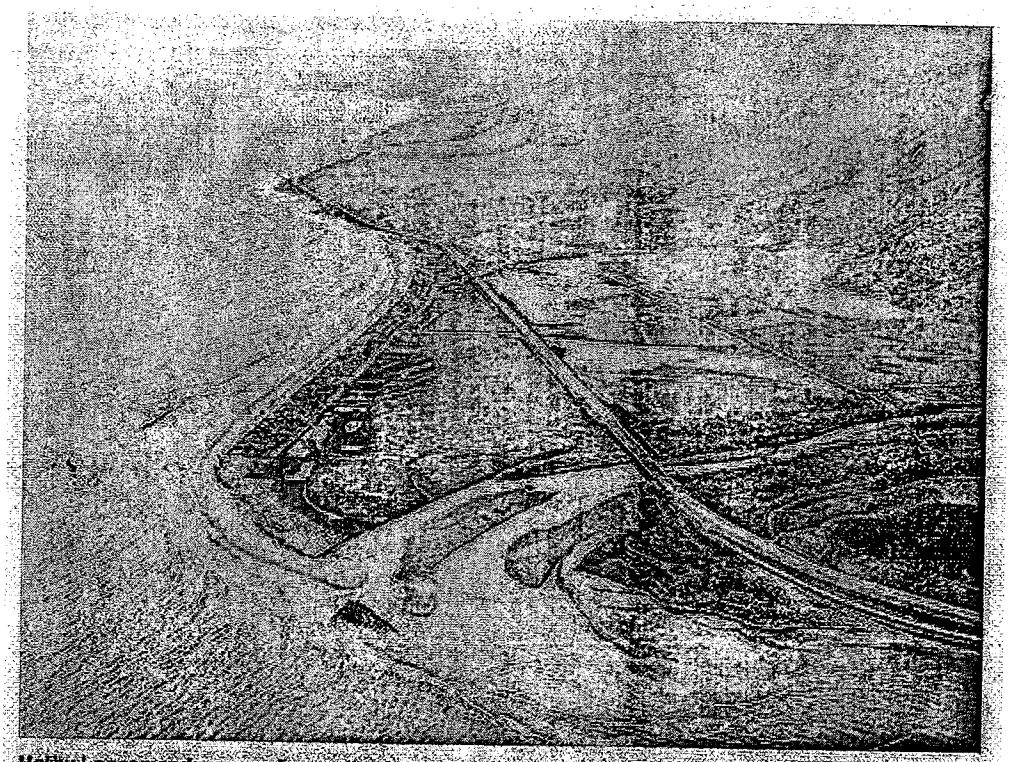
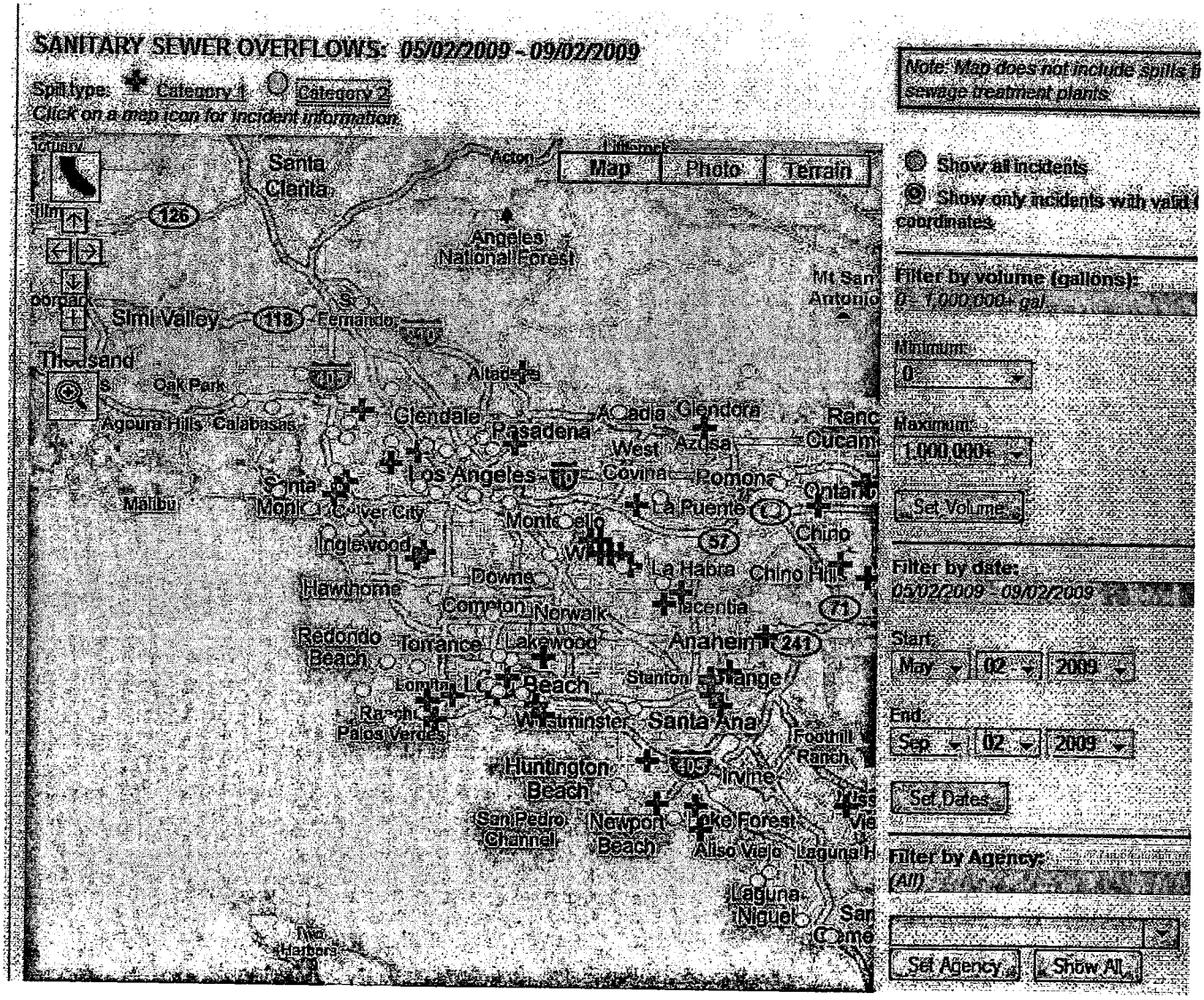


Malibu Lagoon and surrounding wetland ecosystem in 1938. Photo Courtesy of Air Photo Archives, UCLA Department of Geography.


SANITARY SEWER OVERFLOWS: 05/02/2009 - 09/02/2009
Spill type: Category 1 Category 2
Click on a map icon for incident information
Note: Map does not include spills fi
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0 - 1,000,000+ gal
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Santa Clarita
Acton
Angeles National Forest
Mt San Antonio
Simi Valley
Thousand Oaks
Oak Park
Agoura Hills
Calabasas
Malibu
Glendale
Pasadena
Altadena
Arcadia
Glendora
West Covina
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Covina
Pomona
Ontario
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Redondo Beach
Long Beach
Lomita
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Westminster
Santa Ana
Stanton
Orange
Huntington Beach
Irvine
Foothill Ranch
San Pedro Channel
Newport Beach
Lake Forest
Aliso Viejo
Laguna Niguel
Two Harbors
126
118
405
10
57
71
241
105

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October 8, 2009

VIA EMAIL AND HAND DELIVERY

Dr. Rebecca Chou
Chief Groundwater Permitting Unit
California Regional Water Quality Control Board, Los Angeles Region
320 West 4th Street, Suite 200
Los Angeles, CA 90013

Re: Comments on Proposed Amendment to the Water Quality Control Plan for the Los Angeles Region to Prohibit Discharges from OWDSs in the Malibu Civic Center Area

Dear Dr. Chou:

We are submitting comments on behalf of a number of business and residential property owners potentially affected by the proposed amendment to the Water Quality Control Plan for the Los Angeles Region (the "Basin Plan") to prohibit subsurface discharges from on-site wastewater disposal systems ("OWDSs") in the Civic Center area of the City of Malibu (the "Proposed Prohibition"), which is under consideration by the California Regional Water Quality Control Board, Los Angeles Region (the "RWQCB"). Our comments also refer to, and incorporate by reference, a series of reports which have been submitted separately to the RWQCB as comments. Most importantly, based on our concerns, we have also attached for Staff's and the Board's consideration a set of proposed changes to the text of the proposed amendment which would address the concerns we discuss below.

The parties on whose behalf we submit these comments share the RWQCB's vision of clean water as they live, work, and play in the City of Malibu and enjoy the natural beauty that is the Santa Monica Bay. However, as drafted, the Proposed Prohibition raises many questions and will very likely have far-reaching, unintended, and potentially adverse environmental and economic consequences for the Malibu Civic Center area and its receiving waters. At a minimum, many of the impacts we are concerned about have not been evaluated or addressed in the Proposed Prohibition and the supporting documentation.

We are especially concerned that the Proposed Prohibition will not allow discharges after the effective date of the amendment from the following systems because they are technically not yet "existing discharges" and would be prohibited as "new discharges":

(1) Permitted but not-yet-operating systems;

(2) New OWDSs that have substantially completed the City of Malibu or RWQCB wastewater discharge permitting processes; and

(3) OWDSs that upgrade or replace existing systems.

With respect to the first two categories above, prohibiting these discharges after the effective date places a very unfair economic hardship on property owners in the Civic Center area who have made substantial investments to install advanced OWDSs capable of protecting the waters of the state and who may now be forced to either abandon their homes or businesses or arrange to truck all generated wastewater offsite. For property owners such as those who are replacing homes lost in fires or are in the process of upgrading their OWDSs to provide a higher quality of effluent treatment, this regulatory effect is unfair, inconsistent with the Board's objectives to encourage better water quality, and not justified by any data or evidence provided in the Technical Reports supporting the Proposed Prohibition.

Likewise, banning new discharges from systems that may be installed after the effective date to upgrade or replace old, less effective and in some cases non-compliant systems makes no sense from a public policy perspective. Because such discharges from such upgraded or replacement systems would be banned after the effective date by the current text of the Proposed Prohibition as "new discharges", the amendment creates incentives not to make such changes in the transitional period (i.e., from the effective date to the date of the complete ban), which is exactly the opposite of what the Board wants to achieve. Another unintended consequence of the current text of the Proposed Prohibition is that it militates against upgrading OWDSs to increase the amount of treated wastewater that can be recycled for use in landscape irrigation. As drafted, the Proposed Prohibition does not provide any certainty for those property owners who wish to upgrade their systems to treat wastewater so it can be used for irrigation that this use is not a "new discharge" which would banned after the proposed amendment becomes effective. Because California is facing an unprecedented water crisis, the Regional Board has already made clear that encouraging water recycling is a top priority, and it would appear very inconsistent with that objective to dissuade upgrades for this purpose.

As explained in further detail below, there is substantial evidence that allowing such discharges from these categories of OWDSs would not be expected to have any adverse impacts on groundwater quality in the Civic Center area and, in fact, will support the RWQCB's water quality objectives. For these reasons, we propose revisions in the language of the text of proposed Amendment which we have set out in Attachment 1, which we believe will address these concerns. **We ask that the Regional Board Staff consider incorporating them into a revised Resolution.**

DETAILED COMMENTS

The discussion below describes in greater detail our concerns with the Proposed Prohibition. We offer these comments after having consulted with recognized experts at Earth Consultants International, CB Richard Ellis, and Matrix Environmental, the comments from which are submitted under separate cover and incorporated by reference herein. In addition, with respect to the likelihood that a centralized wastewater treatment system can be in place and operational by the proposed date of the total ban of OWDSs in 2014, we have evaluated the comments submitted under separate cover by Jim Arnone of Latham & Watkins, a recognized expert in CEQA compliance, and incorporate them in our comments as well. We have attached a copy of all those additional comments to this letter and incorporate them by reference herein.

Allowing Discharge Through Substantially Permitted New Systems and Replacement Systems During the Transitional Period Supports the RWQCB's Stated Goal of Protecting the Beneficial Uses of Water in the Malibu Civic Center

Substantially Permitted Systems[1]

Civic Center properties with substantially permitted new systems (the RWQCB has referred to these systems as "In Pipeline") will treat effluent with advanced onsite wastewater treatment systems ("OWTSs" rather than "OWDSs") that will, in operation, improve the quality of the regional groundwater by discharging water that meets or exceeds Basin Plan water quality objectives. Because the City of Malibu and the RWQCB require upgrading the level of treatment for any OWDSs currently in the permitting process (in the case of the City of Malibu, it requires upgrading to secondary treatment with disinfection), the RWQCB can take confidence that the substantially permitted new systems will result in fewer pollutants entering the State's waters. Allowing such properties to proceed to begin discharging, even after the effective date, will allow property owners to realize their substantial investment in improving their home or business while still accomplishing the RWQCB's water quality objectives.

As documented in the comments submitted by recognized Earth Consultants International, which are set out in Attachment 2, there is a limited universe in the Civic Center area of substantially permitted new systems and nearly all of them involve the installation of advanced OWDSs. Revising the text of the Basin Plan Amendment to allow this limited number of properties to discharge once fully permitted and/or operational will not have an adverse impact on the receiving groundwater and surface waters, such as Malibu Lagoon and Malibu Creek; in fact, it is more likely that such upgrades will have a positive impact because of improvements in the quality of water that will be discharged. Nearly all on-going development activity in the Civic Center area involves either the full demolition and reconstruction of

[1] By substantially permitted we mean any residential OWDS for which the City of Malibu's Environmental Health Review Division has received and approved the initial application for Conformance Review or a complete wastewater discharge permit application has been submitted to the RWQCB, as appropriate, before the effective date of the Proposed Prohibition.

previous structures (some of which were lost in the fire of 2007), or a partial remodel of existing homes and businesses. Though some of these remodels may include additional fixtures, the volume contribution from these properties to the entire Civic Center system will be essentially unchanged. Also, because many of these substantially permitted systems are actually replacing a previous OWDS onsite, water that will be discharged from the newly remodeled or rebuilt properties will be processed through a new and fully upgraded advanced OWTSs and in many cases will meet Title 22 water quality standards for recycled water (especially in the case of commercial developments). For these reasons, it is expected that discharges from such substantially permitted systems support the RWQCB water quality goals and will have a beneficial impact on the Civic Center's receiving waters.

Replacement Systems

Similarly, allowing systems that upgrade or replace existing OWDSs after the effective date of the Proposed Prohibition to discharge will not have an adverse impact on Civic Center receiving waters; rather, as a matter of simple logic, these upgraded systems will discharge a higher quality treated effluent to the subsurface, resulting in an outcome which clearly promotes the RWQCB's water quality objectives.

Replacement systems by their very definition will replace conventional, and in many cases noncompliant, OWDSs. And, generally, flows through such replacement systems are not expected to be significantly higher than what passed through the previous OWDS. Even where individual discharges increase when the capacity of some OWDSs is expanded, such increases will not substantially change the cumulative flows into the Civic Center area and are not expected to make an adverse difference, since the water discharged from such replacement systems will be of a better quality, treated to meet the RWQCB Basin Plan standards and in many cases Title 22 standards for recycled water.

Allowing Discharge Through Substantially Permitted New Systems and Replacement Systems Will Help Prevent Urban Decay in the Malibu Civic Center

Substantially Permitted Systems

As documented in the comments submitted by CB Richard Ellis and Matrix Environmental, which are set out in Attachments 3 and 4, allowing property owners to discharge through their substantially permitted new systems will allow these property owners to recover their significant investments to date and complete their projects so they can move into their remodeled or rebuilt homes and open their businesses. However, the Proposed Prohibition as written would prevent discharge from these new but not yet operational systems, which would force property owners to consider abandoning their redevelopment efforts because they are unable to discharge their wastewater. In such cases, these unfinished projects will likely contribute to in blight to the Civic Center area and have significant impacts on the health of neighborhoods.

Replacement Systems

Similarly, the effective prohibition of replacement systems that results from the current language in the Proposed Prohibition also threatens to contribute to urban decay and blight in the Civic Center. Under the Proposed Prohibition during which no additional or new waste discharge from a replacement system would be permitted, the ban would result in limiting the reuse of commercial properties as building interior adaptations will generally be required to accommodate the needs of new tenants and require the upgrading or expansion of the current OWDSs. If the existing system cannot handle the new flows or treat wastewater to the City of Malibu's or RWQCB's standards, commercial reuse will be effectively prohibited. This will lead to a reduction in marketability of commercial properties and an inevitable increase in vacancies, which in turn would significantly reduce the potential rent. Lower rents would lead to fewer funds being available for maintenance and upkeep. Effectively, the Proposed Prohibition creates a disincentive for property owners to improve their businesses or homeowners to remodel as it may trigger a prohibited discharge.

Allowing Discharge Through Substantially Permitted Systems and Replacement Systems Will Reduce the Need to Pump and Haul Waste Offsite

As also documented in the comments submitted by CB Richard Ellis and Matrix Environmental, which are set out in Attachments 3 and 4 respectively, the Proposed Prohibition will have potential significant impacts on the Malibu community by increasing waste hauling from property owners who will be prevented from discharging through their substantially permitted systems or who are prevented from replacing a failing system. If homeowners and businesses are not able to use their substantially permitted OWDSs or replace their aging failing systems with new advanced treatment systems, many of these property owners will be forced to either (A) abandon their business or home; or (B) haul all of their generated wastewater offsite until such time as a centralized wastewater treatment plant comes online. As described in those Attachments, the RWQCB has not considered these significant impacts in evaluating the viability of the Proposed Prohibition.

General Concerns With the Proposed Prohibition

The RWQCB Failed to Adequately Consider the Potentially Significant Impacts of the Proposed Prohibition and Timing Constraints on any Comprehensive Compliance Project

California Environmental Quality Act and California Public Recourse Code

As documented in the comments submitted by Matrix Environmental, which are set out in Attachment 4, there is a concern that the Environmental Staff Report does not comply with the basic requirements of Public Resources Code Section 21085.5 or the basic requirements of CEQA, as it does not adequately describe the proposed activity, does not evaluate the reasonably foreseeable environmental impacts of the proposed activity, and does not provide for alternatives or mitigation measures to reduce the significant adverse effects on the environment.

We believe that the RWQCB's Environmental Staff Report failed to adequately assess the impacts associated with the integrated facilities, interceptor sewer and decentralized facilities that could be implemented as part of the Proposed Prohibition. The analysis within the Environmental Staff Report evaluates these new wastewater systems "on a conceptual basis only" and indicates that additional project-specific environmental analysis is to be conducted. As the project-specific analyses would occur following implementation of the Proposed Prohibition, there is no certainty that the prohibition would not lead to direct and indirect impacts that are greater or equally objectionable to those that the prohibition is seeking to address. Furthermore, because of the limited analysis done to date, we believe that it will be incredibly difficult to have one of these proposed solutions in place within five years.

Timing of a Comprehensive Civic Center Solution

As also documented in the comments submitted by James L. Arnone of Latham & Watkins LLP, which are set out in Attachment 5, the Proposed Prohibition fails to adequately consider the very real possibility that a centralized wastewater treatment facility or other regional solution will not be available in five years when the Proposed Prohibition takes effect. At a minimum, the RWQCB should consider extending the time period to six or seven years before the total ban takes effect. Given the importance of time to obtain approvals and implement an alternative system to the current OWDSs within the Civic Center area, we also believe that the effective date should not be retroactive to the date of the RWQCB's approval of the amendment, but should be drafted to account for the additional time it will be necessary to process the proposal. We have included language in Attachment 1 to address this issue.

The RWQCB should be particularly concerned with the potentially significant impacts of the waste hauling that will be necessary if the ban takes effect without a regional solution in place. CB Richard Ellis determined (an expressed in their comments attached hereto as Attachment 3) that assuming on an average 2,000-gallon truck, at least 46,000 tank truck trips per year would be required each year to pump and haul the ban area's wastewater. This would have a significant impact on local traffic congestion, air quality and other environmental concerns. The RWQCB estimated that currently 7% of the generated waste in the study area is hauled offsite. See Technical Memorandum #5: *Dischargers with Unsuitable Hydrogeologic Conditions for High Flows of Wastewaters Resort to Hauling Liquid Sewage and Sludge to Communities that have Sewer and Wastewater Treatment Facilities (Draft Dated July 31, 2009).* Based on this estimate, the RWQCB calculated that hauling activity in the Civic Center currently produces 252 tons of carbon dioxide per year. In five years, if a solution is not in place when the total ban goes into effect, pumping and hauling wastewater from the Civic Center will have to be expanded considerably and using the RWQCB's own estimates, these circumstances would result in an estimated additional 23,436 tons of carbon dioxide a year. These potential effects on climate change have not been evaluated by the RWQCB in assessing the viability of the Proposed Prohibition.

Conclusions

We believe that the text of the Proposed Prohibition has serious flaws which need to be addressed before the Board acts on it. We have included proposed changes to that amendment in Attachment 1, which we believe address the most serious of our concerns.

We appreciate the opportunity to submit these comments for the RWQCB's consideration. We respectfully request that all of our public comments, including those herein and included in attached technical reports, be given appropriate consideration, be placed in the administrative record for this rulemaking, and be maintained in the agency's records.

We are available to meet with the RWQCB to discuss these comments and believe that such would be advantageous in fully understanding the issues and concerns raised in these comments. Should you have any questions or wish to discuss our comments and proposals, please feel free to contact me at 213-891-8332.

Respectfully submitted,

Gene A. Lucero

Gene A. Lucero
of LATHAM & WATKINS LLP

Attachments

1. Proposed Revisions to the Language of the Text of the Proposed Basin Plan Amendment
2. Comments on the RWQCB's Proposed OWDS Prohibition For the Malibu Civic Center Area Prepared by Earth Consultants International
3. Comments on Proposed Amendment to the Water Quality Control Plan for the Los Angeles Region Prepared By CB Richard Ellis
4. Comments on the Environmental Staff Report in Support of the Proposed Amendment to the Water Quality Control Plan to Prohibit On-Site Wastewater Disposal Systems in the Civic Center Area of the City of Malibu Prepare by Matrix Environmental
5. Comments Concerning Unrealistic Timing Assumptions for the Environmental Analysis, Project Consideration, Potential Litigation, Election on Potential Assessment District, Obtaining of State Loan, Public Bidding Process, and Construction of Potential Centralized Wastewater Treatment Facility in the Malibu Civic Center (Scheduled for RWQCB Consideration on Nov. 5, 2009) Prepared by James L. Arnone of Latham & Watkins LLP

Comments on Proposed Amendment to the Water Quality Control Plan for the Los Angeles Region to Prohibit Discharges from OWDSs in the Malibu Civic Center Area

INDEX OF ATTACHMENTS

TAB #	DOCUMENT
1.	Proposed Revisions to the Language of the Text of the Proposed Basin Plan Amendment
2.	Comments on the RWQCB's Propose OWDS Prohibition For the Malibu Civic Center Area Prepared by Earth Consultants International
3.	Comments on Proposed Amendment to the Water Quality Control Plan for the Los Angeles Region Prepared By CB Richard Ellis
4.	Comments on the Environmental Staff Report in Support of the Proposed Amendment to the Water Quality Control Plan to Prohibit On-Site Wastewater Disposal Systems in the Civic Center Area of the City of Malibu Prepare by Matrix Environmental
5.	Comments Concerning Unrealistic Timing Assumptions for the Environmental Analysis, Project Consideration, Potential Litigation, Election on Potential Assessment District, Obtaining of State Loan, Public Bidding Process, and Construction of Potential Centralized Wastewater Treatment Facility in the Malibu Civic Center (Scheduled for RWQCB Consideration on Nov. 5, 2009) Prepared by James L. Arnone of Latham & Watkins LLP

ATTACHMENT 1

EFFECTIVE DATE OF THE PROHIBITION	SUGGESTED BASIN PLAN AMENDMENT LANGUAGE
I. Set the effective date of the prohibition after approval of the Basin Plan amendment by the Office of Administrative Law; prohibit all discharges five years from the effective date.	*Effective 30 days after approval of this amendment by the California Office of Administrative Law, (the "Effective Date"), all wastewater discharges from residential, commercial, and public on-site wastewater disposal systems in the Malibu Civic Center area shall be prohibited except as follows:*
CATEGORY OF DISCHARGE	**SUGGESTED BASIN PLAN AMENDMENT LANGUAGE**
I. Discharges Through Permitted Systems	*With respect to any wastewater discharges from an operational on-site wastewater disposal system, including a permitted but not yet operating system, as of the Effective Date, such discharges shall not be prohibited until five years after the Effective Date.*
II. Discharges Through Substantially Permitted or "In Pipeline" Systems	*With respect to any wastewater discharges from on-site wastewater disposal systems for which the City of Malibu's Environmental Health Review Division has received and approved the initial application for Conformance Review or a complete wastewater discharge permit application has been submitted to Regional Water Quality Control Board, as appropriate, before the Effective Date, but which is permitted after the Prohibition's Effective Date, such discharges shall not be prohibited until five years after the Prohibition's Effective Date.*
III. Discharges Through Replacement Systems	*Any repairs, maintenance, or replacement shall not affect or modify the dates the prohibition takes effect for the on-site wastewater disposal systems described in* subsections *1 and 2 above provided that such repairs, maintenance, or replacement does not increase the amount or timing of discharges in such a way that would adversely affect the beneficial uses of receiving waters of the State of California.* ▪ *Any replacement on-site wastewater disposal system described in Subsection 3 above shall be designed to treat wastewater to the water quality standards established for new on-site*

EFFECTIVE DATE OF THE PROHIBITION	SUGGESTED BASIN PLAN AMENDMENT LANGUAGE
	wastewater treatment systems in the vicinity of impaired water bodies by Title 27 Division 5 Chapter 1 Article 1 of the California Code of Regulations (as required by Assembly Bill 885 adding Chapter 4.5 (Section 13290 to 13291.5) to Division 7 of the California Water Code), as well as any applicable requirements of the City of Malibu, including, but not limited to, secondary treatment with disinfection.
IV. Discharges Through Systems Capable of Recycling 100% of Effluent Generate Onsite	*With respect to any wastewater discharges from an on-site wastewater disposal system where the prospective discharger demonstrates before or after the Effective Date that (i) reuse, evaporation, and/or transpiration will use 100% of the wastewater generated by activities on a site; (ii) will not contribute to an adverse rise in the water table; and (iii) will contain and properly handle any brines and/or off-specification wastewaters that cannot be reused/discharged in a manner that meets water quality objectives established in the Basin Plan, such wastewater discharges shall be permitted by the Executive Officer.*

ATTACHMENT 2

Project No: 2918
October 7, 2009

Earth Consultants International

To: **California Regional Water Quality Control Board, Los Angeles Region**
320 West 4th Street, Suite 200
Los Angeles, CA 90013

Attention: **Dr. Rebecca Chou**
Chief Groundwater Permitting Unit

Subject: **Comments on the RWCQB's Proposed OWDS Prohibition for the Malibu Civic Center Area**

Dear Sirs:

At the request of our client, Earth Consultants International (ECI) has prepared this letter as a public comment in response to the Regional Water Quality Control Board's proposed Prohibition Zone for the Malibu Civic Center Area and their supporting Technical Memorandum. Our comments fall within four general areas, as divided out below:

1. **The groundwater quality in the Civic Center area has shown consistent improvement since 2006:**

OWDSs are not the sole causative factor in the degradation of the water quality in Malibu Lagoon, but no other alternative causes are evaluated. Major conservative assumptions are made with respect to wastewater volumes passing through OWDS, bacterial and nutrient loads, groundwater flow velocities, and soil cleaning potential. Despite these large assumptions, the Board's own data show that the water quality has made significant improvement in the last few years.

Table 2 in Tech Memo 3 actually shows a stark reduction of the bacteria problem in the sampling sites around the Lagoon. Three of the five sites (60%) show ZERO days of exceedence in 2008, a significant decrease in 2007, and all show declining impact days across the board. Actually this table seems to show that the City of Malibu has been quite proactive in trying to solve the Board's concerns since 2006, and the Board's plot shown in their Fig. 6 in Tech Memo 3 demonstrates this. In that chart, the highest values come from SMB-12, which is not even shown on their map, as it is likely outside the Civic Center Prohibition Zone, like SMB-13.

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In Tech Memo 1, the Board uses "Failure of Wells" as a datum to show that nearly all of the wells in the Civic Center have failed. What they do not reveal in their Memo's writeup is that most of these "failures" occurred only once in a well's 5-year history, and generally this was in 2003-2004. In any managed system, a failure can occur. The important aspect that should be anayzed is to understand the cause of a failure, whether that failure was rapidly corrected, and whether it has remained corrected. The City of Malibu's aggressive regulation and inspection of OWDS within their jurisdiction has clearly shown this to be the case. An accurate use of these wells' test data would reveal that in the period between 2003-2008 the water quality of the Civic Center fails to support the Board's position.

When one considers that these test results are only obtained from the shallow, upper, unconfined aquifer, which was never a groundwater resource and which has no pre-OWDS baseline data, instead of raising the red flag, it looks more like a success story for OWDS operations and environmental management than as the justification for a Prohibition Zone.

Numerous other examples of the Board's reliance on old data exist. For example, a 1996 report comparing bacterial exceedence days for sewered and non-sewered beaches, and a 2002 Heal the Bay report, both show significantly high values for Surfrider Beach. But, these values have plummeted in the last few years as shown by the Board in Tech Memo 3.

The City has made considerable progress in regulating improvements in Civic Center (and City-wide) OWDS treatment systems in both residential and commercial systems. The Board fails to credit any of this progress by using outdated data to justify its position, but generally doing this non-transparently in their statements and charts. Use of more modern data would generally fail to support the Board's conclusions. The use of old data at the expense of new data shows bias in the Board's analysis, and fails to support their case for a Prohibition.

2. There are a limited number of proposed new and remodeled homes in the Civic Center area:

Those business or residential entities who, in good faith, entered into expensive development plans in the last few years, and who will be stalled by this Board prohibition are being particularly penalized. None of these contributed to the condition of the groundwater in the Civic Center area before they applied for development permits. Many of these new permits are really redevelopment proposals for existing homes or businesses. In these cases, the prior OWDSs will be replaced with advanced onsite wastewater treatment systems [OWTS] that will, in operation, be improving the groundwater quality of the region over the prior, and in many cases still operating, OWDS systems.

Nearly all on-going activity involves either the full demolition and reconstruction of previous structures (some of which were lost in the fire of 2007), or a partial remodel of existing homes and businesses. In all of these cases, the volume contribution of the site's wastewater to the entire Civic Center system is essentially unchanged. The only change is that the wastewater that will be discharged will either be so completely treated that it is essentially drinking water quality, or in the case of individual homes, be processed through a new and fully upgraded advanced OWTS. Little to no change in overall volume is expected from the upgraded OWTS. The recharged effluent-water quality will be improved from all upgraded systems, as they are required to meet or exceed the City's requirements.

3. These homes generate trivial volumes of wastewater to the area:

Individually, any single residence's OWDS contribution is minor compared to any single commercial discharge. For example, if a residential remodel required an increase in wastewater flow to accommodate a remodel or rebuild, it is not excepted to have an adverse impact on water level or quality, a fact quietly acknowledged by the Board in that they only focused their volumetric analysis on the commercial discharges.

The City's assignment of wastewater volumes based on 100 gallons per day per bathroom is outmoded and conservative. Per the City's Plumbing Code, a remodeled home now is required to utilize water conservation features, such as low-flow toilets and flow reducers on shower heads and sink faucets. The overall water awareness campaigns, and the price of water, have all driven water usage volumes lower, resulting in lower wastewater discharge volumes for most new structures.

4. Even if discharges are the same or larger, the water quality discharged from these advanced treatment systems improves the current water quality in the Civic Center area

All of the currently proposed new commercial systems utilize advanced sterilization and treatment solutions, with substantial on-site reuse of the treated water for landscaping. The OWTS result in no bacterial and negligible nitrogen discharges to the groundwater, but the Board's analysis does not consider whether advanced treatment systems are in effect which might change their nitrogen production rates. New residential OWTS units result in similar reductions of nitrogen and bacteria.

There is no consideration in the Board's analysis that adding modern advanced wastewater treatment systems to the Civic Center area would help to improve the current situation even in advance of their 2014 prohibition. The Board's intent to prohibit any OWDS improvement during the coming 5 year prohibition period is counter-productive to improving the Civic Center's water quality.

Over time, all of the OWDSs in the City will be upgraded to the advanced OWTS process. This is how change comes to communities. The Board should be encouraging the City's progress towards modernizing the OWDS within the Civic Center area, but this proposed Prohibition essentially freezes in place any of that progress, and leaves all existing non-conforming systems in place for at least the next 5 years.

If a permit application has been processed, it should be allowed to move forward, with the clear awareness that eventually it will be subject to the requirements of the regional treatment solution when that becomes available. Additionally, and especially for residential systems, any conversion from an OWDS to an OWTS should be permitted, and encouraged.

Based on the Board's own data, the incidence of bacterial exceedence days at the Lagoon beaches are now below even sewered beaches like Will Rogers farther east, the incidence of failing water quality in wells is almost zero, and the percentage of correct discharger reporting is way up.

Respectfully submitted,

EARTH CONSULTANTS INTERNATIONAL, INC.

Eldon Gath, CEG 1292
President

Dr. W. Richard Laton, PG 7098
Sr. Consultant/Professor of Hydrology

Distribution: (1) Addressee

Eldon Gath, President of Earth Consultants, a Past-President of the Association of Engineering Geologists and a PhD Candidate at UC Irvine, has 30 years of geologic consulting experience in southern California. He was the senior author of the 1994 Leighton & Associates report on the geologic conditions in the Malibu Civic Center, and the geologist responsible for the removal of the State's active fault zone across Winter Mesa.

Dr. Richard Laton, a Senior Consultant at Earth Consultants International and the current NWWA National Lecturer in Hydrogeology is also an Associate Professor of Hydrogeology at California State University @ Fullerton.

ATTACHMENT 3

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October 7, 2009

Dr. Rebecca Chou
Chief Groundwater Permitting Unit
California Regional Water Quality Control Board, Los Angeles Region
320 West 4th Street, Suite 200
Los Angeles, CA 90013

RE: Comments on Proposed Amendment to the Water Quality Control Plan for the Los Angeles Region

Dear Dr. Chou:

Through a proposed amendment to its Water Quality Control Plan, the California Regional Water Quality Control Board, Los Angeles Region (CRWQCB) has proposed a ban in a portion of the City of Malibu on discharges from on-site wastewater disposal systems (OSWDSs) for new development and on increases in currently permitted levels of discharge from on-site wastewater disposal systems for existing developments for a five-year period. After that five-year period, the amendment would prohibit any discharge from any OSWDS, including all existing permitted systems.

If OSWDS discharges are banned, property owners would not be able to occupy and conduct business on their properties unless they were able to make other arrangements for treatment and disposal of the sewage and wastewater generated in their businesses or residences.

CB Richard Ellis was engaged to investigate the potential impact that the proposed amendment and ban on waste water discharge would have on physical aspects of the real estate in the Ban Area.

The Ban Area encompasses the Malibu Civic Center area. That area represents the major commercial core of the City of Malibu, with three major shopping centers and numerous freestanding commercial stores and restaurants, totaling over 200,000 square feet.

A physical survey of the area on Sept 26, 2009 found numerous vacant establishments totaling over 25,000 square feet, including a major restaurant site, a gas station site and a half dozen infill retail storefronts.

The proposed ban will have a significant adverse impact on the economic viability of the commercial centers in the Ban Area, potentially causing physical blight conditions which impacts have not been addressed in the RWQCB Environmental Assessment.

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California Health & Safety Code Sec 33035 states that "The existence of blight... constitutes a serious and growing menace which is condemned as injurious and inimical to the public health, safety and welfare of the people..." It contributes substantially to the problems of crime prevention, the preservation of the public health, and the maintenance of adequate police fire and other public services.

Causes of blight include conditions that prevent or hinder the viable reuse of buildings or vacant lots and result in abnormally high vacancies with subsequent physical deterioration. This is a likely outcome resulting from the proposed ban.

Based on a review of various CRWQCB technical reports, a compilation of property information from the Los Angeles County Assessor's Office, a survey of the commercial properties themselves as well as research into the cost of pumping and hauling discharge to disposal sites outside the Ban Area, CB Richard Ellis has reached the following conclusions with respect to the potential adverse physical impact of the proposed ban on waste water discharges in the Malibu Civic Center area (Ban Area).

1. A survey of the non-residential properties in the Ban Area revealed significant vacant space, especially in the vast majority of the properties that are at least 20 years old and which would be likely candidates for significant physical upgrades or renovation upon tenant turnover or earlier

2. For the five years during which no additional discharge would be permitted, the ban would result in limiting the reuse of properties if interior building adaptations are required to accommodate the needs of new tenants.

3. This reduction in marketability and certain increase in vacancies would significantly reduce the potential rent and result in less funds being available for maintenance and upkeep.

4. Without a sewer system in place by year five, when the total ban on discharges becomes effective, the economic burden on both residential and non-residential properties would be extremely large. At a cost of $0.20 per gallon for removal and average daily discharge of over 250,000 gallons:

   a. The cost of pumping and hauling all sewage for the Ban Area is in excess of $20 million per year.

   b. The average cost of pumping/hauling for a single residence is $26,000.

   c. The pumping/hauling cost burden for commercial businesses will likely range from $25 per square foot for general retail to $50 per square foot for restaurants and $100 per square foot for fast food establishments.

With annual rents of $40 to $60 per square foot, this added burden will force many businesses to close.

d. The reduced maintenance and subsequent deterioration would result in blighted conditions and urban decay with additional adverse spillover effects on nearby properties.

5. Based on average 2,000-gallon truck, at least 46,000 tank truck trips per year would be required to pump and haul off all of the effluent if the total ban becomes effective. This would have a deleterious impact on local traffic congestion, air quality and other environmental impacts.

The greater these economic burdens are compared to the value of the commercial activities on individual parcels, the greater will be the adverse physical impact that will result and spillover to other properties.

Exhibit 1 presents a tabulation of the discharge estimated by the CRWQCB for properties in the Ban Area. It also presents an estimate by CB Richard Ellis of the annual cost of hauling and pumping the discharge with a full ban on discharge in effect. Exhibit 2 presents a tabulation of all the parcels in the Ban Area with the age and square footage of selected parcels. Exhibit 3 presents photographs of representative vacant properties in the Ban Area taken on September 26, 2009. The type of blight and urban decay depicted in those photographs is illustrative of the type of adverse physical impact that could result from the proposed amendment.

Sincerely,

Thomas R. Jirovsky
Senior Managing Director

Ross S. Selvidge, Ph.D.
Managing Director

Mr. Jirovsky and Dr. Selvidge both have more than 30 years experience in real estate and land use consulting. They have conducted numerous analyses of the potential for urban decay in accordance with the California Environmental Quality Act as well as negotiating terms of transactions in redevelopment project areas that have the object of eliminating blight.

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Exhibit 1
Malibu CRWQCB Discharge Ban Area

	Discharge GPD	Discharge GPYr	Total Annual Pump and Haul Cost	Annual Cost PSF
Sector 1				
HRL - 3011 Malibu Cyn Rd	3,426	1,250,490	$250,098	$1.14
LA Co Main Yard - 3637 Winter Cyn Rd	252	91,980	18,396	
Malibu Colony Plaza - Disposal in Winter Cyn	16,617	6,065,205	1,213,041	$9.94
Malibu WPCP - 3260 Vista Pacifica	22,500	8,212,500	1,642,500	
Webster Elementary - 3602 Winter Cyn Rd	5,000	1,825,000	365,000	
Our Lady of Malibu - 3625 Winter Cyn Rd	2,500	912,500	182,500	
Malibu Presbyterian Nursery School - 3324 Malibu Cyn Rd	1,500	547,500	109,500	$7.05
Sector 2				
Serra Retreat - 3401 Serra Rd	720	262,800	$52,560	
Sector 3				
Malibu Animal Hospital - 23431 PCH	500	182,500	$36,500	
Malibu Adm. Center - 23519 Civic Ctr Wy	4,038	1,473,870	294,774	
Raquet Club - 23847 Stuart Ranch Rd	1,500	547,500	109,500	
Prudential Realty - 23405 PCH	450	164,250	32,850	$15.63
Malibu Country Mart I - 3635 Cross Creek Rd	8,400	3,066,000	613,200	
Malibu Country Mart II - 23410 Civic Ctr Wy	6,300	2,299,500	459,900	$13.05
Malibu Country Mart III - 3900 Corss Creek Rd	3,400	1,241,000	248,200	$7.18
Malibu Shell - 23387 PCH	300	109,500	21,900	$12.65
Malibu Prof. Arts Bldg - 23440 Civic Ctr Wy	450	164,250	32,850	$2.60
Malibu Lumber - 23479 PCH	8,500	3,102,500	620,500	
Mira Mar Properties - 23805-23815 Stuart Ranch Rd	3,200	1,168,000	233,600	
J & P Limited - 3805 Cross Creek Rd	500	182,500	36,500	
So. Calif. Edison	400	146,000	29,200	
Verizon South, Inc. - 3705 Cross Creek Rd	400	146,000	29,200	
Mariposa Land Company, LLC - 3728 Cross Creek Rd	400	146,000	29,200	
Malibu Creek Plaza/Malibu Village - PCH Cross Creek	11,000	4,015,000	803,000	
Sector 4				
Malibu Rd., LLC - 23676-23712 Malibu Rd	400	146,000	$29,200	$2.42
Morton-Gerson - 23730 Malibu Rd	400	146,000	29,200	$9.06
LA Co Fire Station #88 - 23720 Malibu Rd	540	197,100	39,420	
Lisa Krasnoff - 23655 Malibu Colony Rd	400	146,000	29,200	$8.86
Mesa, LLC - 23915 PCH	400	146,000	29,200	
Sector 5				
Surfrider Co. Beach - 23080 PCH	3,188	1,163,620	$232,724	
Malibu Pier State Park - 23000 PCH	3,000	1,095,000	219,000	
Malibu Shores Motel - 23033 PCH	2,843	1,037,695	207,539	$44.84
Malibu Beach Inn - 22878 PCH	2,843	1,037,695	207,539	$9.36
Jack-In-The-Box - 23017 PCH	4,500	1,642,500	328,500	$239.61
Malibu Plaza - 22917 PCH	1,500	547,500	109,500	$4.43
Malibu Inn & Restaurant - 22969 PCH	6,200	2,263,000	452,600	$63.00
Surfshack/Fish Grill - 22935 PCH	400	146,000	29,200	$22.50
Spd & Span Cleaners/Chabad - 22941 PCH	400	146,000	29,200	$10.81
TOTAL	129,267	47,182,455	$9,436,491	

Gallons Per Truck Trip	2,000
Trips Per Year	23,591
Trips Per Day	65

Source: RWQCB Report 8-5-09 Table 1 - Page T4-20 and CB Richard Ellis

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Exhibit 1 Continued
Malibu CRWQCB Discharge Ban Area

	Total Discharge GPD	Total Discharge GPYr	GPD Discharge Per Home	Total Annual Pump and Haul Cost	Annual Cost Per Home
Sector 1					
Residential 61 Homes	17,800	6,497,000	292	$1,299,400	$21,302
Sector 2					
Residential 83 Homes	31,100	11,351,500	375	2,270,300	$27,353
Sector 3					
Residential 2 Homes	800	292,000	400	58,400	$29,200
Sector 4					
73 of 180 Res.@50% Flow to Lagoon	25,900	9,453,500	355	1,890,700	$25,900
107 of 180 Res.@20% Flow to Lagoon	39,900	14,563,500	373	2,912,700	$27,221
Sector 5					
Residential 23 Homes	10,800	3,942,000	470	788,400	$34,278
Total	126,300	46,099,500	362	$9,219,900	$26,418

Number of Homes	349
Gallons Per Truck Trip	2,000
Trips Per Year	23,050
Trips Per Day	63

Source: RWQCB Report 8-5-09 Table 1 - Page T4-20 and CB Richard Ellis

Cost Per Gal **$0.20**

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Exhibit 2
Malibu Ban Area Parcels

APN	Property	Street No.	Street name	Owner	Description	Year Built	Square Feet Improvements
COMMERCIAL							
4458-029-001		00000		HUGHES RESEARCH LABORATORIES INC	Industrial / Vacant land		
4458-029-006		03011	MALIBU CANYON RD	HUGHES RESEARCH LABORATORIES INC	Heavy manufacturing		
4458-029-016		03011	MALIBU CANYON RD	HUGHES RESEARCH LABORATORIES INC	Heavy manufacturing		6,830
4458-029-015	HRL Labs,LLC - Malibu Facility	03011	MALIBU CANYON RD	HUGHES RESEARCH LABORATORIES INC	Heavy manufacturing	1988	90,648
4458-029-013		03011	MALIBU CANYON RD	HUGHES RESEARCH LABORATORIES INC	Heavy manufacturing	1983	5,773
4458-029-012		03011	MALIBU CANYON RD	HUGHES RESEARCH LABORATORIES INC	Heavy manufacturing		115,673
4458-021-003		03542	COAST VIEW DR	WAVE PROPERTY INC	Nursery or Greenhouse		
4458-027-034		03547	WINTER CANYON RD	LEMONNIER	Store and residential combination		
4458-022-025		03700	LA PAZ LN	KNAPP	Commercial / Vacant land		
4452-011-037		03728	CROSS CREEK RD	MARIPOSA LAND COMPANY LTD	Nursery or Greenhouse		
4452-012-024		03738	CROSS CREEK RD	MARIPOSA LAND CO LTD	Store and residential combination		
4452-011-035	J and P Limited	03806	CROSS CREEK RD	PARTNERSHIP	Office Building		
4458-020-014	Malibu Country Mart I	03835	CROSS CREEK RD	CREEK LLC	Shopping center (neighborhood		
4452-011-042	Malibu Country Mart III	03900	CROSS CREEK RD	ACQUISITION CO.	Shopping center (neighborhood		
4452-011-039		03900	CROSS CREEK RD	LLC	Stores	1972	25,832
4452-005-031	Malibu Beach Inn	22878	PACIFIC COAST HWY	MALIBU BEACH INN INC	Motel - under 50 units / 3 stories		8,724
4452-019-011		22917	PACIFIC COAST HWY	EQUITIES LLC	Office Building	1989	22,165
4452-019-004		22969	PACIFIC COAST HWY	WAVE SOUND INC	Restaurant	1989	24,739
4452-019-003	Jack In the Box #160	23017	PACIFIC COAST HWY	CHECKER BOARD PROPERTIES INC	Restaurant	1950	7,184
4452-019-002	Malibu Shores Motel	23033	PACIFIC COAST HWY	LEON	Motel - under 50 units	1969	1,371
4452-011-043		23359	PACIFIC COAST HWY	MALIBU RETAIL ACQUISITION CO.	Shopping center (neighborhood	1953	4,628
4452-011-033	Malibu Shell	23387	PACIFIC COAST HWY	OIL LLC	Service station		
4458-020-002	Prudential Malibu Realty	23405	PACIFIC COAST HWY	CROSS CREEK REAL ESTATE GROUP LLC A	Office Building	1964	1,731
4458-020-010	Malibu Country Mart II	23410	CIVIC CENTER WAY	MALIBU CROSS CREEK LTD	Commercial	1947	2,102
4458-020-004	Malibu Professional Arts Bldg	23440	CIVIC CENTER WAY	PARTNERS LLC	Professional Building		35,230
4458-019-008		23614	PACIFIC COAST HWY	CHEVRON USA INC	Service station	1972	12,644
4458-020-016		23641	PACIFIC COAST HWY	LAND CORP.	Commercial		
4458-001-007		23644	MALIBU RD	PERENCHIO	Industrial / Misc.		
4458-002-019		23700	MALIBU RD	23676 AND 23726 MALIBU RD LLC	Bank		
4458-002-018	23730 Malibu Road	23730	MALIBU RD	GERSON	Office Building		12,050
4458-018-002	Malibu Colony Plaza	23755	MALIBU RD	CITY NATIONAL BANK	Commercial / Vacant land	1960	3,224
4458-022-011		23789	STUART RANCH RD	MALIBU BAY COMPANY	Commercial / Vacant land		
4458-021-173	Miramar Building (23805-15)	23805	STUART RANCH RD	MIRAMAR PROPERTY INVESTMENT CO	Commercial		
4458-021-005		23833	STUART RANCH RD	YAMAGUCHI	Nursery or Greenhouse		
4458-019-010		23841	MALIBU RD	COLONY LLC	Shopping center / Lift		
4458-021-002		23847	STUART RANCH RD	MALIBU RACQUET CLUB	Club	1974	3,900
4458-019-003		23900	PACIFIC COAST HWY	LAND CORP.	Professional Building		
4458-018-004		23915	MALIBU RD	MESA LLC	Store and residential combination		
4458-028-020		24000	CIVIC CENTER WAY	LAND CORP.	Commercial		

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Exhibit 2 Continued
Malibu Ban Area Parcels

APN	Property	Street No.	Street name	Owner	Description	Year Built	Square Feet Improvements
INSTITUTIONAL							
4452-019-008		22931	PACIFIC COAST HWY	CHABAD OF MALIBU	Religious		
4452-020-098		00000		MOUNTAINS RESTORATION TRUST	Religious		
4452-020-099		00000		MOUNTAINS RESTORATION TRUST	Religious		
4452-020-076		00000		MOUNTAINS RESTORATION TRUST	Religious		
4452-019-010		22935	PACIFIC COAST HWY	CHABAD OF MALIBU INC	Religious		
4458-038-010		24255	PACIFIC COAST HWY	PEPPERDINE UNIVERSITY	College	1963	1,298
4458-025-023		03324	MALIBU CANYON RD	MALIBU PRESBYTERIAN CHURCH	Church		
4458-027-024		03625	WINTER CANYON RD	ROMAN CATHOLIC ARCHBISHOP OF L A	Church	1951	15,536
4458-027-023		03625	WINTER CANYON RD	ARCHDIOCESE OF L A EDUC AND WELFARE	Religious	1949	4,854
4458-027-035		00000		ARCHDIOCESE OF LOS ANGELES EDUCATIC	Religious		
4458-027-025		03625	WINTER CANYON RD	ROMAN CATHOLIC ARCHBISHOP OF L A	Religious		
4452-019-009		22941	PACIFIC COAST HWY	CHABAD OF MALIBU	Religious	1970	5,290
4458-021-172	Vineyard Christian Church	23825	STUART RANCH RD	VINEYARD CHRISTIAN FELLOWSHIP OF MA	Religious	1962	2,700
UTILITY							
4458-027-800		00000		SO CALIF EDISON CO SBE PAR 1 MAP 14	Utility		
4458-022-022		00000		MALIBU PARK PLACE LLC	Utility		
4452-011-803	Edison	03808	CROSS CREEK RD	SO CALIF EDISON CO SB OF E PAR 1 MA	Utility		
4458-022-802		03705	CROSSCREEK RD		Utility		

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Exhibit 2 Continued
Malibu Ban Area Parcels

APN	Property	Street No.	Street name	Owner	Description	Year Built	Square Feet Improvements
GOVERNMENT PROPERTIES							
4458-023-902		00000		STATE OF CALIF	Govn't owned property / Sewer		
4458-023-903		00000		SANTA MONICA UNIFIED SCHOOL DIST	Government Property		
4458-027-903		00000		SANTA MONICA UNIFIED SCHOOL DIST	Government Property		
4458-027-900	Road Maintenance Yard 336	03637	WINTER CANYON RD	L A COUNTY	Govn't owned property / Open		
4458-027-904		00000		SANTA MONICA UNIFIED SCHOOL DIST	Government Property		
4458-002-900	Fire Station No. 88	23720	MALIBU RD	L A COUNTY CONSOLIDATED FIRE PRO DI	Govn't owned property / Police & Fire stations		
4458-022-803		00000		LOS ANGELES SMSA LTD SBE 2532-19-18	Govn't owned property / Govn't services		
4458-022-904		23525	CIVIC CENTER WAY	L A CO CAPITAL ASSET LEASING RP	Government Property		
4458-019-900		23950	PACIFIC COAST HWY	L A CO WATERWORKS DIST NO 29	Govn't owned property / Sewer		
4452-011-903		00000		STATE OF CALIF	Govn't owned property / Open		
4452-011-901		00000		STATE OF CALIF	Govn't owned property / Vacant		
4452-018-903		00000		STATE OF CA MTNS RECREATION AND CO	Govn't owned property / Vacant		
4452-018-900		00000		STATE OF CA MTNS RECREATION AND CO	Govn't owned property / Vacant		
4452-018-902		00000		STATE OF CA MTNS RECREATION AND NSE	Govn't owned property / Vacant		
4452-006-903		00000		STATE OF CALIF	Govn't owned property / Open		
4452-005-902	Malibu Pier State Park	00000		STATE OF CALIF	Govn't owned property / Vacant		
4452-018-901		00000		STATE OF CA MTNS RECREATION AND CO	Govn't owned property / Vacant		
4452-005-901		00000		L A COUNTY	Govn't owned property / Vacant		
4452-007-903		00000		STATE OF CALIF	Govn't owned property / Open		
4452-006-902		00000		L A COUNTY	Govn't owned property / Open		
4452-007-900		00000		STATE OF CALIF	Govn't owned property / Open		
4452-012-902		00000		STATE OF CALIF	Govn't owned property / Vacant		
4452-007-902		00000		L A COUNTY	Govn't owned property / Open		
4458-020-900		00000		L A COUNTY	Govn't owned property / Vacant		
4458-018-900		24250	PACIFIC COAST HWY				
4458-020-901		00000		L A COUNTY	Govn't owned property / Open		
4458-018-902		00000		STATE OF CALIF	Govn't owned property / Vacant		
4458-018-903		00000		STATE OF CALIF	Govn't owned property / Vacant		

N-45

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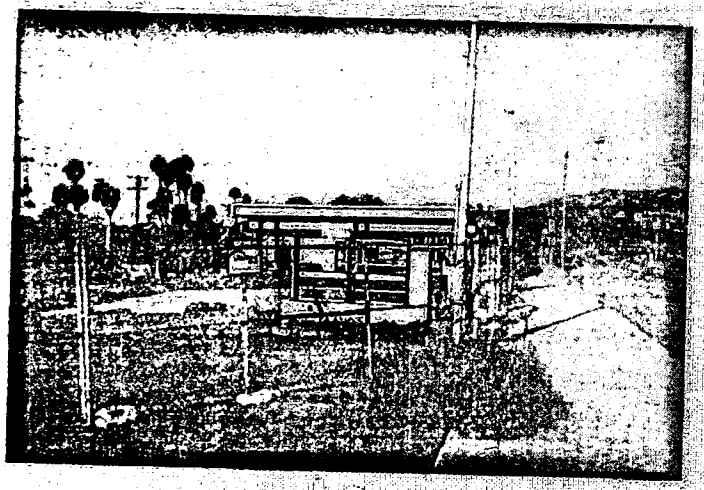
Exhibit 3
Malibu Ban Area Vacant Properties

APN 4458-019-008



APN 4458-019-010

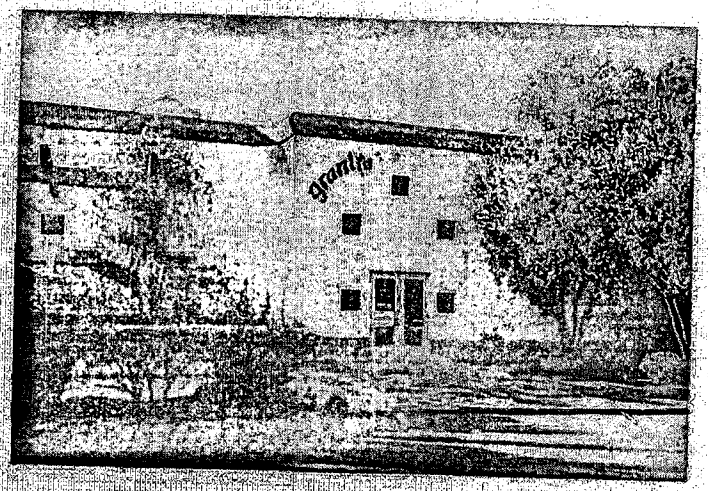


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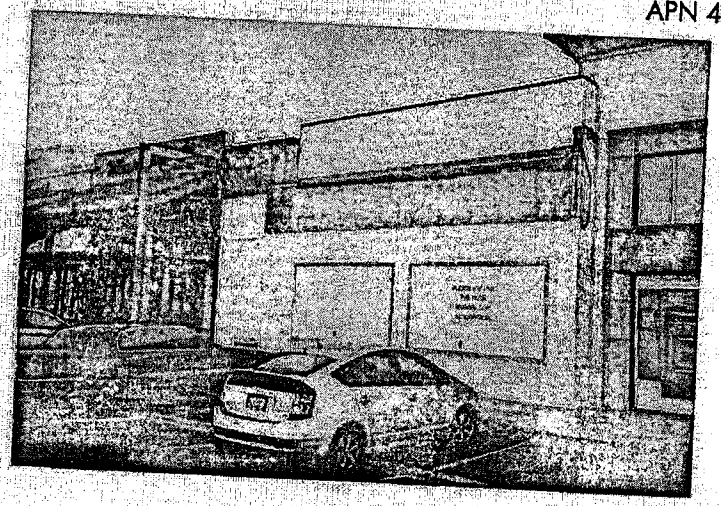
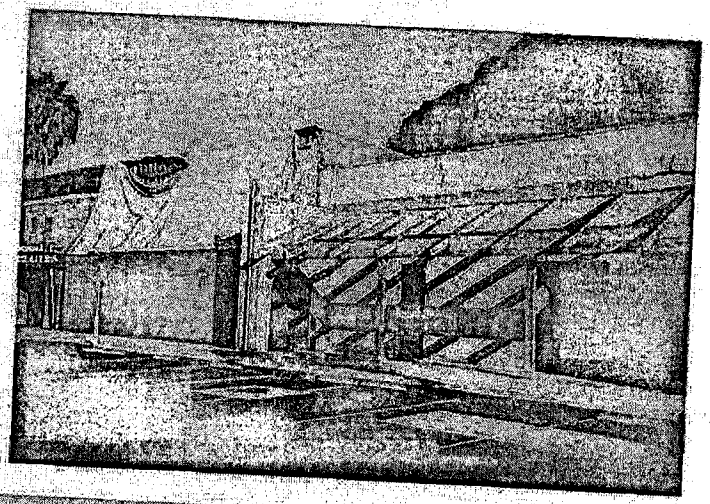
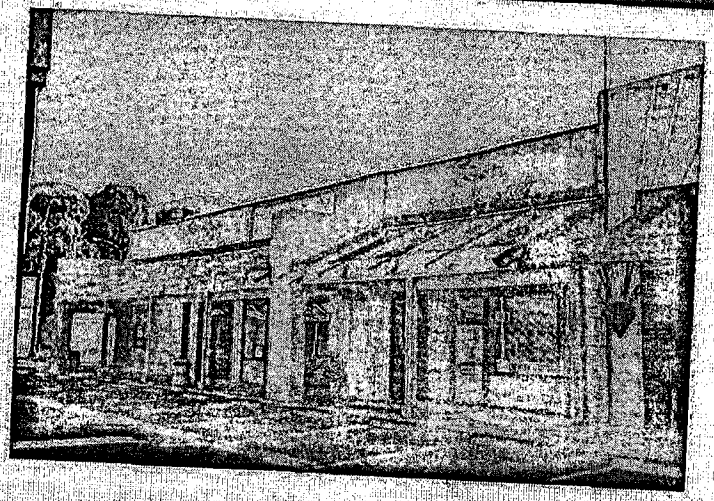
Exhibit 3 (Continued)
Malibu Ban Area Vacant Properties

APN 4452-011-903







ATTACHMENT 4

matrix environmental

October 8, 2009

Dr. Rebecca Chou
Chief Groundwater Permitting Unit
California Regional Water Quality Control Board, Los Angeles Region
320 W. 4th Street, Suite 200
Los Angeles, California 90013

RE: Comments on the Environmental Staff Report in support of the Proposed Amendment to the Water Quality Control Plan to Prohibit On-Site Wastewater Disposal Systems in the Civic Center Area of the City of Malibu

Dear Dr. Chou,

Matrix Environmental (MATRIX) on behalf of a number of parties potentially affected by the proposed amendment to the Water Quality Control Plan for the Los Angeles Region (the "Basin Plan") has reviewed the Environmental Staff Report prepared for the proposed prohibition of on-site wastewater disposal systems in the Civic Center area of the City of Malibu (the "Project"). MATRIX is a specialized environmental consulting firm led by Stephanie Eyestone-Jones and Bruce Lackow, recognized leaders in the environmental consulting field who together have over 40 years of environmental consulting experience in preparing legally sound CEQA and National Environmental Policy Act (NEPA) documentation for many of the most high-profile projects in southern California.

MATRIX has reviewed the Environmental Staff Report for the Project with regards to its adequacy for serving as the CEQA document for the proposed Project. Based on this review we offer the following comments.

6701 Center Drive West, Suite 900, Los Angeles, California 90045
Phone: (424) 207-5333 Fax: (424) 207-5349

Comments Regarding Environmental Assessment Prepared Regarding the Prohibition of On-site Wastewater Disposal Systems in the Malibu Civic Center Area

The State of California Regional Water Quality Control Board, Los Angeles Region has prepared the "Environmental Staff Report Containing Substitute Environmental Documentation in Accordance with the California Environmental Quality Act in support of an Amendment to the Water Quality Control Plan for the Coastal Watersheds of Los Angeles and Ventura Counties to Prohibit On-site Wastewater Disposal Systems in the Malibu Civic Center Area." A review of this document, hereinafter referred to as the Environmental Staff Report, was conducted. Based on this review and as demonstrated by comments provided herein, the Environmental Staff Report does not satisfy the basic requirements of the California Environmental Quality Act (CEQA) Statute (See Cal. Public Resources Code, § 21000 *et. seq.)* and the CEQA Guidelines (See Cal. Code Regs. tit. 14, § 15000 *et. seq.*)

THE DOCUMENT FAILS TO MEET THE BASIC REQUIREMENTS OF CEQA (E.G., PUBLIC RESOURCES CODE § 21085.5)

Public Resources Code Section 21085.5 (a) provides that "when a regulatory program of a state agency requires a plan or other written documentation containing environmental information and complying with paragraph (3) of subdivision (d) to be submitted in support of an activity listed in subdivision (b), the plan or other written documentation may be submitted in lieu of the environmental impact report required by this division if the Secretary of the Resources Agency has certified the regulatory program pursuant to this section." In addition, Public Resources Code Section 21085.5 (d)(3) states that the plan or other written documentation required by the regulatory program shall include "a description of the proposed activity with alternatives to the proposed activity, and mitigation measures to minimize any significant adverse effect on the environment of the activity." The Environmental Staff Report does not comply with these basic requirements

of Public Resources Code Section 21085.5 or the basic requirements of CEQA as it does not adequately describe the proposed activity, does not evaluate the reasonably foreseeable environmental impacts of the proposed activity, and does not provide for alternatives or mitigation measures to reduce the significant adverse effects on the environment. Additional documentation based on substantial evidence must be provided in order for the decision maker to make an informed decision about the proposed activity.

Inadequate Project Description

The "Proposed Action" or "Project" set forth in the Environmental Staff Report is to prohibit the discharge of wastewater through on-site wastewater disposal systems (OWDS) in the Civic Center area of the City of Malibu. Existing residents, businesses, and public facilities that discharge wastewater through OWDS in the Civic Center area would be affected by the proposed prohibition as well as future dischargers who may plan to discharge in this area. As set forth in the Environmental Staff Report, the Project would immediately prohibit all new discharges from OWDS in the Civic Center area and would establish a five-year schedule to cease discharges from existing systems. The Project Description in the Environmental Staff Report fails to recognize that in order to implement the proposed ban, a new wastewater system must be in place and thus, such a system must be fully described so that the reasonably foreseeable impacts of the system can be disclosed to the public and decision-makers. Rather, the Environmental Staff Report states that "it will be the responsibility of the community and stakeholders to select a strategy for compliance [with the ban] and it will be the responsibility of a local government (local agency) to perform a specific project-level analysis and disclose those environmental impacts." While three conceptual wastewater systems that could be implemented as part of the Proposed Action are described in the Environmental Staff Report, such concepts have not been fully vetted and described. Thus, no meaningful evaluation of environmental impacts of the Project has been provided. As a result, the Environmental Staff Report is "piecemealing" the Project and inappropriately deferring analysis of potential environmental impacts. California courts have considered separate activities as one CEQA project and required them to be reviewed together where, for example, the second activity is a reasonably foreseeable consequence of the first activity (See Bozung v. Local Agency Formation Com. (1975) 13 Cal.3d 263 [118 Cal. Rptr. 249, 529 P.2d 1017]); *the second activity is a future expansion of the first activity that will change the scope of the first*

activity's impacts (Laurel Heights I, supra, 47 Cal.3d 376); or both activities are integral parts of the same project (No Oil, Inc. v. City of Los Angeles (1987) 196 Cal. App. 3d 223 [242 Cal. Rptr. 37]); see also Save Tara v. City of West Hollywood (2008) 45 Cal.4th 116.)

In addition, based on public comments made at the September 1, 2009 Public Workshop at Pepperdine University on the Proposed ban, it appears that the Environmental Staff Report was completed without input from several key agencies and stakeholders. For example Dr. Radal Orton told the Regional Board at that Public Workshop that the Las Virgenes Municipal Water District was not consulted and any system that relies on the Tapia Treatment Facility may not be feasible. As a result, the Project Description has not been fully vetted and the basic components of the Project need modification. For example, the boundaries of the ban appear to be in flux and it also appears that the use of Legacy Park to implement any of the new wastewater systems identified in the Environmental Staff Report may also be difficult as Legacy Park also has percolation capacity constraints. (See Final Integrated Water Quality Management Feasibility Study, Questa Engineering Corporation (April 28, 2005).) Another example of the short-sightedness of the Project Description and associated environmental analysis is that the new wastewater system(s) described and evaluated in the Staff Report do not provide for growth set forth by the General Plan. Specifically, page 35 of the Environmental Staff Report states that the compliance projects are expected to be sized to replace existing OWDS flows only and no new connections are anticipated. Again, without an adequate Project Description, the reasonably foreseeable environmental implications cannot be adequately disclosed.

Based on public comments regarding the proposed ban at the September 1, 2009 and October 1, 2009 Public Workshop at Pepperdine University, it also appears that additional study of potential environmental solutions to address water quality in the Project vicinity is currently underway. We understand these studies include work done by the University of California, Los Angeles, the United States Geological Survey, the Southern California Coastal Water Research Project, and Stone Environmental. Numerous comments have been made stating that these studies, which include studies of stormwater and urban runoff, should be completed prior to approval of the proposed ban since such studies could provide key information and new solutions that may change the proposal to ban OWDSs. The public should be provided the opportunity to review and comment on

these studies within an adequate timeframe and such studies should also be presented to the decision makers so that they may make and informed decision regarding the Project.

Inadequate Analysis of Environmental Impacts

The analysis of impacts associated with the integrated facilities, interceptor sewer and decentralized facilities that could be implemented as part of the proposed ban is insufficient. The analysis within the Environmental Staff Report evaluates these new wastewater systems "on a conceptual basis only" (p. 3) and indicates that additional project-specific environmental analysis is to be conducted. As the project-specific analyses would occur following implementation of the prohibition, there is no certainty that the prohibition would not lead to direct and indirect impacts that are greater or equally objectionable to those that the prohibition is seeking to address. Thus, given the broad and profound implications of the prohibition, a comprehensive analysis of the environmental impacts of the Project is necessary at this time. Further, the Environmental Staff Report repeatedly makes the assumption that all impacts can be mitigated. This assumption is erroneous and unfounded since the analysis was completed on a conceptual basis and in many cases, the analysis was simply deferred. As demonstrated by the comments provided below, the Project has the potential to result in numerous significant environmental impacts that are not identified in the Environmental Staff Report, including impacts associated with the following issue areas:

Construction Impacts

- The Environmental Staff Report states that construction impacts are not significant as they are short-term. While construction impacts may be considered short-term in the context of the operational life of the Project, the mere fact that impacts are short-term is not sufficient unto itself to declare impacts less than significant as evidenced in the examples below.

  - *Traffic/Circulation*

    - In-street construction impacts are problematic with regard to traffic, buses, bicyclists, and pedestrians.

- Two options, by themselves or in combination, are available to address in-street impacts – lane closures and/or rerouting traffic.
- Lane closures along PCH would be particularly problematic given the role of PCH as a life line connecting Malibu to areas up and down the coast as well as inland connectors to the regional freeway system.
- Given the multiple purposes that PCH serves, these impacts would be realized not only during commuting hours but throughout the day as PCH is the main roadway to access coastal recreational resources.
- Potential impacts in terms of limiting coastal access during non-commuting periods (e.g., weekends and during the summer) would also be of concern to agencies such as the California Coastal Commission.
- Re-routing works when the streets used for re-routing have comparable capacities and are arranged in a grid pattern. Neither is the case with regard to PCH. Adequate and convenient alternatives for rerouting traffic, as well as buses, bicyclists and pedestrians are extremely difficult.
- Construction traffic may also result in significant impacts to intersections and street segments.

▪ *Parking*

- The loss of parking during construction will be of concern to businesses and residents. The Environmental Staff Report defers this analysis.

▪ *Air Quality*

- The SCAQMD has established daily thresholds in terms of regional emissions and requires analysis of localized impacts based on ambient air quality standards which are expressed in terms of 1-hr, 8-hr, and 24-hour thresholds depending on the pollutant. As a result, Projects lasting a day or less can result in significant impacts.

- No analysis of these potential impacts is provided. Therefore, one cannot independently verify the conclusions that impacts are less than significant because they are so-called "short-term" in nature.

- *Noise*
  - In-street construction whether it lasts one hour, one day, or one year can be significant and detrimental. Noise levels from construction often reach 90 dBA or higher at a distance of 50 feet from the source. No analysis is provided relative to the standards expressed in Section 8.24.040 of the Malibu Municipal Code which states:
    - "No person shall make, or cause or suffer, or permit to be made upon any public beach, occupied by such person, any unnecessary noises, sounds or vibrations which are physically annoying to reasonable persons of ordinary sensitivity or which are so harsh or so prolonged or unnatural or unusual in their use, time, or place as to occasion unnecessary discomfort to any persons within five hundred (500) feet of the place from which said noises emanate or which interfere with the peace and comfort of other occupants of the beach or the residents of the neighborhood or their guests, or the operators or customers in places of business in the vicinity, or which may detrimentally or adversely affect such occupants or residences or places of business."
  - No information is provided regarding the hours of permitted construction. While Section 8.24.060 of the City's Municipal Code provides exemptions for hours of construction, such exemptions are ineffective in terms of addressing the significant noise impacts that could occur from construction between weekday hours of 7:00 P.M. and 7:00 A.M. or at any time on Sundays or holidays.

- *In-Street Capacity*
  - The Environmental Staff Report is inadequate as there is no technical support or information demonstrating that there is adequate capacity in

the street to accommodate the additional infrastructure or subsurface infrastructure.

- *Risk of Upset*
  - Environmental site assessments have not been conducted. Therefore, there is no discussion of potential presence of subsurface hazardous materials. Therefore, an unknown risk could occur.
  - No analysis is provided regarding potential impacts associated with the subsurface infrastructure accidentally being breached by a third-party after construction is completed.

Trucking

- Due to land area constraints, the new wastewater system(s) may indeed require trucking. Such trucking could result in a number of significant impacts that are not disclosed in the Environmental Staff Report.
- The RWQCB estimated that 7% of the generated waste in the study area was hauled offsite. See Proposed Prohibition Technical Memorandum #5: Dischargers with Unsuitable Hydrogeologic Conditions for High Flows of Wastewaters Resort to Hauling Liquid Sewage and Sludge to Communities that have Sewer and Wastewater Treatment Facilities (Draft Dated July 31, 2009). Based on this estimate, the RWQCB calculated that hauling activity in the Civic Center currently produces 252 tons of carbon dioxide per year. Using the RWQCB's own estimates, in five years, if a centralized wastewater treatment system (or other solution) is not in place, waste hauling from the Civic Center would produce an estimated 23,436 tons of carbon dioxide a year.

Climate Change

- Climate change is not addressed in the Environmental Staff Report. Quantification of greenhouse gas (GHG) emissions associated with project construction and operations is required under CEQA.

- Information regarding energy usage that would support a climate change analysis is also not provided.

- Mitigation measures that have been independently determined to be reasonable and feasible with regard to reducing a project's GHG emissions are set forth in the Climate Change Scoping Plan prepared by the California Air Resources Board, related GHG documents, as well as by the State Attorney General are not acknowledged or discussed.

Land Use

- The Environmental Staff Report indicates that the land required for the new wastewater system(s) may require changes in land use and that additional land may be required for infiltration when discharge of wastewater to the subsurface is required. However, no analysis of the land use alteration impacts is provided. Rather, the analysis is deferred.

Water Quality

- The Environmental Staff Report states that with the new wastewater system(s), there may not be sufficient demand for recycling of all wastewaters and discharge of flows may be required if adequate subsurface disposal area is not available. The report suggests that an ocean outfall may be required. However, none of the potentially significant impacts associated with the outfall are described and no mitigation is provided.

Groundwater

- The Environmental Staff Report states that for all of the new wastewater system(s) options, termination of discharges from OWDSs would alter groundwater flow patterns. In addition, the report also states that subsurface systems that may be used for the new system options would also alter groundwater flows on a larger scale. However, no analysis of these impacts is provided and no mitigation measures are proposed to

address these potentially significant impacts. Rather, the report defers the analysis of this impact to future environmental studies.

Air Toxics and Odors

- The SCAQMD has established specific methodologies and thresholds of significance regarding odors and air toxics that are not included.

Urban Decay

- The proposed ban could have a significant impact on the economic viability of the Malibu Civic Center commercial center, potentially causing blight conditions which impacts have not been addressed in the Environmental Staff Report.

Environmentally Sensitive Areas

- The Environmental Staff Report recognizes that there are environmentally sensitive areas in the Project vicinity and that the new wastewater system options could result in significant impacts to such areas. However, no analysis is provided. Rather, the discussion states that mitigation measures would be required by the local agency and does not provide any specificity as to what such mitigation measures may be.

Mitigation Measures

- Throughout the environmental checklist, numerous issue areas are indicated as "less than significant with mitigation incorporation." However, mitigation is referred to but no specific mitigation measures are provided.

Inadequate Analysis of Alternatives

CEQA requires that alternatives be identified to reduce or eliminate the significant environmental impacts of a project. See Cal. Code Regs., tit. 14, § 15350 *et. seq.* As indicated above, the proposed ban and associated new wastewater system(s) have the potential to result in significant environmental impacts. Thus, in accordance with CEQA,

alternatives to reduce or eliminate such significant impacts must be identified and a comparative analysis of such alternatives with those of the Project should be provided. However, the analysis of alternatives within the Environmental Staff Report focuses on just two alternatives that were not formulated with the intent of addressing such significant impacts. Specifically, the first alternative, Alternative 1, includes an initiative by a municipality, utility or other local government to cease discharge through OWDSs by providing community services to collect and dispose/reuse wastewater in a manner that will restore water quality and beneficial uses of impaired waters. The second alternative, Alternative 2, is a no action alternative that assumes dischargers continue to rely on OWDSs. The impact analysis for Alternative 1 within the Environmental Staff Report defers to the analysis completed for the Proposed Action or Project and concludes that all of the impacts for this Alternative would be of relatively short duration and can either be mitigated or alternative options to achieve water quality objectives may be available. The analysis for Alternative 2 merely states that this program alternative would result in continuing worsening impairments to beneficial uses of the water resources in and around the Malibu Civic Center. Thus, neither of the alternatives was designed with the intent of reducing the significant impacts of the Project and no comparative analysis of the environmental implications of these alternatives relative to the Project was included in the Environmental Staff Report.

In addition, as indicated above, studies are underway which may inform what the "Project" should truly be. These studies may demonstrate that other solutions are available to address water quality issues within the Project vicinity and such studies and solutions should also be accounted for in the analysis of alternatives provided in the Environmental Staff Report.

Finally, there are several additional alternatives that have been suggested in public comments made at the September 1, 2009 and October 1, 2009 Public Workshops at Pepperdine University that have not been accounted for in the Environmental Staff Report. For example, upgrades of existing systems should be accounted for as an alternative to the proposed ban. The staff report acknowledges that "dischargers could voluntarily implement projects to achieve water quality objectives and TDML targets" but "staff believes that this is unlikely" and thus no such alternatives are presented.

Other CEQA Requirements Not Met

Cumulative Impacts

CEQA requires that an analysis of cumulative impacts associated with development of a project and related projects must be evaluated. (See Cal. Code Regs., tit. 14, § 15350 *et. seq.*). The Project clearly includes a new wastewater system(s) whose impacts must be evaluated in the context of other related projects or future growth. The cumulative impact discussion within the Environmental Staff Report does not comply with CEQA as it does not account for the cumulative impacts associated with a new wastewater system(s) and related projects or future growth in the area. Rather, the discussion defers the analysis of cumulative impacts to later documents.

Growth-Inducing Impacts

The discussion of growth-inducing impacts does not account for the fact that several of the alternative systems have the potential to remove obstacles to growth.

Statement of Overriding Considerations

The Statement of Overriding Considerations does not meet the basic requirements of CEQA and lacks clarity. The purpose of the Statement of Overriding Considerations under CEQA is to balance the benefits of the project against the significant impacts of the project. (See Cal. Code Regs. tit. 14, § 15021.) As discussed above, the Environmental Staff Report does not disclose what the significant impacts of the Project might be and additional analysis needs to be completed to identify such impacts. Thus, the Statement of Overriding Considerations does not weigh the significant impacts of the Project against the benefits of the Project. Furthermore, the discussion assumes that the local agency will adopt mitigation measures or alternatives to reduce significant impacts to less than significant levels.

FIVE-YEAR TIMEFRAME TO IMPLEMENT OPTIONS IS SHORT-SIGHTED

Another shortfall of the Project and the Environmental Staff Report is the short-sightedness associated with the five-year timeframe that has been established for

imposition of the ban on existing ODWSs. Based on public comments to date, no funding has been identified or approved for any new wastewater system. Moreover, the City of Malibu has recently estimated the cost of a centralized system to be on the order of $40 to $60 million dollars as compared to the $18 million estimate set forth in the Environmental Staff Report. Given the existing state of the economy, such funding will likely take some time to obtain and the fact that the City estimates that the centralized system would cost up to 3+ times more than the original estimate further casts serious doubt as to whether a centralized system could ever be economically feasible. In addition, a substantial amount of time will be required to complete public outreach, consult with agencies, and evaluate, design, and construct a new system. The implications of this impractical timeframe must be accounted for. For example, if the ban were to occur prior to a new system being in place, trucking of wastewater may be necessary. This and other potential ramifications of the proposed five-year timeframe need to be addressed.

CONCLUSION

As demonstrated by the comments above, the environmental analysis provided in the Environmental Staff Report is substantively flawed from a multitude of perspectives. With these flaws, the Environmental Staff Report fails to meet the basic purposes of CEQA including to inform the decision makers and the public about the potential significant environmental impacts of a project, to reduce significant impacts through identification of alternatives or mitigation measures, and to disclose to the public why an agency approved a project if significant impacts are involved. (See Cal. Public Resources Code § 21000 and 21001.)

* * * * *

The preceding constitutes our comments on the Environmental Staff Report and its supporting documentation available as of this date. As additional information and documentation with regard to the Project is released by the Regional Board we reserve the report to supplement these comments at a later date. Please contact the undersigned with any questions you may have with regard to the comments presented above.

Respectfully submitted,
Matrix Environmental

Stephanie Eyestone-Jones
President

Bruce Lackow
President

ATTACHMENT 5

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October 8, 2009

Ms. Rebecca Chou
Ms. Elizabeth Erickson
Groundwater Permitting
California Regional Water Quality Control Board
Los Angeles Region
320 4th Street, Suite 200
Los Angeles, California 90013

VIA EMAIL DELIVERY

Re: **Comments Concerning Unrealistic Timing Assumptions for the Environmental Analysis, Project Consideration, Potential Litigation, Election on Potential Assessment District, Obtaining of State Loan, Public Bidding Process, and Construction of Potential Centralized Wastewater Treatment Facility in the Malibu Civic Center (Scheduled for RWQCB Consideration on Nov. 5, 2009)**

Dear Ms. Chou and Ms. Erickson,

We understand that the proposed November 5, 2014, date by which the Regional Board staff proposes to prohibit any and all discharges from existing septic systems in the Malibu Civic Center area is based on a hypothetical timeline prepared by the City of Malibu that sets forth a "best case" scenario for the potential completion of a centralized wastewater treatment facility in the Civic Center area that would have to exist before the prohibition date to avoid massive environmental and economic disruption. This letter discusses why we believe it is inappropriate to rely on that hypothetical "best case" scenario and why we believe there is no substantial evidence supporting any conclusion that such a centralized wastewater treatment facility could be reliably expected to be completed on any time frame near to the November 5, 2014, date the Regional Board staff proposes.

First, from discussions with City staff it is clear that the "best case" scenario timeline was never intended to be the City's actual prediction of what would happen in the future. The City's draft timeline was intended to show an optimistic "best case" scenario of what is theoretically possible assuming that everything that can go easily does go easily and assuming that a broad consensus of all interested stakeholders is reached. That, of course, is not the current situation and is not likely to occur. Based on our expertise in land use permitting, in assisting with environmental assessments, in litigation over environmental and land use matters, in public finance matters, and based on the evidence submitted to the Regional Board, a timing estimate that assumes completion of such a treatment facility by November 5, 2014 is completely

unrealistic given the facts as they actually exist today.[1] We also believe that there is no substantial evidence that supports a November 5, 2014 date and that a reasonable timing estimate would be closer to ten years from the final adoption of any septic ban.

To highlight the unrealistic assumptions in that "best case" scenario, we point out that for the City's hypothetical timeline to work all of the following things must occur.

1. The "best case" timing scenario assumes that there will be no substantial opposition to the basic idea of having a centralized treatment system in the Civic Center area. This timing scenario is impossible with substantial opposition so any such opposition to the basic idea of such a system would derail the timing. Given the tremendous interest the Regional Board staff has seen from the community on this issue, it is clear that a vast portion of the Malibu community believes that the Regional Board has not made a compelling case for such a system and based on the current evidence would oppose such a system.

2. The "best case" timing scenario assumes that there will be no substantial opposition to the specific configuration of a potential centralized treatment system that the City might create. However, the City has stated that it believes any such system would require off-site wastewater dispersion locations that have not been identified, would require a substantial portion of treated water to be sent back to the locations from which waste water originated, and that some degree of pre-treatment may be needed at the source locations. All of those issues are yet to be described and are likely to create concerns and opposition from impacted stakeholders.

3. The "best case" timing scenario appears to assume an illegal CEQA process that would run afoul of the California Supreme Court's recent decision in Save Tara v. City of West Hollywood. The scenario calls for the City to acquire land for the future placement of the treatment facility and wastewater dispersal facilities nearly a full year before the City certifies an EIR for the project. This is exactly the sort of initial public action on a project preceding the project's EIR that the Supreme Court firmly rejected.

4. The "best case" timing scenario assumes that the CEQA process will proceed in a streamlined fashion, with a Draft EIR being published in July 2010 (just about nine months from now for a highly complex technical document that has not yet been started) and without any comments being made on the Draft EIR that would necessitate substantial revisions or recirculation. That is completely unrealistic for any high-quality EIR for a project of this complexity and with this level of community interest. A period of two years or more for a high-quality Draft EIR under a situation like this is far more likely.

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[1] The signer of this letter is a partner of the international law firm of Latham & Watkins LLP, a nineteen year practitioner of environmental and land use law, a frequent author and lecturer on environmental and land use legal issues, and has been an adjunct faculty member at USC Law School since 1997 where he teaches Environmental Law. He is a 1990 graduate of Harvard Law School, cum laude, and a 1987 graduate of UCLA. His professional biography is enclosed.

5. The "best case" timing scenario assumes that the City's Planning Commission and City Council will be fully satisfied with whatever Draft EIR is given to them without requiring revisions or further work on the CEQA document. That is an unrealistic assumption in light of the obligation that those bodies exercise their "independent judgment" as CEQA requires. If either body determines that more assessment is needed, as is often the case, then an additional year or more can be required to complete that work and circulate it for public comment.

6. The "best case" timing scenario assumes that the City's Planning Commission and City Council will approve the treatment system project at the first request, without changes or more work being needed on the project itself, even though there are many concerns already being expressed by members of the public and by members of those two City bodies and even though it is illegal for any such action to be prejudged in any way.

7. The "best case" timing scenario assumes that there will be no litigation challenging the City's presumed approval of the EIR and the project. That is an extremely unlikely assumption in light of the great controversy over this proposed treatment facility and the frequency of litigation over Malibu land use decisions for matter with far less controversy and impact than this. Even if the City were to win such litigation in the trial court and in the appellate court, that process typically takes about two years assuming that the City wins at every step and assuming that the Supreme Court does not accept the case for review.

8. The "best case" timing scenario assumes that there will be broad public and landowner support for the financing mechanism – a new assessment district that requires an affirmative vote of the property owners expected to pay the new assessment – even though no one has even begun to educate the impacted people about how much money this might cost them. The City recently unveiled potential system designs with costs in the range of $40 million to $60 million. Those estimates may well prove to be far too low, too, as the actual costs will not be known until a public bidding process is completed. It is common for predictions of bids to be far lower than actual bids. Even using the City's rough cost estimates, there are only approximately 387 businesses and residences that would be in the assessment district so that would mean that the average parcel would be expected to pay a total of about $103,000 to $155,000 each, plus substantial interest from any loan or bond, all for a system that duplicates septic systems that property owners already have and paid for and that have not been shown based on adequate evidence to cause any environmental harm that a reasonable enforcement process could not completely solve.

9. The "best case" timing scenario assumes that a state loan will be available to the City but there is no adequate basis to make that assumption given the severe economic recession and widespread state budget cuts to crucial, high-priority services like health care, education, nutrition to the poor and the ill, state parks, fire fighting, the state court system, and so forth. It is unrealistic to assume that it will be an easy thing for a small city known for having wealthy residents to get such a loan on reasonable terms in the current economic environment. It is also unrealistic to assume, as the scenario does, that it will take only two months from the

City's filing of a final loan application to approval and funding of the presumed loan. Even if a state loan is available, it is reasonable to expect that it will take much longer to complete.

10. The "best case" timing scenario assumes that the treatment system will be easy to bid out for construction work, that there will be no glitches in the highly-regulated public bidding process, that there will be no litigation from disappointed bidders, and that the costs of the successful bidders will be within an acceptable range. It assumes that no re-bidding will be needed, though re-bidding is often needed for public projects. It is unwise to assume that none of those common sorts of glitches or delays will happen here.

11. The "best case" timing scenario assumes that the treatment system will be easy to build and will be on-time and on-budget. In fact, the scenario calls for only eleven months of construction from the awarding of the construction contract to the completion of all construction. That is an extraordinarily optimistic construction assumption. There is no adequate basis for concluding it is likely to work out that way and it is unwise not to factor in a healthy time cushion for the countless things that can and often do go wrong during construction to slow things does and/or to drive costs up. For example, Malibu has a long and rich history of having a Native American culture that has existed for hundreds of years and it is entirely possible that Native American resources or remains could be found that require a halt in construction and possibly major re-routing or other changes to minimize the impacts on those resources. That is the sort of thing that is reasonably foreseeable in Malibu and that can make an overly optimistic eleven month construction period last several years.

In all, it is clear that the City's "best case" timing scenario for the potential completion of a treatment system is extremely optimistic and extremely unlikely to occur. A great many of the factors that dictate timing of such a system – if one is approved and survives legal challenge – are unknowable at this time. We believe based on our expertise, experience, and review of the evidence that at least ten years is needed to account reasonably for the many steps that must occur, for the litigation that is likely to occur, for the election over an assessment district that is needed, for other financing mechanisms to be found, if needed, and for these actions to take place for this major public works project in an environment of great controversy and disagreement over its value and need. Ten years is not a long time for major public works projects in a controversial environment and it is unreasonable based on the information available today to be confident that a shorter time would occur.

While it is one thing for the City to create a "best case" timing scenario of what could happen if everything proceeded perfectly and without controversy, it would be irresponsible for the Regional Board to assume that optimistic state of affairs when imposing a ban on septic system discharges that would devastate the Malibu business and residential communities if such a system were not approved and completed before the ban came into effect.

Very truly yours,

James L. Arnone
of LATHAM & WATKINS LLP

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BA, Univ. of California, Los Angeles, 1987

Experience

Jim Arnone is a partner in the Los Angeles office of Latham & Watkins and is a member of the Environmental, Land & Resources Department. Mr. Arnone practices land use and environmental law, focusing on high-controversy real estate developments and local government-related disputes. He advises clients and litigates highly controversial matters implicating a wide range of state and federal environmental and land use laws, including having handled many matters arising under the California Environmental Quality Act (CEQA), the National Environmental Policy Act (NEPA), the federal and California "Superfund" laws, the Clean Air Act and regional air quality regulations, the Clean Water Act, state and local water quality and water supply regulations, the Endangered Species Act, the California Coastal Act, historic preservation laws, California's "Proposition 65," California's "Unfair Competition Law" and nuisance and trespass law. Mr. Arnone also advises clients and litigates many matters arising from state government and local government law, including matters arising under the Ralph M. Brown Act, the Public Records Act, state and local laws governing initiatives and referenda and state and local government contracting laws. Mr. Arnone also advises clients on the implications of current and pending global climate change rules and regulations and serves on the South Coast Air Quality Management District's Global Climate Change CEQA Working Group.

Mr. Arnone has extensive courtroom experience, both in the trial courts and in the appellate courts. He has handled many writ of mandate trials and other dispositive court hearings in land use, environmental and local government-oriented cases. Mr. Arnone is a frequent author and lecturer on environmental and land use law. Mr. Arnone is an adjunct professor at the University of Southern California Law School, where he has taught Environmental Law since 1997. He recently co-authored a global climate change chapter in an ABA-published Environmental Litigation book, authored articles on case law developments and proposed environmental and land use rules. He has spoken on many expert panels on global climate change, CEQA and land use topics.

Mr. Arnone is also active in bar associations and charitable activities. He previously served on the Executive Committee of the Los Angeles County Bar Association's Environmental Law Section, where he served as Chair of its Land Use Committee, Chair of its Litigation and Insurance Committee and Chair of its Legislation Review Committee. He currently serves as Chairman of the Board of AIDS Project Los Angeles, as a board member of the Ketchum-Downtown YMCA and as Board Treasurer of the West Hollywood Library Fund. He has previously served on the board of the Western Center of Law and Poverty.

TELEPHONE
(310) 456-5373

RICHARD N. SCOTT, INC.
A PROFESSIONAL LAW CORPORATION
24955 PACIFIC COAST HIGHWAY
MALIBU, CALIFORNIA 90265

FACSIMILE
(310) 456-9729

RECEIVED
2009 OCT 12 PM 3 20
CALIFORNIA REGIONAL WATER
QUALITY CONTROL BOARD
LOS ANGELES REGION

October 8, 2009

LARWQCB
320 West 4th Street
Suite 200
Los Angeles, CA 90013
Attn. Dr. Rebecca Chou

VIA FACSIMILE NO.
(213) 576-5777 AND
REGULAR MAIL

Re: Malibu Water Quality Control Plan

Dear Dr. Chou:

The undersigned is the President of the Malibu Knolls Property Owner's Association. I am writing in opposition to the proposed resolution which contemplates the prohibition of all discharges of all wastewater from all Onsite Wastewater Treatment Systems in the Civic Center Study Area of Malibu which includes Malibu Knolls. The Association and the undersigned are in opposition to the proposal for the following reasons:

1. The scientific data presented by the California Regional Water Quality Control Board Los Angeles Region ("Regional Board") does not support the proposed prohibition of discharges in general and in particular in the Malibu Knolls area.

2. The preliminary data from various studies initiated by the City of Malibu, including, but not limited to, studies by UCLA, the USGS and SCWRRP, clearly indicate that human bacteria has little or no effect on the case of bacteria levels in the ground water and Malibu Creek Lagoon.

3. The proposal, as drafted, does not take into consideration the inherent differences of the locales in the Civic Center Study Area and in particular the elevation differences between of Malibu Knolls and other areas in the Study Area.

4. There is no urgency to the adoption of the resolution in light of the fact that the City of Malibu has undertaken additional studies which preliminarily contradict the findings of the Regional Board's science, and in particular will prove that the proposed ban of discharges will not improve water quality.

5. Although an exemption to the ban for "Zero-Discharge" projects is available, the size of various lots and the topography and configuration of various lots in Malibu Knolls may make it problematic to comply with the exemption. Furthermore, in the Malibu Knolls, numerous properties have been owned for years by elderly residents,

who would be caused undue financial hardship if they were required to install a "Zero-Discharge" system.

6. Even if an owner wanted to apply for and install a "Zero-Discharge" system, the Regional Board is not adequately staffed to provide reasonably timely responses based on its record.

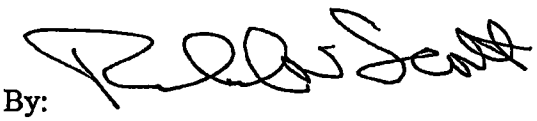
7. The proposal, if adopted, would have an immediate and material adverse affect on the property values of owners of residential units in the Civic Center area and in the ability to market their properties.

For all of the foregoing reasons, we believe that the proposed ban on discharges should be withdrawn, as a minimum to a point in time when the City's studies are available which we understand to be between six and nine months.

If you have any questions regarding the foregoing, please contact the undersigned.

Yours very truly,

RICHARD N. SCOTT, INC.

By: 

RICHARD N. SCOTT
President

RNS:sd

Rosie Villar - Questions Regarding R4-2009-xx

From: "Brad Williams" <brad@marmol-radziner.com>
To: <wphillips@waterboards.ca.gov>
Date: 8/21/2009 12:07 PM
Subject: Questions Regarding R4-2009-xx
CC: "Chris Shanley" <Chris@Marmol-Radziner.com>

Wendy,

Thank you for your time yesterday. Per our conversation, below are two questions we would like to get some guidance on. Both of these questions pertain to a Single family residence in the Civic Center Area, in Malibu, California.

- On a lot with an existing residence and OWTS, will a new Single Family Residence with an upgraded OWTS be permitted as long as the upgraded OWTS does not exceed the certified capacity of the existing system?
- If a new OWTS is permitted and installed prior to the passing of Resolution R4-2009-xx, could a new residence, designed and permitted at a later date, utilize that OWTS? If yes, is there a time limitation from the date of the new OWTS installation to the date when the new residence is permitted that we should be conscious of?

Thanks again for your time,

Brad Williams
Project Manager

Marmol Radziner & Associates AIA
12210 Nebraska Avenue
Los Angeles, California 90025

Phone: 310 826 6222
Fax: 310 826 6226
brad@marmol-radziner.com
www.marmol-radziner.com

Received 10/8/09

California Regional Water Quality Control Board,
Los Angeles Region
320 West 4th Street, Suite 200
Los Angeles, California 90013
Attn: Dr. Rebecca Chou, Chief of the Groundwater Permitting Unit

October 2, 2009

RE: STOP the Prohibition in Wastewater Treatment Systems--Malibu

Dear Dr. Chou;

The proposed 'Prohibition' on local Malibu wastewater systems will go into place on November 15, 2009 implemented by the Regional Water Quality Control Board.

Our community has seen an increase in wastewater enforcement actions by the Regional Board, with a proposed 'Prohibition' looming on the horizon on November 15, 2009. As a small business we are simply uniformed about the current requirements for wastewater permitting and the implications for our business.

To better understand the current situation some historical prospective is necessary. Almost all of Malibu's commercial properties were built prior to the City's Incorporation in 1991. Typically, these properties were constructed 30-50 years ago in accordance with the codes in effect at that time, which generally did not require a separate wastewater permit from the Regional Board. The standard wastewater system utilized was a septic system. Septic systems have been used successfully for decades. In reality, their main emphasis is on disposal with treatment a lesser level of concern. For the most part these systems satisfactorily perform the disposal objective and do provide an effective level of treatment.

We all know that there have been many changes since then, not only from a regulatory stand point, but also from a scientific and technological prospective; however many small businesses have not stayed current with these changes. For the most part if there are small businesses or property owners who are out of compliance with the current laws it is likely they are simply unaware of the rules. Their buildings were built with all the needed permits, the wastewater systems adequately dispose of the effluent and they perform the necessary pumping their systems require.

We feel that the California Regional Quality Water Board has proposed this 'Prohibition,' for the Civic Center, without giving time to the businesses and residents to completely understand how to implement needed forms and/or a way for the City of Malibu to meet the list of recommendations of a new 'sewer system.'

This prohibition will impact our business during an already historical economic recession! We have had 3 fires, huge transportation issues added to the down economy in only the last 3 years.

We request that the RWQCB delay the actions they have deemed necessary for a prohibition, and ask that they 'partner,' with the Malibu community to create a mutual goal for all business and local community members within Malibu.

Please stop this prohibition and work with us to make it a community we can all be proud of. We look forward to working with you in a positive way to support our local businesses and residents of Malibu.

Respectfully,

Rick Metzler
VP - Malibu Martial Arts, Inc
22333 PCH #214
Malibu CA. 90265
310-456-3802

Grant Adamson
MHAB

M.H.A.B. Trust
P.O. Box 2485
Malibu, Ca 90265
310-456-3230
Fax 310-456-3182

RECEIVED
2009 SEP 28 AM 9 27
CALIFORNIA REGIONAL WATER
QUALITY CONTROL BOARD
LOS ANGELES REGION

September 25, 2009

Ms. Tracy Egoscue, Executive Officer
California Regional Water Quality Control Board
320 W. 4th Street, Suite 200
Los Angeles, Ca 90013

Via Federal Express

Re: Malibu Civic Center Area Proposed Wastewater Discharge Prohibition

Dear Ms. Egoscue:

My family and I attended the September 1, 2009 Public Workshop on the proposed Malibu Civic Center Area prohibition on onsite wastewater disposal systems. While viewing the map of the proposed boundaries, we noticed that land in Serra Canyon owned by our family for over a hundred years is located in the far northeast corner of the proposed prohibition area (see attached map). My family and I have been working for the last 16 years to get approvals needed to develop five residential parcels in Serra Canyon that are now within the proposed prohibition area. We applied to Los Angeles County for our Parcel Map 23897 in 1993. We have been in a slow "permitting pipeline" to get our parcel map, a conditional use permit, Coastal Development permit, Fish & Game, Army Corp and Regional Water Quality approvals, recordation of the Parcel Map, a second conditional use permit, a revised Coastal Development Permit and endless grading plan checks for two stages of grading the second of which is nearly completed. Two of the five homes are approved by LA County Regional Planning. Four of the five parcels have LA County Environmental Health approval for their advanced wastewater treatment systems.

We are in the process of grading the driveway to access four of the parcels and installation of utilities is scheduled. Three of the five parcels are already graded. The proposed prohibition would be a severe hardship for us. Below we propose an alternative to allow us to complete our project and also help accomplish our mutual objectives of cleaning up Malibu Creek and Lagoon.

Our land is located in the Lower Malibu Creek watershed, but our nearest proposed building site is more than ¼ mile to Malibu Creek and more than one mile north of Malibu Lagoon. The lots in our subdivision are greater than 8 acres each. It is our understanding that parcels with lot sizes greater than 5 acres don't usually require a permit from the Regional Water Quality Control Board. Because the lots are on the fairly steep southern slopes of the Santa Monica Mountains, there is insufficient level land for the installation of leach field disposal systems on four of the five parcels. For the four

09-107 GRND WATER PERM.

parcels with seepage pit disposal, we are proposing installation of advanced onsite treatment systems. Wastewater discharged from our proposed development will be treated and would have minimal or no real impact on the bacteria/nutrient load to Malibu Creek and Malibu Lagoon.

My family has consistently supported a centralized wastewater collection system for Malibu in each of the three or four times it has been before the voters of Malibu. We will support a centralized wastewater collection system for the Civic Center area, pay our share of it and hook up when available. My family has invested a huge sum of money over the past 16 years on our Serra Canyon parcels and to have our plans suspended until such time as a hook-up to a community sewer collection system at our remote Serra Canyon location is available would be a tremendous financial burden.

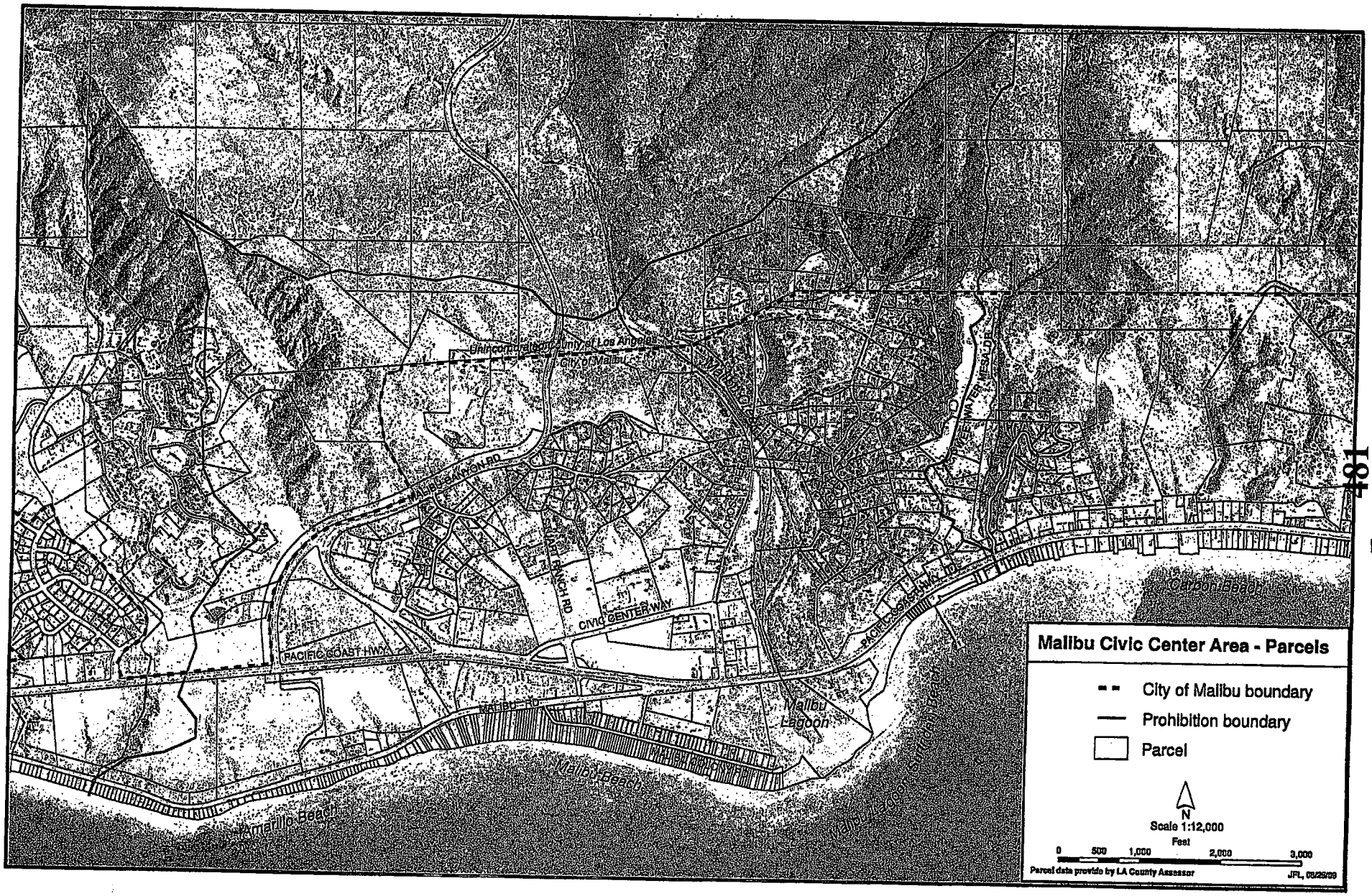
Since our lots are among about 20 privately owned parcels within the Los Angeles County side of the proposed prohibition area, there is no guarantee that LA County will ever serve so few rural parcels with a sewer system. Final construction approvals are pending for our parcels. We have been in the "permitting pipeline" for 16 long years. We have a huge investment in this project. It would not be fair to us if the "rules of the game" were changed so drastically that our project would become in a state of indefinite limbo. Please allow us to complete our project with advanced treatment systems. We will commit to pay our share of the centralized wastewater collection system and hook up when available. Thank you for your consideration.

Sincerely,
M.H.A.B. Trust

Grant Adamson

Grant Adamson, Co-Trustee

Attachment
Copy: Dr. Rebecca Chou



184

2-486

= M.H.A.B. Trust Property (held in separate entities)

FRED GAINES
SHERMAN L. STACEY
LISA A. WEINBERG*
REBECCA A. THOMPSON
NANCI SESSIONS-STACEY
KIMBERLY A. RIBLE
ALICIA B. BARTLEY

* a professional corporation

LAW OFFICES OF
GAINES & STACEY LLP
16633 VENTURA BOULEVARD, SUITE 1220
ENCINO, CA 91436-1872

TELEPHONE (818) 933-0200
FACSIMILE (818) 933-0222
INTERNET: WWW.GAINESLAW.COM

October 7, 2009

ORIGINAL BY U.S. MAIL

VIA E-MAIL rchou@waterboards.ca.gov

California Regional Water Quality Control Board
Attn: Dr. Rebecca Chou
320 West 4th Street, #200
Los Angeles, CA 90013

Re: Public Comments on Proposed Amendment to Water Quality Control Plan
Opposition to Proposed Prohibition on OWDS in the Malibu Civic Center Area

Dear Dr. Chou:

This office represents the M.H.A.B Trust with regard to its interest in the proposed amendment to the Water Quality Control Plan for the Coastal Watersheds of Ventura and Los Angeles Counties to prohibit on-site wastewater disposal systems in the Malibu Civic Center area (the "Proposed Prohibition"). M.H.A.B. Trust is the owner of five residential parcels in Serra Canyon and within the area affected by the Proposed Prohibition. The parcels are in the permitting "pipeline," and over the past 16 years, M.H.A.B. Trust has obtained various approvals required for the parcels' development with single family homes. The purpose of this correspondence is to respectfully urge that the California Regional Water Quality Control Board (the "Regional Board") not adopt the Proposed Prohibition for the reasons outlined below.

The Proposed Prohibition Disproportionately Impacts Property Owners that Have Made No Contribution Towards Water Contamination.

The Proposed Prohibition would immediately prohibit all new discharges from on-site wastewater disposal systems ("OWDS") in the Malibu Civic Center Area, and would prohibit discharges from existing systems within five years from the date of adoption. As such, the impacts of the Proposed Prohibition are most immediately felt by property owners such as M.H.A.B. Trust, with projects in the permitting "pipeline" that do not have existing OWDSs that have contributed to the water contamination the Proposed Prohibition seeks to address.

Clearly the burden created by the Proposed Prohibition on landowners with projects in the permitting process has no nexus to the impacts those pending projects have had on the alleged contamination of water resources within the Malibu Civic Center area. While properties with existing OWDSs, some of which may have directly contributed to the contamination, are permitted to continue discharging for up to five years after the Proposed Prohibition is adopted, innocent property owners who have expended significant time and resources on the land development permitting process but have not yet received final project approval are stopped dead in their tracks. In effectively rendering vacant parcels within the Malibu Civic Center area undevelopable unless and until a centralized wastewater collection system is implemented, the Proposed Prohibition goes too far in taking more private property rights than reasonably needed to address the impacts of any pending projects to local water resources. See Dolan v. City of Tigard, 512 U.S. 374 (1994) [condition must be roughly proportional to burden created].

The Proposed Prohibition also fails to take into consideration in any way that the OWDS that is now required for any new development would include an advanced treatment system which would result in discharged water quality at the same or even cleaner levels than would result from a centralized wastewater collection system.

The Proposed Prohibition Constitutes a Regulatory Taking.

The Proposed Prohibition provides for no hardship exemption, leaving property owners with projects in the permitting "pipeline" with no recourse, no matter how much time and money has been invested in the land development permitting process, no matter how far along the project is short of final project approval, and no matter what the facts are regarding the water quality of potential discharges from the property. The draconian effect of the Proposed Prohibition is that economically viable pieces of property cannot be developed, rendering such property valueless for an indeterminate amount of time.

A land use regulation results in a "taking" of private property that requires payment of compensation to the owner if it denies the property owner of economically viable use of property. Lucas v. South Carolina Coastal Council, 505 U.S. 1003, 1016-1026 (1992). Here, M.H.A.B. Trust has been in the "permitting pipeline" with respect to its parcels within the Proposed Prohibition area for sixteen years, and has made a huge financial investment into the project. M.H.A.B. Trust has received various permits and approvals from several agencies for the project. However, despite M.H.A.B. Trust's due diligence, final project approval has not yet been obtained. Application of the Proposed Prohibition to properties with pending projects such as M.H.A.B. Trust's constitutes a regulatory taking in that the regulation "unreasonably impair[s] the value or use of [the] property," and interferes with private property owners' "distinct investment backed expectations." Allegretti & Co. v. County of Imperial, 138 Cal.App.4th 1261, 1278-1279 (2006).

The Proposed Prohibition Violates Vacant Property Owners' Civil Rights.

The Proposed Prohibition unfairly singles out owners of undeveloped property within the Proposed Prohibition area and denies them reasonable use of their property, while allowing owners of developed properties with existing OWDSs to continue discharging for up to five years after its adoption. Such action bears no rational relationship to the Regional Board's purported interest in restoring water quality because the existing dischargers, some of whom may have directly contributed to the alleged contaminated water supply, may continue discharging for up to five years, while property owners who have made no discharges are indefinitely prohibited from doing so, regardless of how advanced their proposed OWDSs may be.

Moreover, the Proposed Prohibition bears no rational relationship to the Regional Board's Strategic Goal No. 4: to ensure that "water resources are fairly and equitably used and allocated with public trust." It is patently unfair to single out owners of undeveloped property and effectively hold their development rights hostage until a centralized wastewater collection system can be established in Malibu.

The concept of equal protection has been judicially defined to mean that no person or class of persons shall be denied the same protection of law that is enjoyed by other persons or other classes in like circumstances. Hawn v. County of Ventura, 73 Cal.App.3d 1009, 1018 (1977). Here, the Proposed Prohibition arbitrarily and irrationally singles out owners of undeveloped property within the Malibu Civic Center area and immediately prohibits them from discharging any waste, while existing dischargers may continue to do so for up to five years. As such, the Proposed Prohibition violates both equal protection rights and substantive due process. See Del Monte Dunes v. City of Monterey, 920 F.2d 1496, 1509 (9th Circ. 1990) [city's attempt to bring back threatened butterfly species by creating butterfly park may be rational, but not rational to single out one parcel to provide the park]; Lockary v. Kayfetz, 917 F.2d 1150, 1155 (9th Circ. 1990) [rational relationship test will not sustain government conduct that is irrational or plainly arbitrary].

The Proposed Prohibition Violates State Policies.

Finally, the Regional Board has failed to analyze the economic impacts of the Proposed Prohibition. While land use regulations traditionally seek to maintain property values, protect tax revenues, provide neighborhood social and economic stability, attract business and industry and encourage conditions which make a community a pleasant place to live and work (see Hernandez v. City of Hanford, 41 Cal.4th 279, 291 (2007)), the Regional Board has failed to take such planning and/or economic considerations into account.

G&S\1148-007

In addition, while the basin planning process may have been certified as functionally equivalent to a full California Environmental Quality Act ("CEQA") review, the process is still required to strictly adhere to all of the requirements of California Code of Regulations, Title 23, Section 3777(a). The process for the Proposed Prohibition has clearly failed to follow all such requirements, including with regard to the requirement to fully analyze all reasonable alternatives and mitigation measures. The Proposed Prohibition fails completely to analyze any alternative which would allow for reasonable economic use of currently undeveloped properties in the project area.

Conclusion.

Based upon the foregoing, we respectfully urge that the Regional Board not adopt the Proposed Prohibition. The Proposed Prohibition is patently unfair to owners of undeveloped property in the Malibu Civic Center area, and violates important Federal and State constitutional rights.

Thank you for your time and consideration of this matter As always, please do not hesitate to contact me at any time with any questions or comments you may have.

Sincerely,

GAINES & STACEY LLP

By
FRED GAINES

G&S\1148-007

Sept. 1 2009

Dr. Rebecca Chou
320 W. 4th St. #200
Los Angeles CA 90013

Dear Dr. Chou:

I have received notice of the Water Quality Control Plan to be amended.

As a 40 year resident of the area targeted I am concerned about overhauling my existing septic tank.

I think that since this area is rife with tanks in varying conditions this would be a good time to consider sewer system in the central area.

Sewers were always dreaded in Malibu because they would "bring development." Now seemingly unfettered development is occuring and the question is moot. More and bigger systems are required allover. This will require more maintenance and more traffic down the PCH to dump what's pumped.

This would be the time to consider a sewer system! We have lost on the development issue and sewers seem preferable to more and bigger sptic systems.

The Regional Water Control Board has the opportunity to bring Malibu into the 21st century!

Yours truly,

Jean Rosenfeld

JEAN L. ROSENFELD
3515 CROSS CREEK LANE
MALIBU, CA 90265
(310) 456-0433

From: Rebecca Chou
To: Villar, Rosie
Date: 10/7/2009 9:48 AM
Subject: Fwd: Malibu proposed amendment

>>> "Laura Z. Rosenthal" <drlaurazr@gmail.com> 10/6/2009 4:44 PM >>>
Dear Ms. Chou,
I am writing to urge you to delay the proposed Malibu prohibition. I have been at both of the local meetings at Pepperdine and it is clear to me that there is absolutely NOTHING TO LOSE if we wait a few more months to get all of the studies completed and analyzed. Why not take the high road and CLEARLY DEMONSTRATE that you want to be fair and thorough about your decision.
Malibu is really made up of a wonderful mix of people - rich, middle class, old, young. In many ways (except for the super rich), it could be any town in America. As a community member, it feels like your decision is already made. Please, show Malibu that you are listening to us and especially the people that will be affected by this prohibition (I do NOT live in the proposed area). Wait for the rest of the science to come through. Try to negotiate something that isn't as drastic as a prohibition.
I do understand that the city has dragged its feet. I have lived here for 20 years and have spent the last number of them waiting for SOMEONE to step up and clean up the lagoon. We must do it, that is clear. However, I also know that when you ask the best of Malibu, we will give it to you. Give us a chance. Give those of us who care deeply the chance to push, cajole, threaten, entice our city government to get the job done.
Thanks for listening. Again, TAKE THE HIGH ROAD! You can never lose doing that.

Best,
Laura

Laura Z. Rosenthal, PhD
drlaurazr@gmail.com
310 924-1555

Rebecca Chou
Sr. Water Resources Control Engineer
320 W. 4th Street, Suite 200
Los Angeles, CA 90013

Dear Ms. Chou,

Following are several suggestions and requests that I hope the Water Board will consider:

1. Consider expanding the boundaries of the overlay district as follows:
   a) Expand the district to the East to include both sides of the Pacific Coast Highway past Las Flores to include Dukes Restaurant.
   b) Expand the district to the west, to include all of Malibu Road, and consider expanding the area to include PCH to the 76 gas station at Corral Canyon.

2. Consider establishing an overlay district for the Serra Canyon, East of Malibu Creek. Said district to have its own wastewater treatment facility, and its own Sewer system. The sewer system would not have to cross the creek, and would result in no potential waste discharge into the creek in the event of an earthquake.

Ozzie Silna
23301 Palm Canyon Lane
Malibu, Ca. 90265

310-456-8054

From: Rebecca Chou
To: Villar, Rosie
Date: 10/7/2009 9:48 AM
Subject: Fwd: STOP prohibition in Malibu Wastewater Treatment Systems

>>> Carole Stark <cmason5@earthlink.net> 10/6/2009 2:26 PM >>>
Dear Dr. Chou

The proposed "prohibition" on local Malibu wastewater systems will go into place on November 15, 2009 implemented by the Regional Water Quality Control Board.

Our community has seen an increase in wastewater enforcement actions by the Regional Board, with a proposed "prohibition looming on the horizon on November 15,2009.
As a resident we are simply uninformed about the current requirements for wastewater permitting and the implications for our residences.

To better understand the current situation some historical prospective is necessary. Almost all of Malibu's commercial properties and residences were built prior to the City's Incorporation in 1991. Typically these properties were construction 30-50 years ago in accordance with the codes in effect at that time, which generally did not require a separate wastewater permit from the Regional Board. The standard wastewater system utilized was a septic system. Septic systems have been used successfully for decades. In reality, their main emphasis is on disposal with treatment of a lesser level of concern. For the most part these systems satisfactorily perform the disposal objective and do provide an effective level of treatment.

We all know that there have been many changes since then, not only from a regulatory standpoint, but also from a scientific and technological prospective; however many small businesses and residences have not stayed current with these changes. For the most part if there are small business owner or property owners who are out of compliance with the current laws it is likely they are simply unaware of the rules. Their buildings were built with all the needed permits, the wastewater systems adequately dispose of the effluent and they perform the necessary pumping their systems require.

We feel that the California Regional Quality Water Board has proposed this "prohibition". for thr Civic Center, without giving time to the businesses and residents to completely understand how to implement needed forms and/or a way for the City of Maliby to meet the list of

recommendations of a new "sewer system.'

This prohibition will impact our businesses and residents during an already historical economic recession! We have had 3 fires, hugh transportation issues added to the down economy in only the last 3 years.

We request that the RWQCB delay the actions they have deemed necessary for a prohibition, and ask that they 'partner' with the Malibu Community to create a mutual goal for for all business and local community members within Malibu.

Please stop this prohibition and work with us to make it a community we can all be proud of. We look forward to working with you in a positive way to support our local businesses and residents of Malibu.

Respectfully,

Daniel and Carole Stark
30 year residents of Malibu
28184 Rey de Copas Lane,
Malibu , CA 90265

email: cmason5@earthlink.net

Robert Gold

BIG ROCK
PARTNERS LLC

RECEIVED
2009 FEB 19 PM 1 17
CALIFORNIA REGIONAL WATER
QUALITY CONTROL BOARD
LOS ANGELES REGION

California Regional Water Quality Control Board
Los Angeles Region
320 W. 4th Street
Suite 200
Los Angeles, CA 90031

Attn: Rebecca Chou, Ph.D. P.E.

January 20, 2009

Re: Comment Letter – Proposed Prohibition of Onsite Wastewater Treatment Systems (the "Prohibition") in the Malibu Civic Center Area ("MCC")

Dear Dr. Chou:

Thank you providing AZ Winter Mesa LLC (AZWM) with the opportunity to submit comments on the Proposed Amendment to the Water Quality Control Plan for the Los Angeles Region ("RWQCB"). While AZWM does not does own any property in the MCC, we do own two properties adjacent to the MCC, 23915 Malibu Road, colloquially known as the "Towing Site" and 24200 Pacific Coast Highway, colloquially known as the "Crummer Site". Both of these properties are in the Winter Canyon watershed which we understand will be included in the study area for modeling purposes of the MCC. AZWM has filed with the City of Malibu applications for Coastal Development Permits to subdivide these sites as separate developments. It is contemplated that each site will be served by a separate community OSWTS. A Draft Environmental Impact Report for the Towing Site was published on December 25, 2008 AZWM filed its Form 200 and related technical studies for the Towing Site with the RWQCB. On January 15, 2009 AZWM received conformance approval on the OSWTS for the Towing Site. We are preparing additional scientific studies which we will be providing you in connection with the OSWTS for the Crummer Site.

We are very concerned about statements made by RWQCB staff that Winter Canyon and MCC are hydraulically connected. This implies that even though Winter Canyon is outside the MCC groundwater basin/shed, (while within the regional groundwater study area), potential impacts to MCC exist from activities in Winter Canyon. This has been studied and for all intents and purposes Winter Canyon has been shown to not impact or interact with MCC (Stone Environmental, 2004).

315 S. Beverly Drive, Suite 315
Beverly Hills, CA 90212

Rebecca Chou, Ph.D. P.E.
January 20, 2009

It is our understanding that the RWQCB has commissioned the groundwater study because of ongoing concerns related to the water quality in Malibu Creek, Malibu Lagoon and the Pacific Ocean beyond. We share these concerns and support the efforts of local environmental groups working to improve the quality of the groundwater in the MCC. However, from the brief description provided in the "Notice of CEQA Scoping" it is difficult to understand some basic issues such as the scope of the Prohibition or how the Board is going to define "Malibu Civic Center Area", how the Board will define separate watersheds/groundwater basins or how the Board will measure impacts from separate watersheds/water basins

Winter Canyon and MCC have from a hydrologic perspective been consistently viewed are separate and distinct watersheds and basins. As such Winter Canyon has been excluded from your study area of the proposed Prohibition. There is no scientific basis to conclude that Winter Canyon and MCC are hydraulically connected. These two areas are very different with respect to water levels and flow gradient. In fact in 2003 the DWR delineated the boundaries of the MCC, "termed "Malibu Valley Groundwater Basin and in 2004 defined it as "a small alluvial basin located along the Los Angeles County coastline. The basin is bounded by the Pacific Ocean on the south, and by non water barring Tertiary rocks on all remaining sides. The valley is drained by Malibu Creek into the Pacific Ocean." The DWR limits of the Malibu Valley Groundwater basin did not include Winter Canyon. That being said we hope you can understand our concern that RQWCB staff may view Winter Canyon as hyrdraulically connected to MCC. We believe that it would be manifestly unjust and create a dangerous precedent, if the RQWCB subsequently changes its definition of MCC as the basis for either extending the Prohibition area to include Winter Canyon or use hydraulic connectivity to justify the RQWCB's refusal to act on applications for discharge permits for properties within Winter Canyon until it has completed its studies of MCC.

In view of the unprecedented economic crisis facing the country and the State of California we believe that a careful and comprehensive evaluation of the economic impact of instituting the Prohibition (in whatever form it may ultimately takes) is required.

In addition, current regulations of the California Coast Commission and the City of Malibu require the use of OSWTS. Even if a feasible alternative exists it is necessary to carefully evaluate all of the possible benefits of individual onsite wastewater systems compared with one large system. A failure of a regional plant could have the potential to cause significantly more environmental damage than a failure at one smaller system. Can the construction of a new OSWTS have a positive environmental impact on existing conditions? A detailed analysis of the alternatives and their feasibility is needed in order to fully understand the impact of the Prohibition in MCC. This includes an analysis of extending the proposed Prohibition beyond MCC to properties that are not hydrologically connected to the MCC or using hydraulic connectivity as a basis for the refusal of the

Rebecca Chou, Ph.D. P.E.
January 20, 2009

RQWCB to act on applications for discharge permits for properties within Winter Canyon until completion of its studies of MCC.

Thank you for your consideration of the issues raised herein.

Respectfully submitted,

/s/ Robert Gold

Robert Gold

Ensitu Engineering Inc.
685 Main Street, Suite A
Morro Bay, CA 93442

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CALIFORNIA REGIONAL WATER
QUALITY CONTROL BOARD
LOS ANGELES REGION

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February 18, 2009

Mr. Robert Gold
Big Rock Partners, LLC
315 S. Beverly Drive., Suite 315
Beverly Hills, CA 90212

SUBJECT: Proposed Wastewater Treatment System Design Intent for Malibu Towing Site

Dear Mr. Gold,

The proposed wastewater treatment system to serve the residential project at the Malibu Towing Site is a community system designed to treat and dispose of wastewater from each of the four residences and the guard house. The waste flow is a residential strength waste with the following characteristics:

Wastewater Estimated Flow and Characteristics	
Peak Design Daily Flow	3,170 gpd
Average Daily Flow	2,120 gpd
Influent BOD_5	<220 mg/L
Influent TSS	<220 mg/L

The wastewater strength at the treatment system influent is expected to have lower BOD_5 and TSS concentrations due to the removal of solids at the individual septic tanks.

The design intent of the treatment system is to meet the receiving water quality limitations presented in the following table:

Constituent	Units	Maximum Limit
BOD*	mg/L	20
Suspended Solids*	mg/L	20
Fecal Coliform*	MPN/100mL	<200
Enterococcus*	MPN/100mL	<104

*Also City of Malibu Plumbing Code

Treatment shall be performed using AdvanTex Treatment Systems by Orenco Systems. AdvanTex Treatment Systems work like recirculating sand/gravel filters, which treat wastewater through a combination of physical, chemical, and biological processes. AdvanTex Treatment Systems use an inert nonwoven textile material to treat wastewater. Two AdvanTex AX100 Treatment units shall be used in the onsite wastewater treatment system design for the subject site.

Disinfection shall be performed using Liquid Chlorination. Treated wastewater shall flow from the recirculating splitter valve to the liquid chlorination unit by gravity and through a static mixer. The treated and disinfected wastewater shall flow by gravity to the dosing compartment. Once inside the dosing compartment, the treated and disinfected wastewater shall be pumped through a Liquid Dechlorination unit and static mixer, where the treated, disinfected, and dechlorinated wastewater shall continue to disposal.

The high quality effluent proposed produced by the proposed treatment and disinfection components of the system will treat the residential wastewater to meet Ocean Total Maximum Daily Loads (TMDLs). The treated effluent will meet effluent limits prior to discharge to seepage pits.

Sincerely,
Ensitu Engineering Inc.

John N Yaroslaski PE #60149
Principal

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BIG ROCK
PARTNERS LLC

October 7, 2009

VIA E-MAIL AND HAND DELIVERY

California Regional Water Quality Control Board
Los Angeles Region
320 W. 4th Street, Suite 200
Los Angeles, CA 90013
Attn: Dr. Rebecca Chou, Chief of the Groundwater Permitting Unit

RE: PROPOSED AMENDMENT TO THE WATER QUALITY CONTROL PLAN FOR THE COASTAL WATERSHEDS OF VENTURA AND LOS ANGELES COUNTIES (BASIN PLAN) TO PROHIBIT ON-SITE WASTEWATER DISPOSAL SUSTEMS IN THE CIVIC CENTER AREA OF THE CITY OF MALIBU

Dear Dr. Chou:

On behalf of Big Rock Partners, LLC, manager of AZ Winter Mesa, LLC (collectively "AZWM"), thank you for the opportunity to submit comments in connection with the proposed amendment to the *Water Quality Control Plan for the Coastal Watersheds of Ventura and Los Angeles Counties (Basin Plan)* to prohibit on-site wastewater disposal systems (herein after referred to as either "OWDS" or "OWTS") in the Civic Center area of the City of Malibu (hereinafter referred to as the "Prohibition").

AZWM is the owner of two contiguous parcels of land located in Winter Canyon, commonly known as the "Towing Site" (23915 Malibu Road) and the "Crummer Site" (24200 Pacific Coast Highway). AZWM purchased the Crummer Site in August 2005 and the Towing Site in April 2006, with the intention of developing each property for residential use. We have engaged in exhaustive analyses of environmental and geotechnical issues at our properties, including preparation of an Environmental Impact Report ("EIR") and detailed plans for a proposed state-of-the-art OWTS package plant that would treat wastewater generated from each of four residences and a gatehouse at the Towing Site. The proposed OWTS received conformance approval by the City of Malibu's Department of Environmental Health on January 15, 2009, after extensive conformance review. The Towing Site's EIR included an analysis of the treatment of wastewater generated by the proposed development Malibu's Planning Commission certified the Towing Site's EIR on August 4, 2009 by Resolution No. 09-49 (attached hereto as Exhibit "1"). Resolution No. 09-49 included fourteen (14) conditions numbered 95 through 108, with respect to the construction, operation, maintenance and monitoring

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Beverly Hills, CA 90212

of the Towing Site's proposed OWTS. Despite sound science clearly demonstrating that water quality objectives can be satisfied, and various other public benefits associated with the proposed plans, AZWM has been unable to move forward pending Regional Board approval. Thus, the issues presented herein are of direct interest to us, as well as many other similarly-situated local residents and businesses in Malibu.

As explained further below, AZWM believes that the proposed Prohibition would cause severe hardship for many local residences and businesses, and will not reasonably achieve the goal of improved water quality in the proposed Prohibition area. On the other hand, enacting the Prohibition will certainly have the affect of further polarizing stakeholders.

We also believe that the Prohibition is legally defective because:

- The Staff Report and the supporting Technical Memoranda do not meet the requirements of a functional equivalent under the California Environmental Quality Act ("CEQA") for an Environmental Impact Report ("EIR");
- Winter Canyon should be removed from the Prohibition areas because neither the Staff Report nor the Technical Memoranda support the inclusion of Winter Canyon in the Prohibition area; and
- The enactment of the Prohibition constitutes an unlawful taking.

In the event the LARWQCD is inclined to approve the Prohibition which applies to Winter Canyon, which it should not, the Prohibition at a minimum be revised to include the following elements:

- Any Prohibition should include a "grandfather" clause exempting all projects which are in the "pipeline" i.e. all projects or properties for which Coastal Development Permits ("CDPs") have been applied for with the City of Malibu and fees for the filing of such CDPs have been paid. These pipeline projects should continue to be processed in a timely fashion by the LARWQCD pursuant to criteria in effect prior to the effective date of the Prohibition; and
- The exemption from the Prohibition should be expanded to include the new OWTSs using performance based criteria based on site specific conditions rather than be limited to "zero-discharge" projects.

I. Background.

The Staff Report to the Prohibition states that "the goal of the proposed prohibition on OWDSs is to remedy pollution of water resources, including beaches, Malibu Lagoon and Creek, and groundwater, that are affected by discharges from OWDSs." The

LARWQCD method of achieving this goal is to "immediately prohibit all new discharges from OWDS in the Malibu Civic Center area, and establish a five-year schedule to cease all discharges from existing systems."

The Staff Report contains five (5) technical memoranda which staff is relying on as evidence to support the proposed Prohibition.[1] These Technical Memoranda assert the following conclusions:

- Technical Memorandum #1-Dischargers have poor records of compliance with Regional Board Orders;
- Technical Memorandum #2-Pathogens and nitrogen in wastewaters impair underlying ground water as a potential source of drinking water;
- Technical Memorandum #3-Pathogens in wastewaters that are in hydraulic connection with beaches represent a source of impairment for water contact recreation;
- Technical Memorandum #4-Nitrogean loads from wastewater flowing to Malibu Lagoon are a significant source of impairment to aquatic life; and
- Technical Memorandum #5-Discharges with unsuitable hydrogeologic conditions for high flows of wastewaters resort to hauling liquid sewage and sludge to communities that have sewer and wastewater treatment facilities.

The City of Malibu has presented scientific studies to question the conclusion that OWDSs in the Civic Center area are the source of the pathogens and nitrogen discussed in the Technical Memoranda. The City is also in the process of completing several additional studies which will analyze the source of the pathogens and nitrogen at Malibu Lagoon and Creek, including the beaches and groundwater.

As discussed further below, many of staff's other conclusions are similarly based on erroneous assumptions or are otherwise not sufficiently supported by technical data or legal requirements.

II. THE STAFF REPORT AND THE SUPPORTING TECHNICAL MEMORANDA DO NOT MEET THE REQUIREMENTS OF A FUNCTIONAL EQUIVALENT UNDER THE CALIFORNIA ENVIRONMENTAL QUALITY ACT ("CEQA") FOR AN ENVIRONMENTAL IMPACT REPORT ("EIR").

[1] For the purpose of this comment letter all references to the "Staff Report" shall be deemed to mean the Staff Report and all five (5) Technical Memoranda except in instances when reference is made to a particular Technical Memorandum.

The Staff Report indicates that the LARWQCD's basin planning process is exempt from certain requirements of CEQA, including the requirement to prepare an EIR for an amendment to its Basin Plan. Instead the LARWQCD "prepares environmental information and analyses that are the functional equivalent of an environmental impact report." The Staff Report purports to be a "good faith" effort of "full disclosure of the reasonably foreseeable environmental impacts that could be attendant with the" Prohibition. The Staff Report notes that CEQA does not require unanimity of opinion among experts and that analysis is satisfactory so long as those opinions are considered.

Members of the LARWQCB's staff have repeatedly stated that they are reviewing water quality issues in other areas of the City of Malibu that are outside of the proposed Prohibition area, and that these areas may be subject to future actions by the LARWQCB, including prohibitions against OWTS. We believe that the Staff Report fails to meet the requirements of CEQA for the following reasons:

1. The Staff Report does not contain any analysis of the potential cumulative environmental impacts of future LARWQCB actions in the City of Malibu;

2. The Staff Report fails to adequately evaluate mitigation and/or alternatives for any significant environmental impacts of future LARWQCB actions in the City of Malibu.

   Without such analyses the Staff Report does not meet the basic purposes of CEQA because it fails to (a) identify ways that environmental damage from the compliance projects including future requirements and actions with respect to the water quality in the City of Malibu that the LARWQCD is contemplating may be mitigated, and (b) analyze how to prevent significant, avoidable damage to the environment by requiring changes in the project including future LARWQCB actions though the use of alternatives or mitigation measures when feasible. Without providing the details of future actions within the City of Malibu, the City is being deprived of an opportunity to develop the most economically and least environmentally damaging alternative to achieve compliance both now an in the future. This is particularly troubling at a time when municipal resources are being stretched to their limit;

3. While unanimity of expert opinions is not required under CEQA, the City of Malibu is currently conducting several studies that challenge some of the underlying assumptions supporting the Prohibition, including a study by Dr. John Izbicki (US Geological Survey) who was one of the Early Technical Reviewers of the Staff Report. The Staff Report relies on data and reports that in numerous instances are more than 10 to 20 years

old rather than using (and waiting for) an abundance of more modern data that is more precise because of improved testing methodologies that are now available. In view of the Staff Report acknowledgement that "the beach is a more complex microbiological environment that was previously understood" the most up to date data should be utilized in analyzing both the perceived problems and the environmental impacts of remedying such problems;

4. The boundaries of the Prohibition area have been expanded significantly since the publication of the Staff Report. The Staff Report fails to analyze the environmental impacts of the Prohibition and compliance projects subsequent to the expansion of the Prohibition area;

5. The Staff Report fails to analyze other potential causative factors to the degradation of the groundwater quality in the Prohibition area. State Water Resources Control Board Resolution No. 88-63 (as revised by Resolution No. 2006-0008) provides that "*all surface and ground waters of the State are considered to be suitable, or potentially suitable, for municipal or domestic water supply and should be so designated by the Regional Boards with the exception of*" where "*there is contamination either by natural process or by human activity (unrelated to the specific pollution incident) that cannot reasonably be treated for domestic use using either Best Management Practices or best economically achievable practices...*" The Staff Report further fails to analyze whether the groundwater in the Prohibition area could be reasonably treated for domestic use using either Best Management Practices or best economically achievable treatment practices after the enactment of the Prohibition;

6. The Staff Report contains a detailed analysis of three different projects which would achieve the desired compliance under the Prohibition. This analysis is fundamentally flawed. First, the analysis is not based on the expanded boundary of the Prohibition area since the Staff Report was published. Second, "to estimate costs for the three compliance projects, the staff assumed that the projects would be sized to replace the total existing OWDS capacity in the community, and that the projects would not be designed to accommodate increases in flow." We can only surmise this same assumption, which is plainly erroneous, was used for the environmental impact analysis. The LARWQCB has before it a number of projects that have the potential to increase wastewater production in the Prohibition area, included AZWM's Towing Site (for which an application for a discharge permit has been pending with the LARWQCB since August, 2008). In addition, the City of Malibu's LCP contemplates additional development in the Prohibition area. In fact the Staff Report recognizes that future development may occur in the Prohibition area and

recommends that "Community planners may consider the promotion of additional uses for recycled water by requiring dual plumbing for ***any new development or retrofit." emphasis added***;

7. The Staff Report includes an analysis of Compliance Project C-decentralized waste water management facilities. This compliance project contemplates two decentralized plants. No explanation is provided as to why a decentralized solution is limited to only two treatment plants. This limitation seems arbitrary and neither reflects the need for additional capacity in the Prohibition area since its boundary has been expanded nor future development in the Prohibition area. There is no analysis of whether some of the existing treatment plants in the Prohibition area could be retro-fitted as part of a compliance solution.

Additionally, LARWQCD staff has stated their preference for municipal systems. Table 4 in Technical Memorandum #1 contains a summary of violations from 20 permitted and non-permitted dischargers in the Prohibition area. It should be noted that the Malibu Water Pollution Control Plant, a public sector facility, had 635 violations while the other 19 discharges had a total of 551 discharge violations. In addition, 64% of the discharge violations were attributable to the public sector treatment plants compared to 36% for private discharges. In view of the fact that public sector treatment plants generally process greater quantities of wastewater, the environmental impact of the public sector discharge violations outlined in Table 4 is likely to have been of a much greater magnitude than the private dischargers;

8. The Staff Report states that "the impacts from possible compliance projects are analyzed below on a ***conceptual basis***...It will be the responsibility of the community and stakeholders to select a strategy for compliance. And as a strategy and compliance project are selected, it will be the responsibility of a local government (local agency) to perform specific project-level analysis and disclose environmental impacts in accordance with CEQA..." (emphasis added) In view of the fact that the Staff Report neither analyzes the expanded Prohibition area nor the potential for future development in the Prohibition area, coupled with the fact that the analysis contained in the Staff Report was based on a "conceptual" compliance project, the Environmental Checklist provides little or no basis for an environmental impact analysis of the Prohibition and how the City of Malibu will comply with the Prohibition;

9. Technical Memorandum #4 made no distinction between the quality of the effluent produced by septic treatment systems and the quality of effluent produced by advanced treatment systems. This Memorandum

assumed that the nitrogen concentration in the treated residential wastewater in the Prohibition area is 45mg/L. However, the advanced treatment systems proposed by AZWM, for example, will reduce nitrogen levels in the cleaned effluent to less than 10 mg/L. This Memorandum also states that "when actual data were not available, conservative assumption, based on information from published literature were used..." Table 2 in Technical Memorandum #4 uses one data point from property owned by AZWM. This data is incorrect in three respects. First, the APN for this property in the Table 2 is incorrect. (the APN for this property is 4458018004). Second, the Table indicates that this property contains five bedrooms and four bathrooms, while the Los Angeles County Assessor's records, the presumed "published literature" for APN 4458018004 indicates that this residence contains two bedrooms and two bathrooms. In fact, this residence actually contains one bedroom and one bathroom. Therefore, the assumption about the quantity of wastewater being produced from just one of the 349 properties summarized in Table 2 is 75% higher than it actually is. We can only assume that it is an accurate assumption that this is not the only factual error contained in this table;

10. The Technical Memoranda do not contain sensitivity analysis in the modeling necessary to explore the importance of all the variables or specific factors in the analysis;

11. The Staff Report fails to analyze the short term economic impact to stakeholders who will be prevented from developing their properties until a compliance project is on line;

12. The Technical Memorandum contains numerous factual errors, ignores published hydraulic data and analyses and manipulates the data to support the enactment of the Prohibition. Therefore, the Staff Report does not provide the public with an accurate environmental assessment; and

13. The Staff Report's Statement of Overriding Consideration and Determination is flawed because of the defects outlined herein.

In addition, the Regional Board's failure to include a revised Summary of Economics reflecting the expanded Prohibition area, future development within the Prohibition area, and possible future compliance efforts required outside the Prohibition area, also renders the Staff Report noncompliant with the California Water Code. Water Code section 13241 requires the Regional Board to consider, when exercising its discretion, a list of non-exclusive factors, including beneficial uses, environmental characteristics, realistic outcomes, economics, the need for housing, and the need to recycle water. California law further requires the Regional Board to provide a record of the required analysis which is sufficient to demonstrate that it has meaningfully weighed and considered each of the

prescribed non-exclusive factors. *See Topanga Assn. for a Scenic Community v. County of Los Angeles* (1974) 11 Cal.3d 506, 515 ("the agency which renders the challenged decision must set forth findings to bridge the analytic gap between the raw evidence and ultimate decision or order. . . . [and] the relationships between evidence and findings and between findings and ultimate action. . . .")

Thus, in addition to failing to comply with CEQA, the proposed Prohibition would also be violative of the Porter-Cologne Water Quality Act.

III. NEITHER THE STAFF REPORT NOR THE TECHNICAL MEMORANDA SUPPORTS THE INCLUSION OF WINTER CANYON IN THE PROHIBITION AREA.

On January 22, 2009, AZWM submitted written comments at the Scoping Meeting for the Prohibition (A copy of this Letter Dated January 21, 2009 is attached hereto as Exhibit "2") This comment letter expressed AZWM's concern that Winter Canyon would ultimately be included in the Prohibition area, since LARWQCD was including Winter Canyon in the study area for modeling purposes of the Civic Center Area. However, the Notice of the Scoping Meeting did not include Winter Canyon in the Prohibition area. Our comment letter pointed out that "Winter Canyon and [Malibu Creek watershed] have from a hydrologic perspective been consistently viewed are separate and distinct watersheds and basins...There is no scientific basis to conclude that Winter Canyon and the Malibu [Creek] Civic Center Area watersheds are hydraulically connected. These two areas are very different with respect to aquifers, water levels and flow gradient. In fact in 2003 the DWR delineated the boundaries of the [Malibu Civic Center Area], termed "Malibu Valley Groundwater Basin and in 2004 defined it as "a small alluvial basin located along the Los Angeles County coastline. The basin is bounded by the Pacific Ocean on the south, and by non-water bearing, Tertiary-age bedrock on all remaining sides. The valley is drained by Malibu Creek into the Pacific Ocean." The map delineating the DWR limits of the Malibu Valley Groundwater Basin (DWR Basin Number 4-22) does not include Winter Canyon. In addition, City's Final Report Risk Assessment of Decentralized Wastewater Treatment System in High Priority Areas in the City of Malibu, CA (Stone, 2004), excluded the Towing Site, the Crummer Site and portions of Winter Canyon from the Study Area.

Earth Consultants International also submitted a comment letter dated January 20, 2009 at the Scoping meeting (see copy attached hereto as Exhibit "3") which also concluded that that there is no hydraulic connection between the Winter Canyon and Malibu Creek groundwater basins and that "Neither system flows into the other-the only location where mixing of waters might occur is south of Malibu Road, at the ocean/groundwater interface." (ECI, January 20, 2009).

Subsequent to the Scoping Meeting the Prohibition area has been expanded and currently includes Winter Canyon and Winter Mesa. However, the Staff Report has not respond at all, let alone directly, to the comments presented at the Scoping Meeting and does not present any scientific evidence of a hydraulic connection between the Winter Canyon and the Malibu Creek Watersheds.

Technical Memorandum #3 entitled "Pathogens in Wastewaters that are in Hydraulic Connection with Beaches Represent a Source of Impairment for Water Contact Recreation" contains only one reference to Winter Canyon (in a discussion of the MOU dated September 17, 2004 between the City and the LARWQCB). In this paragraph the author states that "as of the date of this document, the City of Malibu has not provided documentation that systems within the six month-time-of-travel zone have been upgraded to prevent bacteria discharge to the subsurface or include disinfection, nor has an ordinance to this effect been passed by the City of Malibu." The author neglects to state that even without the enactment of such an ordinance, the property owners, such as AZWM, have designed systems that meet both of these requirements. (See ECI First Response to LARWQCB Comment set forth in, *Second Response to California Regional Quality Control Board Questions Regarding the Towing Site, Malibu California, dated September 18, 2009,* (attached hereto as Exhibit "4"). Moreover, AZWM has designed its OWTS so that the travel time of the cleaned effluent introduced to its seepage pits will certainly be greater than six (6) months and will not require the hauling of liquid sewage to communities that have sewer and wastewater treatment systems.

At the October 1, 2009 Community Meeting sponsored by the LARWQCD, staff was questioned about the postulated hydraulic connection between Winter Canyon and Malibu Creek, Surfrider Beach and the Malibu Lagoon. Staff replied that all groundwater in Winter Canyon eventually flows into the ocean at **Amarillo Beach**, where long-shore currents transport impaired groundwater down the coast to Surfrider Beach. Notwithstanding, Amarillo Beach has not been identified as impaired due to high-fecal-indicator bacteria and/or beach closures and therefore has not been placed on the California Clean Water Act section 303(d) list.

Technical Memorandum #4 (page T4-9) states that "the greatest volume of wastewater from Sector I is discharged into the Winter Canyon drainage, but the Winter Canyon flow is estimated to have a relatively low contribution (1%) to Malibu Lagoon." This Memorandum then states that "[m]ost of the wastewater discharged in Winter Canyon is ***assumed*** to discharge into Malibu Beach." (emphasis added). However, no support is given for the assumption that most wastewater from Winter Canyon is discharged to Malibu Beach.

Neither Technical Memorandums #3 or #4 contain any information on the water quality at Amarillo Beach or an analysis of the possible impacts of the mixing of waters that might occur south of Malibu Road, at the ocean/groundwater interface on Surfrider Beach, the Malibu Lagoon or Creek. In the event groundwater coming from Winter

Canyon contained pathogens, water cannot be transported by long-shore currents from the ocean off Winter Canyon into the Lagoon because the Lagoon is topographically higher than the ocean and except in breach conditions is prevented from entry by a sand bar.

On page T4-12 of Technical Memorandum #4, a discussion of the 180 homes located in Sector IV indicates that "Wastewater, from the five commercial properties and most (107) of the homes, discharges directly to the ocean and the beaches north of Malibu Lagoon. A portion of the nutrient and bacteria load discharged to the beach can be transported with sediments toward the Lagoon by the prevailing long-shore movement of northwest to southeast. Once transported toward the lagoon, it can enter the Lagoon through tidal inflow. The U.S. Environmental Protection Agency estimated that tidal inflow contribute only 1% of the nutrient load in the Malibu Lagoon. Staff estimates that 1% of the 42,040 gpd of wastewater discharged in the main area of Section IV could reach the Lagoon, but ***acknowledges the proportion could be much smaller."*** After acknowledging that potentially none of, but at most 1% of wastewater discharge from the main area of Section IV, the majority of which is being discharge from systems that do not have advanced treatment systems, the inclusion of Winter Canyon in the Prohibition area simply cannot be justified. In fact, the information contained in Technical Memorandum #4 negates the purported technical justification for including Winter Canyon in the Prohibition area.

In view of the complete lack data on the quality of the ground water in Winter Canyon, on October 1, 2009 AZWM (in conjunction with Malibu Bay Company which owns the property immediately to the east of the Towing) had Earth Consultants International ("ECI") collect groundwater samples from four monitoring wells: TY-MW-1, TY-MW-5, MBCWC-MW-2 and SMBRP-11 and tested the samples for the following: Fecal Coliform, Total Coliform, Born, Chloride, Nitrate, Nitrite, Sulfates and TDS. It should be noted that TY-MW-1 is located at the northern portion of the Towing Site. The results of these tests are contained in ECI Reported dated October 7, 2009 (See copy annexed hereto as Exhibit "5"). The Report states: "The analytical results suggest that the aquifer waters do not meet Secondary drinking water standards due to elevated concentrations (above MCL) of chloride, sulfate and TDS. Additionally Total Coliform was detected in the groundwater samples collected from the northern-most and southern-most monitoring wells in the study area. The absence of Total Coliform in the groundwater samples collected from the two wells between the northern-most and southern-most monitoring wells suggest that Coliform entering the system from up gradient sources (north of Pacific Coast Highway) are removed before the groundwater reaches Malibu Road. The source of Coliform in the groundwater sample collected from Well SMBRP-11 appears to be the septic systems of homes directly south of Malibu Road." These tests results further confirm that Winter Canyon, including AZWM's properties are not contributing pathogens in wastewater to the beaches and ocean, including Amarillo Beach, Surfrider Beach, the Malibu Lagoon or Malibu Creek.

These test results also refute the notion groundwater in Winter Canyon are a potential source of drinking water as the elevated concentrations (above MCL) of chloride, sulfate and TDS do not meet Secondary drinking water standards. Furthermore, Winter Canyon has never been a source of drinking water, and absent the wastewater disposal systems or local irrigation, its alluvium would likely contain no subsurface water.

The Staff Report does not contain analysis of potential alternative causes to the Civic Center area groundwater being non-compliant with existing regulations for potential drinking water. While Technical Memorandum #2 informs us that the Malibu Valley Groundwater Basin, but not which portions of it sub-basins, "was the community's drinking water source up until the early 1960's" it neither states whether this aquifer was every compliant with current water quality standards for drinking water (the ECI October 7, 2009 report that Winter Canyon does not currently meet these standards) nor analyzes whether this aquifer can be treated for domestic use using either Best Management Practices or best economically achievable practices This aquifer is not designated as a municipal supply of drinking water in the Basin Plan. In addition, there is no analysis of whether the quality of the cleaned effluent produced by advanced treatment systems, such as the OWTSs proposed by AZWM, will have a positive effect of recharging the aquifer.

Finally, it should be noted that in the event the Prohibition area includes Winter Canyon and does not contain a reasonable exemption that allow projects in the "pipeline" (as further discussed herein) to receive discharge permits, storm water runoff from the Towing Site (and other similarly situated facilities) will continue to remain untreated before it enters the ocean. The proposed improvements to the Towing Site include a drainage ditch on the east and west side of the new street running the length of the property that would direct collected storm water toward Filtera units for storm water bioretention filtration. All excess onsite and offsite runoff, including from the western slope, that would initially infiltrate and be treated through porous surfaces, would be collected by drainage ditches and a storm drain system throughout the site, detained, and released to be less than or equal to pre-development flow rates. The Filtera units would be designed to provide preliminary treatment through the settling of sediments and would equalize flows prior to discharging into the Winter Mesa drainage channel along Malibu Road and ultimately into the Pacific Ocean.

IV. THE ENACTMENT OF THE PROHIBITION VIOLATES CONSTITUTIONALLY PROTECTED RIGHTS

The enactment of the Prohibition constitutes an unlawful taking under both California and Federal law because:

1. The Prohibition denies property owners with the Prohibition area their rights to substantive due process because the Prohibition, as applied to AZWM would be arbitrary and capricious. The Staff Report provides that "It will be the responsibility of the community and stakeholders to select a strategy for compliance. And as a strategy and compliance project are selected, it will be the responsibility of a local government (local agency) to perform specific project-level analysis and disclose environmental impacts in accordance with CEQA." Individual property owners do not have the ability to select a compliance strategy for their property, even if one exists that addresses the goals of Basin Plan. In order to implement the compliance project the local agency, i.e., the City of Malibu will have to create an assessment district to construct a regional wastewater treatment plant(s) and prepare and EIR. Individual property owners in the Prohibition area neither have ability to create an assessment district nor do they have the ability to prepare an EIR necessary for the compliance project. Such an assessment district requires action by both the City of Malibu and the other property owners within a proposed assessment district;
2. The Prohibition deprives property owners within the Prohibition equal protection under the law because property owners within the Prohibition who are currently discharging may continue to do so for five (5) years, while property owners within the Prohibition area who are not currently discharging are prevented from discharging. This is fundamentally unfair because (i) scientifically and technically sound solutions are available to reasonably address water quality concerns at sites such as the AZWM properties; and (ii) property owners that are currently not discharging but seeking to do so in the future will be required, pursuant to the requirements of the Malibu LCP and Plumbing Code, to install advanced treatment systems while property owners who the LARWQCB claims have created the need for the Prohibition would be allowed to continue to discharge; and
3. The Prohibition denies AZWM all reasonable, feasible economic use of its property within the Prohibition area. AZWM in good faith has made a considerable investment to develop its two properties in compliance with the existing water quality regulations. Based on this investment there is no reasonable economic use of the properties other than the proposed developments which given present circumstances creates a "Catch-22."

V. IN THE EVENT THE PROHBITION IS ADOPTED, IT SHOULD INCLUDE A "GRANDFATHER" PROVISION FOR ALL PROJECTS WHICH ARE IN THE "PIPELINE.

AZWM along with many other commercial and residential property owners have in good faith made considerable investments to develop or redevelop properties located within the proposed Prohibition area. If the Prohibition is enacted it will result in significant economic harm for many of these property owners, because these property owners will, for all intents and purposes, be prevented from proceeding with their projects until one of the three methods of compliance with the Prohibition is available whether this takes five (5) years or some longer period of time. In order to prevent such economic hardship the Prohibition should contain a broad exemption to process discharge permits for new or increased flow for development/redevelopment projects that have "commenced" prior to the effective date of the Prohibition.

"Commenced" could reasonably be defined as having submitted an application for CDPs and the payment of the required filing fees in connection with those CDPs, prior to the effective date of the Prohibition. This would provide an objective standard as to what constitutes a "pipeline" project as potentially affected property owners will have reasonable notice and opportunity to file for CDPs.

Some property owners, such as AZWM have spent millions of dollars to develop their properties, which includes extensive analysis for separate EIR's for each of its properties located in Winter Canyon. In the case of AZWM, these expenses include the design of two separate OWTS that satisfy the stringent requirements of both the City of Malibu's LCP and Plumbing Code while addressing the particular geological aspects of each of these properties. The City of Malibu has one of the most rigorous technical design, analysis and review processes for OWTS in the nation. Other property owners who might be affected by the Prohibition include families who might have recently purchased a vacant piece of land or an existing home with the intention of building or remodeling that home. Some of these families may have applied for CDPs and paid filing fees but were prevented from proceeding any further because of an illness or loss of a job. Other property owners may have filed their CDPs in good faith but further movement on their project may have been delayed due to a variety of procedural or regulatory hurdles. The development process has many variables which are not in the control of the property owner. A property owner who has proceeded in good faith should not be prevented from receiving a permit for new or increased discharge from their property simply because a project is not completed nor has not reach some arbitrary stage in the approval process prior to the effective date of the Prohibition.

Therefore, in the event a Prohibition is approved by the LARWQCD, we request that a grandfather provision be included for all "pipeline" projects for which an application for CDPs and payment of required filing fees has been submitted, prior to the effective date of the Prohibition. Approvals of Pipeline projects by the LARWQCD should not contain

onerous conditions that would make a project economically unfeasible rendering the approval illusory. Of course, an approval conditioned upon an owner agreeing to connect to an integrated water resources management facility, a community sewage collection system and interceptor sewer line or decentralized wastewater management facilities when such an option becomes available seems appropriate.

VI. THE EXEMPTION FROM THE PROHIBITION SHOULD BE EXPANDED TO INCLUDE THE EVALUATION OF NEW OWTSS USING PERFORMANCE-BASED CRITERIA AND SITE SPECIFIC CONDITIONS, RATHER THAN LIMITED TO "ZERO-DISCHARGE" PROJECTS

The Staff Report contains a very limited exemption to the Prohibition that would allow new discharges within the Prohibition area for "zero-discharge" projects provided a "discharger can demonstrate, to the satisfaction of the Executive Director, that reuse, evapotransportation, and/or transpiration will use 100% of the wastewater generated by activities on a site, will not contribute to a rise in the water table, and will contain and properly handle any brines and/or off-specification wastewaters that cannot be reused/discharged in a manner that meets the water quality objectives established in the Basin Plan."

While the goal of a "zero-discharge" project as defined in the exemption is laudable, it is beyond dispute that that the combination of geology in the Prohibition area and economics of such a project creates insurmountable barriers for many stakeholders. This is especially true for residential stakeholders who would seek to install a treatment system that meets all of the requirements of this exemption as currently written. These residential stakeholders who require new discharges will therefore be deprived of the use of their property, until a compliance project becomes available.

We urge the LARWQCB to expanded the exemption to permit the use of performance-based criteria based on site specific conditions that would allow for new discharges that can not otherwise meet the requirements of a "zero-discharge system.

For example, working with the City and our consultants, AZWM concluded that based on site specific geological conditions that a clustered advanced treatment system would be the most environmentally-sound, and the only technically-feasible, solution for both its Towing Site and its Crummer Site. Once the system is operational the wastewater will be treated and the effluent disposed in a manner that will substantially conform to the goals established in the Staff Report. Issuing a discharge permit to AZWM's projects and other projects that may satisfy a site specific performance based review, will create new locations for the use of recycled water. This is due to the fact that projects can be dual plumbed as recommended in the Staff Report, and could therefore receive recycled water from either a centralized or decentralized compliance project.

VII. CONCLUSION

AZWM has expended considerable time and money to prepare this comment letter because we believe that is extremely important for the LARWQCB to understand the impact that the Prohibition will have on the property owners, like AZWM, who despite every effort to abide by the rules, are caught in the middle of a dispute over which we have no control.

While we believe that the Prohibition is deeply flawed for the reasons herein, we strongly believe that if all stakeholders in this process-including the City, the LARWQCB, property owners and environmental groups-all of whom sincerely care about the quality water in the City of Malibu, its local beaches, are given the opportunity to meaningfully work together a consensus can emerge based on a deeper understanding of the issues. This will enable the most appropriate solution, both in terms of environmental and economic impacts to be found and implemented in a timely fashion.

AZWM desires to assist both the City and the LARWQCB in achieving the goal of improved water quality. As mentioned above, we have invested considerable resources in trying to work together with other interested parties to help address Malibu's water quality issues. We want to and can be part of the solution. Needless to say, we strongly believe that a blanket prohibition on OWTS pending the long-term development of a centralized treatment system is not the answer. Rather, we urge the City and LARWQCB to continue working with AZWM, as well as other property owners and environmental groups, to find both interim and long-term solutions to the Civic Center Area that do not severely harm local interests. In this regard we believe a blanket Prohibition will only serve to further polarize the positions of the stakeholders. Indeed, we believe a cooperative collaborative process is the only way a comprehensive and long-term solution can ultimately be achieved for this area.

We look forward to being able to continue to work with the City, the LARWQCB and other interested parties on this issue.

Thank you for your consideration.

Very truly yours,
Big Rock Partners, LLC

Robert Gold

Enclosures (5).
CC: Jim Thorsen, City Manager, City of Malibu
Craig George, Environmental and Building Safety Manager, City of Malibu
Victor Peterson, Community Development Director, City of Malibu

CITY OF MALIBU PLANNING COMMISSION
RESOLUTION NO. 09-49

A RESOLUTION OF THE PLANNING COMMISSION OF THE CITY OF MALIBU CERTIFYING ENVIRONMENTAL IMPACT REPORT NO. 07-001, ADOPTING A MITIGATION MONITORING AND REPORTING PROGRAM, AND APPROVING TENTATIVE TRACT MAP NO. 07-002, COASTAL DEVELOPMENT PERMIT NOS. 07-024, 07-025, 07-026, 07-027 AND 07-028, SITE PLAN REVIEW NOS. 07-022, 023, 07-024, 07-025 AND 09-037 AND DEMOLITION PERMIT NO. 07-005 – FOR THE DEMOLITION OF ALL EXISTING ONSITE STRUCTURES, A TENTATIVE TRACT MAP FOR THE SUBDIVISION OF ONE 5.45 ACRE PROPERTY INTO SEVEN INDIVIDUAL PARCELS; FOUR OF WHICH WOULD BE DEVELOPED WITH TWO-STORY SINGLE-FAMILY RESIDENCES WITH BASEMENTS AND SWIMMING POOLS, AND THE OTHERS WOULD BE PRESERVED FOR OPEN SPACE, STREET, DISPERSAL AREA, A GATE HOUSE AND ONSITE WASTEWATER TREATMENT SYSTEM PACKAGE PLANT TO SERVE THE FOUR HOMES; INCLUDING CDPs FOR EACH OF THE FOUR PROPOSED RESIDENCES, SPRs FOR CONSTRUCTION OF EACH RESIDENCE IN EXCESS OF 18 FEET IN HEIGHT, NOT TO EXCEED 28 FEET FOR A PITCHED ROOF, AND A SPR FOR CONSTRUCTION OF THE RESIDENCE AT PARCEL 1 ON SLOPES BETWEEN 3 TO 1 AND 2 ½ TO 1 AT 23915 MALIBU ROAD (AZ WINTER MESA LLC)

THE PLANNING COMMISSION OF THE CITY OF MALIBU DOES HEREBY FIND, ORDER AND RESOLVE AS FOLLOWS:

Section 1. Recitals.

A. On March 5, 2007, an application for the proposed project was submitted for processing. The application was routed for review to the City Biologist, City Geologist, City Environmental Health Administrator, City Public Works Department and the Los Angeles County Fire Department (LACFD) for Local Coastal Program (LCP) and Malibu Municipal Code (M.M.C.) conformance review.

B. On August 27, 2007, the City Council approved a contract with The Planning Center to initiate work on the preparation of an Environmental Impact Report (EIR) for the proposed project.

C. On September 11, 2007, the Governor's Office of Planning and Research distributed the Notice of Preparation (NOP) and Initial Study to responsible agencies for comments for a 30-day public review period, September 11, 2007 through October 10, 2007 [State Clearing House (SCH) # 2007091048]. The City received written responses to the NOP from the following agencies: the Native American Heritage Commission, the Metropolitan Transportation Authority, the California Department of Transportation, the South Coast Air Quality Management District and the LACFD Land Development Unit.

EXHIBIT 1

Environmental Health

95. Prior to the issuance of a building permit the applicant shall demonstrate, to the satisfaction of the Building Official, compliance with the City of Malibu's Onsite Wastewater Treatment regulations including provisions of LIP Section 18.9 related to continued operation, maintenance and monitoring of onsite facilities.

96. Any above-ground equipment associated with the installation of the AOWTS shall be screened from view by a solid wall or fence on all four sides. The fence or walls shall not be higher than 42-inches tall.

97. A final plot plan shall be submitted showing an AOWTS design meeting the minimum requirements of the Malibu Plumbing Code (MPC), and the LCP/LIP, including necessary construction details, the proposed drainage plan for the developed property, and the proposed landscape plan for the developed property. If inclusion of the above items renders the plot plan difficult to read, then the above items shall be submitted on two or more plot plans.

98. The complete engineering design drawings, calculations, construction specifications, and an operation and maintenance manual shall be submitted to the City of Malibu Environmental and Building Safety Division. Describe all AOWTS components (i.e. alarm system, pumps, timers, flow equalization devices, backflow devices, etc.) proposed for use in the construction of systems for onsite wastewater treatment and disposal. Electronically monitored flow meters shall be included in the construction plans so as to continuously gauge the quantity of effluent flowing daily through each wastewater system. The final AOWTS design shall provide sufficient capacity for onsite treatment and disposal of all wastewater discharges from all proposed residential buildings at the subject property.

99. An operations and maintenance manual specified by the AOWTS design engineer shall be submitted. This shall be the same operations and maintenance manual proposed for later submission to the owner and/or operator of the proposed alternative onsite wastewater disposal system.

100. Water level monitoring devices shall be installed within the seepage pits with telemetric notification to the maintenance service provider. Instructions to the service provider for notification to the Homeowners Association of high water conditions, and associated requirements for switching discharge to expansion seepage pits, must be addressed in an operation and maintenance manual prepared by the AOWTS designer.

101. Submit building plans, wastewater plans, and all necessary supporting forms, and reports, to the Los Angeles Regional Water Quality Control Board, 320 W. 4th St., Los Angeles, CA 90013, (213) 576-6600, to assure compliance with the California Water Quality Control Plan, Los Angeles Region (Basin Plan). RWQCB Waste Discharge Requirements shall be obtained and submitted to the City of Malibu Environmental Health Administrator.

102. Prior to receiving Environmental Health approval, the owner shall legally establish a Homeowners Association governing document that obligates the collection of assessments,

specifies how the AOWTS shall be operated and maintained, creates the ongoing obligation of the Homeowners Association to comply with all permitting requirements, references all applicable LCP/LIP requirements with respect to package wastewater treatment plants, and establishes a financial assurance mechanism acceptable to the City of Malibu. The CC&R's shall be reviewed and approved by City Attorney's office and then submitted to the Environmental Health Administrator.

103. An operations and maintenance manual specified by the AOWTS designer shall be submitted to the City Environmental Health Administrator. This shall be the same operations and maintenance manual proposed for later submission to the owner and/or operator of the proposed AOWTS.

104. A maintenance contract executed between the owner of subject property and an entity qualified in the opinion of the City of Malibu to maintain the proposed AOWTS after construction shall be submitted. Please note only original "wet signature" documents are acceptable.

105. The City Public Works Department final approval shall be submitted to the City Environmental Health Administrator. The City Public Works reviewer shall review the AOWTS design to determine conformance with flood hazard area requirements, if applicable.

106. The City Geologist and Geotechnical Engineer's final approval shall be submitted to the City Environmental Health Administrator.

107. The City Biologist's final approval shall be submitted to the City Environmental Health Administrator. The City Biologist shall review the AOWTS design to determine any impact on sensitive habitat, if applicable.

108. In accordance with MPC Section 103.5.5.1, an application shall be made to the Environmental Building Safety Division for an OWTS operating permit.

Fire Safety

109. The project requires Fire Department Plan Check and developer fee.

110. The project may require interior fire sprinklers.

111. The project requires LACFD approval of a Final Fuel Modification Plan prior to the issuance of final building permits.

Trash Storage Areas

112. Trash container areas must have drainage from adjoining roofs and pavement diverted around the area.

113. Trash container areas must be screened or walled to prevent off-site transport of trash, other than by approved haulers.

comply with this coastal development permit. Temporary Certificates of Occupancy may be granted at the discretion of the Building Official, provided adequate security has been deposited with the City to ensure compliance should the final work not be completed in accordance with this permit.

Section 13. Certification.

The Planning Commission shall certify the adoption of this Resolution.

PASSED, APPROVED AND ADOPTED this 4th day of August 2009.

ED GILLESPIE, Planning Commission Chair

ATTEST:

JESSICA BLAIR, Recording Secretary

LOCAL APPEAL - Pursuant to LIP Section 13.20.1 (Local Appeals), a decision of the Planning Commission may be appealed to the City Council by an aggrieved person by written statement setting forth the grounds for appeal. An appeal shall be filed with the City Clerk within 10 days and shall be accompanied by an appeal form and proper appeal fee. The appellant shall pay fees as specified in the Council adopted fee resolution in effect at the time of the appeal. Appeal forms and fee schedule may be found online at www.ci.malibu.ca.us, in person at City Hall, or by calling (310) 456-2489, extension 374.

COASTAL COMMISSION APPEAL – An aggrieved person may appeal the Planning Commission's decision to the Coastal Commission within 10 working days of the issuance of the City's Notice of Final Action. Appeal forms may be found online at www.coastal.ca.gov or in person at the Coastal Commission South Central Coast District office located at 89 South California Street in Ventura, or by calling (805) 585-1800. Such an appeal must be filed with the Coastal Commission, not the City.

I CERTIFY THAT THE FOREGOING RESOLUTION NO. 09-49 was passed and adopted by the Planning Commission of the City of Malibu at the regular meeting thereof held on the 4th day of August 2009, by the following vote:

AYES: COMMISSIONERS: HOUSE, JENNINGS, MAZZA AND GILLESPIE
NOES:
ABSTAIN:
ABSENT: COMMISSIONERS: SCHAAR

JESSICA BLAIR, Recording Secretary

BIG ROCK
PARTNERS LLC

California Regional Water Quality Control Board
Los Angeles Region
320 W. 4th Street
Suite 200
Los Angeles, CA 90031

Attn: Rebecca Chou, Ph.D. P.E.

January 20, 2009

Re: Comment Letter – Proposed Prohibition of Onsite Wastewater Treatment Systems (the "Prohibition") in the Malibu Civic Center Area ("MCC")

Dear Dr. Chou:

Thank you providing AZ Winter Mesa LLC (AZWM) with the opportunity to submit comments on the Proposed Amendment to the Water Quality Control Plan for the Los Angeles Region ("RWQCB"). While AZWM does not does own any property in the MCC, we do own two properties adjacent to the MCC, 23915 Malibu Road, colloquially known as the "Towing Site" and 24200 Pacific Coast Highway, colloquially known as the "Crummer Site". Both of these properties are in the Winter Canyon watershed which we understand will be included in the study area for modeling purposes of the MCC. AZWM has filed with the City of Malibu applications for Coastal Development Permits to subdivide these sites as separate developments. It is contemplated that each site will be served by a separate community OSWTS. A Draft Environmental Impact Report for the Towing Site was published on December 25, 2008 AZWM filed its Form 200 and related technical studies for the Towing Site with the RWQCB. On January 15, 2009 AZWM received conformance approval on the OSWTS for the Towing Site. We are preparing additional scientific studies which we will be providing you in connection with the OSWTS for the Crummer Site.

We are very concerned about statements made by RWQCB staff that Winter Canyon and MCC are hydraulically connected. This implies that even though Winter Canyon is outside the MCC groundwater basin/shed, (while within the regional groundwater study area), potential impacts to MCC exist from activities in Winter Canyon. This has been studied and for all intents and purposes Winter Canyon has been shown to not impact or interact with MCC (Stone Environmental, 2004).

315 S. Beverly Drive, Suite 315
Beverly Hills, CA 90212

EXHIBIT 2

Rebecca Chou, Ph.D. P.E.
January 20, 2009

It is our understanding that the RWQCB has commissioned the groundwater study because of ongoing concerns related to the water quality in Malibu Creek, Malibu Lagoon and the Pacific Ocean beyond. We share these concerns and support the efforts of local environmental groups working to improve the quality of the groundwater in the MCC. However, from the brief description provided in the "Notice of CEQA Scoping". it is difficult to understand some basic issues such as the scope of the Prohibition or how the Board is going to define "Malibu Civic Center Area", how the Board will define separate watersheds/groundwater basins or how the Board will measure impacts from separate watersheds/water basins

Winter Canyon and MCC have from a hydrologic perspective been consistently viewed are separate and distinct watersheds and basins. As such Winter Canyon has been excluded from your study area of the proposed Prohibition. There is no scientific basis to conclude that Winter Canyon and MCC are hydraulically connected. These two areas are very different with respect to water levels and flow gradient. In fact in 2003 the DWR delineated the boundaries of the MCC, "termed "Malibu Valley Groundwater Basin and in 2004 defined it as "a small alluvial basin located along the Los Angeles County coastline. The basin is bounded by the Pacific Ocean on the south, and by non water barring Tertiary rocks on all remaining sides. The valley is drained by Malibu Creek into the Pacific Ocean." The DWR limits of the Malibu Valley Groundwater basin did not include Winter Canyon. That being said we hope you can understand our concern that RQWCB staff may view Winter Canyon as hyrdraulically connected to MCC. We believe that it would be manifestly unjust and create a dangerous precedent, if the RQWCB subsequently changes its definition of MCC as the basis for either extending the Prohibition area to include Winter Canyon or use hydraulic connectivity to justify the RQWCB's refusal to act on applications for discharge permits for properties within Winter Canyon until it has completed its studies of MCC.

In view of the unprecedented economic crisis facing the country and the State of California we believe that a careful and comprehensive evaluation of the economic impact of instituting the Prohibition (in whatever form it may ultimately takes) is required.

In addition, current regulations of the California Coast Commission and the City of Malibu require the use of OSWTS. Even if a feasible alternative exists it is necessary to carefully evaluate all of the possible benefits of individual onsite wastewater systems compared with one large system. A failure of a regional plant could have the potential to cause significantly more environmental damage than a failure at one smaller system. Can the construction of a new OSWTS have a positive environmental impact on existing conditions? A detailed analysis of the alternatives and their feasibility is needed in order to fully understand the impact of the Prohibition in MCC. This includes an analysis of extending the proposed Prohibition beyond MCC to properties that are not hydrologically connected to the MCC or using hydraulic connectivity as a basis for the refusal of the

Rebecca Chou, Ph.D. P.E.
January 20, 2009

RQWCB to act on applications for discharge permits for properties within Winter Canyon until completion of its studies of MCC.

Thank you for your consideration of the issues raised herein.

Respectfully submitted,

/s/ Robert Gold

Robert Gold

Earth Consultants International

January 20, 2009

To: **California Regional Water Quality Control Board**
Los Angeles Region
320 w. 4th Street, Suite 200
Los Angeles, CA 90013

Attention: **Ms. Rebecca Chou**

Subject: **CEQA Scoping Meeting, Proposed Septic Prohibition in the Malibu Civic Center Area (Public Notice No. 08-061) - Comments on Groundwater Basins in the Winter Canyon and Civic Center (Malibu Creek) Areas**

Pursuant to the Notice of CEQA Scoping Meeting dated December 19, 2008, we appreciate the opportunity to comment on the proposed Amendment to the Water Quality Control Plan for the Los Angeles Region to incorporate a Septic (Onsite Wastewater Treatment System - OWTS) Prohibition in the Malibu Civic Center Area. We understand that according to the City of Malibu, Winter Canyon is not included in the area for the proposed OWTS moratorium. However, we have heard concerns raised that the Winter Canyon and Malibu Creek/Civic Center area groundwater basins are hydraulically connected. The implication from this connection is that the addition of water into either basin might cause an increase in groundwater levels in other basin. With respect to this issue, we provide the following information:

Winter Canyon and Malibu Creek are separate watersheds. Although they are adjacent, an intervening ridge divides surface waters such that each watershed drains independently towards the ocean. The ridge is composed of siltstone bedrock of the Monterey Formation, which is partially capped by Quaternary terrace deposits (see Figure 1).

Both Winter Canyon and the Malibu Creek/Civic Center area are filled with sediments capable of storing and transmitting water. These sediments could be considered "aquifers" in this sense, even if they are judged to lack yields significant enough to be considered as water supply sources.

The California Department of Water Resources (DWR) defines groundwater basin as follows:

> "An alluvial aquifer or stacked series of alluvial aquifers with reasonably well-defined boundaries in a lateral direction and having a definable bottom"

By the DWR definition above, Winter Canyon is a separate groundwater basin, as its boundaries are well defined by the surrounding hills, including the bedrock ridge that separates it from the Malibu Creek/Civic Center area. Further, the DWR has delineated the

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EXHIBIT 3

boundaries of the Malibu Creek groundwater basin, termed "Malibu Valley Groundwater Basin (2003), and has defined it as follows (2004):

> "Malibu Valley Groundwater Basin is a small alluvial basin located along the Los Angeles County coastline. The basin is bounded by the Pacific Ocean on the south and by non water-bearing Tertiary age rocks on all remaining sides. The valley is drained by Malibu Creek to the Pacific Ocean."

The DWR boundaries of the Malibu Valley Groundwater Basin, shown on Figure 2, do not include Winter Canyon.

The lack of hydraulic connectivity between Winter Canyon and the Civic Center area is further illustrated in Figures 3 and 4, reproduced from Stone Environmental, Inc. (2004). Water levels measured during September 2003 (unbreached lagoon) and during March 2004 (breached lagoon) show:

- The two areas are very different with respect to water level and flow gradient.
- Neither system flows into the other – the only location where mixing of the waters might occur is south of Malibu Road, at the ocean/groundwater interface.
- Although flow patterns in the Malibu Creek/Civic Center area are altered significantly by changes in the lagoon's exposure to the ocean, Winter Canyon's water levels are not affected.

As demonstrated herein, the Winter Canyon and Malibu Creek/Civic Center area have separate and distinct groundwater basins. It is therefore our opinion it would not be appropriate, from a hydrogeologic point of view, to include Winter Canyon in the region under consideration for the proposed Malibu Civic Center Septic Prohibition area.

Thank you for your consideration,

EARTH CONSULTANTS INTERNATIONAL, Inc.

Dr. W. Richard Laton PG 7098
Senior Consultant

Kay St. Peters CEG 1477
Project Consultant

References

California Department of Water Resources, 2003, Statewide Groundwater Basin Map with Subbasins, Version 3, dated October 2003.

California Department of Water Resources, 2004, California's Groundwater, Bulletin 118, last update: February 27, 2004.

California Department of Water Resources, 2009, Groundwater Glossary, www.groundwater.water.ca.gov/groundwater basics/gwb glossary

Stone Environmental, 2004, Final Report, Risk Assessment of Decentralized Wastewater Treatment Systems in High Priority Areas in the City of Malibu, California, Project Number 011269-W, dated August 30, 2004.

Yerkes, R. F. and Campbell, R. H., 2005, Preliminary Geologic Map of the Los Angeles 30' x 60' Quadrangle, Southern California, U.S. Geological Survey Open-File Report 2005-1019.

2000 0 2000 4000

Feet

Scale: 1:24,000

Geologic Units

- Artificial Fill
- Young Alluvium
- Terrace Deposits
- Landslide
- Bedrock

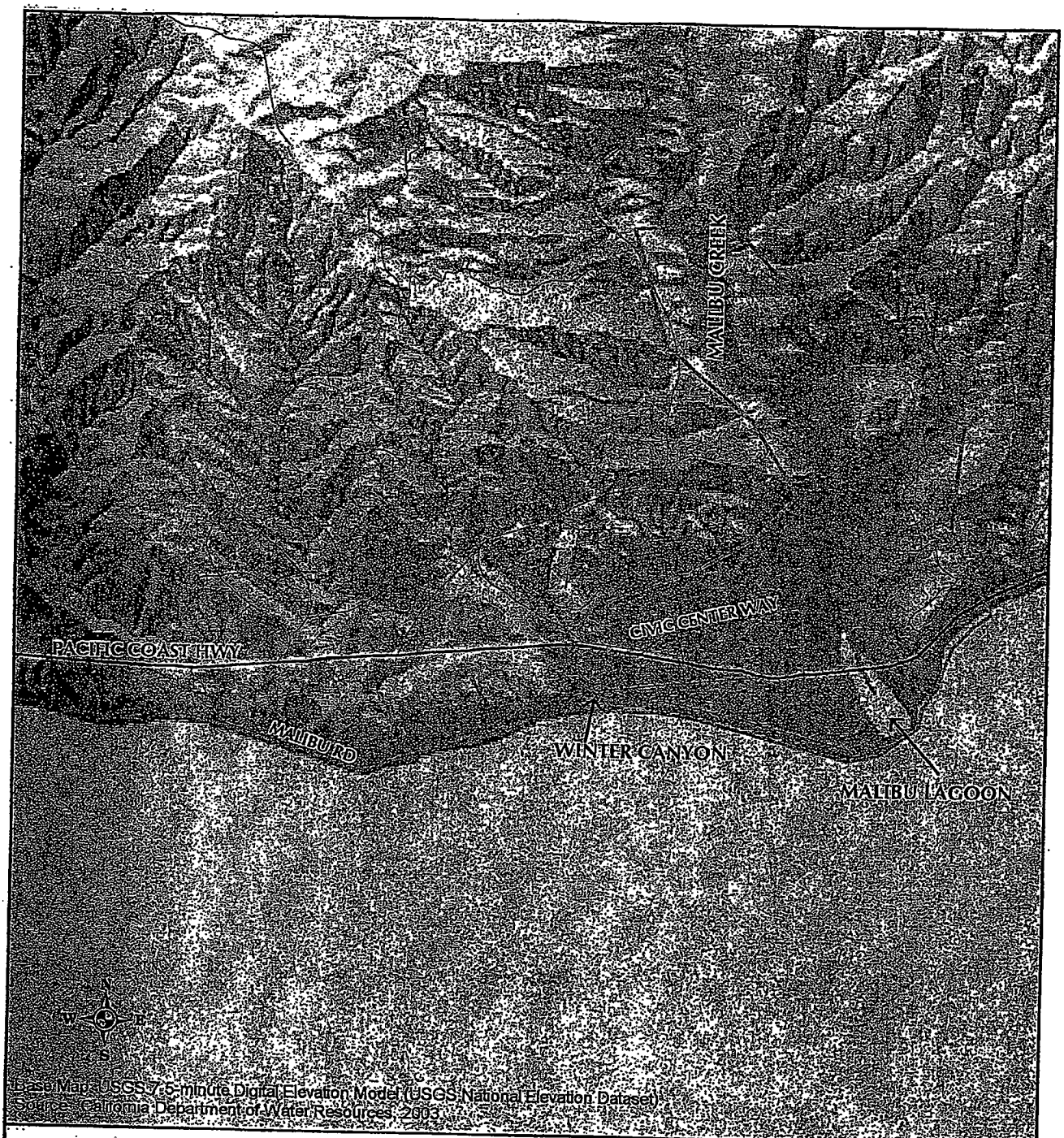
Earth Consultants International

Project Number: 2802
Date: January 2009

Simplified Geologic Map

Vicinity of Winter Canyon and Civic Center Area
Malibu, California

Figure 1



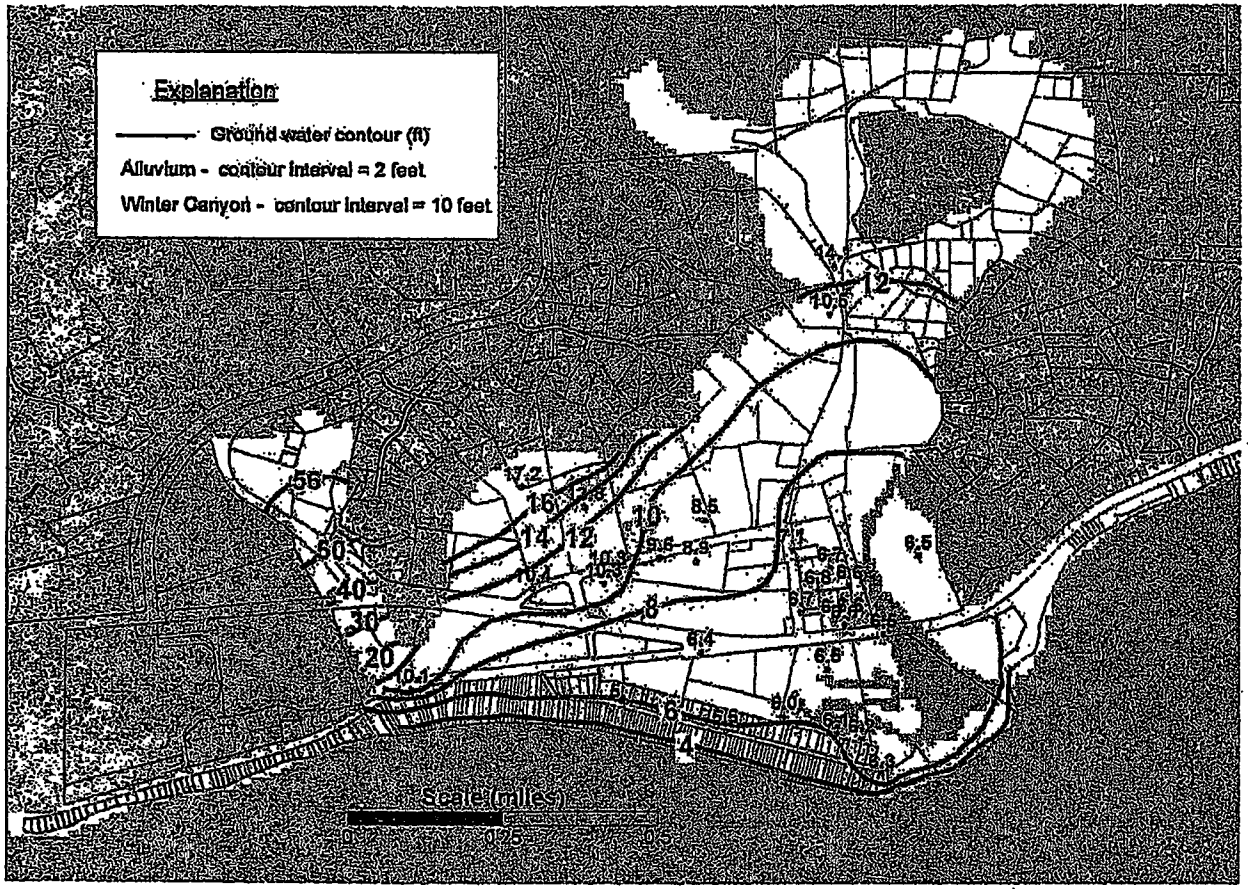
Earth Consultants International

Project Number: 2802
Date: January 2009

Malibu Valley Groundwater Basin (DWR Basin Number 4-22)

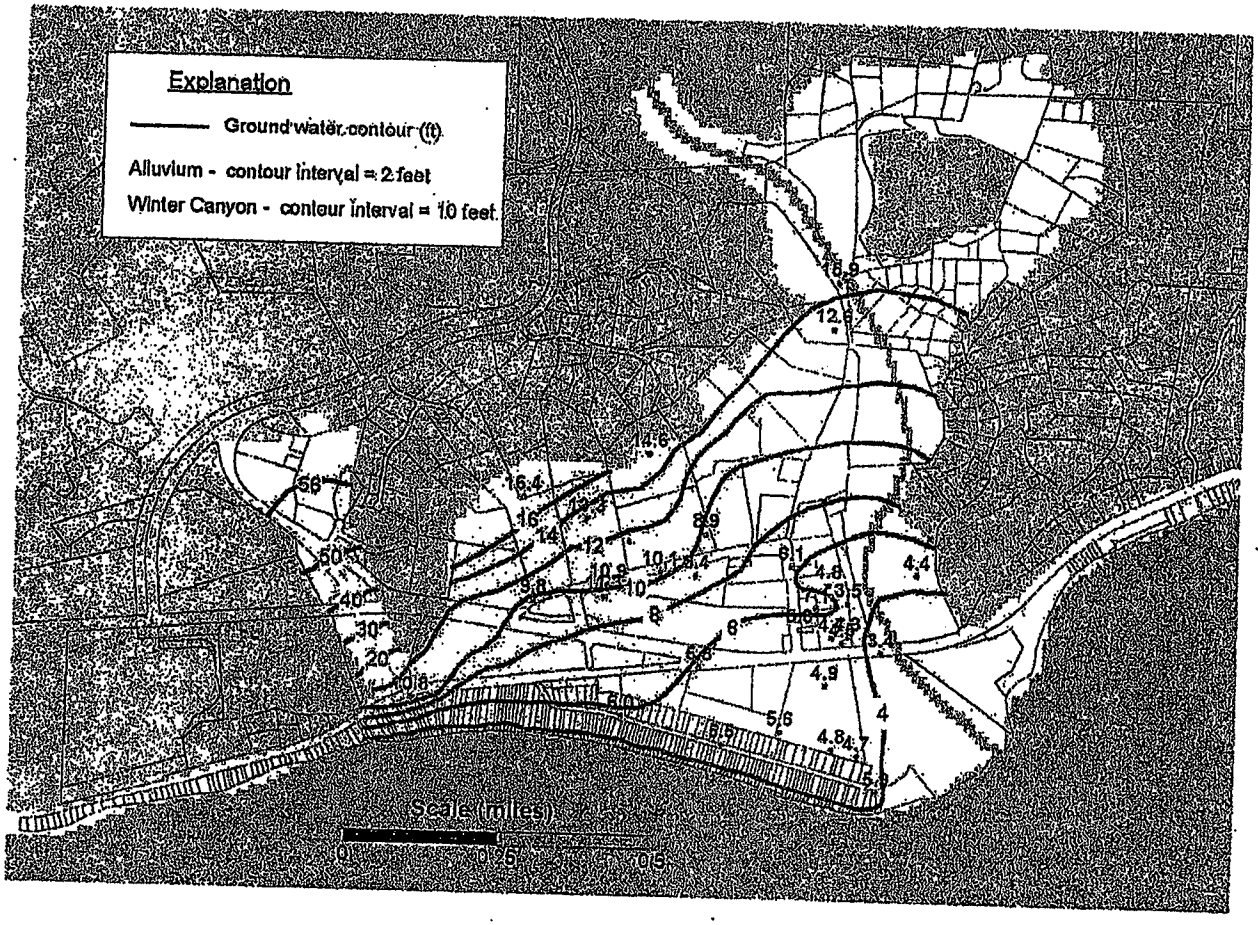
Malibu, California

Figure 2



Source: Stone Environmental, 2004

Earth Consultants International Project Number: 2802 Date: January 2009	**Water Levels Measured On September 25, 2003 Unbreached Lagoon**	**Figure 3**



Source: Stone Environmental, 2004

Earth Consultants International

Project Number: 2802
Date: January 2009

Water Levels Measured On March 9, 2004
Breached Lagoon

Figure 4

Malibu). Table 2 below shows the model calculated increase in water levels beneath the seepage pits and includes the combined effect of the following:

- Stormwater recharge: 11.93"
- Design/peak flow discharge from Towing Site pits: 3,170 gpd
- Original discharge from updradient sources: 88,191gpd
- Additional discharge to include maximum permitted for upgradient Winter Canyon treatment facilities: 29,000 gpd

Table 2: Model Calculated Results for Hypothetical Severe Storm Conditions

Seepage Pit No.	Pit Bottom Elevation (ft amsl)	Existing GW Elevation (ft amsl)	Separation (ft)	Modeled GW elevation (ft amsl) with Hypothetical Severe Conditions	Separation (ft)
SP-1	52	33.47	18.53	34.68	17.32
SP-2	53	35.49	17.51	36.72	16.28
SP-3	53	37.33	15.67	38.56	14.44
SP-4	54	38.91	15.09	40.15	13.85
SP-5	54	40.93	13.07	42.18	11.82
SP-6	55	41.61	13.39	42.86	12.14
SP-7	55	42.00	13.00	43.25	11.75
SP-8	55	41.66	13.34	42.91	12.09
EP-1	55	40.86	14.14	42.12	12.88
EP-2	55	39.39	15.61	40.64	12.36
EP-12	54	39.71	14.29	40.96	13.04
EP-13	51	31.33	19.67	32.52	18.48
EP-14	54	40.79	13.21	42.05	11.95

All units are in feet

Plate 1 (map) illustrates groundwater elevation contours based on the highest recorded water levels (blue contours) at Towing Site, and the hypothetical contours (red contours) from the confluence of events described above. The model of the presented Hypothetical Severe Conditions concludes that even under "extreme" hydraulic conditions overflows and effluent surfacing will not occur. In addition, under the Hypothetical Severe Conditions vertical separation to groundwater below the proposed seepage pits ranges from 11.75 to 18.48 feet with an average of 13.72 feet.

LARWQCB Comment: The technical remedy you propose is water conservation within the facility, increased storage capacity, and alternative disposal options. The facility must be able to maintain groundwater separation of 5 feet under all conditions for the safe removal of surfactants, solvents, pharmaceuticals, and toxic organic substances. The selected conservation method needs to be better defined, especially how it will be implemented to maintain separation from groundwater.

Response: [Ensitu] The model calculations for the Hypothetical Storm Events indicate that under the severe conditions described above the minimum separation from the pit bottoms to groundwater ranges from 11.75 feet to 18.48 feet. The proposed community treated water system provides six active and seven expansion seepage pits for disposal of treated and disinfected water. The proposed expansion pits will be installed during construction of the treated water system as part of the overall site development. The expansion pits will not be connected for use at initial system start up, however they would be available for connection at any time if it is deemed necessary to put them into use. Please see City of Malibu Planning Commission Condition of Approval No. 94 in the "OTHER COMMENTS" section below.

Total peak flow for the four residences is calculated at 3,170 gallons per day. Current proposed design of active seepage pits provides a tested acceptance volume of 50,406 gallons per day. At this tested capacity the loading rate based on design flow is 1.65 gpsfd. Based on current design it is anticipated that the minimum separation to groundwater shall be 12.66 feet (considering the highest predicted change in groundwater elevation based on the calibrated flow model by ECI (report dated July 24, 2008) and 11.75 feet under Hypothetical Sever Storm conditions. Each residence is served by a 2,000-gallon septic tank that provides 2.2 days hydraulic retention time (HRT). The gate house is served by a 1,500-gallon septic tank. Including the 20,000-gallon equalization/recirculation/dosing tank, the system has a total septic tank capacity of 29,500 gallons. This provides 9.3 days HRT at the peak flow of 3,170 gallons per day (gpd) or 13.9 days HRT at the average flow of 2,120 gpd. The system's capacity will negate the need to haul liquid sewage and sludge from the Towing Site.

In order to monitor and prevent overflows from the seepage pits, liquid level alarms will be installed in all active seepage pits to monitor the water elevation in pits at all times. Rise in liquid level will trigger an alarm to the maintenance contractor and flows to the pit(s) would be immediately stopped. Please see City of Malibu Planning Commission Condition of Approval Nos. 93 and 94 in the "OTHER COMMENTS" section below.

The system as designed, and as confirmed by the groundwater mounding models, will be able to maintain groundwater separation of 10 feet (as required by both the City of Malibu and the LARWQCB), even under the Hypothetical Severe Conditions, and therefore provide for the safe removal surfacants, solvents, pharmaceuticals and toxic organic substances.

While water conservation was not included as a specific proposal in the water treatment design report, water conservation efforts will be included in the architectural/mechanical design, primarily through the use of ultra-low flow fixtures, and incorporation of many native drought resistant plant species in the Towing Site's landscape plan. While other options for disposal were initially explored for the site, the only practical option is disposal through seepage pits as shown in the proposed design.

TECHNICAL INCONSISTENCIES

LARWQCB Comment: The flow lines you provide show uniform discharge out of bedrock into an alluvial aquifer. The high permeability measures in your seepage pit tests predict

that flow will be through fractures and not uniform discharge. If so, effluent will be delivered to a small area of the alluvium, possibly at the base of the canyon. Please correct these inconsistencies and modify your application to discuss additional possible flow lines and the implications for the project.

Response: [ECI] We agree that the flow rates are variable, ranging from 48.5 gal/sq ft/day to 12.61 ga/sq.ft/day, based on the percolation test report (Young, 2008). We reviewed the logs for the six borings used in the percolation tests, all of which were downhole logged by a geologist from Leighton and Associates. The percolation rates correlate somewhat with the depth of the zone tested, i.e., the highest rate was recorded in the zone closest to the surface, and the lowest rate corresponds to the deepest zone tested (see Table 3 below). The variable percolation rates are therefore generally related to the degree of weathering of the rock, which is described in the logs. The logs also report that although the rock is fractured, the fractures are commonly infilled. No open fractures that would represent significant conduits were noted. To assist in the Board's review we have included these logs in Appendix B.

Table 3: Summary of Percolation Test Borings

Boring	Zone Tested (depth below ground surface in feet)	Percolation Rate (gal/sq ft/day)
SP-1	8-26	48.5
SP-3	12-29	32.93
SP-5	19-36	39.01
SP-7	21-38	33.63
EP-1	25-42	22.42
EP-4*	28-46	12.61

* This location was tested but not used for a future seepage pit.

We also note that during our many visits to the site, which have occurred during all seasons, we have never observed any springs or areas with water-loving vegetation on the Towing Site that might suggest the presence of an existing groundwater conduit to the surface. Further, Leighton (2005) reported they did not observe any evidence of wetlands or standing water on the site; and Leighton (2007) reported there was no evidence for perched groundwater on the slope along the western portion of the Towing Site.

The lack of open fractures in the rock and the lack of evidence for existing water seepage out of the slope where the future pits will be sited do not suggest there are existing conduits that might bring treated water to the surface. Further, the three-dimensional groundwater flow model used to predict the impacts of future discharges at the Towing Site (ECI, 2008a) has been calibrated using existing groundwater flow conditions, which would implicitly include the presence of conduits (bedrock fractures or permeable sand beds in the alluvium) that could transport water to the base of the canyon. Therefore the modeled pre- and post-development groundwater conditions are appropriate.

LARWQCB Comment: You state that no-flow enters the eastern drainage ditch from groundwater on your property. We do not concur with your conclusion because it is based on a limited sample of onsite water levels and is not reflective of the range of historical water levels as found in Winter Canyon. Please expand your hydrology data base and your assumptions.

Response: [ECI] With respect to historical groundwater levels, consultants often refer to the Seismic Hazard Zone Report for Malibu Beach Quadrangle (2001) prepared by the California Division of Mines and Geology (now called the California Geological Survey). This report publishes hypothetical historical high groundwater depths for the Malibu area, including Winter Canyon. Their map shows Winter Canyon groundwater depths of five feet for most of the reach south of PCH, and 10 feet at the northern end of Towing Site (Plate 1.2). According to the author of Section 1 of the report (M. Woods, personal communication), the CDMG relied on data in consulting reports on file with the City of Malibu. It should be noted that the CDMG's estimates for Winter Canyon are based on one geotechnical boring, located near the mouth of Winter Canyon on Malibu Road (CDMG Plate 1.2). Further, the report states that their estimates are made with a conservative bias. For instance, *"In many areas where observed ground-water depths were available, we generally simply rounded those depths up to the next higher five-foot increment."* The CDMG groundwater estimates are made for the purpose of identifying potential liquefaction areas, and are meant to prompt site-specific investigations. They are not sufficient nor were they ever intended to serve as a substitute for site-specific investigations.

Therefore, in order to evaluate the historical high groundwater levels using empirical data, we have undertaken a comprehensive search of the available reports and records for Winter Canyon and the beach area below. This includes reports on file at the City of Malibu and the LARWQCB. The addresses of test pits, borings, or monitoring wells are presented in Table 4 along with the depth to groundwater and the date the reading was recorded. For geotechnical test pits and borings, this is the date of excavation. For monitoring wells, we show the depth and date of the highest recorded reading. These excavations cover a range of years between 1966 and 2009, and were made during various seasons. We limited the results of this review, compiled below in Table 4, to those excavations along Malibu Road where we could determine the elevation of the ground surface at the excavation, and thus determine the groundwater elevations. For comparison, we included Well SMBRP-11.

Table 4: Tabulated Results for Historical Groundwater Levels Along Malibu Road (1966-2009)

Address	Boring or Pit No.	Date Excavated	Ground El.	Reported GW Depth	GW El.	Reference
23864	B-1*	5-7-98	14.5	9	5.5	GeoConcepts, 2003
23864	B-2	12-23-02	14.8	8	6.8	GeoConcepts, 2003
23872	TP-3	4-1-08	16.8	8	8.8	GeoConcepts, 2008
23872	TP-6	4-1-08	16.8	8	8.8	GeoConcepts, 2008
23872	TP-7	4-1-08	17.1	8	8.8	GeoConcepts, 2008
23900	**SMBRP-11**	**2-4-03**	**18.35**	**7.5**	**10.85**	**Depth encountered during drilling (Stone, 2004)**
23900	**SMBRP-11**	**2-25-08**	**18.35**	**7.47**	**10.88**	**Highest recorded measurement (ECI, 2000)**
23900	**SMBRP-11**	**8-5-09**	**18.35**	**8.24**	**10.11**	**Current measurement (ECI)**
23910	B-1	6-?-86	17.7	10	7.7	Holt & Assoc., 1986
23910	B-1	3-18-98	17.7	10	7.7	Mountain Geology, 1998
23910	B-3	3-18-98	18.3	10.5	7.8	Mountain Geology, 1998
23910	TP-3	3-19-09	18.4	10.5	7.9	GeoConcepts, 2009
23910	TP-4	3-19-09	18.3	11	7.3	GeoConcepts, 2009
23910	TP-5	3-19-09	18.2	11	7.2	GeoConcepts, 2009
23910	TP-6	3-19-09	18.1	11	7.1	GeoConcepts, 2009
23916	B-3	5.16.66	18±	14	4	Frankian & Assoc., 1966
23930	TP-1	5-16-82	12-13	5	7-8	Triad, 1982
23930	AH-01	10-13-04	19-20	16	3-4	Subsurface Designs, 2004
23936	TP-3	2-17-84	11	11	0	Jeffery A. Johnson, 1984
23940	B-1	3-?-79	21	16	5	John D. Merrill, 1079
23940	TP-3	2-17-84	11-12	11	0-1	Masterman & Assoc. 1984
23952	B-1	9-13-82	22	16.5	5.5	Kovacs-Byer-Robertson, 1982
23952	B-2	9-14-82	22	17	5	Kovacs-Byer-Robertson, 1982

*Boring used by the CDMG (2001) to estimate historic high water level for lower Winter Canyon to be 5 feet bgs.
Depths and Elevations are reported in feet.

The oldest monitoring well data we have for lowest reach of Winter Canyon are for two wells located just north of Malibu Road (see Plate 1 for location). These readings were 9.65 feet below ground surface (bgs) for Well MBCWC-MW1 (December 15, 1998), and 14.6 feet bgs for Well MBCWC-MW2 (December 15, 1998). Well MBCMC-MW-1 was subsequently destroyed by weed discing; however Well MBCWC-MW2 was monitored from April 1999 through February 2001. During this time frame water depths ranged from 14.75 feet bgs to 19.28 feet bgs. We started monitoring this well again in April 2008 and have continued to monitor it through the present. The range of water levels for the current monitoring period is 17.9 to 19.68 feet bgs.

Well SMBRP-11, located at the intersection of Winter Canyon and Malibu Road, was monitored during the period between January 2003 and March 2004 (Stone, 2004 report), and again during our study for the Towing Site. Figure 3 from ECI report dated 12-12-08 illustrates groundwater levels obtained from this well, and shows very little change occurred overall between the 2003 and 2009 readings, which varied between about 7.5 to 8.5 feet bgs during both monitoring periods.

The historical recorded water levels for Well SMBRP-11 and Well MBCMW-2 are plotted on Figure 1, along with precipitation data for the same time period. We also show the lowest elevation (26.1 feet amsl) in the bottom of the Winter Canyon drainage ditch, which occurs at the storm drain inlet (see Plate 1). The plot shows groundwater levels at that location have remained well below the bottom of the ditch for that time period.

As such, there is nothing in the historical data to suggest groundwater has risen high enough in the past to intercept the base of the Winter Canyon drainage ditch (see Figure 1). In addition, please see Plate 1, which shows the modeled groundwater contours for the hypothetical severe storm event. Even under the Hypothetical Severe Conditions, the contours still do no intercept the base of the ditch.

If the LARWQCB has any historical data confirming that groundwater has risen high enough in the past to intercept the base of the Winter Canyon drainage ditch we would appreciate the opportunity to review this data.

LARWQCB Comment: Your model assumes a finite boundary condition and continuous flow at the Ocean when your well data shows tidal fluctuations. Further, seasonal conditions have been shown to limit outflow through the shallow subsurface as per the reference provided in our email and technical presentations at Malibu's May [April] 30, 2009 symposium. Please correct these inconsistencies.

Response: [ECI] Tidal fluctuations noted in our data were in offsite Well SMBRP-11, located on the southern side of Malibu Road. No evidence of tidal fluctuation has been detected in the wells located on the Towing Site, during February 2008 through August 2009. We also point out that dispersal of the treated water from the Towing Site will be relatively constant, and not seasonal.

With respect to the reference provided in the LARWQCB email (de Sieyes et al, 2008), that study documents the influence of the spring-neap tidal cycle (14 day period), on subsurface discharge of fresh groundwater to the ocean from an unconfined, septic effluent-affected aquifer. The changes in subsurface groundwater discharge in the study

were mathematically calculated (not modeled), and not directly measured. The study indicates that groundwater elevation changes in the well closest to the tide line during the spring-neap tidal cycle were reported to range between 19 cm below the cycle average during neap tide and 10 cm above the cycle average during the spring tide, with a maximum increase in sea level of approximately 1 meter (de Sieyes et al., 2008). The authors calculated fresh groundwater discharge to the ocean during neap tide (low tide) to be 4.7L/min/m and 1.2L/min/m for one-hour and four-hour residence times respectively. During the spring tide (high tide), they calculated the discharge to be 0.5L/min/m and 0.1L/min/m for one-hour and four-hour residence times respectively. Consequently, during high tide conditions, groundwater discharged to the ocean at a lower rate than during times when the ocean was at or near mean sea level. But, during low tide conditions, groundwater discharged at a higher rate than the rate during mean sea level. Thus, changes in the groundwater gradients associated with tide fluctuations near the ocean-land interface are responsible for freshwater discharging to the ocean at varying rates.

Although the de Sieyes study illustrates the effect of tides on groundwater discharge, we point out that overall, tidal fluctuations and the resulting groundwater discharge rates average out to the rate that occurs during mean sea level. Given that in Winter Canyon, tidally-influenced changes take place outside of the Towing Site, and that they average out to mean sea level conditions, and that dispersal of treated water for the future Towing Site seepage pits will be relatively constant, it is appropriate for the Towing Site model to use a finite boundary and continuous flow at the ocean.

OTHER COMMENTS

LARWQCB Comment: In addition, our survey of the performance of adjacent advanced onsite wastewater facilities raises operational concerns. We need additional documentation on your plans for odor control, operation and maintenance plans including the party responsible for the system after construction, and the quantification of storage planned to prevent system malfunction.

Response: [Ensitu] AdvanTex systems shall not produce odor. The six active pits proposed for the site provide a total disposal capacity of 50,406 gpd. The proposed expansion pits provide an additional capacity of 51,253 gpd. In addition to servicing the treatment system, the maintenance provider will manage the disposal of treated water to the pits. Disposal of treated water to the pits can be adjusted as necessary for each pit to ensure the pits are performing as optimal capacity. Additionally, the future pits, while not planned for use initially, will be installed during the construction of the active pits and could be brought into service, in case of an emergency.

In addition, the City of Malibu's Planning Commission Resolution No.:09-49 Section 13, approved on August 4, 2009, contains specific conditions of approval with respect to the AOWTS for the Towing Site including the following:

Condition 89: "Prior to the issuance of a building permit the applicant shall demonstrate, to the satisfaction of the Building Official, compliance with the City of Malibu's Onsite Wastewater Treatment regulations including provisions of LIP Section 18.9 related to continued operation, maintenance and monitoring of onsite facilities.

Condition 92: "The complete engineering design drawings, calculations, construction specifications, and an operating a maintenance manual shall be submitted to the City of Malibu Environmental Health and Building Safety Division. Describe all AOWTS components (i.e. alarm systems, pumps, timers, flow equalization devices, backflow devises, etc.) proposed for use in the construction of the systems for onsite water treatment and disposal. Electronically monitored flow meters shall be included in the construction plans so as to continuously gauge the quality of the effluent flowing daily through each wastewater system. The final AOWTS design shall provide for sufficient capacity for onsite treatment and disposal of all wastewater discharges from all proposed residential buildings at the subject property.

Condition 93: "An operation and maintenance manual specified by the AOWTS design engineer shall be submitted. This shall be the same operations and maintenance manual proposed for later submission to the owner and/or operator of the proposed alternative onsite treated water disposal system."

Condition 94: "Water level monitoring devices shall be installed within the seepage pits with telemetric notification to the Homeowners Association of high water conditions, and associated requirements for switching discharge to expansion seepage pits, must be addressed in an operation and maintenance manual prepared by the AOWTS designer,"

Condition 95: "Submit building plans, wastewater plans, and all necessary supporting forms, and reports, to the Regional Water Quality Control Board, 320 W. 4th Street, Los Angeles, CA 90013, (213) 576-6600, to assure compliance with the California Water Quality Control Plan, Los Angeles Region (Basin Plan). RWQCB Discharge Requirements shall be obtained and submitted, to the City of Malibu Environmental Health Administrator."

Condition 96: "Prior to receiving Environmental Health approval, the owner shall legally establish a Homeowners Association governing document that obligates the collection of assessments, specifies how the AOWTS shall be operated and maintained, creates the ongoing obligation to the Homeowners Association to comply with all requirements, references all applicable LUP/LIP requirements with respect to package wastewater treatment plants, and establishes a financial assurance mechanism acceptable to the City of Malibu. The CC&R's shall be reviewed and approved by the City Attorney's office and then submitted to the Environmental Health Administrator."

Condition 97: "An operations and maintenance manual specified by the AOWTS designer shall be submitted to the City Environmental Health Administrator. This shall be the same operations and maintenance manual proposed for later submission to the owner and/or operator of the proposed AOWTS."

Condition 98: "A maintenance contract executed between the owner of the subject property and an entity qualified in the opinion of the City of Malibu to maintain the proposed AOWTS after construction shall be submitted. Please not only original "wet signature" documents are acceptable."

Condition 99: "The City Public Works Department final approval shall be submitted to the City Environmental Health Administrator. The City Public Works reviewer shall review the

AOWTS design to determine conformance with the flood hazard area requirements, if applicable."

Condition 100: "The City Geologist and Geotechnical Engineer's final approval shall be submitted to the City Environmental Health Administrator."

Condition 101: "The City's Biologist's final approval shall be submitted to the City Environmental Health Administrator. The City Biologist shall review the AOWTS design to determine any impact on sensitive habitat, if applicable."

Condition 102: "In accordance with the MPC Section 103.5.5.1, an application shall be made to the Environmental Safety Division for an OWTS operating permit."

As noted earlier in this response, a 2,000-gallon septic tank will be installed at each house and a 1,500-gallon tank at the gatehouse. A 20,000-gallon treatment tank will include a 10,000-gallon compartment for equalization (3.15 days of hydraulic retention time), a 5,000-gallon recirculation compartment and a 5,000-gallon dosing compartment. With a total septic tank capacity of 29,500 gallons, the HRT is 9.3 days. The proposed 20,000-gallon tank exceeds the minimum 14,000-gallon tank required by City of Malibu Plumbing Code and sizing required by the manufacturer.

The LARWQCB has acknowledged that treatment system problems can occur in both onsite wastewater treatment systems as well as in municipal systems. Problems generally occur due to lack of maintenance or human error. While other manufactured treatment systems on adjacent properties may be experiencing problems, based on direct conversations with representatives of Orenco, it our understanding that *all* AdvanTex onsite wastewater treatment systems along Malibu Road are functioning at top performance. In addition to the Conditions of Approval listed above, the AdvanTex manufacturer Orenco requires as part of the equipment purchase, that the purchaser contract with a certified maintenance provider for an ongoing Management Program (as defined by Orenco) that ensures performance of their equipment.

CONCLUSIONS

Based on our analysis, it is our opinion that the amount of treated, disinfected water that the completed Towing Site project will add to Winter Canyon will have no adverse impacts on the Winter Canyon drainage ditch or the area identified in the Stone (2004) report as high risk for bacterial contamination to receiving waters already impaired by pathogens. In addition, modeled calculations show the theoretical severe storm, even when coupled with the design/peak flow from Towing Site, and the maximum permitted discharge from the upgradient treatment facilities, will not cause groundwater levels to exceed the 10-foot separation below the seepage pits, nor the base of the Winter Canyon drainage ditch.

With respect to treatment system problems, AdvanTex manufacturer Orenco requires as part of the equipment purchase, that the purchaser contract with a certified maintenance provider for an ongoing Management Program (as defined by Orenco) that ensures performance of their equipment. This coupled with the conditions contained in the City of

Malibu's Planning Commission Resolution No. 09-49, should mitigate treatment system problems.

It should also be noted that the property in question has until recently been actively used for over 40 years as a Veterinary Hospital, Towing Facility and Single-Family Home (the single-family home consists of one bedroom and one bathroom and is currently occupied). Each of these entities was discharging concurrently to the subsurface via traditional septic systems pursuant to the Malibu General WDR and to our knowledge have never had a complaint of odor or flowing water in the drainage ditch associated with their subsurface discharges.

As the expected flows for the new development are at or lower than previous rates and are to be treated to a much higher standard we conclude that no adverse impacts to the groundwater will occur as a result of the operation of the proposed system. In addition, based on our models and the operation specifications of the onsite water treatment system we conclude that the operation of the system proposed will not negatively impact the LARWQCB's efforts to restore beneficial uses to nearby water resources, including beaches, the Malibu Lagoon and Creek or groundwater and it will not result in an increase in pathogens and nitrogen that would impair underlying groundwater as a potential source of drinking water. The proposed system provides both adequate vertical separation to prevent bacteria discharges to groundwater and advanced treatment with disinfection as required by Section VI (3) of the MOU.

We hope this letter clarifies the questions regarding groundwater conditions and proposed treated water disposal systems at the Towing Site.

Respectfully Submitted,

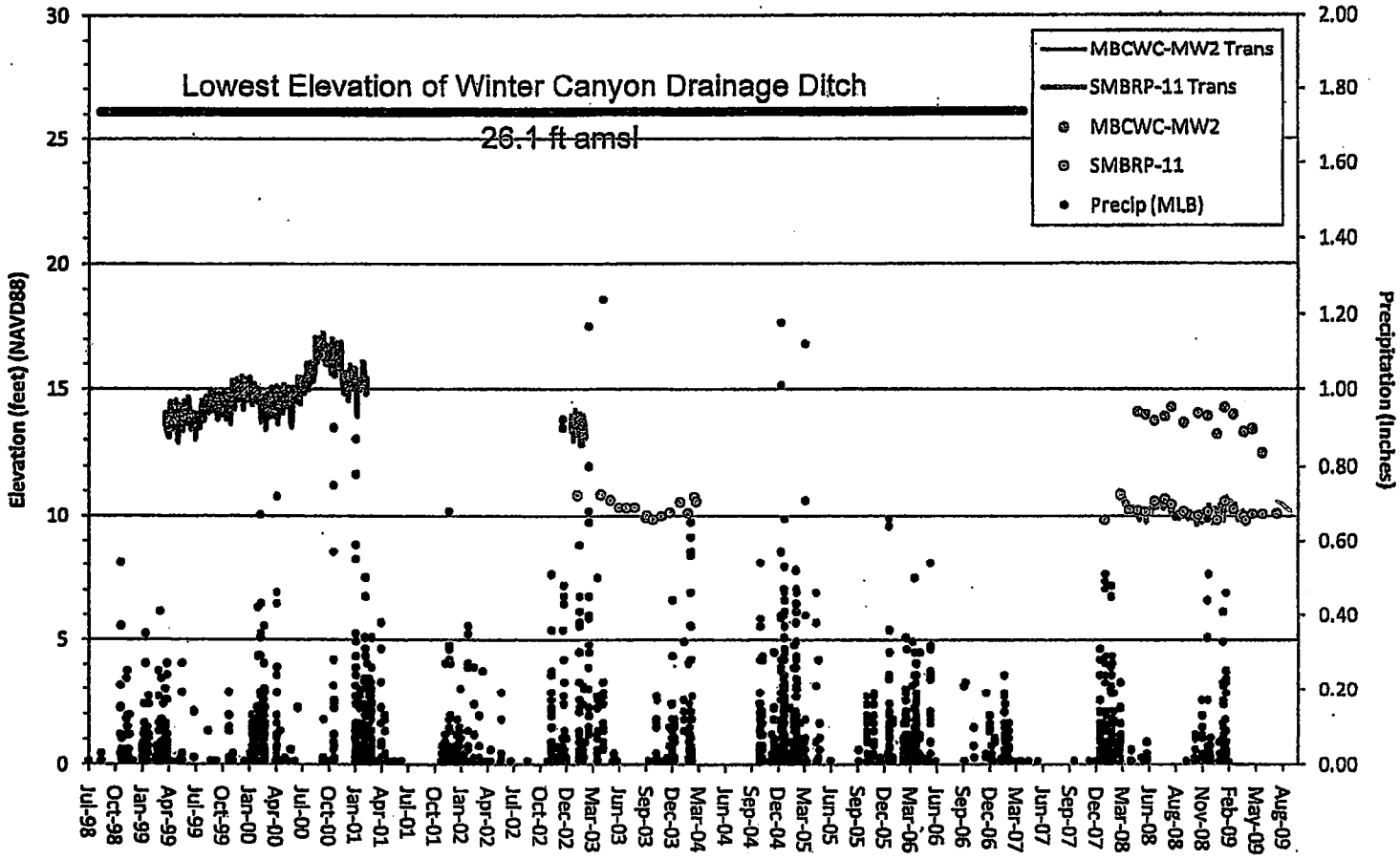
EARTH CONSULTANTS INTERNATIONAL, Inc.

Dr. W. Richard Laton PG 7098
Senior Consultant

Kay St. Peters CEG 1477
Project Consultant

Attachments:

Appendix A	References
Appendix B	Percolation Test Boring Logs by Leighton and Associates
Figure 1	Winter Canyon Water Levels (Elevation) vs Precipitation
Plate 1	Revised Groundwater Elevation Contour Map



Sources:
Precipitation: CDEC station MLB, CDWR, 2009

Earth Consultants International Project Number: 2802 September, 2009	Winter Canyon Water Levels (Elevation) vs Precipitation 23913 Malibu Road Malibu, California	Figure 1

APPENDIX A

References

Appendix A

References

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APPENDIX B

Percolation Test Boring Logs

GEOTECHNICAL BORING LOG SP-1

Date 2-15-08 Sheet 1 of 2

Project AZ Winter Mesa, Towing Site Project No. 031793-011

Drilling Co. Roy Brothers Drilling Type of Rig Bucket-Auger

Hole Diameter 24" Drive Weight 0-25' = 4901 lbs; 25-50' =3396 lbs; 50-75'= 2213 lbs Drop 12"

Elevation Top of Elevation 78' Location Refer to Geotechnical Map

Logged By ARH/MEK

Sampled By MEK

Elevation Feet	Depth Feet	Graphic Log (N / S)	Attitudes	Sample No.	Blows per Foot	Dry Density pcf	Moisture Content, %	Soil Class. (U.S.C.S.)	DESCRIPTION	Type of Tests
75	0								**COLLUVIUM (Qc):**	
									SILTY CLAY, light brown, dry to slightly moist, stiff, diatomaceous with trace fine-grained sand, fine gravel and bedrock fragments, trace roots	
	5			B-1						
									gradational irregular contact	
									MONTEREY FORMATION (Tm):	
70			C: N25W; 30NE						Interbedded DIATOMACEOUS SHALE/ MUDSTONE, light brown, slightly moist, moderately hard, thinly bedded, generally 1/8"-6" thick, oxidized and moderately weathered, calcium carbonate and gypsum along bedding planes and joints, abundant gypsum veins and infilled fractures	
					Cap					
	10		B: N80W; 72NE							
			J: N40W; 70SW	R-1	4	63.3	32.2		joint set	
65			B: N80W; 70NE							
	15		fr: N60E; 50NW						intersecting joint set, manganese oxide staining	
			J: N45E; 70SE						very hard silica cemented bed or dolostone	
			B: N85E; 70NW	B-2					bedrock hard to very hard, blocky jointing with gypsum infill	
60			B: N85W; 72NE							
	20			R-2	3	62.3	49.1		trace rootlets @ 20.5'	
			J: N35E; 70SE						distinct irregular contact	
55									Limey SHALE/DOLOSTONE, medium gray, dry, very hard, moderately fractured, mild reaction with hydrocloric acid	
			B: N80W; 7NE							
	25				Bottom of percolation test					
50			B: N86E; 76NW						Interbedded DIATOMACEOUS SHALE/ MUDSTONE, red brown, slightly moist, moderately hard, thinly bedded, trace calcium carbonate and gypsum along bedding planes and joints	
	30									

SAMPLE TYPES:

S SPLIT SPOON — G GRAB SAMPLE

R RING SAMPLE — SH SHELBY TUBE

B BULK SAMPLE

T TUBE SAMPLE

TYPE OF TESTS:

DS DIRECT SHEAR — SA SIEVE ANALYSIS

MD MAXIMUM DENSITY — AT ATTERBURG LIMITS

CN CONSOLIDATION — EI EXPANSION INDEX

CR CORROSION — RV R-VALUE

LEIGHTON AND ASSOCIATES, INC.

GEOTECHNICAL BORING LOG SP-1

Date 2-15-08 | Sheet 2 of 2

Project AZ Winter Mesa, Towing Site | Project No. 031793-011

Drilling Co. Roy Brothers Drilling | Type of Rig Bucket-Auger

Hole Diameter 24" | Drive Weight 0-25' = 4901 lbs; 25-50' =3396 lbs; 50-75'= 2213 lbs | Drop 12"

Elevation Top of Elevation 78' | Location Refer to Geotechnical Map

Logged By ARH/MEK

Sampled By MEK

Elevation Feet	Depth Feet	Graphic Log (N S)	Attitudes	Sample No.	Blows Per Foot	Dry Density pcf	Moisture Content, %	Soil Class. (U.S.C.S.)	DESCRIPTION	Type of Tests
45	30		B: N85W; 76NE	R-3	9	62.7	50.2		Interbedded DIATOMACEOUS SHALE/ MUDSTONE, red brown, slightly moist, moderately hard, thinly bedded, trace calcium carbonate and gypsum along bedding planes and joints	
40	35									
35	40								Total Depth Drilled 36' Total Depth Sampled 37' Logged to Total Depth No Seepage Zones No Groundwater Backfilled to 26' for percolation testing	
30	45									
25	50									
20	55									
	60									

SAMPLE TYPES:
S SPLIT SPOON
R RING SAMPLE
B BULK SAMPLE
T TUBE SAMPLE
G GRAB SAMPLE
SH SHELBY TUBE

TYPE OF TESTS:
DS DIRECT SHEAR
MD MAXIMUM DENSITY
CN CONSOLIDATION
CR CORROSION
SA SIEVE ANALYSIS
AT ATTERBURG LIMITS
EI EXPANSION INDEX
RV R-VALUE

LEIGHTON AND ASSOCIATES, INC.

GEOTECHNICAL BORING LOG SP-3

Date 2-14-08 Sheet 1 of 2

Project AZ Winter Mesa, Towing Site Project No. 031793-011

Drilling Co. Roy Brothers Drilling Type of Rig Bucket-Auger

Hole Diameter 24" Drive Weight 0-25' = 4901 lbs; 25-50' =3396 lbs; 50-75'= 2213 lbs Drop 12"

Elevation Top of Elevation 82' Location Refer to Geotechnical Map

Logged By ARH/MEK

Sampled By MEK

Elevation Feet	Depth Feet	Graphic Log	Attitudes	Sample No.	Blows Per Foot	Dry Density pcf	Moisture Content, %	Soil Class. (U.S.C.S.)	DESCRIPTION	Type of Tests
80	0	N S							COLLUVIUM (Qc): SILTY CLAY, light brown, dry to slightly moist, stiff, diatomaceous with trace fine-grained sand, fine gravel and bedrock fragments, trace roots	
75	5								indistinct gradational contact	
			B: N70E; 68NW						MONTEREY FORMATION (Tm): Interbedded DIATOMACEOUS SHALE and MUDSTONE, medium brown, moist, hard, thinly bedded, 1/4"-4" thick, blocky joint pattern, trace rootlets along bedding and joints, moderately weathered, trace calcium carbonate and gypsum along bedding planes and joints	
	10		J: N48W; 40SW	B-1 R-1	6/6"	76.0	23.0			
70					Cap					
			B: N85W; 75NE							
	15		J: N40W; 40SW						joint set, manganese and iron oxide stained, with trace gypsum infill, yellow-green staining along bedding planes below 16'	
65										
			B: N70W; 70NE	R-2	4/8"	63.8	53.5			
60	20									
									bedrock harder, less oxidized, less fractured	
	25		B: N85W; 68NE							
55										
			B: N80W; 70NE							
30					Bottom of percolation test					

SAMPLE TYPES:
S SPLIT SPOON
R RING SAMPLE
B BULK SAMPLE
T TUBE SAMPLE
G GRAB SAMPLE
SH SHELBY TUBE

TYPE OF TESTS:
DS DIRECT SHEAR
MD MAXIMUM DENSITY
CN CONSOLIDATION
CR CORROSION
SA SIEVE ANALYSIS
AT ATTERBURG LIMITS
EI EXPANSION INDEX
RV R-VALUE

LEIGHTON AND ASSOCIATES, INC.

GEOTECHNICAL BORING LOG SP-3

Date 2-14-08 Sheet 2 of 2

Project AZ Winter Mesa, Towing Site Project No. 031793-011

Drilling Co. Roy Brothers Drilling Type of Rig Bucket-Auger

Hole Diameter 24" Drive Weight 0-25' = 4901 lbs; 25-50' =3396 lbs; 50-75'= 2213 lbs Drop 12"

Elevation Top of Elevation 82' Location Refer to Geotechnical Map

Logged By ARH/MEK

Sampled By MEK

Elevation Feet	Depth Feet	Graphic Log	Attitudes	Sample No.	Blows Per Foot	Dry Density pcf	Moisture Content, %	Soil Class. (U.S.C.S.)	DESCRIPTION	Type of Tests
50	30	N S		R-3	4	68.6	46.6		Interbedded DIATOMACEOUS SHALE and MUDSTONE, dark brown, slightly moist, hard, thinly bedded, trace thin, gypsum-infilled fractures	
									Total Depth Drilled 32' Total Depth Sampled 31' Logged to Total Depth No Seepage Zones No Groundwater	
45	35									
40	40									
35	45									
30	50									
25	55									
	60									

SAMPLE TYPES:
S SPLIT SPOON
R RING SAMPLE
B BULK SAMPLE
T TUBE SAMPLE
G GRAB SAMPLE
SH SHELBY TUBE

TYPE OF TESTS:
DS DIRECT SHEAR
MD MAXIMUM DENSITY
CN CONSOLIDATION
CR CORROSION
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AT ATTERBURG LIMITS
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RV R-VALUE

LEIGHTON AND ASSOCIATES, INC.

GEOTECHNICAL BORING LOG SP-5

Date 2-14-08 Sheet 1 of 2

Project AZ Winter Mesa, Towing Site Project No. 031793-011

Drilling Co. Roy Brothers Drilling Type of Rig Bucket-Auger

Hole Diameter 24" Drive Weight 0-25' = 4901 lbs; 25-50' =3396 lbs; 50-75'= 2213 lbs Drop 12"

Elevation Top of Elevation 90' Location Refer to Geotechnical Map

Logged By ARH/MEK

Sampled By MEK

Elevation Feet	Depth Feet	Graphic Log (N S)	Attitudes	Sample No.	Blows Per Foot	Dry Density pcf	Moisture Content, %	Soil Class. (U.S.C.S.)	DESCRIPTION	Type of Tests
90	0		B: N75W; 72NE J: N42W; 30SW J: N22E; 70SE						MONTEREY FORMATION (Tm): Interbedded DIATOMACEOUS SHALE/ MUDSTONE with interbeds of very hard, medium gray dolostone or silica-cemented beds, medium brown, dry to slightly moist, hard, thinly bedded, 1/4"-4" thick, planer to slightly curviplanar; trace iron oxide staining along bedding planes, blocky joint pattern, trace rootlets to 7', moderately weathered, calcium carbonate and gypsum infill along bedding planes and joints	
85	5		B: N80W; 72NE S: N50W; 65NE						bedrock is harder and less weathered below 7'	
			B: N70W; 60NE	B-1						
80	10		B: N85E; 60NE J: N65W; 45SW	R-1	6	131.8	7.0			
			J: N40W; 70SW						joint set	
75	15		B: N80W; 63NE							
			B: N80W; 70NE		Cap				fractures are healed and infilled with gypsum, bedrock harder	
70	20			R-2	4	67.9	50.4		MUDSTONE, medium red brown, slightly moist, hard, indistinct bedding, massive appearance, thin gypsum veins	
									gradually becomes less oxidized, color darker	
65	25			B-2					bedrock color is dark brown to black, unoxidized, drilling hard	
60	30									

SAMPLE TYPES:
S SPLIT SPOON
R RING SAMPLE
B BULK SAMPLE
T TUBE SAMPLE
G GRAB SAMPLE
SH SHELBY TUBE

TYPE OF TESTS:
DS DIRECT SHEAR
MD MAXIMUM DENSITY
CN CONSOLIDATION
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AT ATTERBURG LIMITS
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RV R-VALUE

LEIGHTON AND ASSOCIATES, INC.

GEOTECHNICAL BORING LOG SP-5

Date 2-14-08 | Sheet 2 of 2

Project AZ Winter Mesa, Towing Site | Project No. 031793-011

Drilling Co. Roy Brothers Drilling | Type of Rig Bucket-Auger

Hole Diameter 24" | Drive Weight 0-25' = 4901 lbs; 25-50' =3396 lbs; 50-75'= 2213 lbs | Drop 12"

Elevation Top of Elevation 90' | Location Refer to Geotechnical Map

Logged By ARH/MEK

Sampled By MEK

Elevation Feet	Depth Feet	Graphic Log (N S)	Attitudes	Sample No.	Blows per Foot	Dry Density pcf	Moisture Content, %	Soil Class. (U.S.C.S.)	DESCRIPTION	Type of Tests
60	30			R-3	6/6"	69.5	41.6		MUDSTONE, mottled dark red brown to black, slightly moist, hard to very hard, indistinct bedding, massive appearance, thin gypsum veins	
55	35								Bottom of percolation test	
									Total Depth Drilled 36' Total Depth Sampled 32.5' Logged to Total Depth No Seepage Zones No Groundwater	
50	40									
45	45									
40	50									
35	55									
30	60									

SAMPLE TYPES:
S SPLIT SPOON
R RING SAMPLE
B BULK SAMPLE
T TUBE SAMPLE
G GRAB SAMPLE
SH SHELBY TUBE

TYPE OF TESTS:
DS DIRECT SHEAR
MD MAXIMUM DENSITY
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LEIGHTON AND ASSOCIATES, INC.

GEOTECHNICAL BORING LOG SP-7

Date 2-14-08 Sheet 1 of 2

Project AZ Winter Mesa, Towing Site Project No. 031793-011

Drilling Co. Roy Brothers Drilling Type of Rig Bucket-Auger

Hole Diameter 24" Drive Weight 0-25' = 4901 lbs; 25-50' =3396 lbs; 50-75'= 2213 lbs Drop 12"

Elevation Top of Elevation 93' Location Refer to Geotechnical Map

Logged By ARH/MEK

Sampled By MEK

Elevation Feet	Depth Feet	Graphic Log (N S)	Attitudes	Sample No.	Blows Per Foot	Dry Density pcf	Moisture Content, %	Soil Class. (U.S.C.S.)	DESCRIPTION	Type of Tests
93	0								MONTEREY FORMATION (Tm):	
			J: N20E; 70SE						Interbedded DIATOMACEOUS SHALE/ CLAYSTONE, light to medium brown, moist, soft, weathered with iron oxide staining along fractures and bedding planes, random fracture/joint pattern, calcium carbonate infill along bedding planes and joints	
90			B: E-W; 72N							
	5		J: N40W; 35NE							
			J: N20E; 70SE							
85			B: N85W; 70NE	B-1						
	10		B: N85W; 70NE	R-1	2	69.1	48.3		Interbedded DIATOMACEOUS SHALE/ MUDSTONE, medium red brown, slightly moist, soft to moderately hard, thinly bedded, fractured with trace iron oxide staining and calcium carbonate	
			J: N40W; 40SW							
80			N85E; 65NW							
	15		J: N55W; 40SW						very hard calcareous zone on NE side of boring, not continuous, blocky fracturing	
			B: N85W; 60NE							
75				B-2						
	20			R-2	2	64.7	51.5	Cap	MUDSTONE, medium red brown, slightly moist, soft, indistinct bedding, massive appearance, fractured and sheared with discontinuous calcium carbonate and gypsum infill up to 3/8" wide	
			S: N35W; 60SW							
70			S: N40W; 55SW							
	25		B: N80W; 63NE							
			J: N50W; 40SW	B-3						
65			B: N80E; 60NW							
	30									

SAMPLE TYPES:
S SPLIT SPOON
R RING SAMPLE
B BULK SAMPLE
T TUBE SAMPLE
G GRAB SAMPLE
SH SHELBY TUBE

TYPE OF TESTS:
DS DIRECT SHEAR
MD MAXIMUM DENSITY
CN CONSOLIDATION
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LEIGHTON AND ASSOCIATES, INC.

GEOTECHNICAL BORING LOG SP-7

Date 2-14-08 Sheet 2 of 2

Project AZ Winter Mesa, Towing Site Project No. 031793-011

Drilling Co. Roy Brothers Drilling Type of Rig Bucket-Auger

Hole Diameter 24" Drive Weight 0-25' = 4901 lbs; 25-50' =3396 lbs; 50-75'= 2213 lbs Drop 12"

Elevation Top of Elevation 93' Location Refer to Geotechnical Map

Logged By ARH/MEK

Sampled By MEK

Elevation Feet	Depth Feet	Graphic Log	Attitudes	Sample No.	Blows Per Foot	Dry Density pcf	Moisture Content, %	Soil Class. (U.S.C.S.)	DESCRIPTION	Type of Tests
	30	N S								
60			ft: N20E; 65SE	R-3	10	58.3	52.0		MUDSTONE, dark red brown, slightly moist, hard to very hard, less oxidized, gypsum veins	
									boring tightens up, fractures are infilled and healed	
35			B: N80E; 62NW						grades to dark brown and black	
55				R-4	10	62.3	53.4			
	40								Total Depth Drilled 38' Total Depth Sampled 39' Logged to Total Depth No Seepage Zones No Groundwater	
50										
	45									
45										
	50									
40										
55										
35										
60										

Bottom of percolation test

SAMPLE TYPES:
S SPLIT SPOON
R RING SAMPLE
B BULK SAMPLE
T TUBE SAMPLE
G GRAB SAMPLE
SH SHELBY TUBE

TYPE OF TESTS:
DS DIRECT SHEAR
MD MAXIMUM DENSITY
CN CONSOLIDATION
CR CORROSION
SA SIEVE ANALYSIS
AT ATTERBURG LIMITS
EI EXPANSION INDEX
RV R-VALUE

LEIGHTON AND ASSOCIATES, INC.

GEOTECHNICAL BORING LOG EP-1

Date 2-13-08 Sheet 1 of 2

Project AZ Winter Mesa, Towing Site Project No. 031793-011

Drilling Co. Roy Brothers Drilling Type of Rig Bucket-Auger

Hole Diameter 24" Drive Weight 0-25' = 4901 lbs; 25-50' =3396 lbs; 50-75'= 2213 lbs Drop 12"

Elevation Top of Elevation 97' Location Refer to Geotechnical Map

Logged By ARH/MEK

Sampled By MEK

Elevation Feet	Depth Feet	Graphic Log (N / S)	Attitudes	Sample No.	Blows Per Foot	Dry Density pcf	Moisture Content, %	Soil Class. (U.S.C.S.)	DESCRIPTION	Type of Tests
95	0								COLLUVIUM (Qc): SILTY CLAY, light brown, dry, stiff, diatomaceous	
									indistinct gradational contact	
90	5		B: N75W; 82NE J: N32W; 54NE J: N10W; 28SW B: N80W; 78NE	B-1					MONTEREY FORMATION (Tm): Interbedded DIATOMACEOUS SHALE and MUDSTONE, light brown, dry, moderately hard, thinly bedded, oxidized and moderately weathered, blocky joint pattern with trace to few roots along bedding and joints, abundant gypsum veins and infilled fractures	
85	10			R-1	2	67.7	37.3		less weathered and fractured	
	15		B: N70W; 68NE	B-2					unit becomes more massive with diatomaceous lenses and calcium carbonate blebs	
80									DIATOMACEOUS MUDSTONE, red brown, moist, moderately hard, massive, oxidized and moderately weathered, abundant gypsum veins and calcium carbonate lenses	
	20		B: N75W; 62NE	R-2	2	66.5	50.5		DIATOMACEOUS SILTSTONE, dark red brown, moist, moderately hard, massive, gypsum or calcium carbonate infilled fractures, and gypsum growth along bedding	
75			B: N70W; 60NE							
	25				Cap					
70	30									

SAMPLE TYPES:
S SPLIT SPOON
R RING SAMPLE
B BULK SAMPLE
T TUBE SAMPLE
G GRAB SAMPLE
SH SHELBY TUBE

TYPE OF TESTS:
DS DIRECT SHEAR
MD MAXIMUM DENSITY
CN CONSOLIDATION
CR CORROSION
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LEIGHTON AND ASSOCIATES, INC.

GEOTECHNICAL BORING LOG EP-1

Date 2-13-08 Sheet 2 of 2

Project AZ Winter Mesa, Towing Site Project No. 031793-011

Drilling Co. Roy Brothers Drilling Type of Rig Bucket-Auger

Hole Diameter 24" Drive Weight 0-25' = 4901 lbs; 25-50' =3396 lbs; 50-75'= 2213 lbs Drop 12"

Elevation Top of Elevation 97' Location Refer to Geotechnical Map

Logged By ARH/MEK

Sampled By MEK

Elevation Feet	Depth Feet	Graphic Log	Attitudes	Sample No.	Blows Per Foot	Dry Density pcf	Moisture Content, %	Soil Class. (U.S.C.S.)	DESCRIPTION	Type of Tests
65	30	N S	B: N75W; 68NE	R-3	4	64.8	55.0		DIAMTOMACEOUS SILTSTONE, dark brown, moist, moderately hard to hard, massive, few gypsum or calcium carbonate infilled fractures, with calcium carbonate along bedding planes	
60	35									
55	40			R-4	4	64.8	49.6			
50	45								Bottom of percolation test	
45	50								Total Depth Drilled 42' Total Depth Sampled 43' Logged to Total Depth No Seepage Zones No Groundwater	
40	55									
	60									

SAMPLE TYPES:
S SPLIT SPOON
R RING SAMPLE
B BULK SAMPLE
T TUBE SAMPLE
G GRAB SAMPLE
SH SHELBY TUBE

TYPE OF TESTS:
DS DIRECT SHEAR
MD MAXIMUM DENSITY
CN CONSOLIDATION
CR CORROSION
SA SIEVE ANALYSIS
AT ATTERBURG LIMITS
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RV R-VALUE

LEIGHTON AND ASSOCIATES, INC.

GEOTECHNICAL BORING LOG EP-4

Date 2-13-08 Sheet 1 of 2

Project AZ Winter Mesa, Towing Site Project No. 031793-011

Drilling Co. Roy Brothers Drilling Type of Rig Bucket-Auger

Hole Diameter 24" Drive Weight 0-25' = 4901 lbs; 25-50' =3396 lbs; 50-75'= 2213 lbs Drop 12"

Elevation Top of Elevation 103' Location Refer to Geotechnical Map

Logged By ARH/MEK

Sampled By MEK

Elevation Feet	Depth Feet	Graphic Log	Attitudes	Sample No.	Blows Per Foot	Dry Density pcf	Moisture Content, %	Soil Class. (U.S.C.S.)	DESCRIPTION	Type of Tests
100	0	N S							**ARTIFICIAL FILL**	
									SILTY CLAY, light brown, slightly moist, stiff, diatomaceous with angular gravel, trace rootlets	
	5								irregular contact	
95				B-1					CLAYEY SILT with little sand and gravel, dark brown, slightly moist, very stiff, massive	
	10			R-1	2	88.3	16.8			DS
90									indistinct gradational contact	
	15								**COLLUVIUM (Qe)**	
									SILTY CLAY/CLAYEY SILT, reddish brown, moist, very stiff, massive, trace calcium carbonate blebs	
85									grades to weathered bedrock; indistinct gradational contact	
				B-2					**MONTEREY FORMATION (Tm):**	
	20			R-2	2	70.8	45.1		Diatomaceous MUDSTONE, dark red brown, slightly moist, moderately hard, massive, oxidized and weathered with abundant gypsum veins	
80			B: N85E; 57NW						less weathered below 23'; walls tighten up	
	25									
75				Cap					trace calcium carbonate veins	
	30									

SAMPLE TYPES:
S SPLIT SPOON
R RING SAMPLE
B BULK SAMPLE
T TUBE SAMPLE
G GRAB SAMPLE
SH SHELBY TUBE

TYPE OF TESTS:
DS DIRECT SHEAR
MD MAXIMUM DENSITY
CN CONSOLIDATION
CR CORROSION
SA SIEVE ANALYSIS
AT ATTERBURG LIMITS
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RV R-VALUE

LEIGHTON AND ASSOCIATES, INC.

GEOTECHNICAL BORING LOG EP-4

Date 2-13-08 Sheet 2 of 2

Project AZ Winter Mesa, Towing Site Project No. 031793-011

Drilling Co. Roy Brothers Drilling Type of Rig Bucket-Auger

Hole Diameter 24" Drive Weight 0-25' = 4901 lbs; 25-50' =3396 lbs; 50-75'= 2213 lbs Drop 12"

Elevation Top of Elevation 103' Location Refer to Geotechnical Map

Logged By ARH/MEK

Sampled By MEK

Elevation Feet	Depth Feet	Graphic Log	Attitudes	Sample No.	Blows Per Foot	Dry Density pcf	Moisture Content, %	Soil Class. (U.S.C.S.)	DESCRIPTION	Type of Tests
70	30	N S		R-3	5	72.1	43.8		Diatomaceous MUDSTONE, dark red brown, slightly moist, moderately hard, massive, oxidized, thin calcium carbonate and gypsum veins	
	35		AB: N83E; 38NW							
65									less oxidized and rock is harder, brittle	
	40		AB: N78E; 84NW J: N30W; 40SW	R-4	5	72.0	44.2		very hard, black, siliceous zone, fractured	
60										
	45		J: N35W; 44NE						gradational color change to unoxidized	
55			Bottom of percolation test						MUDSTONE, black, dry, hard to very hard, cemented, massive, brittle in zones, few fractures; fractures are closed to healed difficult drilling to total depth	
	50			R-5	10					
50										
	55									
45									Total Depth Drilled 57' Total Depth Sampled 51' Logged to Total Depth No Seepage Zones No Groundwater; Backfilled to 46' for percolation testing	
	60									

SAMPLE TYPES:

S SPLIT SPOON
R RING SAMPLE
B BULK SAMPLE
T TUBE SAMPLE
G GRAB SAMPLE
SH SHELBY TUBE

TYPE OF TESTS:

DS DIRECT SHEAR
MD MAXIMUM DENSITY
CN CONSOLIDATION
CR CORROSION
SA SIEVE ANALYSIS
AT ATTERBURG LIMITS
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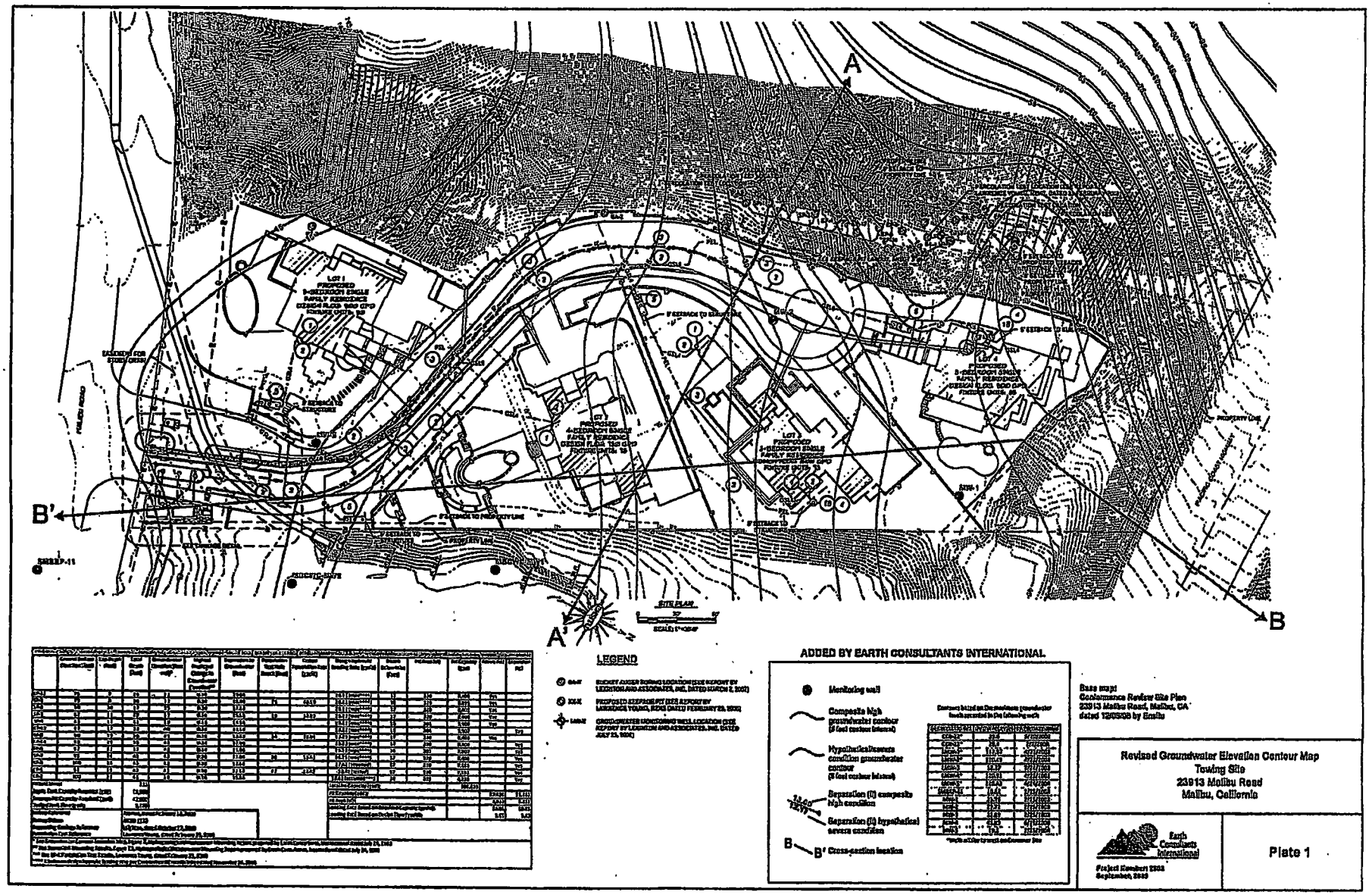
LEIGHTON AND ASSOCIATES, INC.


A
A'
B
B'
SITE PLAN
SCALE 1"=50'-0"
LEGEND
ADDED BY EARTH CONSULTANTS INTERNATIONAL
Monitoring well
Composite high groundwater contour (5 foot contour interval)
Hypothetical severe condition groundwater contour (5 foot contour interval)
Separation (ft) composite high condition
Separation (ft) hypothetical severe condition
B — B' Cross-section location
Base map:
Conformance Review Site Plan
23913 Malibu Road, Malibu, CA
dated 12/05/08 by Smits
Revised Groundwater Elevation Contour Map
Towing Site
23913 Malibu Road
Malibu, California
Earth Consultants International
Plate 1

October 7, 2009

Earth Consultants International

To: **AZ Winter Mesa LLC**
C/O Big Rock Partners, LLC
315 S. Beverly Drive, Suite 315
Beverly Hills, CA 90212
Attn: Mr. Robert Gold

and

Malibu Bay Company
23705 W. Malibu Road, Suite D2
Malibu, California 90265
Attn: Mr. David Reznick

Subject: Summary of groundwater sample collection from Winter Canyon monitoring wells on October 1, 2009

Introduction

Earth Consultants International (ECI) was retained by AZ Winter Mesa LLC and Malibu Bay Company to collect groundwater samples from 4 groundwater monitoring wells (TY-MW-1, TY-MW-5, MBCWC-MW-2 and SMBRP-11) on October 1, 2009. Monitoring wells TY-MW-1, TY-MW-5 and SMBRP-11 are screened in the shallow section of the unconfined aquifer in the lower reaches of Winter Canyon (south of Pacific Coast Highway). Monitoring well MBCWC-MW-2 is screened in a deeper section of the same aquifer. The deeper well is screened from a depth of approximately 65 feet below top of casing (btoc) to the bottom of the well (102 feet btoc).

Groundwater sampling from the above-referenced wells was conducted by ECI at the request of the above-referenced entities. It was reported to ECI that the goal of the sampling event was to collect groundwater quality data for the unconfined aquifer of the lower reaches of Winter Canyon. Groundwater samples collected from these wells were analyzed by a State of California-certified analytical laboratory for the following constituents; Boron, Chloride, Nitrate, Nitrite, Sulfate, Total Dissolved Solids (TDS), Total Coliform and Fecal Coliform. In addition to the laboratory analyses, ECI collected several water quality parameters in the field.

Field Activities

ECI personnel arrived at the Tow Yard site at approximately 12:30 PM on the afternoon of October 1, 2009. In order to collect groundwater samples that are representative of aquifer conditions ECI purged the wells prior to the collection of groundwater samples

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EXHIBIT 5

that were sent to the analytical laboratory. Purging was conducted with the use of a 2-inch submersible water pump or polyethylene bailers, depending of the recharge conditions of the well.

Prior to purging of each well, groundwater levels (depth to groundwater) were collected from each well. Well purging consisted of removing of at least 2 well volumes from each well. A well volume consists of the volume of water within the saturated section of the well casing and the volume of water within the well pack (sand between the well casing and the borehole sidewalls). The well volume was calculated for each well prior to purging.

The first well that was purged and sampled on October 1, 2009 was monitoring well TY-MW-1. The depth to groundwater in this well was measured to be 28.10 feet btoc at 12:40 PM prior to purging. The water pump was set at a depth of 35 feet btoc at 12:45 AM. The pump was set at a pumping rate of approximately 1 gallon per minute (gpm). In order to determine when the well was properly purged of standing water, ECI began collecting water samples from the pump discharge line after 1 well volume (calculated to be 16 gallons of water). Water samples were collected after the purging of the following volumes of water; 1 well volume, 1.5 well volumes, 2 well volumes and 2.5 well volumes. Each of these water samples were analyzed for the following water quality parameters with the use of field equipment; temperature, TDS, Electrical Conductivity, pH and Salinity. These parameters were monitored in order to determine if the well was properly purged. The well was considered to be properly purged when subsequent parameter readings varied by less than 10%. The results of the field parameter monitoring for well TY-MW-1 are presented in Table 1 below. The maximum drawdown observed within the well during purging was 1 foot.

Table 1. Field Parameter Results for Well TY-MW-1

Volume Removed (well volume)	Time	Temperature °C	TDS (ppm)	Electrical Conductivity (µS)	pH	Salinity (ppt)
1	13:05	27.4	1,650	3,250	6.53	1.7
1.5	13:15	26.8	1,628	3,262	6.58	1.7
2	13:25	27.8	1,611	3,224	6.55	1.7
2.5	13:35	27.8	1,605	3,197	6.53	1.7

ppm – parts per million ppt – parts per thousand

After purging of the well was completed and the water level in the well had recovered to 80% of the initial level a water sample for the previously established analytes was collected with the use of a new 0.5 liter disposable polyethylene bailer. The water sample was transferred to laboratory-supplied containers with the use of the water removal tool provided with the bailer. The water sample was labeled as required by the analytical laboratory, placed in a zip-top bag and placed in a cooler with ice in preparation for transportation to the analytical laboratory (TestAmerica) in Colton, California.

After collecting a groundwater sample from monitoring well TY-MW-1, ECI personnel began the purging process of monitoring well TY-MW-5. At 2:30 PM ECI measured the depth to water in well TY-MW-5 to be 14.20 feet btoc. The pump was set a depth of 20 feet btoc at 2:35 PM. The pump was set at a pumping rate of approximately 1.7 gallons per minute (gpm). A well volume was determined to be approximately 12 gallons. The maximum drawdown observed within the well during purging was 1.2 feet. The results of the field parameter monitoring for well TY-MW-5 are presented in Table 2 below. A groundwater sample was collected for laboratory analysis after purging was completed.

Table 2. Field Parameter Results for Well TY-MW-5

Volume Removed (well volume)	Time	Temperature °C	TDS (ppm)	Electrical Conductivity (µS)	pH	Salinity (ppt)
1	14:45	26.0	1,972	3,970	6.49	2.1
1.5	14:49	24.8	1,967	3,941	6.49	2.1
2	14:53	24.9	1,988	3,935	6.55	2.1
2.5	14:58	24.6	1,992	3,999+	6.53	2.1

ppm – parts per million ppt – parts per thousand

After collecting a groundwater sample from monitoring well TY-MW-5, ECI personnel began the purging process of monitoring well SMBRP-11 on Malibu Road directly south of the Tow Yard site. At 3:40 PM ECI measured the depth to water in well SMBRP-11 to be 8.60 feet btoc. The pump was set a depth of 15 feet btoc at 3:45 PM. The pump was set at a pumping rate of approximately 1 gallon per minute (gpm). A well volume was determined to be approximately 12 gallons. After the removal of approximately 3 gallons from the well, the well pump stopped producing water. A water level measurement at that time revealed that the water level had dropped to the level of the pump. It was determined that the recharge from the aquifer to the well was much lower than 1 gallon per minute, so the purging method was modified. The pump was removed from the well and hand bailing was used to complete the well purging. It was determined that bailing rate would need to be less than 0.5 gallons per 5 minutes in order to keep the well from going dry. Hand bailing continued until approximately 6:55 PM in order to purge 2.5 well volumes from the well. The results of the field parameter monitoring for well SMBRP-11 are presented in Table 3 below. The field parameters revealed that the water quality conditions in the well were still changing after 2.5 well volumes were removed, but due to time constraints and lack of light, a groundwater sample was collected for laboratory analysis at this point.

Table 3. Field Parameter Results for Well SMBRP-11

Volume Removed (well volume)	Time	Temperature °C	TDS (ppm)	Electrical Conductivity (µS)	pH	Salinity (ppt)
1	16:40	23.9	1,501	3,004	7.30	1.6
1.5	17:20	21.9	1,428	2,830	7.16	1.5
2	17:55	22.1	1,271	2,536	7.09	1.3
2.5	18:55	21.8	1,178	2,362	7.37	0.6

ppm – parts per million ppt – parts per thousand

The purging of Well MBCWC-MW-2 was conducted simultaneously with the purging of Well SMBRP-11. At 4:25 PM ECI measured the depth to water in well MBCWC-MW-5 to be 19.20 feet btoc. The pump was set a depth of 80 feet btoc at 4:35 PM. The pump was set at a pumping rate of approximately 2 gallons per minute (gpm). A well volume was determined to be approximately 82 gallons. The maximum drawdown observed within the well during purging was 3.55 feet. The results of the field parameter monitoring for well MBCWC-MW-2 are presented in Table 4 below. A groundwater sample was collected for laboratory analysis after purging was completed.

Table 4. Field Parameter Results for Well MBCWC-MW-2

Volume Removed (well volume)	Time	Temperature °C	TDS (ppm)	Electrical Conductivity (µS)	pH	Salinity (ppt)
1	17:03	21.8	1,434	2,809	6.91	1.5
1.5	17:25	21.4	1,434	2,874	6.91	1.5
2	17:40	21.7	1,426	2,861	6.92	1.5
2.5	18:05	21.7	1,428	2,851	6.93	1.5

ppm – parts per million ppt – parts per thousand

Analytical Results

The groundwater samples collected from the above-referenced monitoring wells on October 1, 2009 were transported to TestAmerica Laboratories in Colton, California by ECI personnel under strict Chain-of-Custody protocol. The samples were kept in a cooler with ice during transportation and delivered to the laboratory at 8:47 AM on the morning of October 2, 2009.

TestAmerica issued two analytical reports for the groundwater samples on October 6, 2009. The Chain-of-Custody document appended to this report indicates that the samples were delivered intact and on ice, as required by the laboratory. The analytical results, as reported by the laboratory, are presented in Table 5 below.

Table 5. Analytical Results for Groundwater Samples

Analyte	MBCWC-MW-2	SMBRP-11	TY-MW-1	TY-MW-5	MCL
Boron (mg/l)	0.43	0.40	0.41	0.39	N/A
Chloride (mg/l)	**270**	**260**	**370**	**460**	250*
Nitrate (as N) (mg/l)	6.5	8.9	9.0	2.9	10
Nitrite (as N) (mg/l)	<0.30	<0.30	<0.75	<0.75	1
Sulfate (mg/l)	**690**	**470**	**490**	**1,000**	250*
TDS (mg/l)	**2,100**	**1,600**	**1,900**	**2,900**	500*
Total Coliform (MPN/100 ml)	<2.0	2.0	13	<2.0	
Fecal Coliform (MPN/100 ml)	<2.0	<2.0	<2.0	<2.0	

MCL – Maximum Contaminant Level for Drinking Water; *Secondary MCL; **Bold** – Above MCL; mg/l – milligram per liter; TDS-Total Dissolved Solids; MPN/100 ml) – Most Probable Number per 100 ml of sample (bacteria density)

The analytical results suggest that the aquifer waters do not meet Secondary drinking water standards due to elevated concentrations (above MCL) of chloride, sulfate and TDS. Additionally Total Coliform was detected in the groundwater samples collected from the northern-most and southern-most monitoring wells in the study area. The absence of Total Coliform in the groundwater samples collected from the two wells between the northern-most and southern-most monitoring wells suggest that Coliform entering the system from up gradient sources (north of Pacific Coast Highway) are removed before the groundwater reaches Malibu Road. The source of Coliform in the groundwater sample collected from Well SMBRP-11 appears to be the septic systems of homes directly south of Malibu Road.

October 7, 2009

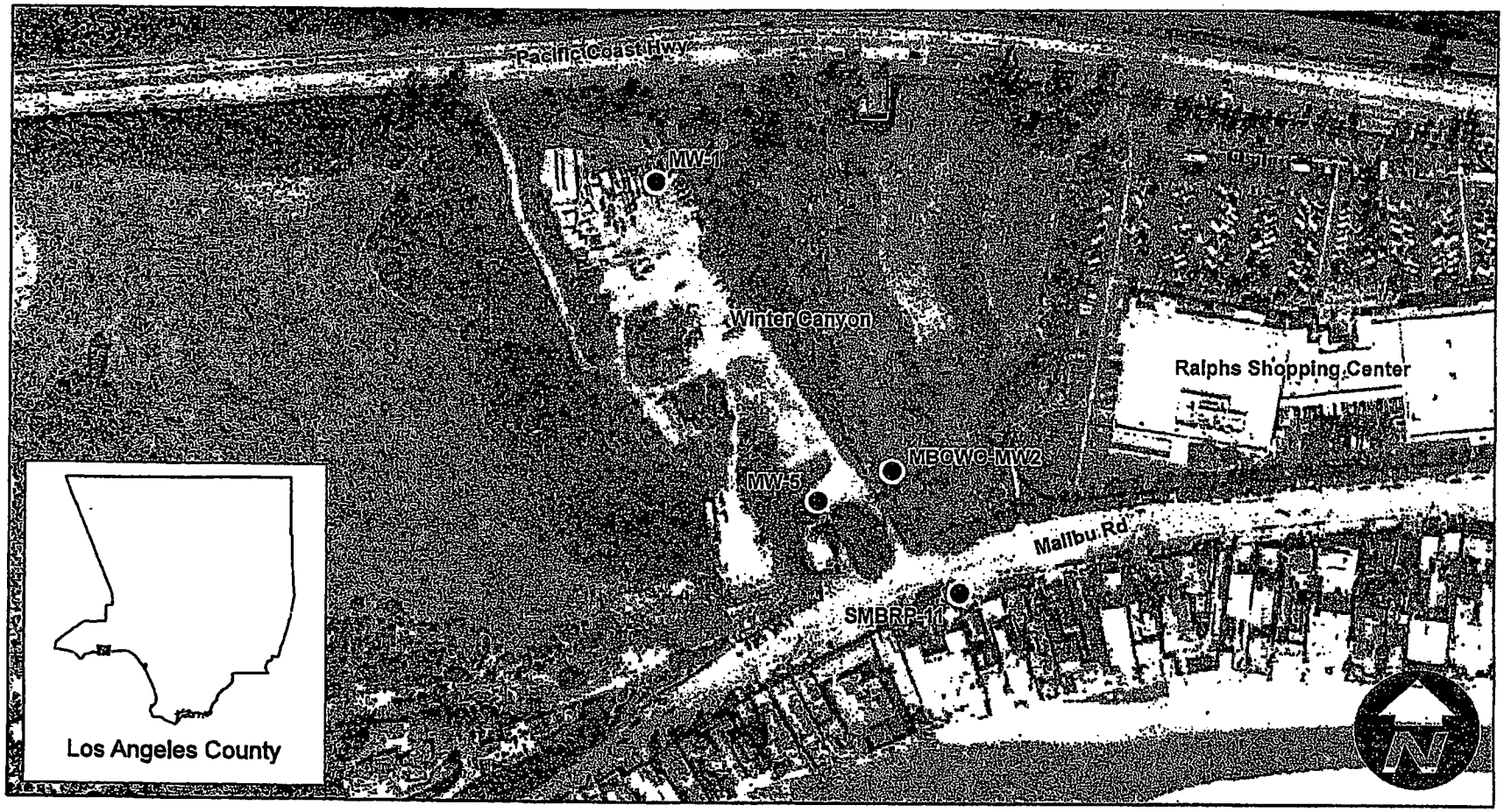
Respectfully Submitted,

EARTH CONSULTANTS INTERNATIONAL, Inc.

Dr. W. Richard Laton, PG 7098
Senior Consultant

Otto Figueroa, PG 8351
Staff Consultant

Attachments: 1) Figure 1 Groundwater Sampling Location Map
2) Analytical Reports



200 100 0 200 400 600
Feet

Aerial Photo: USGS High Resolution State Orthoimagery for Los Angeles County, California, 2006.

Earth Consultants International

Project Number:
October 2009

Groundwater Sampling Location Map

Winter Canyon
Malibu, California

Figure 1

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

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LABORATORY REPORT

Prepared For: Earth Consultants
1642 East Fourth St
Santa Ana, CA 92701
Attention: Otto Figueroa

Project: Winter Canyon

Sampled: 10/01/09
Received: 10/02/09
Issued: 10/06/09 17:08

NELAP #01108CA California ELAP#2706 CSDLAC #10256 AZ #AZ0671 NV #CA01531

The results listed within this Laboratory Report pertain only to the samples tested in the laboratory. The analyses contained in this report were performed in accordance with the applicable certifications as noted. All soil samples are reported on a wet weight basis unless otherwise noted in the report. This Laboratory Report is confidential and is intended for the sole use of TestAmerica and its client. This report shall not be reproduced, except in full, without written permission from TestAmerica. The Chain of Custody, 1 page, is included and is an integral part of this report.
This entire report was reviewed and approved for release.

SAMPLE CROSS REFERENCE

SUBCONTRACTED: Refer to the last page for specific subcontract laboratory information included in this report.

ADDITIONAL INFORMATION: This is a complete final report.

LABORATORY ID	CLIENT ID	MATRIX
ISJ0107-01	MBCWC-MW2	Water
ISJ0107-02	SMBRP-11	Water

Reviewed By:

TestAmerica Irvine
Pat Abe
Project Manager

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Earth Consultants
1642 East Fourth St
Santa Ana, CA 92701
Attention: Otto Figueroa

Project ID: Winter Canyon
Report Number: ISJ0107

Sampled: 10/01/09
Received: 10/02/09

METALS

Analyte	Method	Batch	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ISJ0107-01 (MBCWC-MW2 - Water)								
Reporting Units: mg/l								
Boron	EPA 200.7	9J05050	0.050	0.43	1	10/5/2009	10/5/2009	
Sample ID: ISJ0107-02 (SMBRP-11 - Water)								
Reporting Units: mg/l								
Boron	EPA 200.7	9J05050	0.050	0.40	1	10/5/2009	10/5/2009	

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Project Manager

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Project ID: Winter Canyon

Report Number: ISJ0107

Sampled: 10/01/09
Received: 10/02/09

INORGANICS

Analyte	Method	Batch	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ISJ0107-01 (MBCWC-MW2 - Water)								
Reporting Units: mg/l								
Chloride	EPA 300.0	9J02058	25	270	50	10/2/2009	10/2/2009	
Nitrate-N	EPA 300.0	9J02058	0.22	6.5	2	10/2/2009	10/2/2009	
Nitrite-N	EPA 300.0	9J02058	0.30	ND	2	10/2/2009	10/2/2009	RL1
Sulfate	EPA 300.0	9J02058	25	690	50	10/2/2009	10/2/2009	
Total Dissolved Solids	SM2540C	9J05007	10	2100	1	10/5/2009	10/5/2009	
Sample ID: ISJ0107-02 (SMBRP-11 - Water)								
Reporting Units: mg/l								
Chloride	EPA 300.0	9J02058	25	260	50	10/2/2009	10/2/2009	
Nitrate-N	EPA 300.0	9J02058	0.22	8.9	2	10/2/2009	10/2/2009	
Nitrite-N	EPA 300.0	9J02058	0.30	ND	2	10/2/2009	10/2/2009	RL1
Sulfate	EPA 300.0	9J02058	25	470	50	10/2/2009	10/2/2009	
Total Dissolved Solids	SM2540C	9J05007	10	1600	1	10/5/2009	10/5/2009	

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Project ID: Winter Canyon
Report Number: ISJ0107

Sampled: 10/01/09
Received: 10/02/09

COLIFORMS BY MULTIPLE TUBE FERMENTATION - MPN (SM9221/40 CFR 141.21(f)(6)(i))

Analyte	Method	Batch	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ISJ0107-01 (MBCWC-MW2 - Water)								
Reporting Units: MPN/100 ml								
Total Coliform	SM9221 A,B,C,E	C9J0506	2.0	ND	1	10/2/2009	10/4/2009	
Fecal Coliform	SM9221 A,B,C,E	C9J0506	2.0	ND	1	10/2/2009	10/4/2009	
Sample ID: ISJ0107-02 (SMBRP-11 - Water)								
Reporting Units: MPN/100 ml								
Total Coliform	SM9221 A,B,C,E	C9J0506	2.0	2.0	1	10/2/2009	10/6/2009	
Fecal Coliform	SM9221 A,B,C,E	C9J0506	2.0	ND	1	10/2/2009	10/5/2009	

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Project ID: Winter Canyon

Report Number: ISJ0107

Sampled: 10/01/09
Received: 10/02/09

SHORT HOLD TIME DETAIL REPORT

	Hold Time (in days)	Date/Time Sampled	Date/Time Received	Date/Time Extracted	Date/Time Analyzed
Sample ID: MBCWC-MW2 (ISJ0107-01) - Water					
EPA 300.0	2	10/01/2009 18:10	10/02/2009 08:47	10/02/2009 14:00	10/02/2009 14:37
SM9221 A,B,C,E	0	10/01/2009 18:10	10/02/2009 08:47	10/02/2009 09:26	10/04/2009 09:50
Sample ID: SMBRP-11 (ISJ0107-02) - Water					
EPA 300.0	2	10/01/2009 19:15	10/02/2009 08:47	10/02/2009 14:00	10/02/2009 14:51
SM9221 A,B,C,E	0	10/01/2009 19:15	10/02/2009 08:47	10/02/2009 09:26	10/05/2009 08:16

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Santa Ana, CA 92701
Attention: Otto Figueroa

Project ID: Winter Canyon
Report Number: ISJ0107

Sampled: 10/01/09
Received: 10/02/09

METHOD BLANK/QC DATA

METALS

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 9J05050 Extracted: 10/05/09										
Blank Analyzed: 10/05/2009 (9J05050-BLK1)										
Boron	ND	0.050	mg/l							
LCS Analyzed: 10/05/2009 (9J05050-BS1)										
Boron	0.510	0.050	mg/l	0.500		102	85-115			
Matrix Spike Analyzed: 10/05/2009 (9J05050-MS1)					**Source: ISJ0107-01**					
Boron	0.966	0.050	mg/l	0.500	0.434	106	70-130			
Matrix Spike Dup Analyzed: 10/05/2009 (9J05050-MSD1)					**Source: ISJ0107-01**					
Boron	0.930	0.050	mg/l	0.500	0.434	99	70-130	4	20	

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Earth Consultants
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Santa Ana, CA 92701
Attention: Otto Figueroa

Project ID: Winter Canyon

Report Number: ISJ0107

Sampled: 10/01/09
Received: 10/02/09

METHOD BLANK/QC DATA

INORGANICS

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 9J02058 Extracted: 10/02/09										
Blank Analyzed: 10/02/2009 (9J02058-BLK1)										
Chloride	ND	0.50	mg/l							
Nitrate-N	ND	0.11	mg/l							
Nitrite-N	ND	0.15	mg/l							
Sulfate	ND	0.50	mg/l							
LCS Analyzed: 10/02/2009 (9J02058-BS1)										
Chloride	4.97	0.50	mg/l	5.00		99	90-110			
Nitrate-N	1.15	0.11	mg/l	1.13		102	90-110			*M-3*
Nitrite-N	1.52	0.15	mg/l	1.52		100	90-110			
Sulfate	9.95	0.50	mg/l	10.0		100	90-110			*M-3*
Matrix Spike Analyzed: 10/02/2009 (9J02058-MS1)					**Source: ISJ0110-01**					
Chloride	12.6	0.50	mg/l	5.00	7.64	98	80-120			
Nitrate-N	2.01	0.11	mg/l	1.13	0.916	97	80-120			
Nitrite-N	1.51	0.15	mg/l	1.52	ND	100	80-120			
Sulfate	37.8	0.50	mg/l	10.0	27.4	104	80-120			
Matrix Spike Analyzed: 10/03/2009 (9J02058-MS2)					**Source: ISJ0131-06**					
Nitrate-N	41.7	1.1	mg/l	11.3	30.5	99	80-120			
Nitrite-N	21.0	1.5	mg/l	15.2	ND	138	80-120			*M1*
Matrix Spike Dup Analyzed: 10/02/2009 (9J02058-MSD1)					**Source: ISJ0110-01**					
Chloride	12.5	0.50	mg/l	5.00	7.64	98	80-120	0	20	
Nitrate-N	2.03	0.11	mg/l	1.13	0.916	98	80-120	1	20	
Nitrite-N	1.54	0.15	mg/l	1.52	ND	101	80-120	1	20	
Sulfate	37.7	0.50	mg/l	10.0	27.4	102	80-120	0	20	

TestAmerica Irvine

Pat Abe
Project Manager

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Earth Consultants	Project ID: Winter Canyon	
1642 East Fourth St		Sampled: 10/01/09
Santa Ana, CA 92701	Report Number: ISJ0107	Received: 10/02/09
Attention: Otto Figueroa		

METHOD BLANK/QC DATA

INORGANICS

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 9J05007 Extracted: 10/05/09										
Blank Analyzed: 10/05/2009 (9J05007-BLK1)										
Total Dissolved Solids	ND	10	mg/l							
LCS Analyzed: 10/05/2009 (9J05007-BS1)										
Total Dissolved Solids	1000	10	mg/l	1000		100	90-110			
Duplicate Analyzed: 10/05/2009 (9J05007-DUP1)					Source: ISJ0107-01					
Total Dissolved Solids	2080	10	mg/l		2080			0	10	

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Project Manager

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Earth Consultants 1642 East Fourth St Santa Ana, CA 92701 Attention: Otto Figueroa	Project ID: Winter Canyon Report Number: ISJ0107	Sampled: 10/01/09 Received: 10/02/09

DATA QUALIFIERS AND DEFINITIONS

M1	The MS and/or MSD were above the acceptance limits due to sample matrix interference. See Blank Spike (LCS).
M-3	Results exceeded the linear range in the MS/MSD and therefore are not available for reporting. The batch was accepted based on acceptable recovery in the Blank Spike (LCS).
RL1	Reporting limit raised due to sample matrix effects.
ND	Analyte NOT DETECTED at or above the reporting limit or MDL, if MDL is specified.
RPD	Relative Percent Difference

TestAmerica Irvine

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Project Manager

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Earth Consultants	Project ID: Winter Canyon	
1642 East Fourth St		Sampled: 10/01/09
Santa Ana, CA 92701	Report Number: ISJ0107	Received: 10/02/09
Attention: Otto Figueroa		

Certification Summary

TestAmerica Irvine

Method	Matrix	Nelac	California
EPA 200.7	Water	X	X
EPA 300.0	Water	X	X
SM2540C	Water	X	

Nevada and NELAP provide analyte specific accreditations. Analyte specific information for TestAmerica may be obtained by contacting the laboratory or visiting our website at www.testamericainc.com

Subcontracted Laboratories

TestAmerica - Ontario, CA *California Cert #1169, Arizona Cert #AZ0062, Nevada Cert #CA-242*
1014 E. Cooley Drive, Suite AB - Colton, CA 92324
Method Performed: SM9221 A,B,C,E
Samples: ISJ0107-01, ISJ0107-02

TestAmerica Irvine

Pat Abe
Project Manager

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TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

CHAIN OF CUSTODY FORM

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2620 E. Sunset Rd. #3, Las Vegas, NV 89120 (702) 798-3620 FAX (702) 798-3621

TAL-0013(1007)

ISJ 0107 Page 1 of 1

Client Name/Address: ECI
1642 East 4th St.
Santa Ana, CA 92701

Project/PO Number: Winter Canyon

Project Manager: Pat Abe

Phone Number:

Sampler: Nick Napoli

Fax Number:

Sample Description	Sample Matrix	Container Type	# of Cont.	Sampling Date	Sampling Time	Preservatives	Analysis Required: TDS	Boron	Sul Fate, Nitrate, Chloride	Total Coliform 9221	Fecal Coliform 9221					Special Instructions
MBCWC-MW2	Ground Water	500ml Poly	1	10/1/09	18:10		X									
MBCWC-MW2	"	"	1	10/1/09	18:10	Nitric Acid		X								
MBCWC-MW2	"	125 ml Poly	1	10/1/09	18:10				X							
MBCWC-MW2	"	Bact Bottle	1	10/1/09	18:10					X	X					Ground Water
~~Spare~~																
SMBRP-11	Ground Water	500ml Poly	1	10/1/09	19:15		X									
SMBRP-11	"	"	1	10/1/09	19:15	Nitric Acid		X								
SMBRP-11	"	125ml Poly	1	10/1/09	19:15				X							
SMBRP-11	"	Bact Bottle	1	10/1/09	19:15					X	X					Ground Water

10/2/09 14:35

Relinquished By: [signature] Date/Time: 10/2/09 8:47
Received By: Michael Dosier Date/Time: 10-2-09 8:47

Relinquished By: Michael Dosier Date/Time: 10-2-09 1255
Received By: Date/Time:

Relinquished By: Date/Time:
Received In Lab By: Date/Time: 10/02/09 1254

Turnaround Time: (Check)
same day ____ 72 hours ____
24 hours ____ 5 days ____
48 hours X normal ____

Sample Integrity: (Check)
Intact X on Ice X

Note: By relinquishing samples to TestAmerica, client agrees to pay for the services requested on this chain of custody form and any additional analyses performed on this project. Payment for services is due within 30 days from the date of invoice. Sample(s) will be disposed of after 30 days.

#195

0.1°
2.7°

2-573

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

17461 Derian Avenue, Suite 100, Irvine, CA 92614 (949) 261-1022 Fax:(949) 260-3297

LABORATORY REPORT

Prepared For: Earth Consultants
1642 East Fourth St
Santa Ana, CA 92701
Attention: Otto Figueroa

Project: Tow Yard

Sampled: 10/01/09
Received: 10/02/09
Issued: 10/06/09 17:11

NELAP #01108CA California ELAP#2706 CSDLAC #10256 AZ #AZ0671 NV #CA01531

The results listed within this Laboratory Report pertain only to the samples tested in the laboratory. The analyses contained in this report were performed in accordance with the applicable certifications as noted. All soil samples are reported on a wet weight basis unless otherwise noted in the report. This Laboratory Report is confidential and is intended for the sole use of TestAmerica and its client. This report shall not be reproduced, except in full, without written permission from TestAmerica. The Chain(s) of Custody, 2 pages, are included and are an integral part of this report.
This entire report was reviewed and approved for release.

SAMPLE CROSS REFERENCE

SUBCONTRACTED: Refer to the last page for specific subcontract laboratory information included in this report.

ADDITIONAL INFORMATION: This is a complete final report.

LABORATORY ID	CLIENT ID	MATRIX
ISJ0108-01	MW-1	Water
ISJ0108-02	MW-5	Water

Reviewed By:

TestAmerica Irvine

Pat Abe
Project Manager

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THE LEADER IN ENVIRONMENTAL TESTING

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Earth Consultants
1642 East Fourth St
Santa Ana, CA 92701
Attention: Otto Figueroa

Project ID: Tow Yard

Report Number: ISJ0108

Sampled: 10/01/09
Received: 10/02/09

METALS

Analyte	Method	Batch	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ISJ0108-01 (MW-1 - Water)								
Reporting Units: mg/l								
Boron	EPA 200.7	9J05050	0.050	0.41	1	10/5/2009	10/5/2009	
Sample ID: ISJ0108-02 (MW-5 - Water)								
Reporting Units: mg/l								
Boron	EPA 200.7	9J05050	0.050	0.39	1	10/5/2009	10/5/2009	

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Project Manager

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Earth Consultants
1642 East Fourth St
Santa Ana, CA 92701
Attention: Otto Figueroa

Project ID: Tow Yard
Report Number: ISJ0108

Sampled: 10/01/09
Received: 10/02/09

INORGANICS

Analyte	Method	Batch	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ISJ0108-01 (MW-1 - Water)								
Reporting Units: mg/l								
Chloride	EPA 300.0	9J02058	50	370	100	10/2/2009	10/2/2009	
Nitrate-N	EPA 300.0	9J02058	0.55	9.0	5	10/2/2009	10/2/2009	
Nitrite-N	EPA 300.0	9J02058	0.75	ND	5	10/2/2009	10/2/2009	RL1
Sulfate	EPA 300.0	9J02058	50	490	100	10/2/2009	10/2/2009	
Total Dissolved Solids	SM2540C	9J05007	10	1900	1	10/5/2009	10/5/2009	
Sample ID: ISJ0108-02 (MW-5 - Water)								
Reporting Units: mg/l								
Chloride	EPA 300.0	9J02058	50	460	100	10/2/2009	10/2/2009	
Nitrate-N	EPA 300.0	9J02058	0.55	2.9	5	10/2/2009	10/2/2009	
Nitrite-N	EPA 300.0	9J02058	0.75	ND	5	10/2/2009	10/2/2009	RL1
Sulfate	EPA 300.0	9J02058	50	1000	100	10/2/2009	10/2/2009	
Total Dissolved Solids	SM2540C	9J05007	10	2900	1	10/5/2009	10/5/2009	

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Project Manager

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Earth Consultants
1642 East Fourth St
Santa Ana, CA 92701
Attention: Otto Figueroa

Project ID: Tow Yard

Report Number: ISJ0108

Sampled: 10/01/09
Received: 10/02/09

COLIFORMS BY MULTIPLE TUBE FERMENTATION - MPN (SM9221/40 CFR 141.21(f)(6)(i))

Analyte	Method	Batch	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ISJ0108-01 (MW-1 - Water)								
Reporting Units: MPN/100 ml								
Total Coliform	SM9221 A,B,C,E	C9J0506	2.0	13	1	10/2/2009	10/6/2009	
Fecal Coliform	SM9221 A,B,C,E	C9J0506	2.0	ND	1	10/2/2009	10/5/2009	
Sample ID: ISJ0108-02 (MW-5 - Water)								
Reporting Units: MPN/100 ml								
Total Coliform	SM9221 A,B,C,E	C9J0506	2.0	ND	1	10/2/2009	10/6/2009	
Fecal Coliform	SM9221 A,B,C,E	C9J0506	2.0	ND	1	10/2/2009	10/5/2009	

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Earth Consultants 1642 East Fourth St Santa Ana, CA 92701 Attention: Otto Figueroa	Project ID: Tow Yard Report Number: ISJ0108	Sampled: 10/01/09 Received: 10/02/09

SHORT HOLD TIME DETAIL REPORT

	Hold Time (in days)	Date/Time Sampled	Date/Time Received	Date/Time Extracted	Date/Time Analyzed
Sample ID: MW-1 (ISJ0108-01) - Water					
EPA 300.0	2	10/01/2009 14:00	10/02/2009 08:47	10/02/2009 14:00	10/02/2009 15:15
SM9221 A,B,C,E	0	10/01/2009 14:00	10/02/2009 08:47	10/02/2009 09:26	10/05/2009 08:16
Sample ID: MW-5 (ISJ0108-02) - Water					
EPA 300.0	2	10/01/2009 15:15	10/02/2009 08:47	10/02/2009 14:00	10/02/2009 15:30
SM9221 A,B,C,E	0	10/01/2009 15:15	10/02/2009 08:47	10/02/2009 09:26	10/05/2009 08:16

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Earth Consultants
1642 East Fourth St
Santa Ana, CA 92701
Attention: Otto Figueroa

Project ID: Tow Yard

Report Number: ISJ0108

Sampled: 10/01/09
Received: 10/02/09

METHOD BLANK/QC DATA

METALS

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 9J05050 Extracted: 10/05/09										
Blank Analyzed: 10/05/2009 (9J05050-BLK1)										
Boron	ND	0.050	mg/l							
LCS Analyzed: 10/05/2009 (9J05050-BS1)										
Boron	0.510	0.050	mg/l	0.500		102	85-115			
Matrix Spike Analyzed: 10/05/2009 (9J05050-MS1)					**Source: ISJ0107-01**					
Boron	0.966	0.050	mg/l	0.500	0.434	106	70-130			
Matrix Spike Dup Analyzed: 10/05/2009 (9J05050-MSD1)					**Source: ISJ0107-01**					
Boron	0.930	0.050	mg/l	0.500	0.434	99	70-130	4	20	

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Earth Consultants
1642 East Fourth St
Santa Ana, CA 92701
Attention: Otto Figueroa

Project ID: Tow Yard
Report Number: ISJ0108

Sampled: 10/01/09
Received: 10/02/09

METHOD BLANK/QC DATA

INORGANICS

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 9J02058 Extracted: 10/02/09										
Blank Analyzed: 10/02/2009 (9J02058-BLK1)										
Chloride	ND	0.50	mg/l							
Nitrate-N	ND	0.11	mg/l							
Nitrite-N	ND	0.15	mg/l							
Sulfate	ND	0.50	mg/l							
LCS Analyzed: 10/02/2009 (9J02058-BS1)										
Chloride	4.97	0.50	mg/l	5.00		99	90-110			*M-3*
Nitrate-N	1.15	0.11	mg/l	1.13		102	90-110			
Nitrite-N	1.52	0.15	mg/l	1.52		100	90-110			
Sulfate	9.95	0.50	mg/l	10.0		100	90-110			*M-3*
Matrix Spike Analyzed: 10/02/2009 (9J02058-MS1)					**Source: ISJ0110-01**					
Chloride	12.6	0.50	mg/l	5.00	7.64	98	80-120			
Nitrate-N	2.01	0.11	mg/l	1.13	0.916	97	80-120			
Nitrite-N	1.51	0.15	mg/l	1.52	ND	100	80-120			
Sulfate	37.8	0.50	mg/l	10.0	27.4	104	80-120			
Matrix Spike Analyzed: 10/03/2009 (9J02058-MS2)					**Source: ISJ0131-06**					
Nitrate-N	41.7	1.1	mg/l	11.3	30.5	99	80-120			
Nitrite-N	21.0	1.5	mg/l	15.2	ND	138	80-120			*MI*
Matrix Spike Dup Analyzed: 10/02/2009 (9J02058-MSD1)					**Source: ISJ0110-01**					
Chloride	12.5	0.50	mg/l	5.00	7.64	98	80-120	0	20	
Nitrate-N	2.03	0.11	mg/l	1.13	0.916	98	80-120	1	20	
Nitrite-N	1.54	0.15	mg/l	1.52	ND	101	80-120	1	20	
Sulfate	37.7	0.50	mg/l	10.0	27.4	102	80-120	0	20	

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Project Manager

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Earth Consultants
1642 East Fourth St
Santa Ana, CA 92701
Attention: Otto Figueroa

Project ID: Tow Yard

Report Number: ISJ0108

Sampled: 10/01/09
Received: 10/02/09

METHOD BLANK/QC DATA

INORGANICS

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 9J05007 Extracted: 10/05/09										
Blank Analyzed: 10/05/2009 (9J05007-BLK1)										
Total Dissolved Solids	ND	10	mg/l							
LCS Analyzed: 10/05/2009 (9J05007-BS1)										
Total Dissolved Solids	1000	10	mg/l	1000		100	90-110			
Duplicate Analyzed: 10/05/2009 (9J05007-DUP1)					Source: ISJ0107-01					
Total Dissolved Solids	2080	10	mg/l		2080			0	10	

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Earth Consultants	Project ID: Tow Yard	
1642 East Fourth St		Sampled: 10/01/09
Santa Ana, CA 92701	Report Number: ISJ0108	Received: 10/02/09
Attention: Otto Figueroa		

DATA QUALIFIERS AND DEFINITIONS

M1	The MS and/or MSD were above the acceptance limits due to sample matrix interference. See Blank Spike (LCS).
M-3	Results exceeded the linear range in the MS/MSD and therefore are not available for reporting. The batch was accepted based on acceptable recovery in the Blank Spike (LCS).
RL1	Reporting limit raised due to sample matrix effects.
ND	Analyte NOT DETECTED at or above the reporting limit or MDL, if MDL is specified.
RPD	Relative Percent Difference

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Project Manager

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Earth Consultants 1642 East Fourth St Santa Ana, CA 92701 Attention: Otto Figueroa	Project ID: Tow Yard Report Number: ISJ0108	Sampled: 10/01/09 Received: 10/02/09

Certification Summary

TestAmerica Irvine

Method	Matrix	Nelac	California
EPA 200.7	Water	X	X
EPA 300.0	Water	X	X
SM2540C	Water	X	

Nevada and NELAP provide analyte specific accreditations. Analyte specific information for TestAmerica may be obtained by contacting the laboratory or visiting our website at www.testamericainc.com

Subcontracted Laboratories

TestAmerica - Ontario, CA *California Cert #1169, Arizona Cert #AZ0062, Nevada Cert #CA-242*
1014 E. Cooley Drive, Suite AB - Colton, CA 92324
Method Performed: SM9221 A,B,C,E
Samples: ISJ0108-01, ISJ0108-02

TestAmerica Irvine

Pat Abe
Project Manager

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THE LEADER IN ENVIRONMENTAL TESTING

CHAIN OF CUSTODY FORM

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1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851
2520 E. Sunset Rd. #3, Las Vegas, NV 89120 (702) 798-3620 FAX (702) 798-3621

TAL-0013(1007)

ISJ0108 Page 1 of 1

Client Name/Address:	Project/PO Number:
ECI 1642 East 4th st. Santa Ana, CA 92701	Tow Yard
Project Manager: Pat Abe	**Phone Number:**
Sampler: Nick Napoli	**Fax Number:**

Sample Description	Sample Matrix	Container Type	# of Cont.	Sampling Date	Sampling Time	Preservatives	TDS	Boron	Sul Fate/ Nitrate/ Chloride	Total Coliform 9221	Fecal Coliform 9221					Special Instructions
MW-1	Groundwater	500ml Poly	1	10/1/09	2:00pm		X									
MW-1	"	"	1	10/1/09	2:00pm	Nitric Acid		X								
MW-1	"	125ml Poly	1	10/1/09	2:00pm				X							
MW-1	"	Bact Bottle	1	10/1/09	2:00pm					X	X					Groundwater
MW-5	"	500ml Poly	1	10/1/09	3:15pm		X									
MW-5	"	500ml Poly	1	10/1/09	3:15pm	Nitric Acid		X								
MW-5	"	125ml Poly	1	10/1/09	3:15pm				X							
MW-5	"	Bact Bottle	1	10/1/09	3:15pm					X	X					Groundwater

Analysis Required

Relinquished By:	Date/Time:	Received By:	Date/Time:
	10/2/09 8:47		10-2-09 847
Relinquished By:	Date/Time:	Received By:	Date/Time:
	10-2-09 1235		
Relinquished By:	Date/Time:	Received in Lab By:	Date/Time:
			10/2/09 1235

Turnaround Time: (Check)
same day ____ 72 hours ____
24 hours ____ 5 days ____
48 hours X normal ____

Sample Integrity: (Check)
Intact X on ice X

10.2.09 14:54

Note: By relinquishing samples to TestAmerica, client agrees to pay for the services requested on this chain of custody form and any additional analyses performed on this project. Payment for services is due within 30 days from the date of invoice. Sample(s) will be disposed of after 30 days.

#195

0.1°C
2-7°C

2-584

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CHAIN OF CUSTODY FORM

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1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
[illegible] South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851
2520 E. Sunset Rd. #3, Las Vegas, NV 89120 (702) 798-3620 FAX (702) 798-3621

Chloride Perchlorate per DF

TAL-0013(1007)

ISJ0108

Page 1 of 1

Client Name / Address:	Project / PO Number:
BCI 1642 East 4th st. Santa Ana, CA 92701	Tow Yard
Project Manager: Pat Abe	**Phone Number:**
Sampler: Nick Napoli	**Fax Number:**

Sample Description	Sample Matrix	Container Type	# of Cont.	Sampling Date	Sampling Time	Preservatives	Analysis Required: TDS	Boron	Sulfate, Nitrate, Nitrite, Chloride	Total Coliform 9221	Fecal Coliform 9221					Special Instructions
MW-1	Ground Water	500 ml Poly	1	10/1/09	2:00 Pm		X									
MW-1	"	"	1	10/1/09	2:00 pm	Nitric Acid		X								
MW-1	"	125 ml Poly	1	10/1/09	2:00 pm				X							
MW-1	"	Bact Bottle	1	10/1/09	2:00 pm					X	X					Ground water
MW-5	"	500 ml Poly	1	10/1/09	3:15 Pm		X									
MW-5	"	500 ml Poly	1	10/1/09	3:15 Pm	Nitric Acid		X								
MW-5	"	125 ml Poly	1	10/1/09	3:16 Pm				X							
MW-5	"	Bact Bottle	1	10/1/09	3:15 Pm					X	X					Ground water

10.2.09 14:54

Relinquished By:	Date/Time:	Received By:	Date/Time:
	10/2/09 8:47		10-2-09 847
Relinquished By:	Date/Time:	Received By:	Date/Time:
	10-2-09 1255		
Relinquished By:	Date/Time:	Received In Lab By:	Date/Time:
			10/2/09 1255

Turnaround Time: (Check)
same day ____ 72 hours ____
24 hours ____ 5 days ____
48 hours X normal ____

Sample Integrity: (Check)
Intact X on ice X

Note: By relinquishing samples to TestAmerica, client agrees to pay for the services requested on this chain of custody form and any additional analyses performed on this project. Payment for services is due within 30 days from the date of invoice. Sample(s) will be disposed of after 30 days.

#195

0.1°C
2.7°

585-2-585

Comments from
Other

ADVANCED ONSITE SYSTEMS
transforming the way we treat water

Wednesday, October 07, 2009

Dr. Rebecca Chou
California RWQCB Los Angeles Region
320 West 4th Street, Suite 200
Los Angeles, CA 90013

Subject: Response to Proposed Amendment to Prohibit Onsite Wastewater Disposal Systems in the Civic Center Area of the City of Malibu

Dear Rebecca:

As a committed Civil and Environmental Engineer with decades of experience in wastewater treatment at both the municipal and decentralized levels, I am commenting on the issue of existing Advanced Onsite Wastewater Treatment Systems (AOWTS) with regards to practicality, socially-inclusive processes, and the economic analysis provided for the proposed moratorium.

Practicality of Implementation

The proposed moratorium has a physical boundary capturing specific local watersheds. The area includes diverse areas, some residential others commercial. Some residential areas have existing clustered treatment systems using advanced treatment processes. Others, particularly along Malibu Road, have a geographic linearity and a uniform residential wastewater source. The moratorium area has a mix of onsite septic systems and Advanced Onsite Wastewater Treatment Systems (AOWTS). Large shopping centers have existing AOWTS that act as cluster treatment systems for multiple businesses. An increasing number of commercial parcels to the east along Pacific Coast Highway (PCH) have individual AOWTS.

The moratorium is intended to bring discharges into compliance in the moratorium area, which has generally been understood to require construction and hookup to a municipal wastewater treatment plant. During the October 1, 2009 public presentation by RWQCB staff, multiple cluster systems may be considered. The flexibility suggested by such statements indicate staff's willingness to acknowledge that cluster systems exist and others could be built to satisfy the RWQCB's objectives to restore beneficial uses and stop impairment of groundwater and surface waters. A monumental practicality factor is linked to using one versus several treatment systems.

Consider that the moratorium completion date is October 1, 2014 – only five years from the present. During a five-year period, the institutional and social capacity of existing and future cluster systems to reach compliance is considerably higher than the capacity to reach compliance through a single wastewater option or either sewer interceptor option. Consider the development of a funding mechanism and its implementation, siting, the CEQA process, land purchase, numerous studies and engineering still needed, construction of the plant, installation of sewers throughout this area including significant pump stations, and an ocean outfall or other suitable disposal method. Having worked on municipal wastewater treatment systems during some of these phases, notably the engineering and environmental review phases, five years seems like an unrealistic deadline for reaching the RWQCB's goal. A programmatic CEQA process for a prohibition is relatively minor compared to the CEQA process for so many land and traffic disturbances, not to mention the enormous cost imposed on residents and businesses, many who have already installed systems worthy of inclusion in the future wastewater management scheme. What would

1704 SUMMIT DRIVE, ESCONDIDO, CA 92027-4728 OFFICE: 760 743 8777 CELL: 760 500 2849 FAX: 760 743 3306

the RWQCB realistically expect to do with regard to the residents and businesses at the end of five years if the selected single-destination solution were far from complete?

Consider instead how relatively simple it is achieve compliant effluent water quality within five years from existing cluster systems. Simultaneously the agencies would feasibly map out and proceed with additional cluster systems that better suit the geography and wastewater characteristics of the properties involved. If you want to succeed within five years, work with those who have cluster systems already, work with geographically-related groups, and involve them in defining the path forward.

Socially-Inclusive Problem Solving

Public agencies are required to use processes that involve the public. Sometimes this merely results in public hearings that offer limited options for commenting and even fewer opportunities for dialogue. That level of involvement fosters conflict and leads to public dissatisfaction and a loss of public trust. A public process would more realistically involve periodic community meetings and education and a stakeholders group composed of residents, business owners, community and environmental groups, public agencies, and other stakeholders. The objective of such a group is dialogue leading to solutions that have transparency, accountability, defensibility, implementability, and improved public support for restoration of the water quality and beneficial uses of our waters.

Regarding transparency and accountability, rumors already allege arbitrary lack of issuance of RWQCB permits for expansions and/or upgrades to existing facilities, even when not in the proposed moratorium area. Such agency behavior, if were ever true, would only lead to a deterioration of respect for and collaboration with the RWQCB. This scenario was used to illustrate the importance of genuine public involvement from here on by local community stakeholders.

Regrettably, the prohibition will probably not have widespread defensibility in the eyes of the residents once they understand what is happening and what it will cost them. The objectives are probably supported by most people, but the methods and means show little effort and commitment to garnering support and consensus building. Increasingly people view such heavy handedness as a rather old-fashioned way of accomplishing things when so many team-building approaches could be applied. What is the RWQCB's commitment to allowing real and formalized stakeholder involvement? How might it help the State to achieve its objectives?

Economic Analysis

The economic analysis appears to be limited to an analysis of capital costs of the four options. The options show the same Local Sewer System cost. These costs would not likely be the same. Consider how a decentralized option would incur little to no additional sewer cost for those parcels already connected to existing cluster systems. Some types of decentralized sewers are easier to build using small diameter pipes, costing substantially less than the 4-inch diameter sewer assumed for both option. The Local Sewer Option does not appear to include the cost of pump stations, especially for hilly sections of the moratorium area, which significantly increase the cost of sewer installation and operation.

Treatment costs for the two local options do not appear to account for existing cluster plants, some of which perform as required and other which require improvements, but not in the cost range of new treatment facilities. Since the local citizens and businesses must bear the cost for the changes, planning smartly with existing systems in mind is defensible. Dismissing them at great cost to others is not.

The cost of land is not included. Given that the cost is probably very high, it needs to be included to be representative of real costs for both local options. Assumptions were not provided for the location of the

land relative to the users and to disposal. These are such significant factors that it is hard to understand the validity of the sums provided.

I am requesting that the RWQCB provide the detailed cost tables developed that form the basis for and substantiate the analysis. Without them, it is hard to understand how the sums in the analysis reflect genuine differences in the options.

I can be reached at 760-743-8777 (office), 760-500-2849 (cell), or barbara.bradley@advonsys.com.

Sincerely,

Advanced Onsite Systems

Barbara Bradley

Barbara Bradley, PE

Principal

Copy: Craig George/City of Malibu

From: Rebecca Chou
To: GW permitting team; Phillips, Wendy; student assistant team; Villar, ...
Date: 10/8/2009 1:51 PM
Subject: Fwd: Malibu OWDS prohibiton -- 11-5-09 RWQCB hearing

>>> "Frank Angel" <fangel@angellaw.com> 10/8/2009 1:39 PM >>>
Dear Dr. Chou,

I am a member of the Surfrider Foundation for many years, and a resident of Malibu. I write to strongly support the proposed moratorium on On-Site Wastewater Disposal Systems (OWDSs) in the Malibu civic center area.

From decades of testing and research, Surfrider Foundation and other public interest organizations, such as Heal the Bay, have documented diseases suffered by individuals surfing or swimming at Surfrider Beach. The diseases documented are symptomatic of those caused by human pathogens. (See, e.g., Heal the Bay report card historical data, at http://www.healthebay.org/brcv2/default.aspx?tabid=2.) Sicknesses occurred at times when Malibu Creek was and when it was not flowing, pointing to the culprit: OWDSs in a flood zone with a high groundwater table. The studies reviewed and summarized in the Regional Board's staff report confirm the hydrological connection between the OWDS dispersal fields, and Malibu Lagoon and the adjacent coastal waters. (Regional Board Staff Report at 26.)

In addition to the overwhelming scientific evidence, the moratorium is now necessary to ensure the City of Malibu's compliance with its Local Coastal Program (LCP) certified by the California Coastal Commission pursuant to the Coastal Act in 2002. The Regional Board's staff report shows groundwater levels very close to ground level in many locations in Malibu's civic center area. For obvious public health reasons, Malibu's LCP forbids the bottom of an effluent dispersal system to come within five feet of groundwater. (See Malibu Land Use Plan Policy 3.133; Malibu Local Implementation Plan, section 18.7(G).) With a groundwater table often higher than five feet (e.g., Malibu Colony), how is it possible to install an OWDS at the required distance from groundwater? LCP Policy 3.140 further requires protection of the lagoon and, in fact, any surface waters, from lateral seepage from effluent dispersal systems. Also, LCP Policies 3.134 and 3.141 make approval of a coastal

development permit for any OWDS contingent on compliance with RWQCB requirements and production of a study that analyzes the cumulative impact of the proposed OWDS on groundwater level and the quality of nearby surface drainages. I have had occasion to review coastal development permit approvals by the city. I have never seen the required study analyzing the cumulative impact of a new proposed OSWD on groundwater level and the quality of nearby surface drainages. The city routinely approves coastal development permits without the study.

For these reasons, I support the Regional Board's long-overdue decision.

Sincerely,

*****

Frank P. Angel
Angel Law
2601 Ocean Park Blvd., Suite 205
Santa Monica, CA 90405-5269
Tel: (310) 314-6433
Fax: (310) 314-6434
angellaw.com

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From: Rebecca Chou
To: GW permitting team; Phillips, Wendy; student assistant team; Villar, ...
Date: 10/8/2009 2:18 PM
Subject: Fwd: Comment regarding the proposed Prohibition for Malibu Civic Center

>>> "Meg Henry" <meg@ensitu.com> 10/8/2009 2:06 PM >>>

Dear Ms. Chou,

This email is intended as a comment to the Los Angeles Regional Water Quality Control Boards' Proposed Septic Prohibition for the Malibu Civic Center Area.

During the October 1, 2009 Community Meeting held at Pepperdine, LARWQCB staff presented a slide presentation which included a slide and table acknowledging projects that are currently "in the pipeline". However, it is not clear from the information provided exactly how far along in the City's development permitting process a project must be to be allowed to construct after the prohibition goes in to effect. The RWQCB staff mentioned only "permitted" projects would allowed to proceed. Does this mean if a project "in the pipeline" has a Coastal Development Permit from the City by November 5, 2009, it will be allowed to proceed?

Thank you,

Meg Henry

Ensitu Engineering

Meg Henry

Ensitu Engineering Inc

685 Main Street Suite A

Morro Bay, CA 93442

Tel: (805) 772-0150

Fax: (805) 772-0813

meg@ensitu.com <mailto:jallen@ensitu.com>

ENVIRONMENTAL
ENGINEERING & CONTRACTING, INC.
501 Parkcenter Drive, Santa Ana, CA 92705
Phone (714) 667-2300 Fax (714) 667-2310

Via e-mail

Dr. Rebecca Chou
California Regional Water Quality Control Board
320 West 4th Street, #200
Los Angeles, CA 90013

Subject: Public Comment on the Proposed Amendment to the Water Quality Control Plan for the Coastal Watersheds of Ventura and Los Angeles Counties to Prohibit On-site Wastewater Disposal Systems (OWDS) in the Malibu Civic Center Area:
- Proposal for Incorporating an Integrated Watershed Management Approach

Dear Dr. Chou,

Thank you for providing the opportunity for public comment concerning the proposed OWDS prohibition. This letter does not take a position of support or opposition to the OWDS prohibition. Rather, it is intended to invite the Water Board and all of the stakeholders to consider an Integrated Watershed Management approach before decisions are made on a singular element that may negate environmental opportunities that will benefit all stakeholders.

This approach integrates all of the key issues of the watershed, such as overall water quality improvements, flood control, drainage, groundwater, lagoon, intertidal water, environmental needs, and imported water, as well as issues of fire control and aesthetic water reuse. An Integrated Watershed Management approach is emphasized in the State Board's new strategic plan[1] and is working successfully in much larger and more complex California watersheds, such as the Santa Ana River Watershed due to their "One Water - One Watershed" approach. Our experience with "One Water - One Watershed" shows that this approach brings all of the key stakeholders together to contribute cooperatively, rather than leaving many of them believing that they are disenfranchised and therefore precluded from having meaningful input to potential solutions. A united approach also provides collaborative funding solutions. EEC discussed this concept at the October 1, 2009 Community Meeting and we have personally discussed it with the following key stakeholders:

- The City of Malibu - Craig George and Vic Peterson
- The Water Board - Wendy Phillips and Elizabeth Erickson
- Environmentalist Group - Mark Gold of Heal the Bay
- Commercial Discharger - David Reznick of the Malibu Bay Company
- Developers - David Reznick of the Malibu Bay Company and Robert Gold of Big Rock Partners

[1] State Board Strategic Plan Preamble: "A watershed approach is hydrologically focused, recognizes the degree to which ground water and surface water bodies are connected physically, recognizes the linkages between water quantity and water quality, and requires a comprehensive watershed protection approach"

Based on these conversations, it appears that there is open willingness to incorporate an Integrated Watershed Management approach that will benefit the stakeholders, community and environment and a recognition that third party involvement may help facilitate this discussion.

The Proposal

Incorporate an Integrated Watershed Management approach as the most beneficial long term environmental solution for all stakeholders.

Option 1: Revise the current proposed OWDS prohibition plan/schedule, if agreed to by the stakeholders

Option 2: In parallel with the current proposed prohibition plan/schedule, if realistically achievable

The Proposers

John Shaffer of Environmental Engineering & Contracting, Inc. (EEC)
- Founder and Principal of EEC (www.eecworld.com), former student at Our Lady of Malibu
- EEC specializes in wastewater, groundwater, stormwater, and recycled water projects

Wyatt Troxel of WTr Science (subconsultant to EEC)
- 16 Year Board Member of Inland Empire Utilities Agency (IEUA)
- 8 Year Commissioner of the Santa Ana Watershed Project Authority (SAWPA)
- Originator and thought leader of "One Water – One Watershed"
- SWRCB Certified Grade V Wastewater Treatment Plant Operator
- 40 year water utility management professional

- Consultants with experience in Integrated Watershed Management approaches and stakeholder collaboration efforts.
- Worked together on multiple projects throughout Southern California.
- Clients include a balance of municipalities, developers, commercial properties, and law firms (often involving support of environmentalist group actions).
- Unsolicited proposal. Not retained by any stakeholder or interested party.

Opportunities Potentially Lost Without an Integrated Watershed Management Approach (List Developed Based on Stakeholder Input)

Note: The stakeholders interviewed recognize that there are significant historical issues that have led to the proposed prohibition and they share the same overall goal of improved water quality. The common concern is that the current path, without incorporating an Integrated Watershed Management approach, will result in many lost opportunities. For example:

- The City's current tentative plan for a $60M centralized treatment plant has significant unresolved challenges involving plant location, wastewater disposal/reclamation, and installation of a collection system. There are no current significant discussions concerning the opportunities provided by a properly planned wastewater treatment solution, such as a recycled water program, water storage and delivery, and proper biosolids disposal or reuse.

- There are no current significant discussions concerning the opportunities unique to Malibu that can be integrated with a properly planned wastewater treatment solution, such as fire water storage and delivery, lagoon treatment, stormwater management, groundwater treatment, a water science center, and habitat restoration.

- The current prohibition path, with an immediate moratorium for new dischargers and a 5-year deadline for existing dischargers, will result in immediate action, but will likely discourage stakeholder collaboration and integration of projects.

- The prohibition, as currently drafted, will likely lead many affected property owners to try to qualify their own wastewater treatment systems for the limited exemption rather than addressing the watershed as a whole because they believe they can't wait for a centralized wastewater treatment system to come on line.

- It was observed at the October 1, 2009 Community Meeting that the prohibition is having the effect of dividing rather than uniting the community around the common goal of water quality improvements. Further polarization of stakeholders will result in resources being channeled away from a watershed approach. This polarization also stifles the ability to reach consensus on a watershed approach.

- The prohibition, as currently drafted, may have the unintended effect of preventing the continued exploration of innovative treatment solutions that are already being considered that could be operating in less than 5 years.

- An Integrated Watershed Management approach will provide significant opportunities for Federal and State funding and loans that will be far less available without an Integrated Watershed Management approach.

Benefits of an Integrated Watershed Management Approach

- Parallel path of water quality improvements for Surfrider Beach integrated with other important beneficial watershed projects
- Stakeholder collaboration
- Proper water resource management
- Sustainability
- A long term integrated plan that all stakeholders can support and stay vested in. Example: "One Water - One Watershed", administered by the Santa Ana Watershed Project Authority (SAWPA). Information available on the SAWPA website (www.sawpa.org).

Proposed Immediate Action

EEC (led by John Shaffer and Wyatt Troxel) is offering to organize and host an Integrated Watershed Management stakeholder meeting, preferably before the Water Board adopts the prohibition, involving the key stakeholders listed above and 3-4 other stakeholders recommended by the Water Board and the City of Malibu. The meeting will focus on the issues listed in this letter. There are many potential outcomes of the meeting, but based on key stakeholder interest to this point, EEC will attempt to focus on Options 1 and Option 2 listed above.

The City has offered to assist EEC in identifying a date, time and location for the meeting. If the Water Board is open to our proposal, please contact me as soon as possible and I will begin to contact the stakeholders, arrange the meeting, and establish ground rules for a productive meeting.

Thank you again for the opportunity to comment on the proposed prohibition and for your consideration of this proposal. If you have any questions or would like to discuss our proposal, please contact me at (714) 667-2300.

Sincerely,
Environmental Engineering & Contracting, Inc. (EEC)

John Shaffer
President

cc: Wendy Phillips, Regional Water Quality Control Board
Elizabeth Erickson, Regional Water Quality Control Board
Vic Peterson, the City of Malibu
Craig George, the City of Malibu
Mark Gold, Heal the Bay
David Reznick, Malibu Bay Company
Robert Gold, Big Rock Partners

Pat Maginnit

From: Ben Leu
To: Rodriguez, Dionisia
Subject: Fwd: Re: Sept. 1, 2009 Workshop attendees

>>> Rosie Villar 9/15/2009 9:45 AM >>>
FYI - I received a call Thursday from Pat Maginnit, an attendee at the September 1 workshop wanting to express some of his feelings. While he feels it's a great thing what the Water Boards is doing he suggested that for our upcoming Community meeting we bring up the fact that Malibu is not being singled out. He thinks we can generate more support from the Malibu community if we bring up other cities, counties who are being look at aside from Malibu. He stated that County of LA Sewage Plant is an environmental violator and it doesn't seem like our agency would go after them as we are going after Malibu due to special interest. He also suggested we post our information on the Malibu Times to show our good faith (letters to the editor). In addition he shared that a surfer, Dusty Peak, recently died from these contaminated waters and more than the WB the residents would like to have the water issues resolved.

See attached links to articles he shared.

>>> <ousoonersocal@aol.com> 9/10/2009 4:32 PM >>>
Rosie:

Nice chatting with you about Malibu issues. Here are some local articles about Malibu and Dusty Peak. Spare us more waterboarding in Malibu. Thanks.

Pat Maginnis

310-589-9662

Paddle out for Dusty Peak who died of staph disease he caught at Malibu Pier surfing.

http://www.malibusurfsidenews.com/archives/09032009.pdf

http://www.malibutimes.com/

http://www.malibutimes.com/articles/2009/09/09/news/news5.txt

Dusty Peak died from a staph infection he caught surfing near Malibu Pier. Some day it came from the effluent in Malibu Creek, and some say it came from the discharge from Las Virgines Water District.

http://www.malibutimes.com/articles/2009/09/02/editorial/letters/letter3.txt

Malibu stories from Malibu Surfside News

http://www.malibusurfsidenews.com/stories/stories.html

Notice of funeral for Dusty Peak

http://www.malibusurfsidenews.com/archives/08272009.pdf

----Original Message----
From: Rosie Villar <rvillar@waterboards.ca.gov>
To: Dionisia Rodriguez <drodriguez@waterboards.ca.gov>
Sent: Thu, Sep 10, 2009 3:20 pm
Subject: List Invitation to Sept. 1, 2009 Workshop attendees

Thank you, for participating in the Regional Board workshop on the proposed prohibition in the Malibu Civic Center area held at Pepperdine University on September 1, 2009. You provided us with your e-mail address and we would like to invite you to subscribe to our Notification List to assure that you receive future notifications/announcements regarding the proposed prohibition.

To subscribe to our list for these announcements, please go to: http://www.waterboards.ca.gov/resources/email_subscriptions/reg4_subscribe.shtml, where you will find various lists. For this list, please check Prohibition - Malibu Civic Center Septics.

Thank you for your interest in this matter.

Cholada Thai Cuisine
18763 Pacific Coast HWY, Malibu, CA 90265
Tel 310 317 0025 Fax 310 317 8640
Email: cholada2@yahoo.com

California Regional Water Quality Control Board,
Los Angeles Region
320 West 4th Street, Suite 200
Los Angeles, California 90013
Attn: Dr. Rebecca Chou, Chief of the Groundwater Permitting Unit

October 7, 2009

RE: STOP the prohibition in Wastewater Treatment Systems-Malibu

Dear Dr Chou;

The proposed 'Prohibition' on local Malibu wastewater systems will go into place on November 15, 2009 implemented by the Regional Water Quality Control Board. As a small business we are simply uniformed about the current requirements for wastewater permitting and the implications for our business.

To better understand the current situation some historical prospective is necessary. Typically, these properties were constructed 30-50 years ago in accordance with the codes in effect at that time, which generally did not require a separate wastewater permit from the Regional Board. The standard wastewater system utilized was a septic system. Septic systems have been used successfully for decades

We feel that the California Regional Quality Water Board has proposed this 'Prohibition' for the Civic Center, without giving time to businesses and residents to completely understand how to implement needed forms and/or a way for the City of Malibu to meet the list of recommendations of a new 'sewer system.'

This prohibition will impact our business an already historical economic recession! We have had 3 fires, huge transportation issues added to the down economy in only the last 3 years.

We request that the RWQCB delay the actions they have deemed necessary for a prohibition, and ask that they 'partner,' with the Malibu Community to create a mutual goal for all business and local community members within Malibu.

Please stop this prohibition and work with us to make it a community we can all be proud of. We look forward to working with you in a positive way to support our local businesses and residents of Malibu.

Sincerely yours,

Nikorn Sriwichailumpan

Nikorn Sriwichailumpan
President
Cholada Thai Cuisine
310 317 0025

GEORGE TOBERMAN CONSTRUCTION CO.

Dr. Rebecca Chou

State Water Resources Control Board

October 6, 2009

Re: Wastewater Treatment Systems – Malibu

Prove to me that the small amount of waste water that we put into the ground thru our septic system reaches the Pacific Ocean. Denise and I have an acre of land for our system. A good septic system is better then a treatment plant that empties the treated waste directly into the creek or the ocean. Tapia Park dumps millions of gallons of sewage directly into the creek. The creek is disgusting.

All the people in LosAngeles dump their waste into the Santa Monica Bay. My waste after it perculates thru 40 feet of soil is pure before it leaves my acre of land.

Please don't implement any action against us until you have completed all the research necessary to make a decision.

Sincerely yours,

George Toberman

3539 CROSS CREEK LANE, MALIBU 90265
TEL: (310) 456-3457 FAX: (310) 456-7432
EMAIL: georgetoberman@verizon.net

California Regional Water Quality Control Board
Attn: Dr. Rebecca Chou
320 West 4th Street, #200
Los Angeles, CA 90013

7 October, 2009

Dear Dr. Chou and Board Members,

Please accept my comments in the spirit in which they are submitted, which is one of cooperation and collaboration.

We all believe in clean water. We all wish to "heal" Surfrider Beach and the Lagoon. But we, as citizens of Malibu, should not be subjected to the type of draconian mandate that an outright prohibition on septic systems so alarmingly embodies.

If it could be proven that we, as individuals, knowingly and without permits, installed systems that polluted the lagoon and the bay, then there would be grounds for actions such as prohibitions, moratoriums and stiff fines. But this is not the case. In fact, just the opposite has occurred. For the past 5 or six years all septic work performed in the Civic Center area has been required to comply with the most stringent water quality standards of any region in the State of California. And as the requirements become more restrictive, we as citizens have always complied.

It is therefore unjust of this body to simply shut off one of the three "utilities" that make our homes and businesses able to function. You may as well ask Socal Edison to shut off our electricity, or the Gas Company to cap off our meters. Without the ability to treat our wastewater, we will not be able to live in our homes or conduct our businesses, and this is essentially what the prohibition would demand.

The logic behind the prohibition seems to me to be flawed. The underlying notion is clear; the WQB staff feels that 5 years is enough time for the City of Malibu to design, permit and install a Civic Center sewage treatment plant. So, if they truly believe this, and they also know that any septic system work performed in the area only IMPROVES the quality of the treated effluent discharge in the interim, why would they need to "freeze" the existing conditions for five years, capping the upside potential of voluntary system upgrades while potentially increasing the number of failed systems?

The actions recommended by the WQB staff is more indicative of a belief that 5 years is not enough time for the implementation of this new system. That being the case, why support a policy that prolongs the assumed sources of pollution? Why not encourage, as the City of Malibu all ready does, upgrades to these systems? The prohibition makes no sense under any scenario other than the "governmental arm twisting" approach to public policy development.

It is also unjust, and slightly irrational, to deny new construction to occur within the Civic Center area. For if, as your argument goes, it is the cumulative effect of the hundreds of systems discharging effluent into the ground that is the source of the contamination at

Surfrider Beach, than surely the loading from any new development utilizing advanced treatment systems would be insignificant.

The prohibition would be devastating to any spark of economic recovery in the area. Home improvement would cease. The buying and selling of real estate would never find a way out of up its current doldrums. Commercial projects would never leave the drawing boards.

Therefore, in the spirit of cooperation and collaboration, I would ask that we work together to permit, fund and install a sewage treatment plant for the Civic Center area WITHOUT the tyrannical spectre of a prohibition on OWTS.

There are several hurdles to this proposition. Simply being told to "put in a treatment plant, or else" is really not a cooperative stance for this board to take. Why not approach the problem from a collaborative standpoint? Help us design the best system. Advocate for low or zero interest loans in order to assist us in obtaining the necessary funding. Help us educate those who are or will be affected by this undertaking to understand its importance. But most of all, work with us in the interim period to create an environment whereby our citizens a) are confident that the new treatment plant will be implemented within a reasonable timeframe, b) understand the financing and feel that they are getting the best deal possible (or help us find grants and/or stimulus money for project), and c) have trust that they may continue to look at their property as something that can be improved, expanded, and enjoyed as has always been the case in our City. And State. And Nation.

Thank you.

Lester Tobias

Tobias Architecture
22221 Pacific Coast Highway
Malibu, CA 90265
lester@tobiasarchitecture.com
www.tobiasarchitecture.com

Presentations by
RWQCB-LA staff

Proposed Prohibition On-Site Wastewater Disposal Systems (Septics) Malibu Civic Center Area

CA Regional Water Quality Control Board – Los Angeles Region

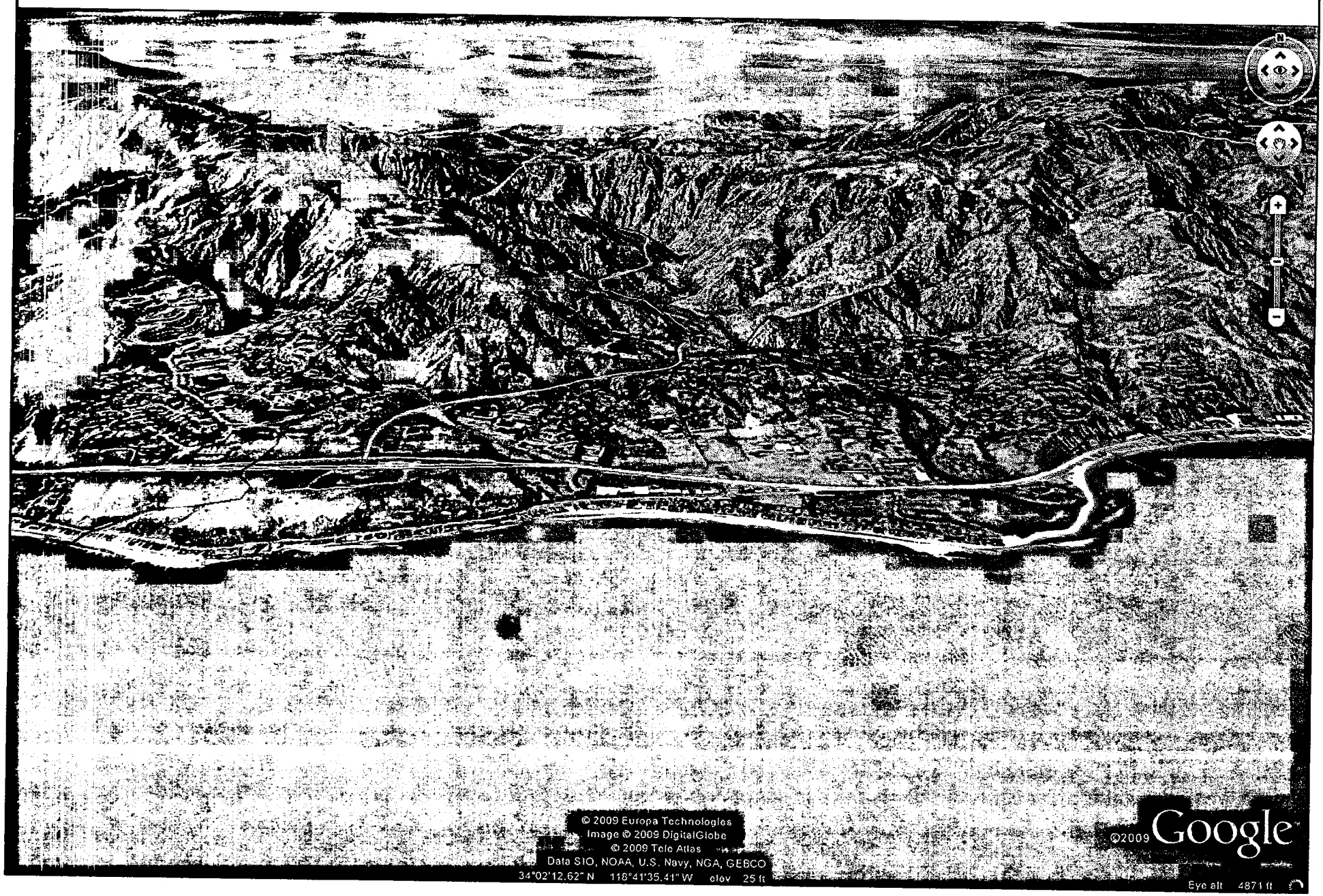
Hearing – November 5, 2009

Hearing Agenda

- Staff Presentation
  - Technical Evidence for Prohibition
  - Legal Issues
- City of Malibu
- Public (at 1:00 or later)
  - Government Representatives
  - Non-Government Organizations
  - Property Owners in Prohibition Area
  - Other Stakeholders

Proposed Amendment to *CA Regional Water Quality Control Plan (Basin Plan)*

- Prohibit on-site wastewater disposal systems (OWDSs)
- Malibu Civic Center Area
  - About 2,000 residents
  - Work force
  - Visitors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34°02'12.62" N 118°41'35.41" W elev 25 ft
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2-612

Estimated Current Flows

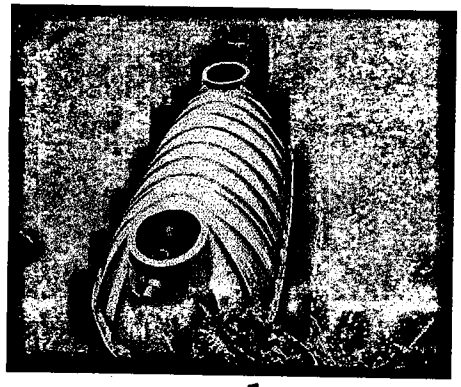
- 270,000 gallons per day (gpd)
  - About 400 residential properties
  - About 40 others
    - Four multi-family complexes (in Winter Canyon)
    - Businesses
    - Public facilities

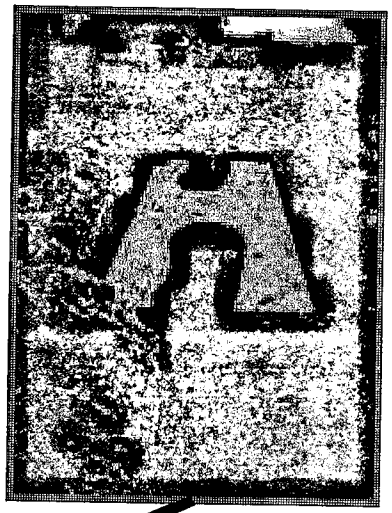
Who Would Be Affected?

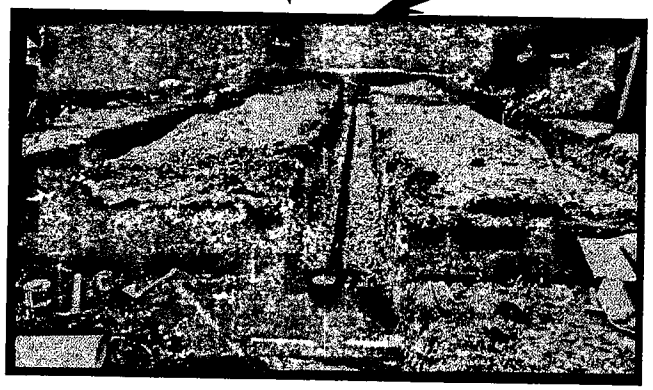
- Applies to all discharges in the Malibu Civic Center area:
  - Commercial and industrial facilities
  - Public facilities
  - Residential properties

- Applies to ALL discharge systems (passive convention septics to advanced treatment plants)

Types of Systems that would be Prohibited







Timing for the Prohibition

- Existing discharges: November 5, 2014
  - Repairs and upgrades allowed, provided they comply with the deadline to cease discharge by 2014
  - No expansions (projects that will increase wastewater flows allowed)
- New discharges: immediately (Nov 5, 2009)
  - No new projects*
- *No exemption for discharges in permitting 'pipeline'
  - Residential applicants
    - Nov 5, 2009 if local agency permitting has not been completed
    - Nov 5, 2014 if local agency permitting has been completed
  - Commercial applicants
    - Nov 5, 2009 if CA RWQCB has not deemed your RoWD (Report of Waste Discharge) adequate and complete
    - Nov 5, 2014 if CA RWQCB has deemed your RoWD adequate and complete

Justification for the Prohibition

■ Polluted beaches	Tech Memo #3
■ Polluted lagoon	Tech Memo #4
■ Polluted groundwater	Tech Memo #2
■ Compliance records	Tech Memo #1
■ Reliance on hauling	Tech Memo #5

Malibu Lagoon

- Nutrient (nitrogen and phosphorus) loads accelerate eutrophication. (Over stimulates algae, which depletes oxygen dissolved in water.)

- Eutrophication: an increase in nutrients in an ecosystem, to an extent that increases in the primary productivity of the ecosystem. Depending on the degree of eutrophication, subsequent negative environmental effects such as anoxia and severe reductions in water quality, fish, and other animal populations may

Malibu Lagoon (Tech Memo #4)

- Quantify nitrogen loads from OWDSs
- Compiled an inventory of discharges
  - 270,000 gallons per day
- Calculated nitrogen loading rates
- Evaluated groundwater flow regime
  - Amount flowing to lagoon (versus coast)
  - Attenuation (decay) between the point of release and the water table.

Malibu Lagoon (Tech Memo #4)

- **6 lb/day – restoration target*** (load allocated for OWDSs) *Total Maximum Daily Load (TMDL), US EPA, 2003

- **30 – 35 lb/day nitrogen – current load** (Tech Memo #4 findings)

- 17 to 32 lb/day – estimates by third parties

- Conclusion – Nitrogen released from OWDSs impairs aquatic life. Successfully passed external peer review.

Lagoon (Tech Memo #4) Comments

- Objection (from City) to restoration target for lagoon (e.g. staff fails to consider atmospheric sources), and to septic allocation of 6 lb/day
  - *Response: Nitrogen target and waste allocations for lagoon were already established in a TMDL.*

- Objection (from City) to staff assumption (100 gpcd*) for residential flow rates
  - *Response: Flow rates may be as high as 150 gpcd – staff was reasonable in assuming 100 gpcd.*

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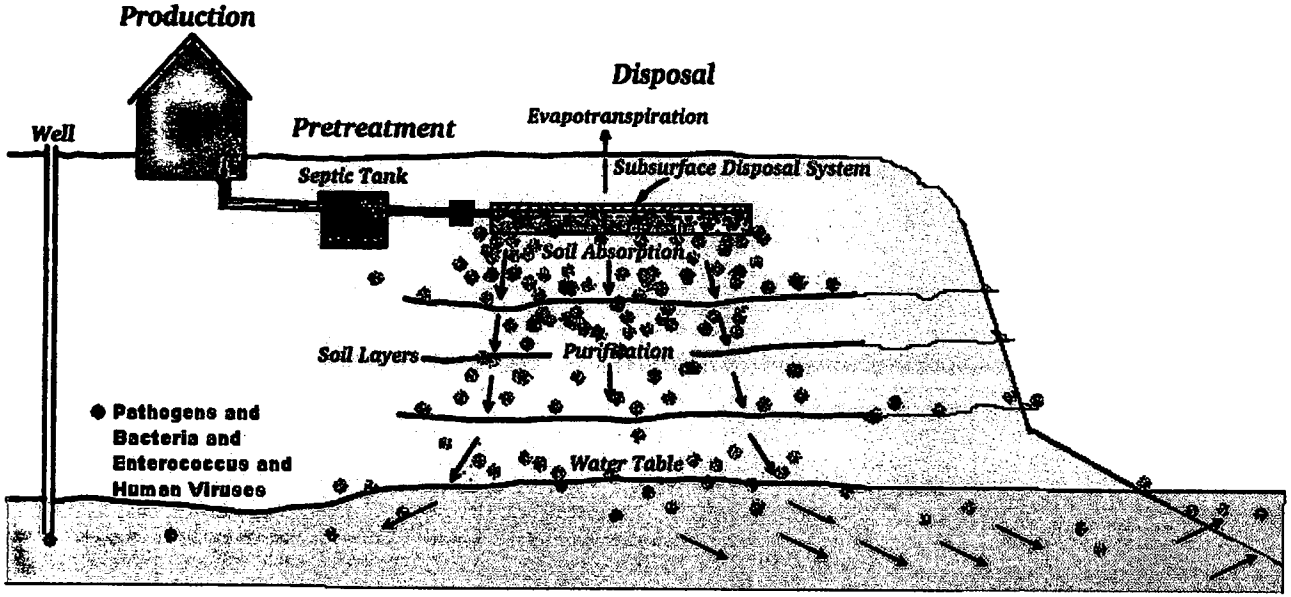
*gpcd – gallons per capita per day

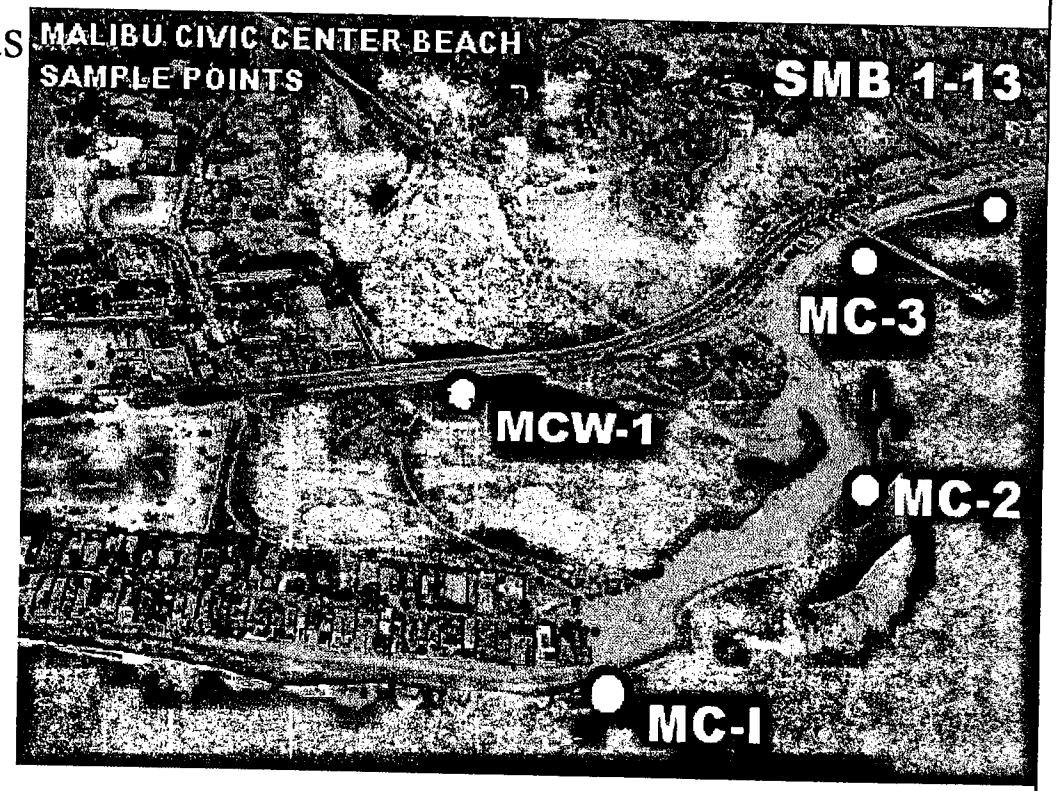
Human Pathogens and OWDSs



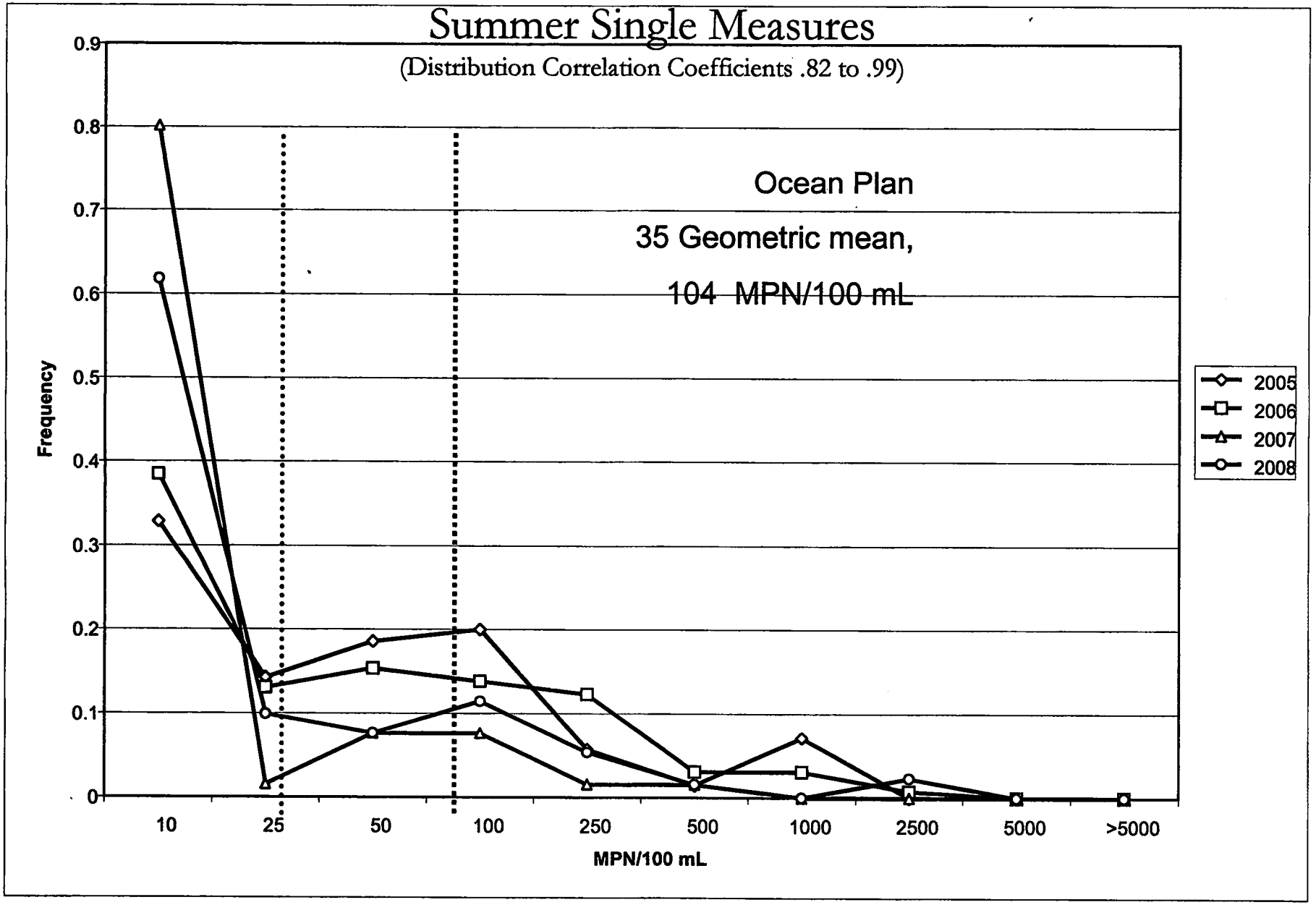
- Illness is transmitted by human waste, unless pathogens are removed by treatment or passage through the soil.
- Staff looked at evidence of release of pathogens from OWDSs, of beach water quality, and of illness related to those bacteria levels.

Release of pathogens from OWDSs

- Wells: 76% greater than 35 MPN/100 mL enterococcus
- Flow: 42% of groundwater comes from OWDSs and 92% of that to beach (Stone 2004)
- Flow path: Stone, Questa, Tetratech, 4 TMDLs, Vergets, Izbicki



Surfrider Beach Enterococcus Interval Frequency for May-October



Local Epidemiology Study

- 22,085 swimmers were studied between June and September 1995 at local beaches (including Surfrider) largely without breached conditions.

Significant Respiratory Disease	Fever with vomiting, diarrhea or stomach pain	Criteria: Additional illness among swimmers
45 per1,000 swimmers	30 per 1,000 swimmers	19 per 1,000 swimmers

Comment: More evidence is needed to relate OWDS to beach Pathogens

- 1985 LA County Health to Supervisors

"[the] survey found 40% of the properties were illegally discharging wastewaters to the groundsurface."

"In 1983 storms..239 beach front systems were destroyed...raw sewage drained onto the beach."

"Overall...58.8% of Malibu properties are beachfront and... 45.5% of those have failed"

Evidence relating OWDS and beach Pathogens

- 1985 LA County Health to Supervisors
- 1983 EPA enterococcus standard/ 2001 Ocean Plan

"Enterococcus concentrations correlate with gastrointestinal illness…at beaches…with and without an identifiable source of human sewage"

"The criteria ….is a geometric mean of 35 MPN/100mL and an instantaneous maximum of 104 MPN/100mL …. resulting in 19 additional illnesses among swimmers in marine waters."

Evidence relating OWDS and beach Pathogens

- 1985 LA County Health to Supervisors
- 1983 EPA enterococcus standard/ 2001 Ocean Plan
- 1992 Warshall for City

- "Most beachfront systems…dispose.. vertically through a "bottomless sand filter."
- "In…the 'Civic Center'…the proposed sewage treatment designs….need to be considered with land use planning, not after it…"

Septic Systems and Pathogens

- 1983 EPA enterococcus standard/ 2001 Ocean Plan
- 1985 LA County Health to Supervisors
- 1992 Warshall for City
- 1996 303(d) list
- 1999 Malibu Epidemiology Study
- 2002-2006 TMDLs

- Federally designated as an waterway impaired. Among lost beneficial uses are recreation, eutrophication/aesthetics and shell fish harvesting

- Santa Monica Bay Bacteria Wet and Dry weather, Malibu Nutrient and Malibu Creek and Lagoon Bacteria TMDLs all attribute loading to OWDSs.

Septic Systems and Pathogens

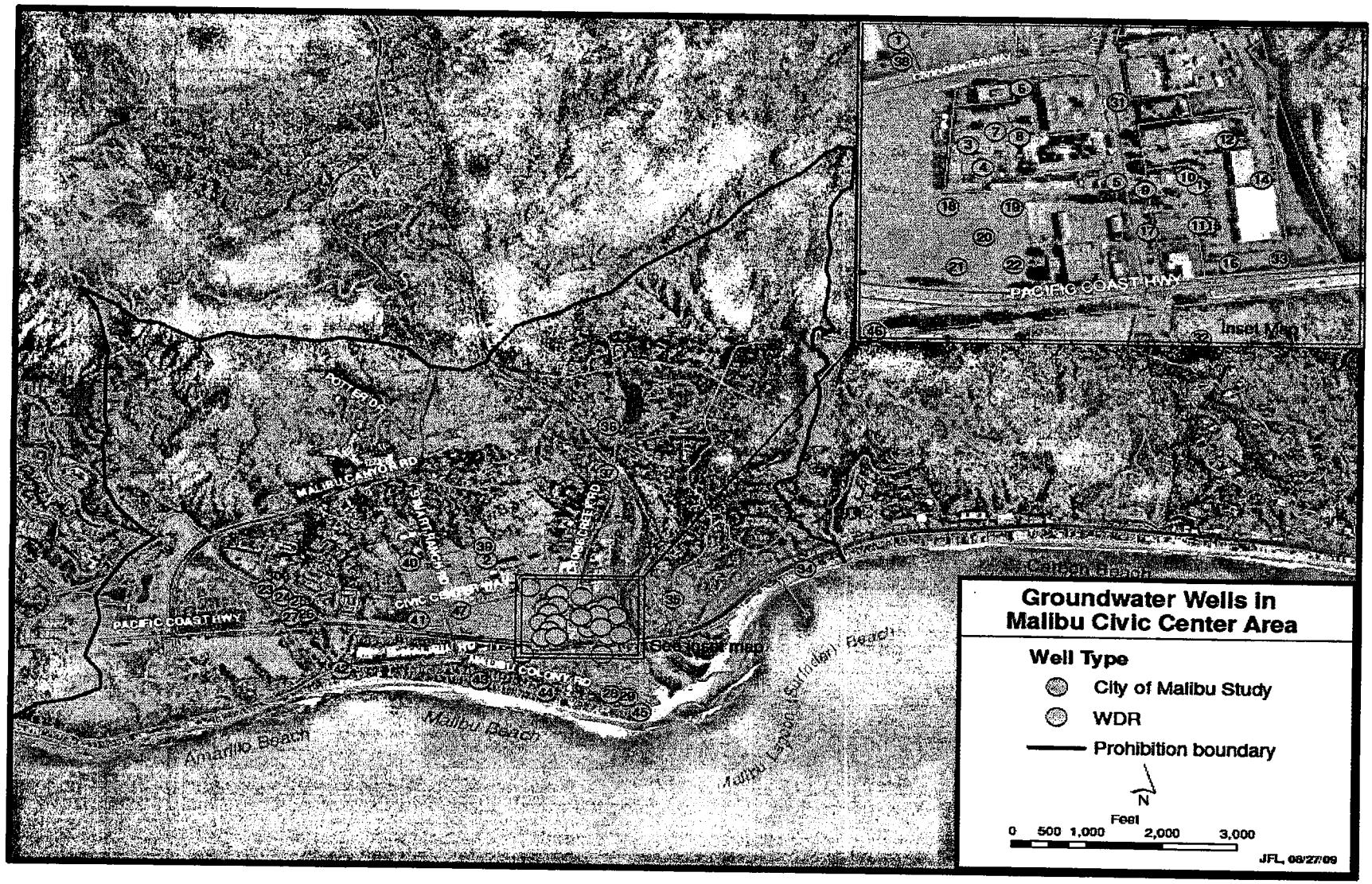
- 1983 EPA enterococcus standard/ 2001 Ocean Plan
- 1985 LA County Health to Supervisors
- 1992 Warshall for City
- 1996 303(d) list
- 1999 Malibu Epidemiology Study
- 2002-2006 TMDLs
- Malibu Lumber/ La Paz/ Whole Foods/ Malibu Mesa/ Malibu Towing WDR applications

- Notice of Violation of TMDL limits in stormwater permit for Malibu beaches.

- City approves CEQA applications for more than 50,000 additional gpd for construction without a regional wastewater plan for existing discharges

Tech Memo #2

Pathogens and Nitrogen in Wastewaters Impair Underlying Groundwater as a Potential Source of Drinking Water



METHODS AND PROCEDURES

- Collect and review data from 56 groundwater monitoring wells in the study area
- Analyze data for fecal coliform, total coliform, total nitrogen (nitrate + nitrite), total nitrogen (ammonia + nitrate + nitrite)
- Groundwater quality failed to meet drinking water standard – Maximum Contaminant Levels (MCL)

Summary of 1,016 Groundwater Samples from 56 Wells

	Fecal Coliform	Total Coliform	Nitrate + Nitrite	Ammonia+ Nitrate+Nitrite
MCL	0	0	10	10
Concentration Range	0 – 140,000 MPN/100ml	0 – 16,000,000 MPN/100 ml	0 – 120 mg/l	0 – 120 mg/l
Total Samples Analyzed	1,016	1,016	1,012	1,012
# Samples failed to meet MCL	383	576	322	400
% Samples failed to meet MCL	38%	57%	32%	40%

Summary of Groundwater Quality by Wells

	Fecal Coliform	Total Coliform	Nitrate + Nitrite	Ammonia+ Nitrate+Nitrite
Total number of wells	56	56	56	56
Number of wells failed to meet MCL	47	56	24	34
% wells failed to meet MCL	84%	100%	43%	61%

Tech Memo #2
CONCLUSION

Pathogens and nitrogen in wastewater released from OWDSs impair underlying groundwater as a potential source of drinking water

Groundwater (Tech Memo #2) Comments

- Groundwater is unsuitable as a potential source of drinking water

Response: MUN beneficial use and emergency demand

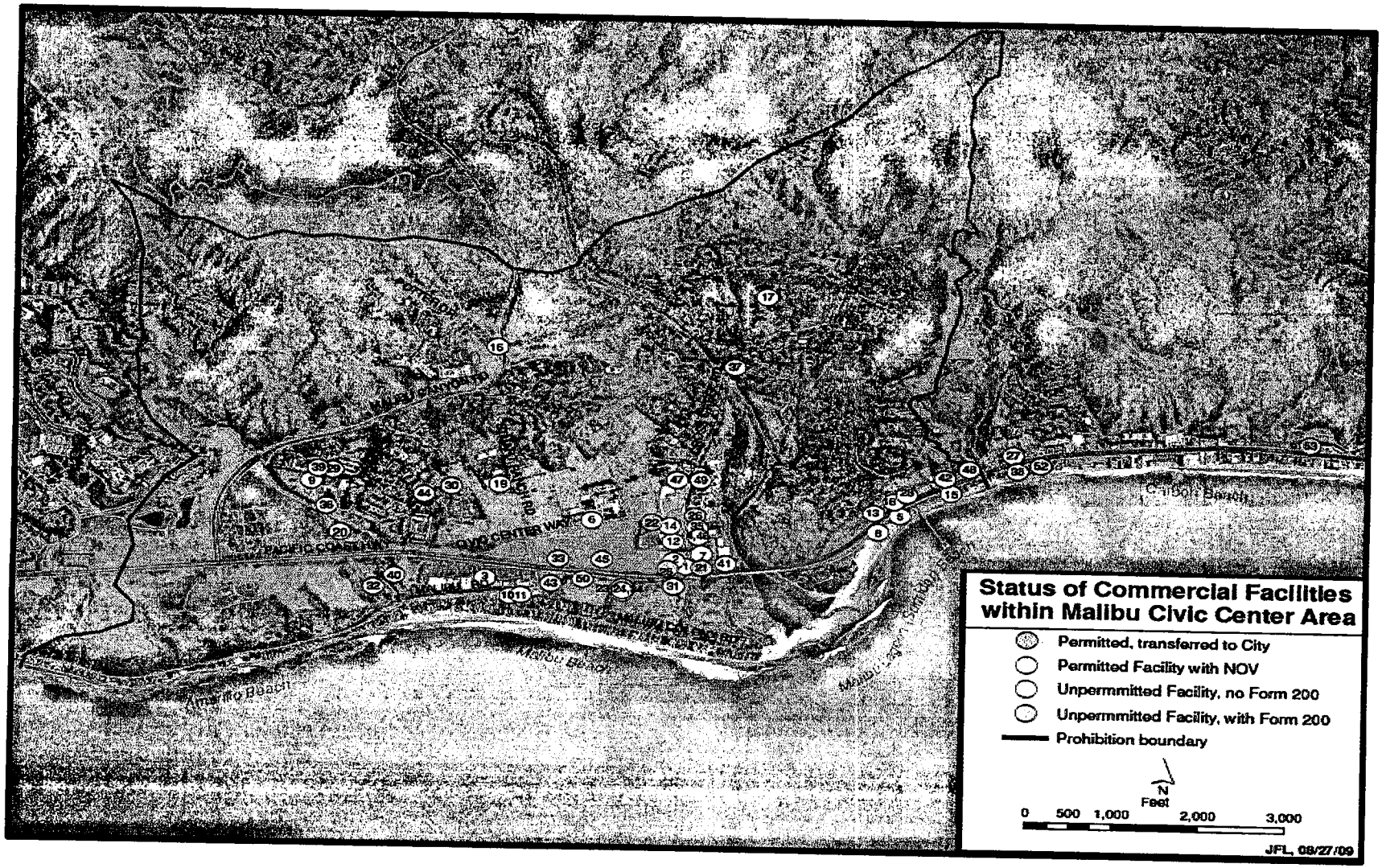
- Other sources of nitrogen impacting groundwater, including agriculture/livestock, lawn fertilization and storm water

Response: No direct pathway to the groundwater. Septic discharge is the primary nitrogen source.

- Methodology: (1)Ammonia (2)duplicate wells

Response: (1)Nitrification consistent with permitting (2) Conclusion remains the same with 3 wells double counts

Tech Memo #1
Dischargers Have Poor Records of Compliance with Regional Board Orders



Summary of Violations 2004-2009

Facility	TSO**	Non Submittal	Late Submittal	Non-reported Parameters	Discharge Violations	Perjury Statement	Material Change	Total Violation Counts
Fire Station No. 88*					77	1	1	79
HRL Laboratories		3	2			1		6
Jack In The Box		25						25
Malibu Administrative Center*					44	1	1	46
Malibu Colony Plaza	2	3	9		39	1	1	55
Malibu Beach Inn	2	3		4	33	1		43
Malibu Country Mart I	1	5	13	133		1		153
Malibu Country Mart II	1	5	14	133		1		154
Malibu Country Mart III	1	5	13	133		1		153
Malibu Lumber					18	1	1	20
Malibu Pier State Park*		4	7		1	1	1	14
Malibu Shores Motel		2	9		13	1	1	26
Malibu Creek Plaza Shopping Center (Malibu Village)	1		3		38			42
Malibu Water Pollution Control Plant*			9	400	235			644
Miramar Investment Co.		24						24
Morton Gerson Property		5	16		2			23
Prudential Malibu Realty			4					4
LA County Public Works Road Maintenance Yard*		1		3	120	1	1	126
Serra Retreat Center		24						24
Surfrider Beach*			4		3	1		8

Tech Memo #1
Conclusion

All Permitted dischargers have poor records of compliance with Regional Board Orders

Compliance (Tech Memo #1) Comments

- Objection to prohibition – suggest improvement in permitting, reporting, communication and compliance

Response: Repeat violations, startup and maintenance problems

- Revision to violations summary table

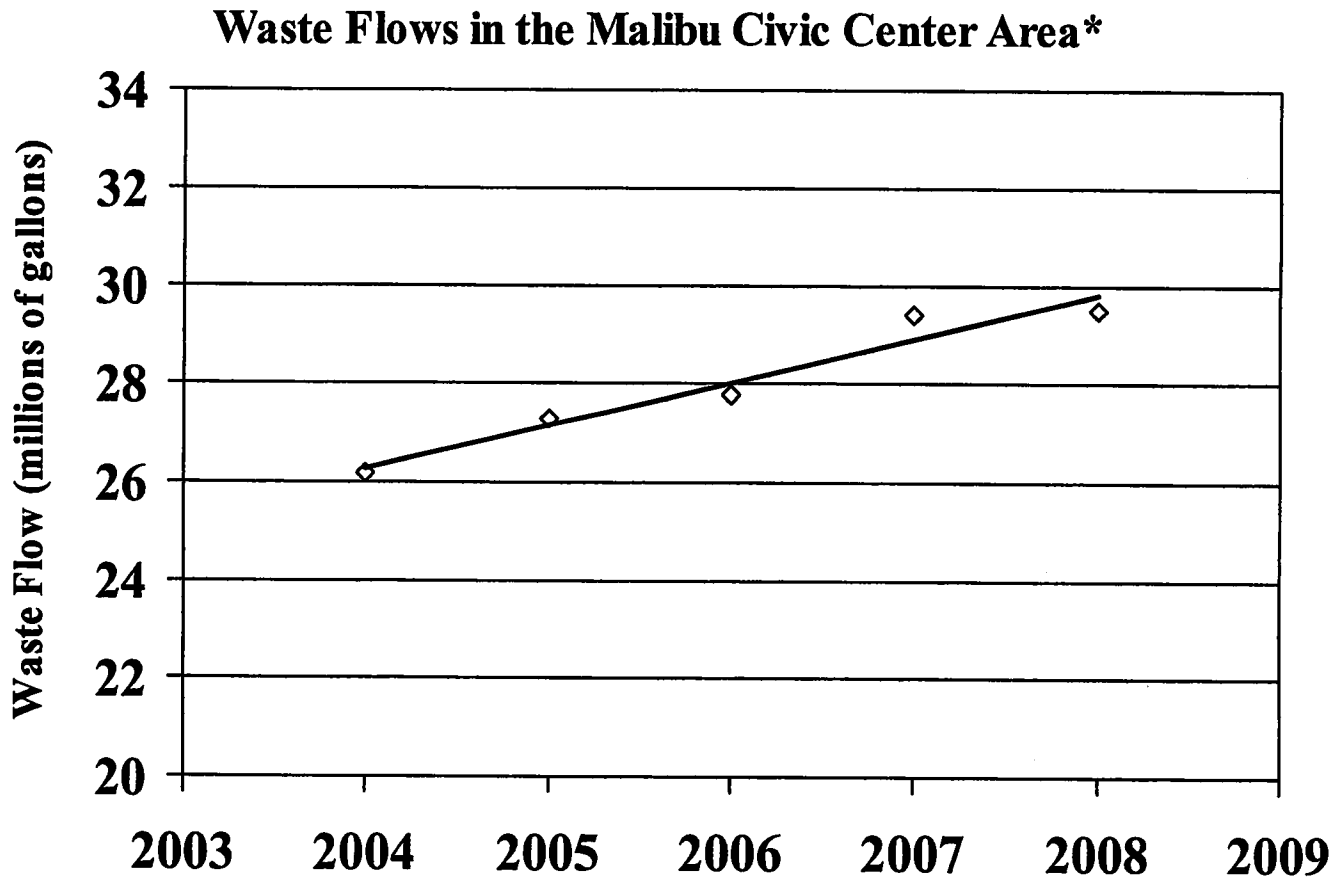
Response: Separate non-reported parameters and discharge violation. Revisions for HRL, Malibu Colony Plaza

Hauling Practices (Tech Memo #5)

- Land uses generate more wastewater than can be transmitted into the subsurface.
- Increasing reliance on hauling raw sewage off-site:
  - Carson (Joint Water Pollution Control Plant)

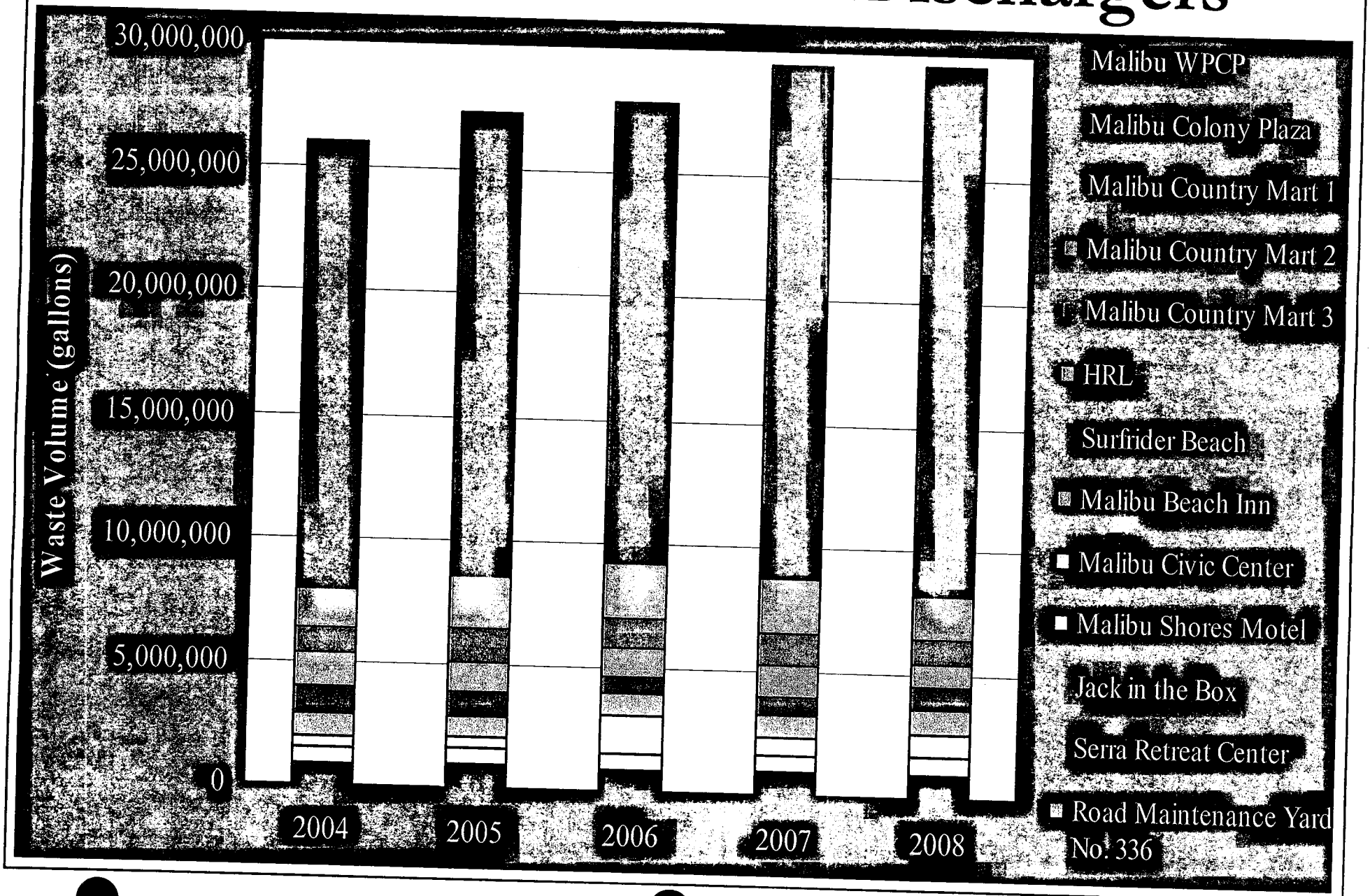
Waste Flow – Select Dischargers

- >13% increase from 2004 to 2008



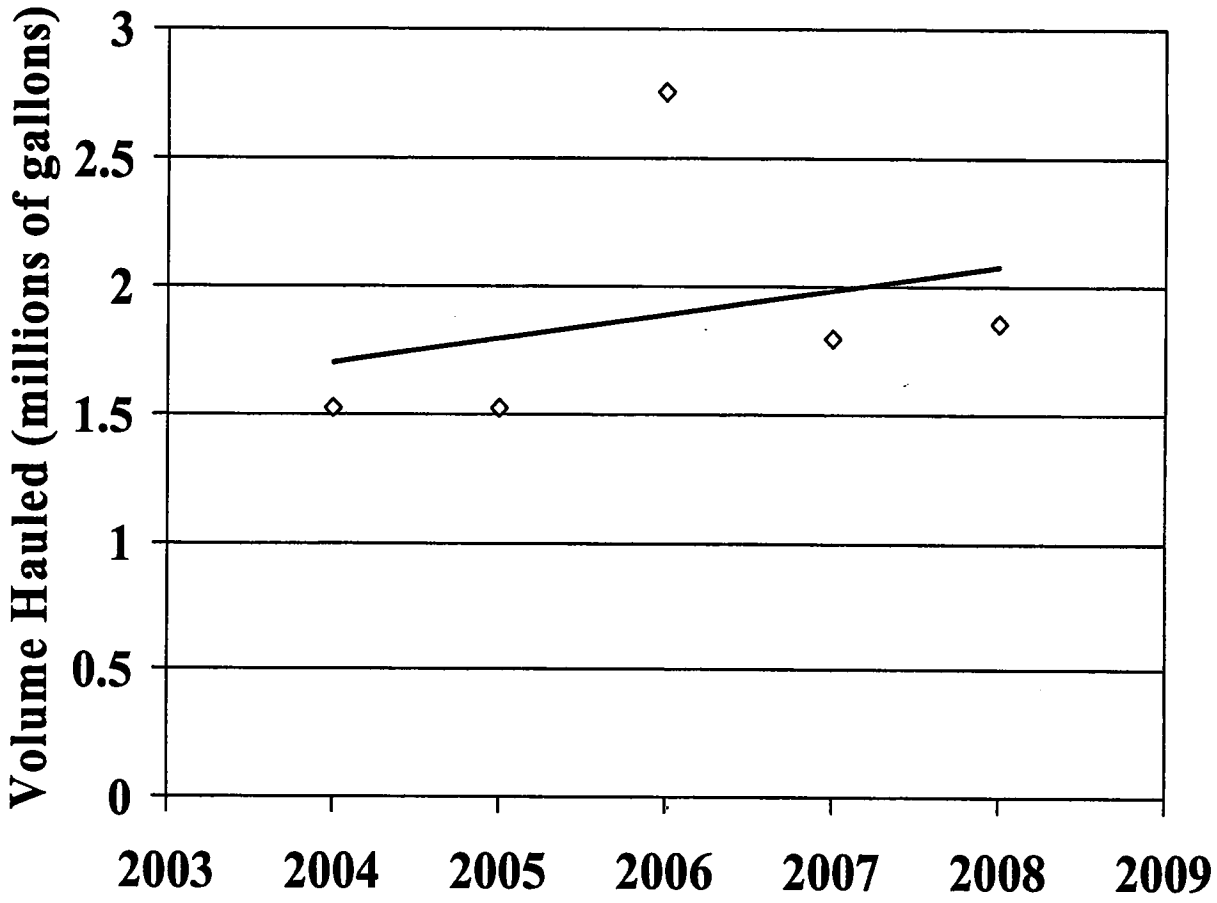
*Using original data set based on assumptions made by CA RWQCB staff. New information recently provided for Malibu Colony Plaza waste flow volumes is analyzed in slide 49.

Waste Flow – Select Dischargers



Hauling – Select Dischargers

- Over 6% of raw sewage is hauled off site.
- > 21% increase from 2004 to 2008



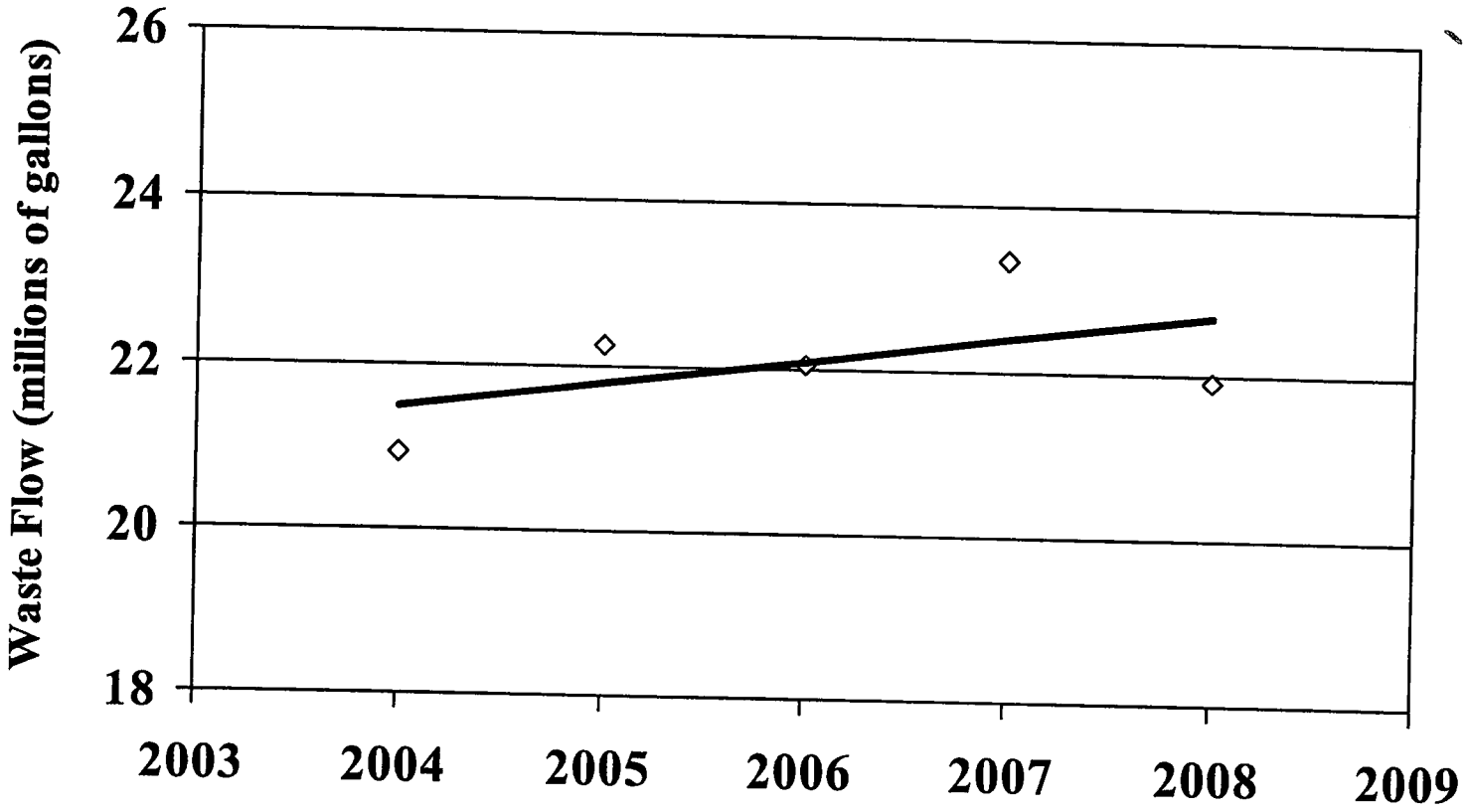
Hauling – Select Dischargers

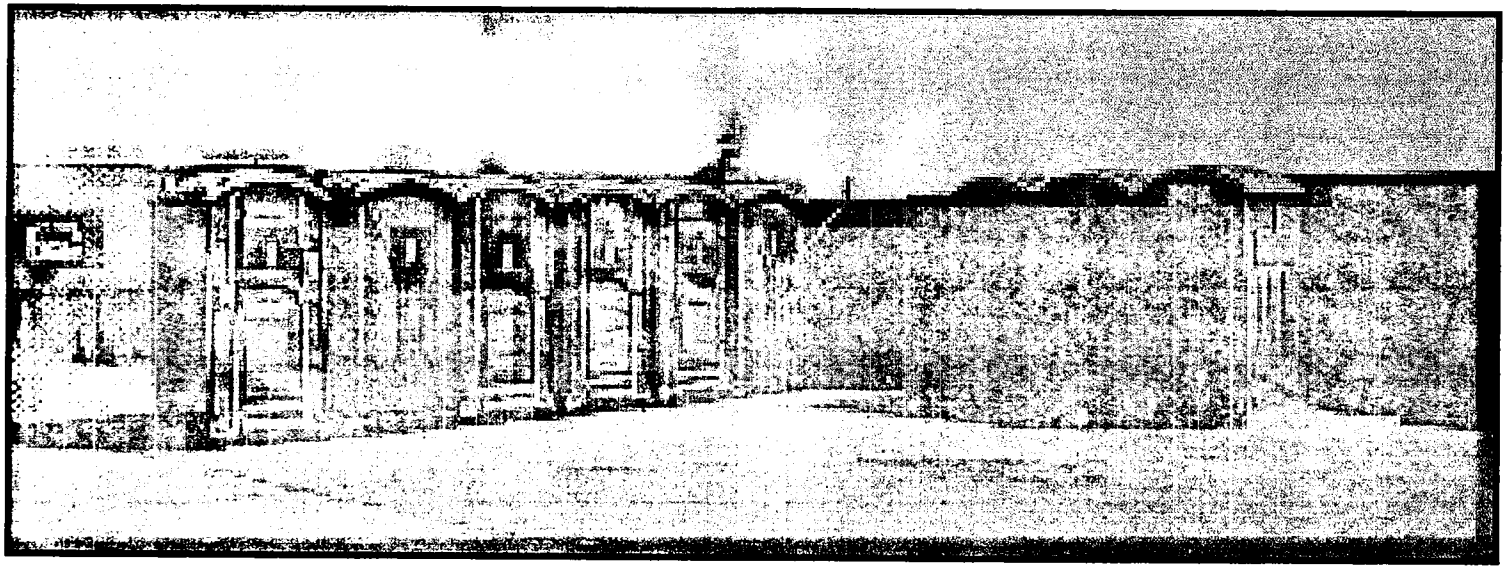
Wastewater Flow and Hauling (Tech Memo #5) Comments

- City – Asked that we use LA Co Waterworks District #29 data.
  - *Response: Agree.*
- City – Most spills cited occurred outside of the prohibition area (e.g. Paradise Cove)
  - *Response: Agree – staff eliminated spill data that had been in July 31st draft. However, within the prohibition boundaries, hauling is critical to preventing spills from stressed systems.*
- Malibu Bay Company – disputed numbers.

Wastewater Flow and Hauling (Tech Memo #5) Comments

Waste Flows in the Malibu Civic Center Area
Excluding Malibu Colony Plaza -- 5% increase





Surfrider Beach

CEQA and the Environmental Staff Report

- Several statutes and regulations dictate the contents of our environmental review document.
  - Title 14, California Code of Regulations, section 15251(g): The Regional Board's Basin Planning Program is a CEQA certified regulatory program
  - Title 23, CCR, section 3777: The State Board's CEQA regulation for exempt regulatory programs requires certain elements.
  - Title 14, CCR, section 15187: CEQA guidelines for the evaluation of a performance standard requires certain elements as well.

- But Water Code section 13360 prohibits the Regional Board from dictating the manner of compliance.

Alternatives to the Prohibition

- Continued hauling — *not reasonable*
- Initiative by local entity — *not recommended*
  - City
  - Existing or newly formed utility
  - Existing or newly formed water authority
  - Public benefit (non-profit) corporation
  - Privately-run organizations (for-profit corporations, partnerships, proprietors)
- No action — *not recommended*

Potential Methods of Compliance

- Conceptual projects to comply with 5-year schedule in prohibition by Nov 2014.
  - Centralized, integrated water resources facilities
  - Interceptor sewers
    - Export to Castellemare (Hyperion sewer)
    - Export to Tapia
  - Decentralized facilities

Estimated Capital Costs of Conceptual Projects

Component	Centralized, Integrated Facilities	Interceptor Sewer to a:		Decentralized Facilities
		Hyperion Connection	Tapia Connection	
Local Sewer System	$7,800,000	$7,800,000	$7,800,000	$7,800,000
Interceptor Sewer	--	$49,000,000	$72,500,000	--
Treatment Plant(s)	$5,900,000	--	--	$5,800,000
Recycled Distribution System	$3,000,000	0	0	$3,000,000
Total	$16,700,000	$56,800,000	$80,300,000	$16,600,000

Potential Significant Effects

- Potential adverse significant effects from construction of compliance project
  - Water flow, change of quality of GW (sec. 3)
  - Land use (sec. 8)
  - Transportation/Circulation (sec. 13)
  - Parks and recreation areas (sec. 14, 19)
  - OWDS abandonment (septic tanks, seepage pits) (sec. 16)

Overriding Considerations

- Compliance with the prohibition will have substantial benefits to water quality and will enhance beneficial uses, resulting in positive social, environmental, and economic benefits.
- The benefits outweigh the potential unavoidable environmental effects because of them are temporary, associated with the construction of a compliance project.

Structure of the Prohibition

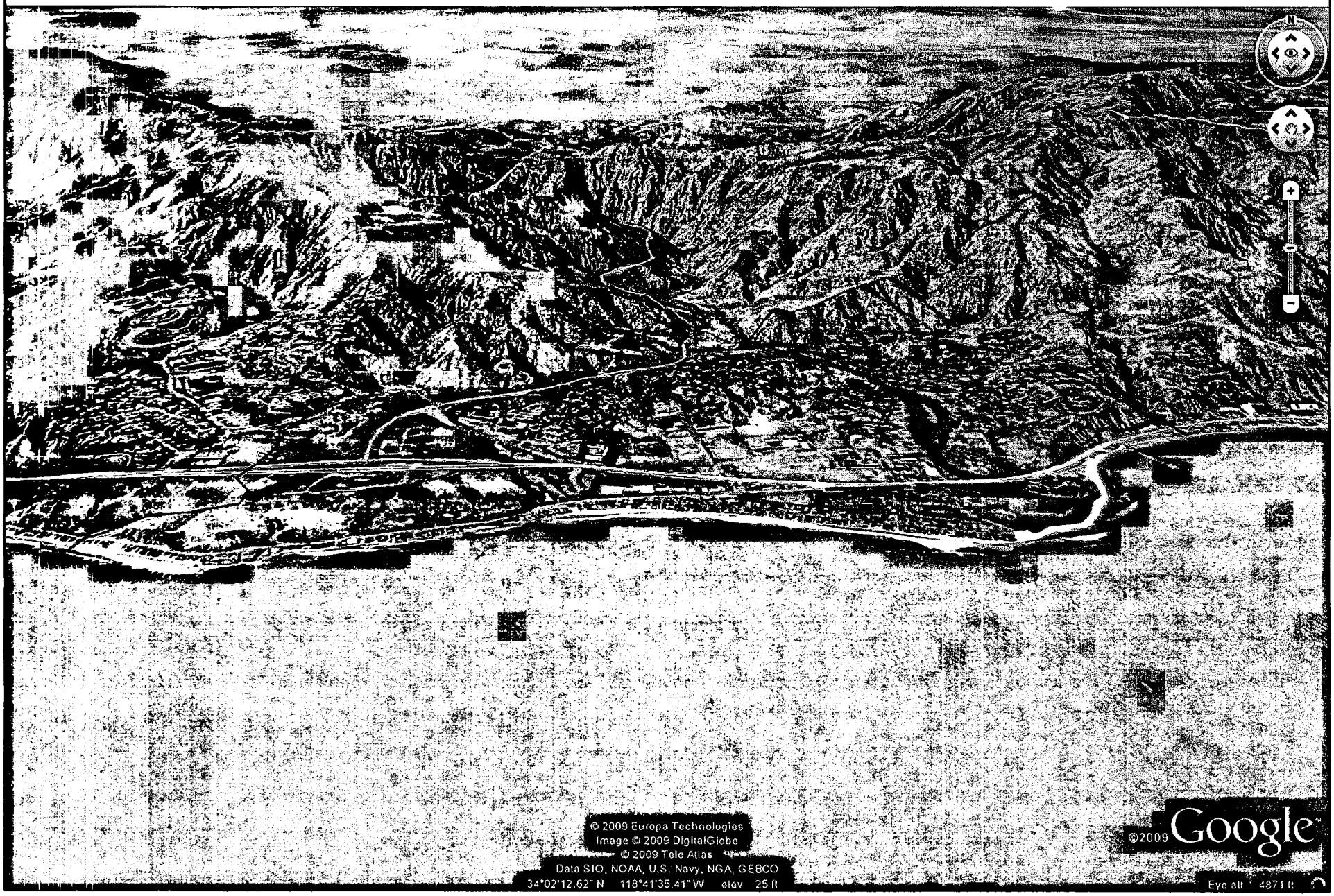
- Timing – 2014 deadline
- Boundaries
  - Eastern
  - Western
  - Beach front
- Exemptions
  - Other than maintenance and repair, no exemptions are proposed.

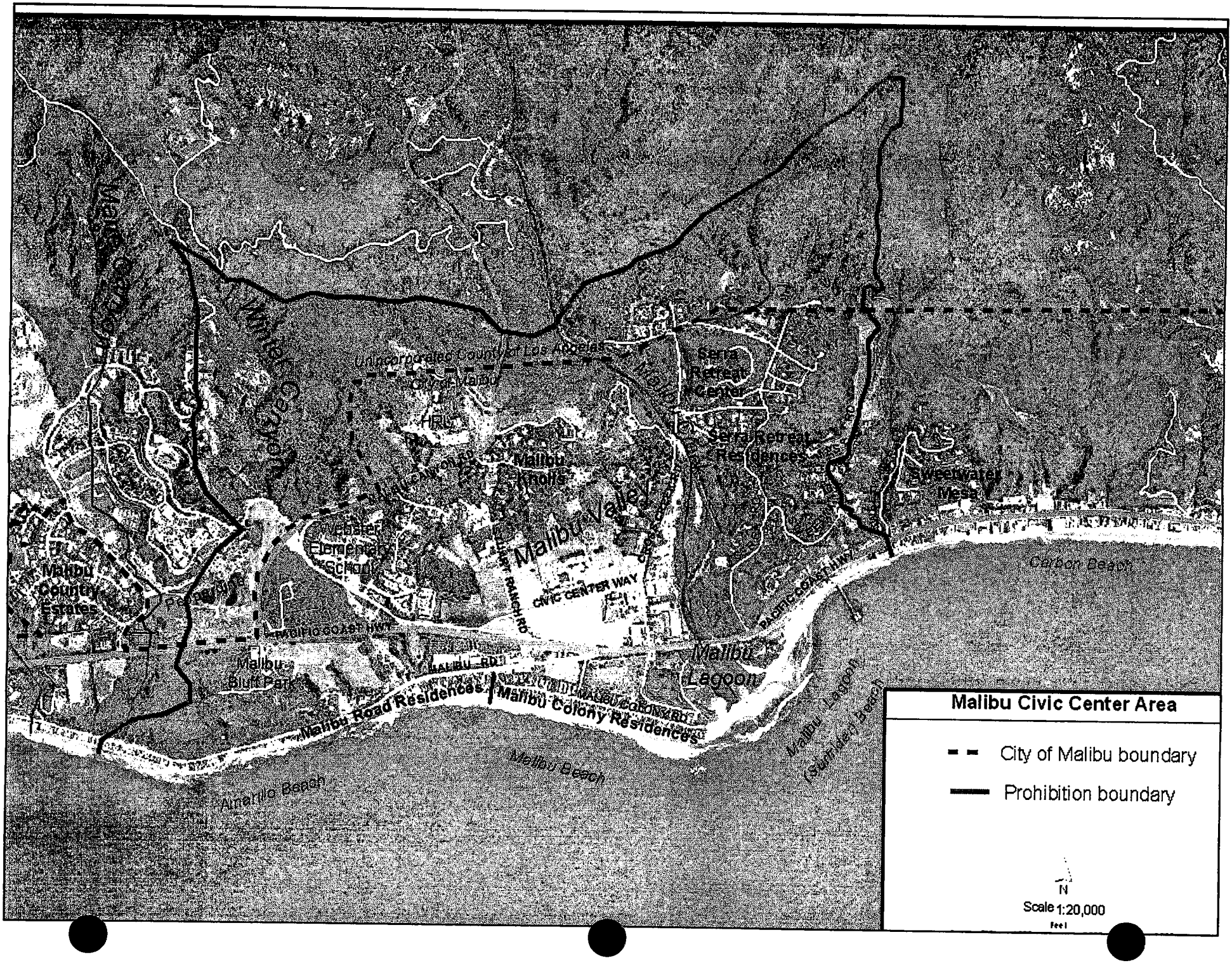
Structure does not exempt:

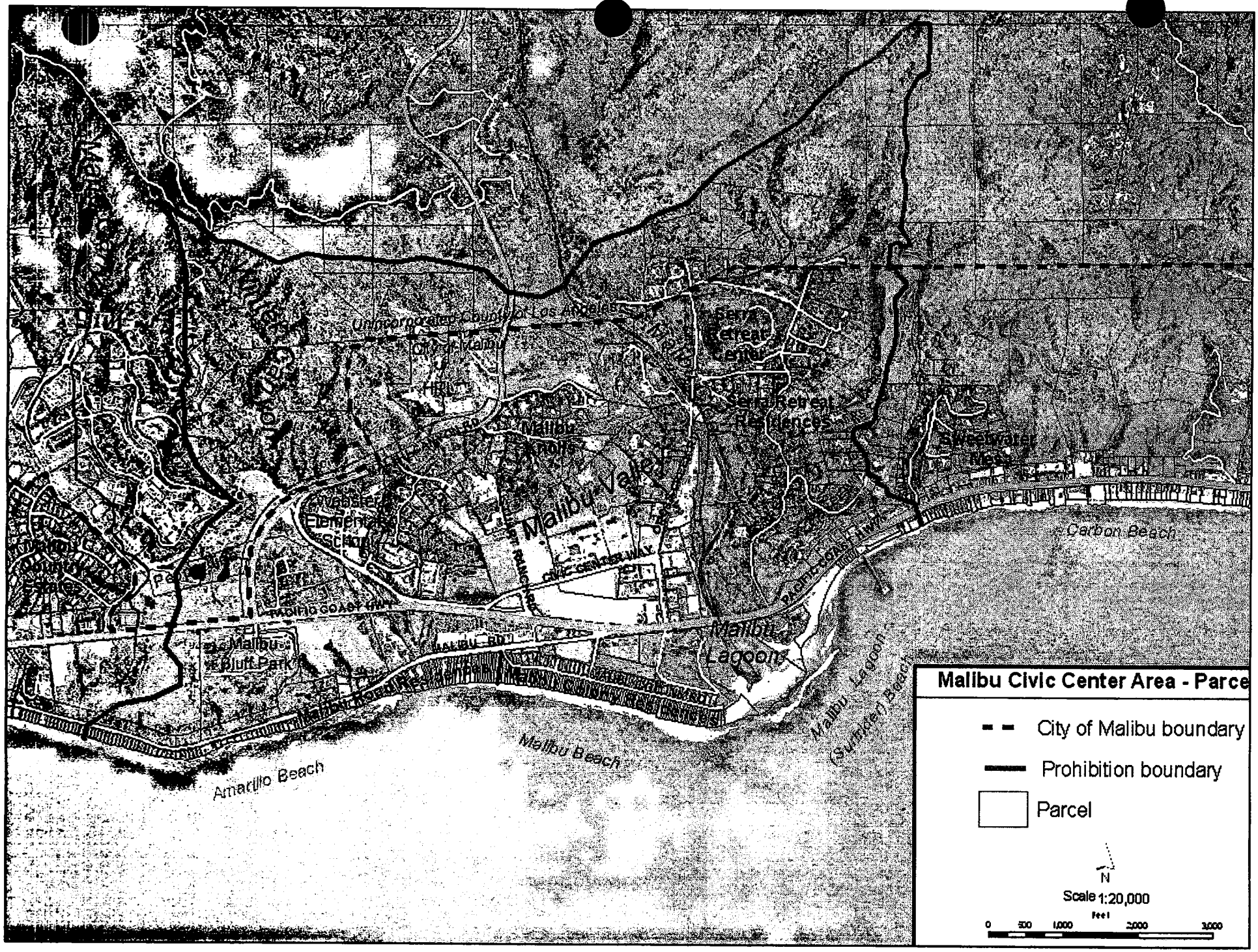
- Increased flows from existing homes or commercial facilities
  - *Informally, Malibu has submitted a request.*
- New projects in a local agency's permitting pipeline
  - *Staff has asked for a list of such projects, for Board consideration.*
- Future zero discharge projects

Objections to Boundaries

- Western boundary – contract to exclude Winter Canyon
  - Pepperdine
  - Our Lady of Malibu Church
  - MWPCP (Malibu Water Pollution Control Plant) – some of the residents (one of four HOAs, Embree)
  - Winter Canyon Plant (Malibu Colony Plaza)
  - Malibu Towing

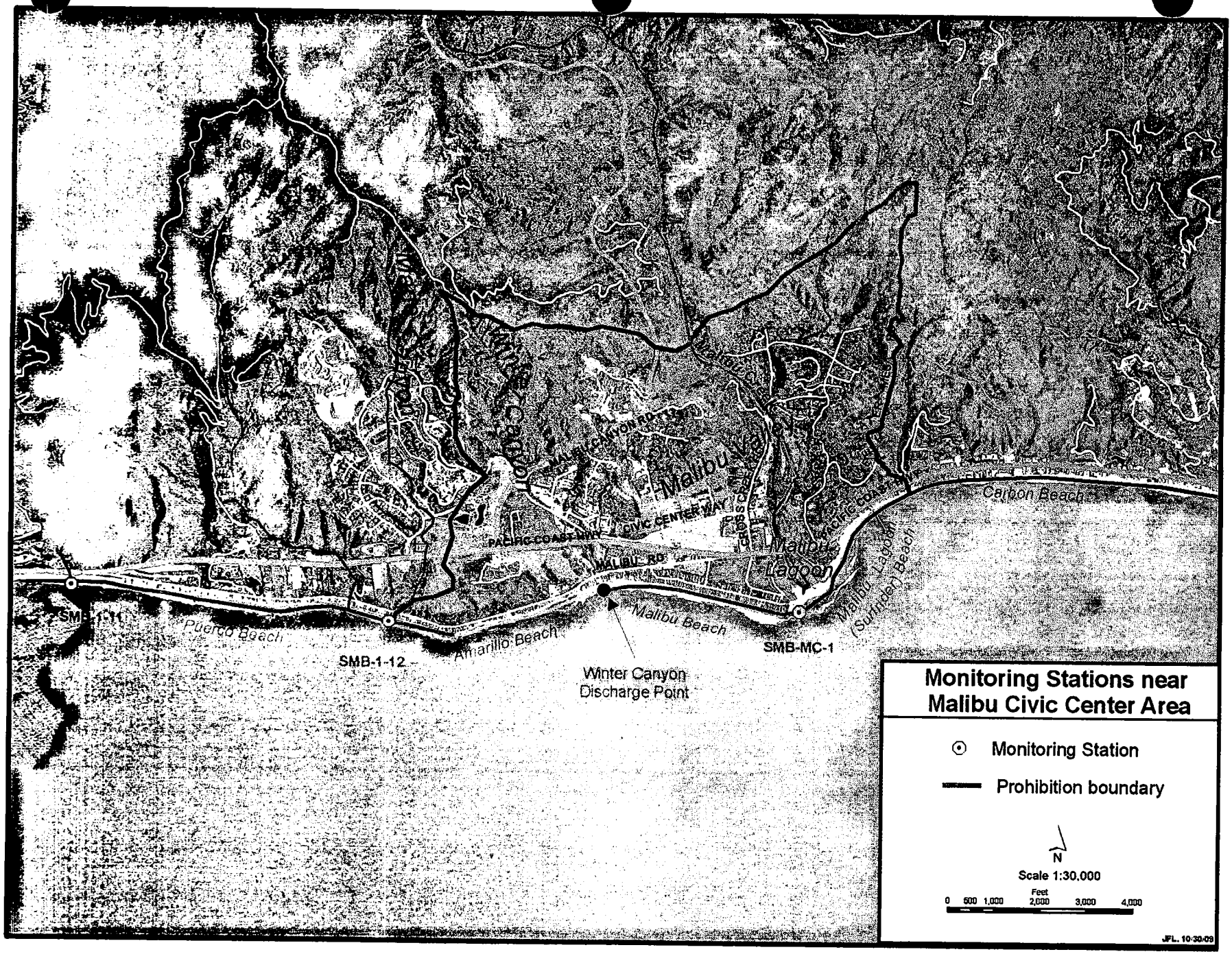

© 2009 Europa Technologies
Image © 2009 DigitalGlobe
© 2009 Tele Atlas
Data SIO, NOAA, U.S. Navy, NGA, GEBCO
34°02'12.62" N 118°41'35.41" W elev 25 ft
©2009 Google
Eye alt 4871 ft


Unincorporated County of Los Angeles
City of Malibu
Serra Retreat
Serra Retreat Residences
Malibu Knolls
Sweetwater Mesa
Webster Elementary School
Malibu Valley
Malibu Country Estates
Malibu Bluff Park
Malibu Lagoon
Malibu Road Residences
Malibu Colony Residences
Carbon Beach
Malibu Beach
Malibu Lagoon (Surfrider Beach)
Amarillo Beach
PACIFIC COAST HWY
MALIBU RD
CIVIC CENTER WAY
MALIBU RANCH RD
MALIBU COLONY RD
Malibu Civic Center Area
City of Malibu boundary
Prohibition boundary
N
Scale 1:20,000
feet


Malibu Civic Center Area - Parce
City of Malibu boundary
Prohibition boundary
Parcel
N
Scale 1:20,000
Feet
0 500 1,000 2,000 3,000
Malibu Lagoon
Malibu Beach
Amarillo Beach
Carbon Beach
Malibu Lagoon (Surfrider) Beach
Malibu Bluff Park
Malibu Knolls
Malibu Vista
Webster Elementary School
Civic Center Way
Pacific Coast Hwy
Malibu Rd
Unincorporated County of Los Angeles
City of Malibu
Serra Retreat
Serra Retreat Residences
Sweetwater Mesa

Objections to Winter Canyon

- Winter Canyon groundwater does not affect Malibu Lagoon.
  - *Response: Concur. (Other factors drive staff's recommendation).*
- Winter Canyon groundwater does not affect the beaches. No evidence of impairment on Amarillo Beach.
  - *Response: Groundwater is polluted. Although staff concurs that there is no Amarillo beach monitoring station, the stream in lower Winter Canyon still discharges into ocean. Surrounding beaches are impaired.*

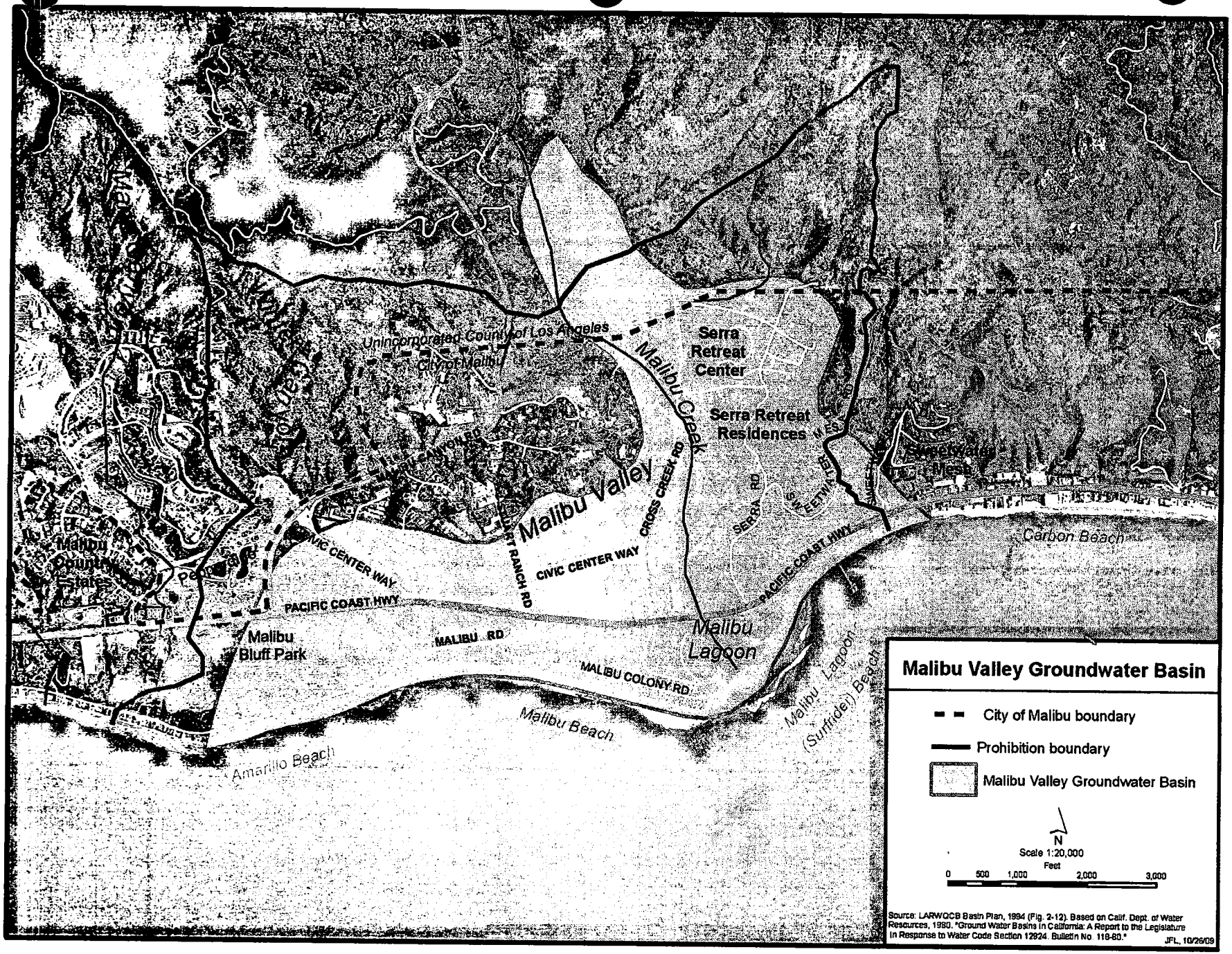

Malibu Canyon
MALIBU CANYON RD.
Malibu Valley
CIVIC CENTER WAY
PACIFIC COAST HWY
Cross Creek Rd.
Malibu Lagoon
MALIBU RD.
PACIFIC COAST HWY
Carbon Beach
Malibu Lagoon (Surfrider) Beach
Malibu Beach
Amarillo Beach
Puerco Beach
SMB-1-11
SMB-1-12
SMB-MC-1
Winter Canyon Discharge Point
Monitoring Stations near Malibu Civic Center Area
Monitoring Station
Prohibition boundary
N
Scale 1:30,000
Feet
0 500 1,000 2,000 3,000 4,000
JFL 10-30-09

Objections to Winter Canyon

- Groundwater is not suitable for drinking water.

- Groundwater in Winter Canyon is not part of Malibu Valley Groundwater Basin.

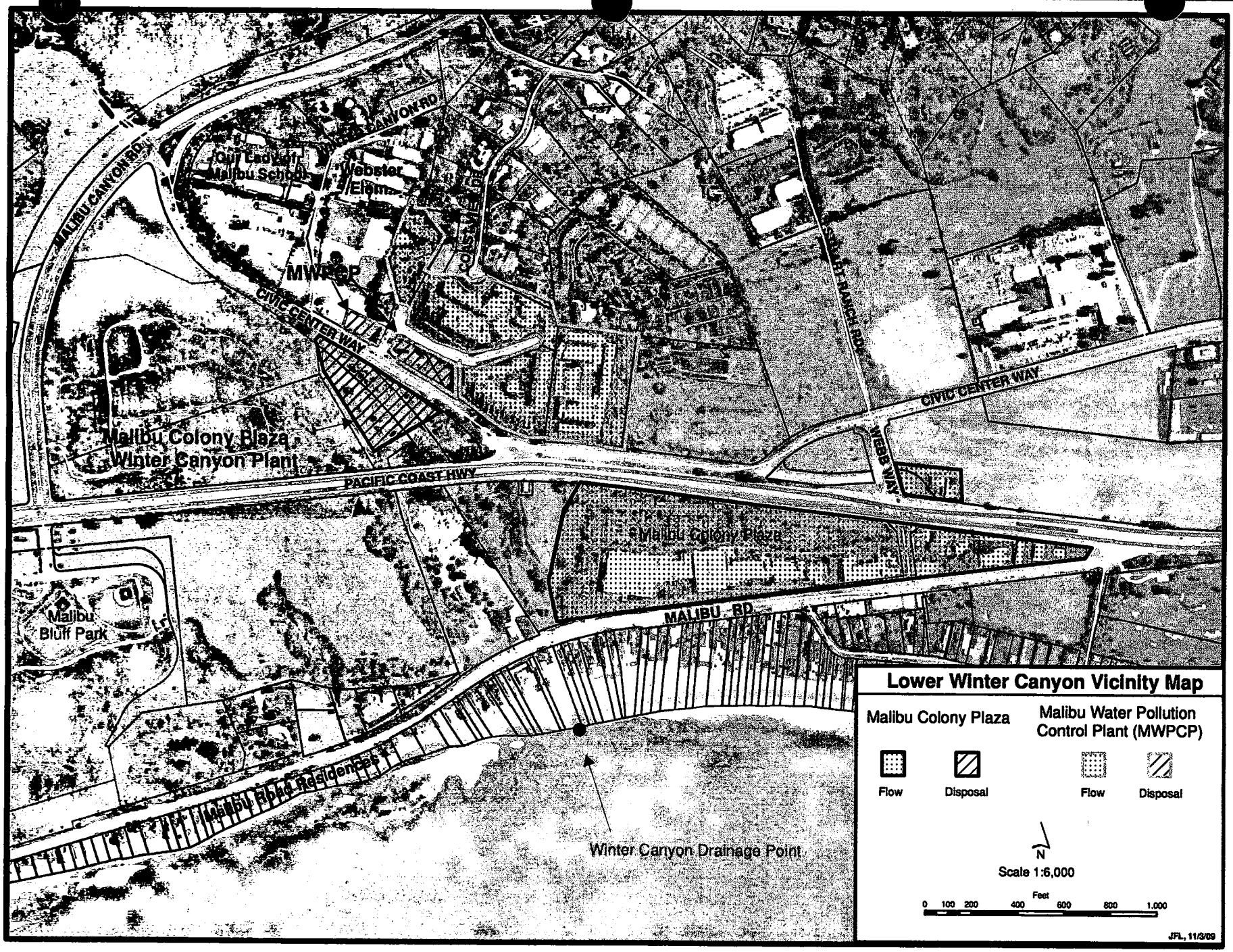
  - *Response: In accordance with the Basin Plan, staff has included Winter Canyon.*

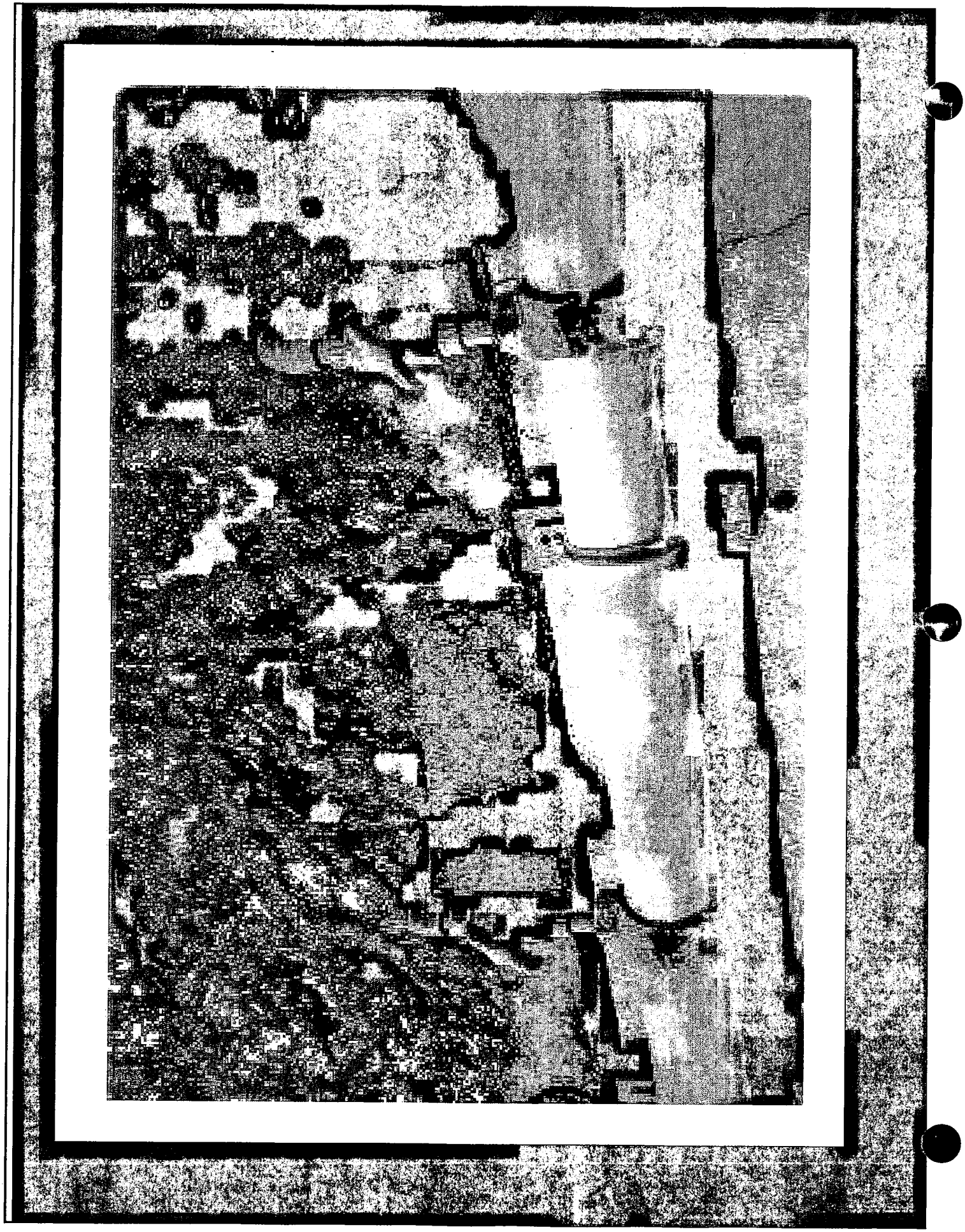

Malibu Valley Groundwater Basin
City of Malibu boundary
Prohibition boundary
Malibu Valley Groundwater Basin
N
Scale 1:20,000
Feet
0 500 1,000 2,000 3,000
Source: LARWQCB Basin Plan, 1994 (Fig. 2-12). Based on Calif. Dept. of Water Resources, 1980. "Ground Water Basins in California: A Report to the Legislature in Response to Water Code Section 12924. Bulletin No. 118-80."
JFL, 10/26/09
Unincorporated County of Los Angeles
City of Malibu
Malibu Valley
Malibu Creek
Cross Creek Rd
Serra Retreat Center
Serra Retreat Residences
Sweetwater Mesa
Carbon Beach
Malibu Lagoon
Malibu Lagoon (Surfrider) Beach
Malibu Beach
Amarillo Beach
Malibu Bluff Park
Malibu Point
Malibu Lagoon State
PACIFIC COAST HWY
MALIBU RD
MALIBU COLONY RD
CIVIC CENTER WAY
LAS FLORES CANYON RD
SERRA RD
WESTWARD BEACH RD

Objections to Winter Canyon

Other staff responses:

- *Approximately 50,000 gpd of wastewater flow:*
  - *Four multi-family complexes*
  - *Church, two elementary schools, nursery school*
  - *Includes transfer of sewage from Malibu Colony Plaza*
- *Concerns about sustainability:*
  - *High operating costs (MWPCP)*
  - *Capital costs*
    - *$2.6 million to replace MWPCP – 2021 life expectancy*
    - *$2.25 million recent incremental expenditures for Colony Plaza/Winter Canyon Plant – 2031 life expectancy*


MALIBU CANYON RD.
CANYON RD.
Our Lady of Malibu School
Webster Elem.
MWPCP
CIVIC CENTER WAY
Malibu Colony Plaza
Winter Canyon Plant
PACIFIC COAST HWY
CIVIC CENTER WAY
WEBB WAY
Malibu Colony Plaza
Malibu Bluff Park
MALIBU RD
Malibu Road Residences
Winter Canyon Drainage Point
Lower Winter Canyon Vicinity Map
Malibu Colony Plaza
Flow
Disposal
Malibu Water Pollution Control Plant (MWPCP)
Flow
Disposal
N
Scale 1:6,000
Feet
0 100 200 400 600 800 1,000
JFL, 11/3/09



Timing

- 2014 deadline is feasible.
  - Supported by:
    - Santa Monica Bay Restoration Commission
    - BayKeeper
    - Heal the Bay
    - Surfing Association
  - Opposed by:
    - City
    - School District
    - Most WDR Dischargers
    - Most Other Dischargers and Many Other Stakeholders

Other Concerns

- Take a collaborative approach
- Unfair to dischargers with significant OWDS investments
- Objections to the process (noticing, outreach, TMDLs, peer reviews)
- Tapia
- Berm
- Serra Retreat compliance
- Legal issues

Conclusion

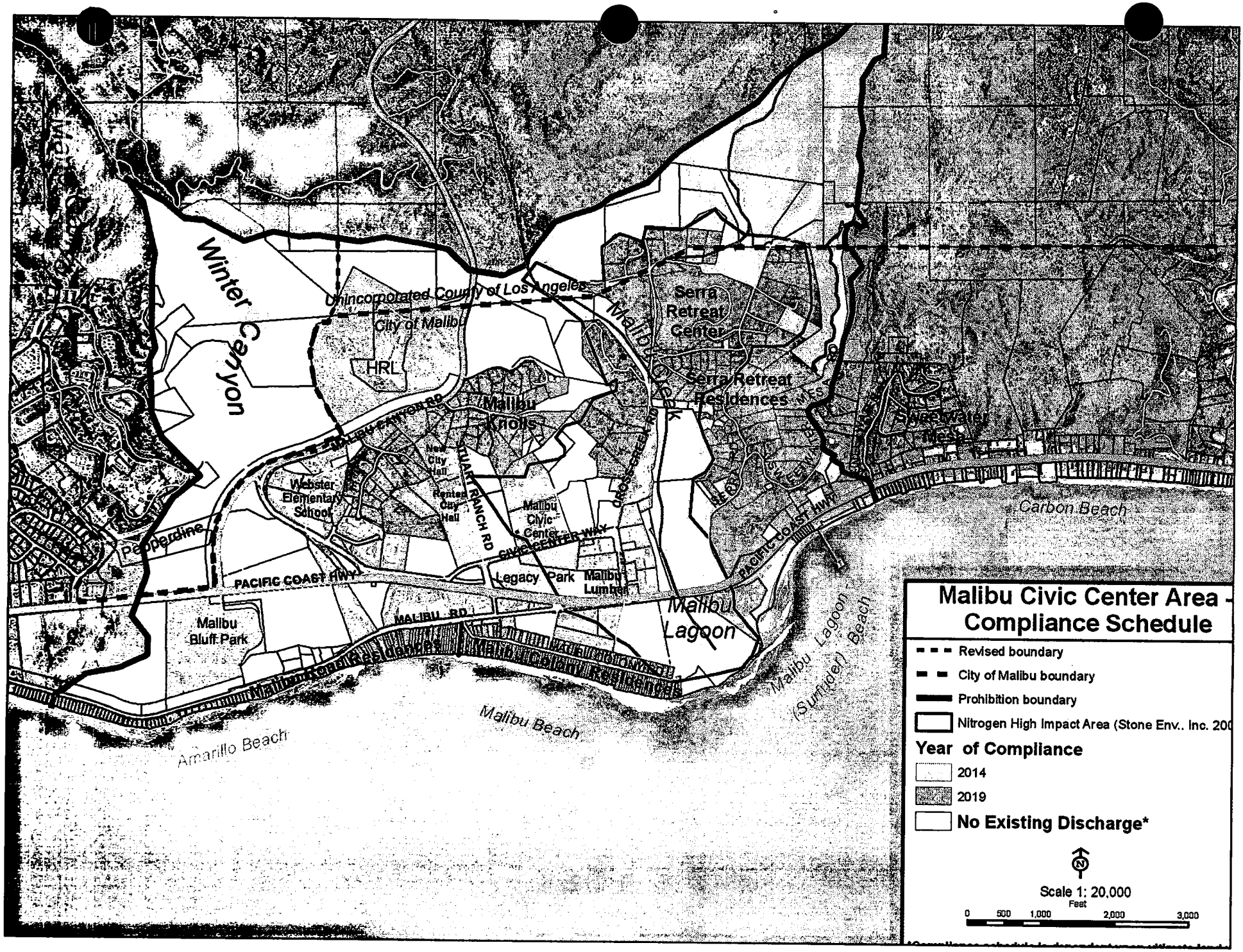
In the proposed prohibition area:

- OWDSs impair:
  - Beaches
  - Malibu Lagoon
  - Groundwater
- Dischargers under Regional Board Orders have poor compliance records
- 'Hauling' – there is heavy reliance by many dischargers on hauling, in order to handle flows that cannot be discharged on their sites or nearby disposal fields.

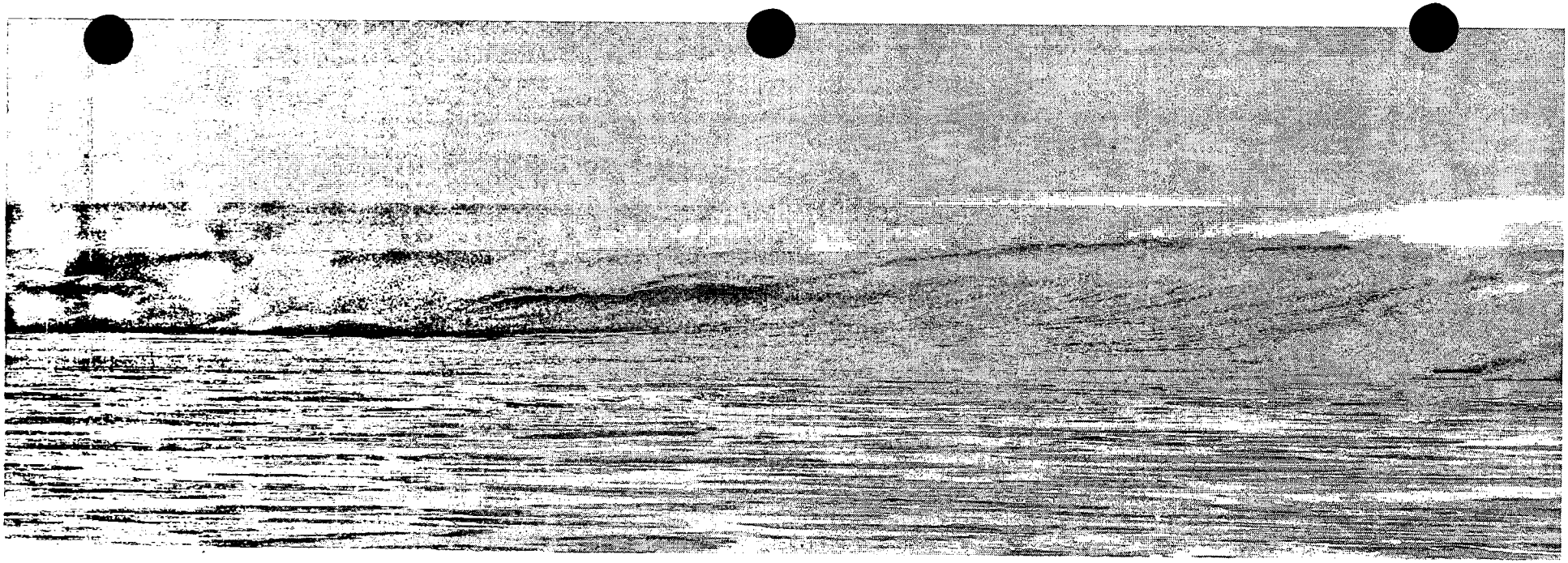
Recommendation

Adopt Resolution to:

- Certify substitute environmental documentation
- Prohibit discharge from OWDSs:
  - Covering all dischargers (no exemptions, except for repairs and replacements)
  - Timing
    - Nov 5, 2009 new dischargers
    - Nov 4, 2014 for existing dischargers


Malibu Civic Center Area - Compliance Schedule
Revised boundary
City of Malibu boundary
Prohibition boundary
Nitrogen High Impact Area (Stone Env., Inc. 200
Year of Compliance
2014
2019
No Existing Discharge*
Scale 1: 20,000
Feet
0 500 1,000 2,000 3,000
Winter Canyon
Unincorporated County of Los Angeles
City of Malibu
HRL
Malibu Knolls
Serra Retreat Center
Serra Retreat Residences
Malibu Creek Park
Sweetwater Mesa
Webster Elementary School
New City Hall
Rented City Hall
Stuart Ranch Rd
Malibu Civic Center
Civic Center Way
Cross Creek Rd
Pepperdine
Pacific Coast Hwy
Legacy Park
Malibu Lumber
Malibu Bluff Park
Malibu Lagoon
Malibu Colony Residences
Malibu Beach
Amarillo Beach
Carbon Beach
(Surfrider) Beach

Presentation by
City of Malibu reps



2-675

Presentation To The Los Angeles Regional Water Quality Control Board

Proposed Prohibition Of On-Site Wastewater Disposal Systems In Malibu

- City Offers Alternate Plan -

November 5, 2009

Table Of Contents

- Malibu's Vision & Accomplishments
- Summary Of City's Alternate Plan
- New Emerging Scientific Data
- Fatal Flaws With Regional Board's Proposed Prohibition
- Alternate Plan Components
- Conclusion

Malibu's Vision & Accomplishments

2-677

MALIBU LEGACY PARK PROJECT

FULFILL A DREAM, LEAVE A LEGACY

Malibu Shares Vision For Clean Water

- City shares your vision & mandate for clean water - health & safety of our residents and visitors is our top priority

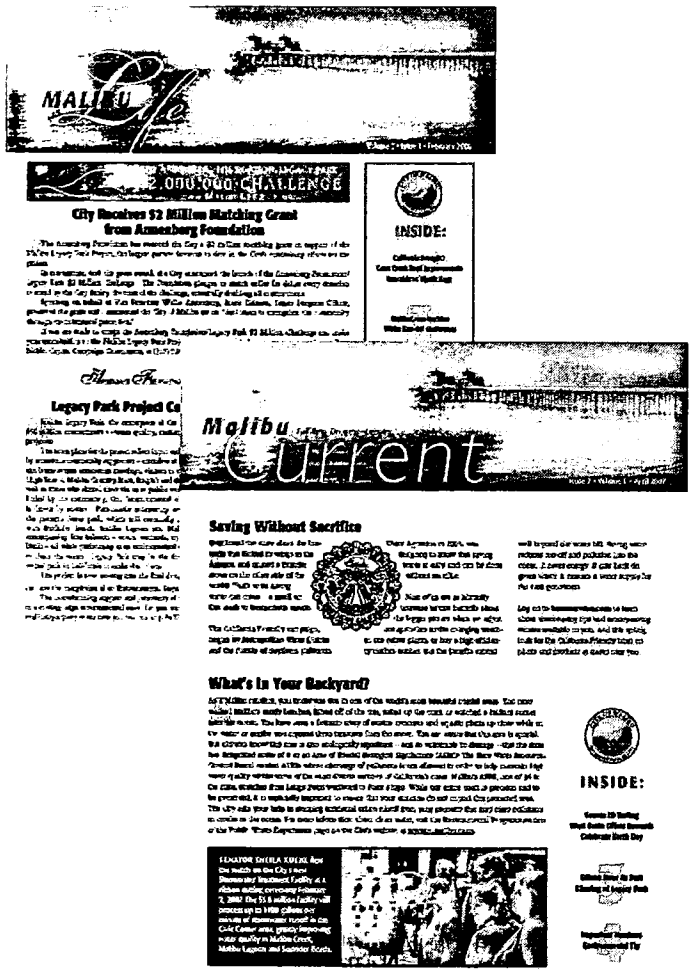
- Aggressively moving forward to improve water quality and protect the public's health and our aquatic habitat

- Achieving significant progress in implementing new stormwater & wastewater programs to improve regional water quality
  - City spends more per capital on water quality projects than any other city in California

- City commits to working closely with Board, staff & stakeholders to implement a responsible course of action – let's cooperatively achieve a solution

Malibu Is A Responsible Environmental Steward

City engages residents through public education & outreach programs on coastal pollution & water quality:



- Ban smoking on beaches
- Ban use of expanded polystyrene
- Ban use of plastic bags
- Implement water conservation programs
- Require native vegetation on new projects
- Require WQMP & compliance with SUSMP
- Continue public education & outreach programs
- Participate in funding radio & TV spots
- Participate in funding of water quality testing
- Create a "water education" quarterly newsletter
- Host Water Quality Symposium

Malibu's Major Water Quality Construction Achievements 2006-2009

DATE	PROJECT	COST
2006	Legacy Park Land Purchase	$25.0 M
2007	Malibu Creek Civic Center Stormwater Treatment Facility	$6.0 M
2007	Cross Creek Road (Low Impact Development) Improvements	$5.0 M
2008	Las Flores Creek Bank Stabilization & Restoration Project	$4.0 M
2008	Marie Canyon Stormwater Treatment Facility (LA County)	$1.2 M
2009	Legacy Park	$10.0 M
2009	Paradise Cove Stormwater Treatment Facility	$1.1 M
	TOTAL:	**$52.3 M**

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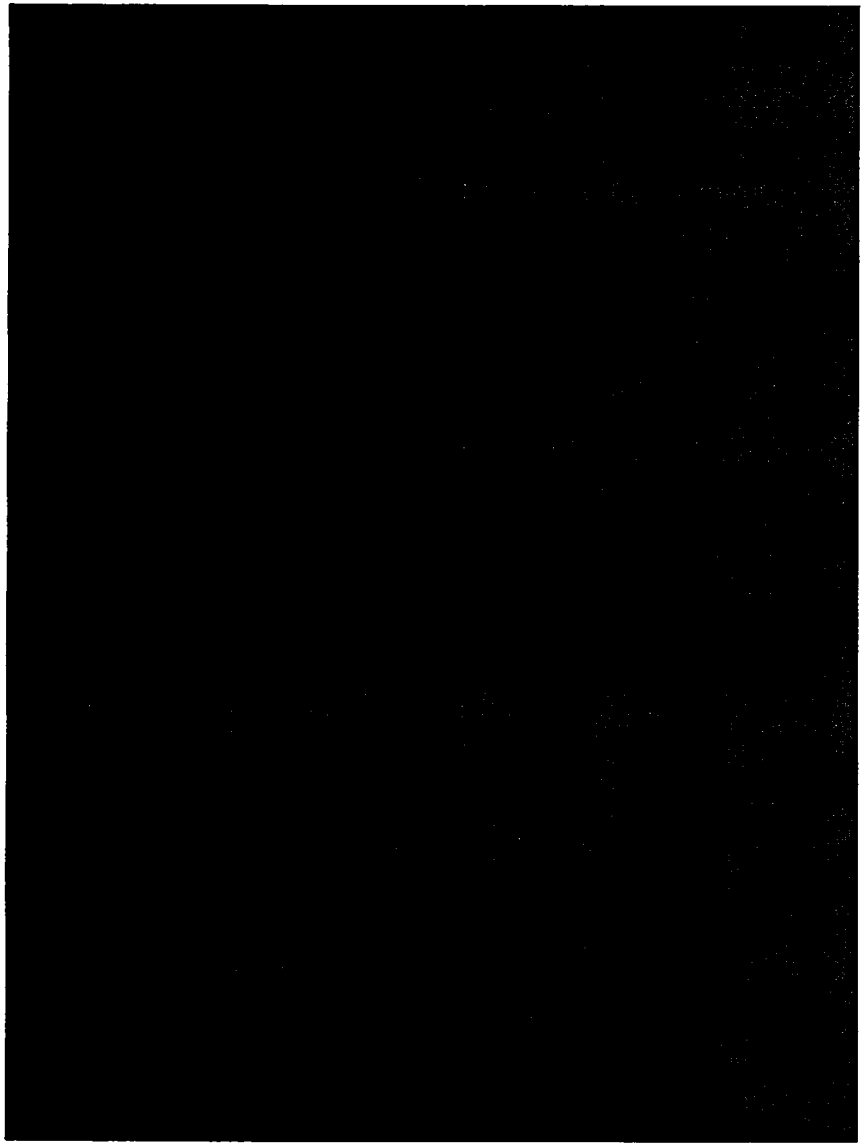
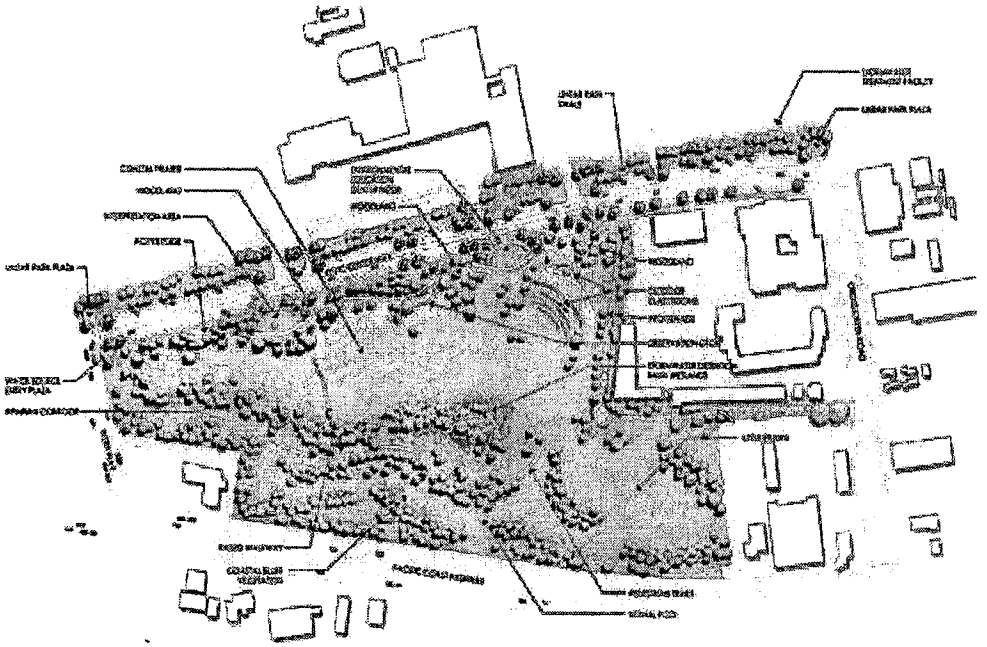
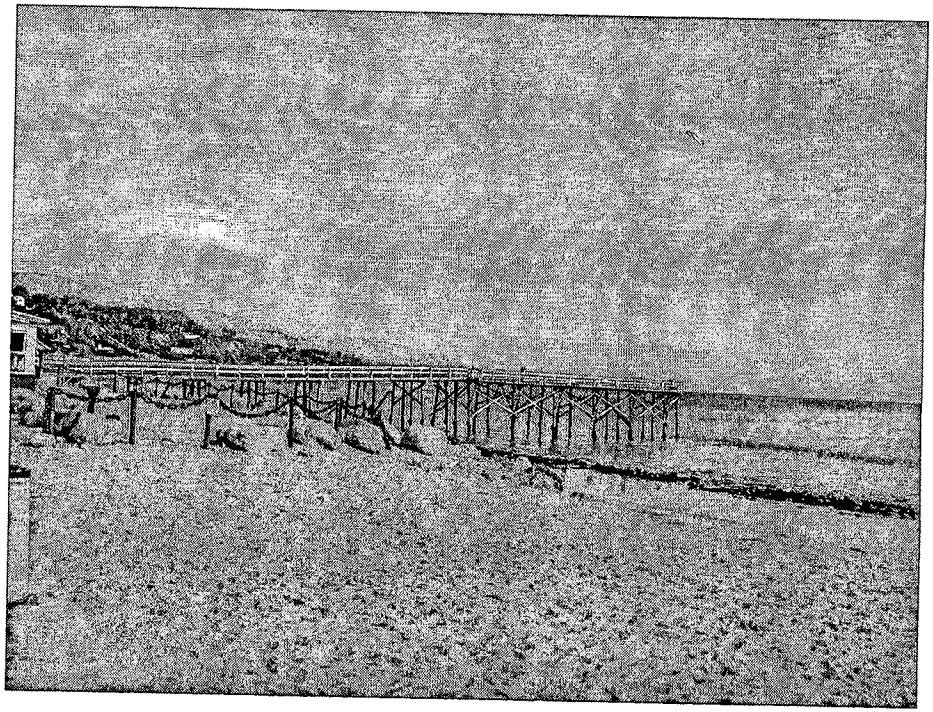
Progress On Stormwater





Progress On Stormwater

- Stormwater Treatment Facility to be constructed in Malibu
- Another major step moving forward in improving coastal water quality
- $1 million project to capture, clean and disinfect stormwater & urban runoff from Las Flores Beach (Ramirez Creek watershed)
- Captures and treats more than 900 gallons per day of stormwater and urban runoff
- Construction to be completed March 2010



City & Regional Board Cooperating On Wastewater Permitting

- Historically a productive, healthy & collaborative relationship - Promoting mutual interest in protecting water quality

- ✓ ***Point of Sale Ordinance:*** *Mandates inspection and certification of septic system upon sale of property*
- ✓ ***Operating Permit Program:*** *All properties enrolled into program are required to obtain inspection and certification on established timeframes*
- ✓ ***IWIMS:*** *Computerized program that maintains database info on all septic systems*
- ✓ ***Inspection Program:*** *Inspectors are required to become "certified" through City training in order to provide service to residents*
- ✓ ***Water Resource Management:*** *Ordinances adopted requiring water conservation, use of low flow fixtures, and water conserving landscaping*
- ✓ ***OWTS Manuals:*** *City produced and mailed OWTS manuals to all residents*
- ✓ ***Mandatory Septic Upgrades:***
  - ✓ *<u>Residential</u> properties that increase fixture counts are required to upgrade to secondary treatment and disinfection*
  - ✓ *<u>Commercial</u> properties that do building upgrades are required to install secondary treatment and disinfection*

Progress On Centralized Wastewater Treatment Facility

- Completed background analysis and preliminary design
- City Council approved $2.6 million in January 2009
- Authorized to begin design and EIR for the WWTF
- Approved the La Paz project with Development Agreement that allows for potential dedication of 2.3 acres to construct WWTF

Summary of City's Alternate Plan

2-685

Malibu Offers Alternate Plan

- City opposes blanket septic prohibition:
  - Technical and scientific flaws
  - Boundaries too broad and without justification
  - Requires a significant plant size without regard to dispersal area
  - Timeline is not achievable
  - City submitted comment letters & clarifying correspondence on: Oct. 8, 13, 28, 29 & 30 and Nov. 3

- City offers Alternate Plan for Board's consideration:
  - Plan complies with mandate to clean local waters
  - Smaller boundary; targets high impact regions
  - Addresses key stakeholder concerns
  - Achievable timeline with enforcement provisions

- Opportunity exists for City, Regional Board, residents & stakeholder groups to craft viable alternative

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New Emerging Data Will Help Refine City's Alternate Plan

New Emerging Data On Stormwater

- **Bruce Douglas, PE Stone Environmental, Inc.**
- **Dr. Richard Laton, CSUF**
  Groundwater Modeling Study/Malibu Civic Center

STONE ENVIRONMENTAL INC

- **Dr. John Izbicki, USGS**
  Water Resources Study/Malibu Creek, Lagoon & Surfrider Beach

- **Vanessa Thulsiraj on behalf of Dr. Richard Ambrose, UCLA**
  Human Specific Bacteriodes Study/Malibu Creek, Lagoon & Surfrider Beach

- **Southern California Coastal Water Research Project - SCCWRP**
  Epidemiology & Water Quality Monitoring Study-Surfrider Beach
  Malibu Source ID Study/Ramirez & Escondido Creeks

Expert Testimony

Dr. Richard Laton,

California State University, Fullerton

Groundwater Modeling Study/Malibu Civic Center

2-689

Civic Center Hydrology

Consulting Team:	**Stone Environmental, Inc.** **McDonald Morrissey Associates, Inc.** **Earth Consultants International, Inc.**
Presented by:	**W. Richard Laton, Ph.D., PG, CPG** **Earth Consultants International, Inc.**

Los Angeles Regional Water Quality Control Board,

Los Angeles, California

November 5, 2009

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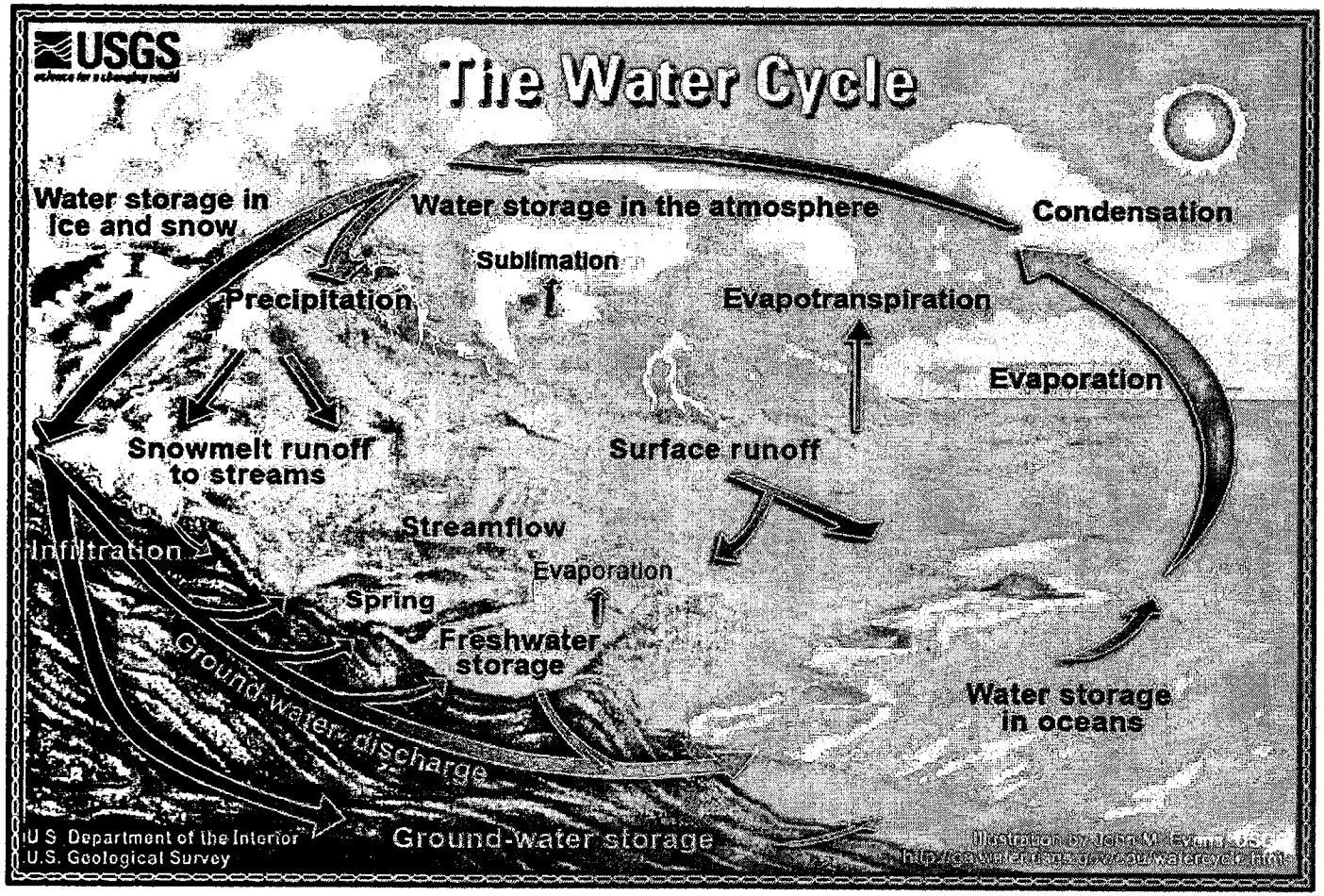
2-699

The Water Cycle



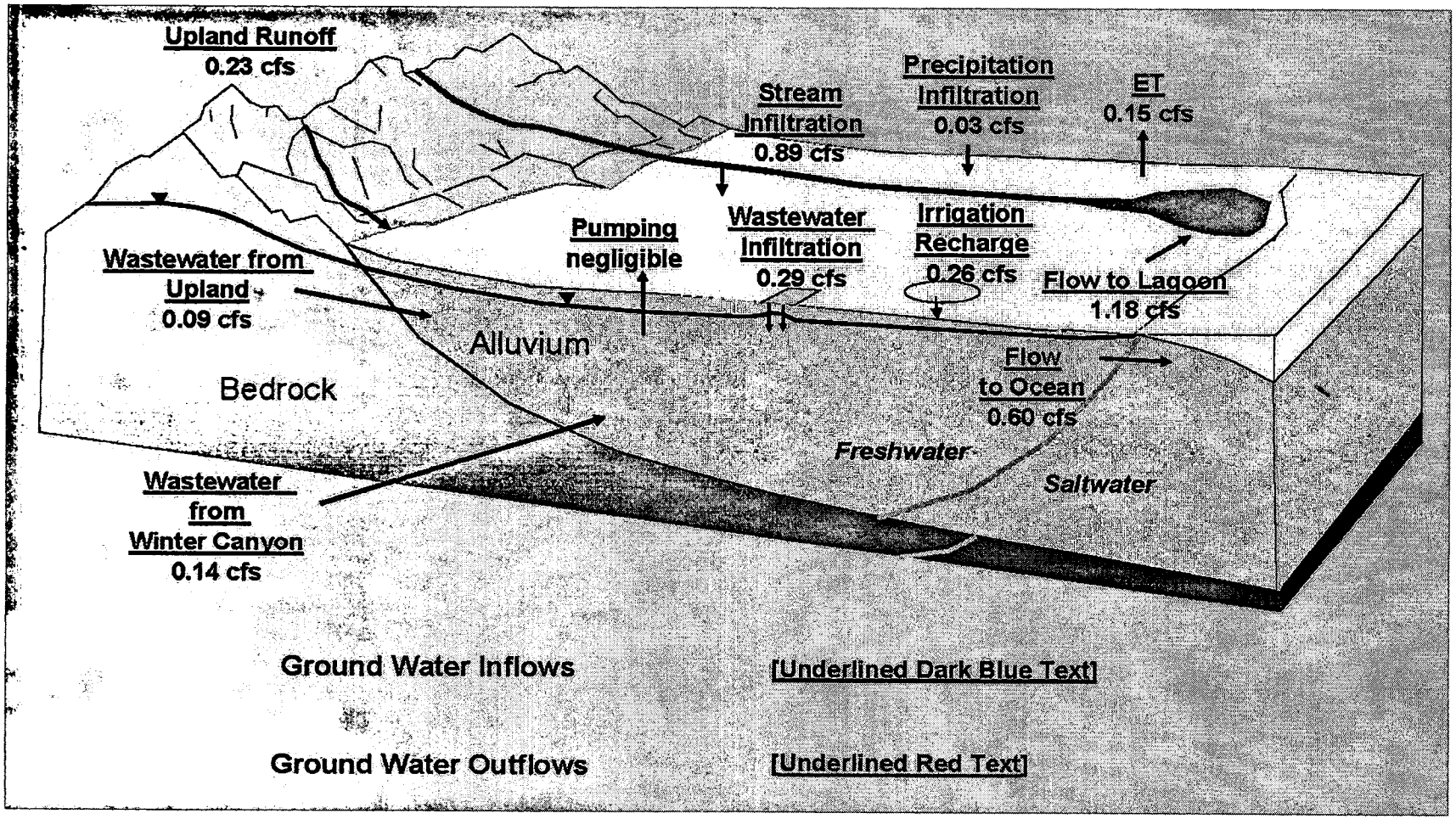
Source: http://ga.water.usgs.gov/edu/watercycle.html

Earth Consultants International

Malibu Downtown Area
Well Location Map

N

Civic Center Area Water Cycle



Generalized block diagram summarizing estimated average annual groundwater budget for the Malibu alluvium in the Civic Center area. Source: Stone Environmental Inc. and McDonald Morrissey Inc., 2004.

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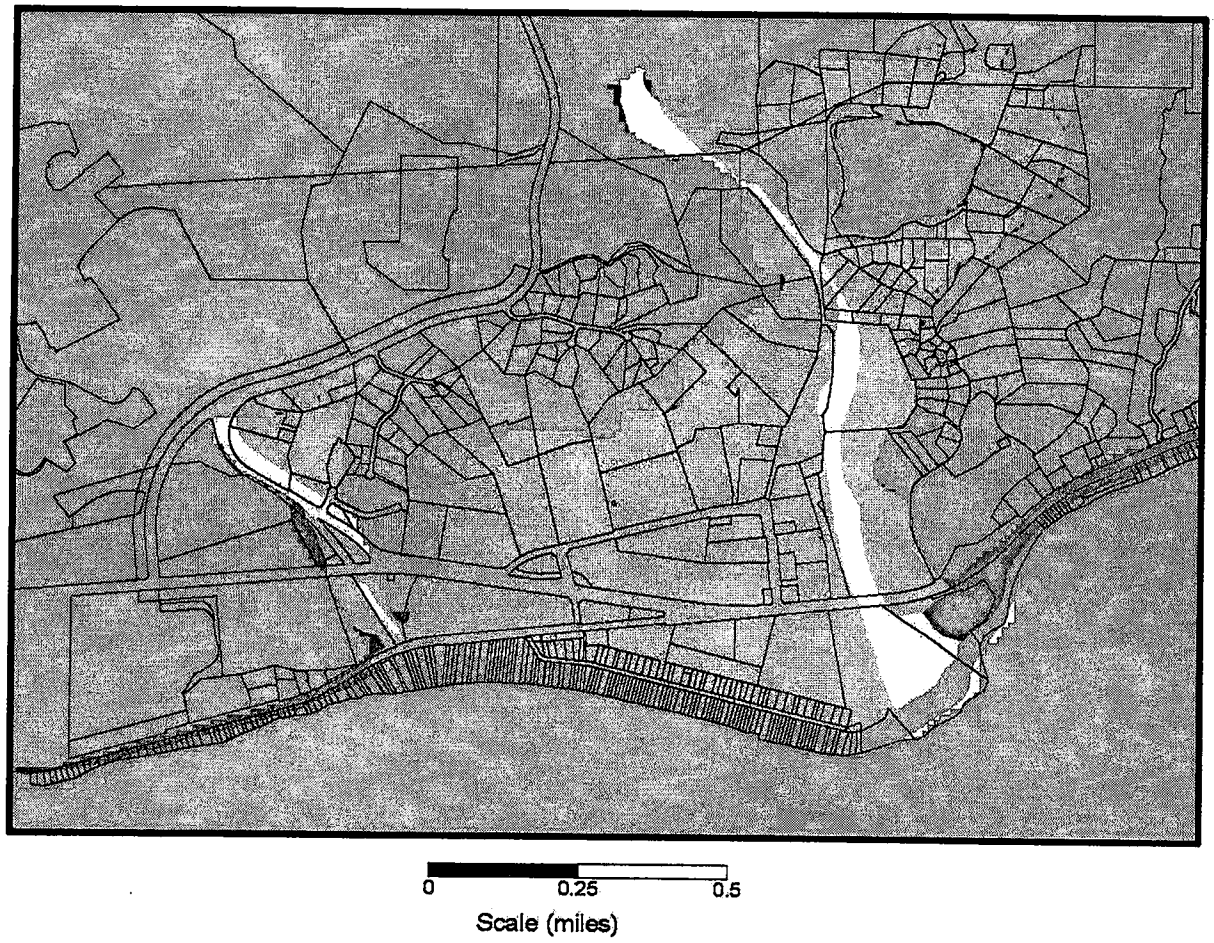
Malibu Civic Center
Surficial Geology

Grey =

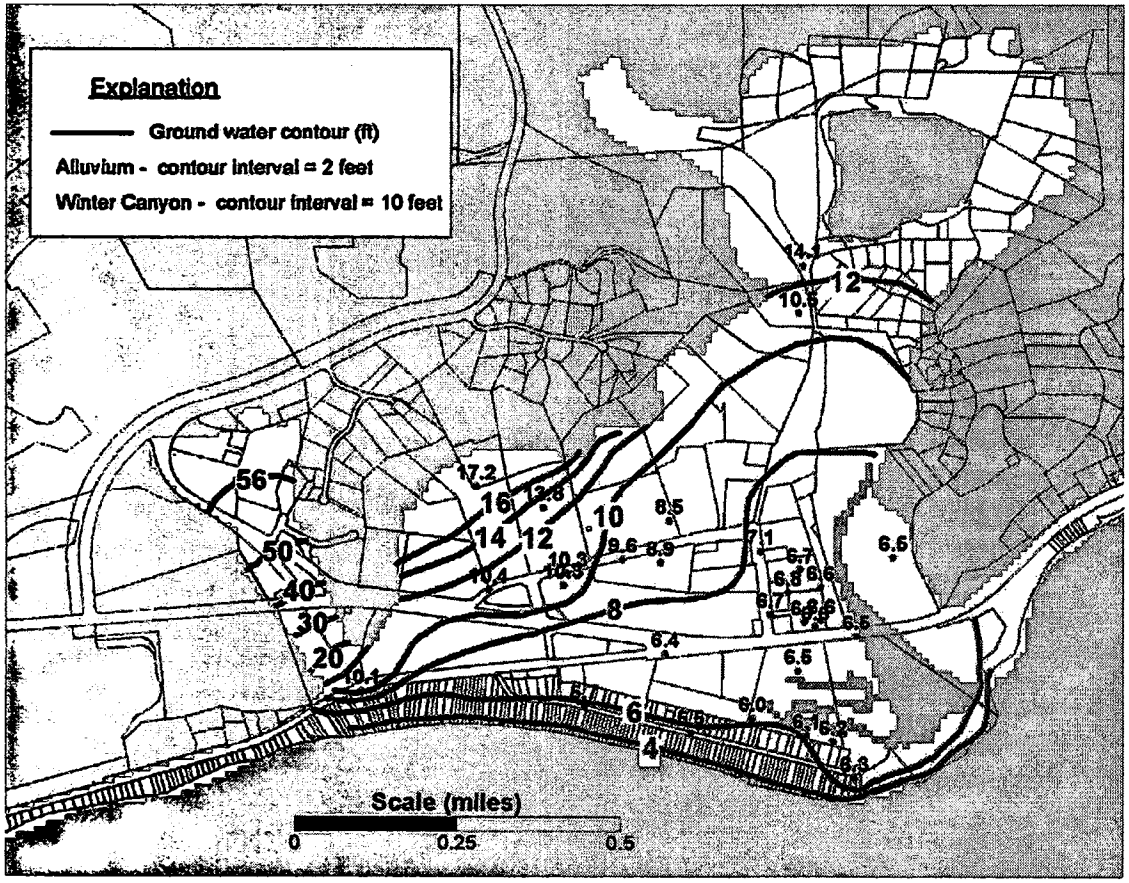
Upland

Bedrock



Source: Stone (2004)

Groundwater Elevations in the Civic Center Area



Flooded Lagoon, September 25, 2003

Synoptic water table observations collected in the Civic Center area during breached and flooded Lagoon conditions.
Source: Stone Environmental Inc. and McDonald Morrissey Inc., 2004.

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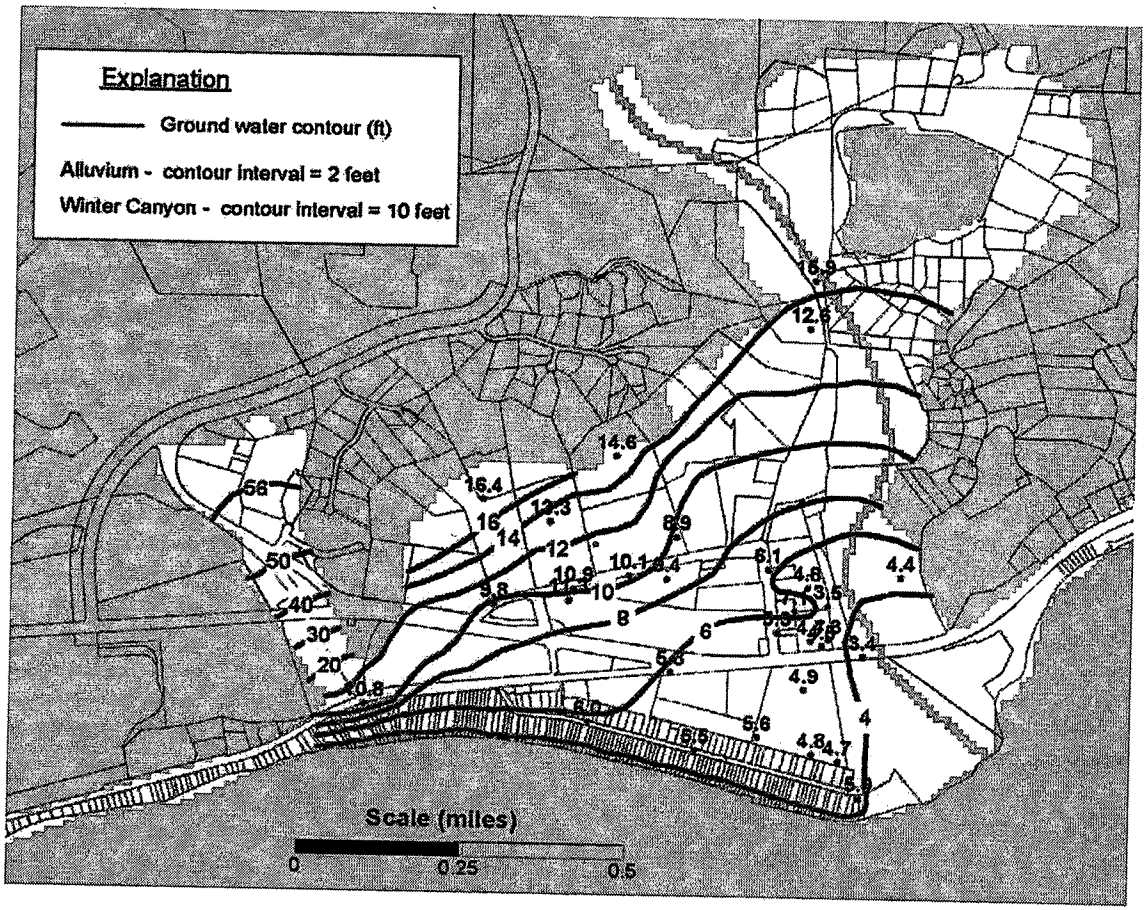
Tides and Lagoon Stage Both Influence Groundwater Elevations



Breached Lagoon, March 9, 2004

Synoptic water table observations collected in the Civic Center area during breached and flooded Lagoon conditions.
Source: Stone Environmental Inc. and McDonald Morrissey Inc., 2004.

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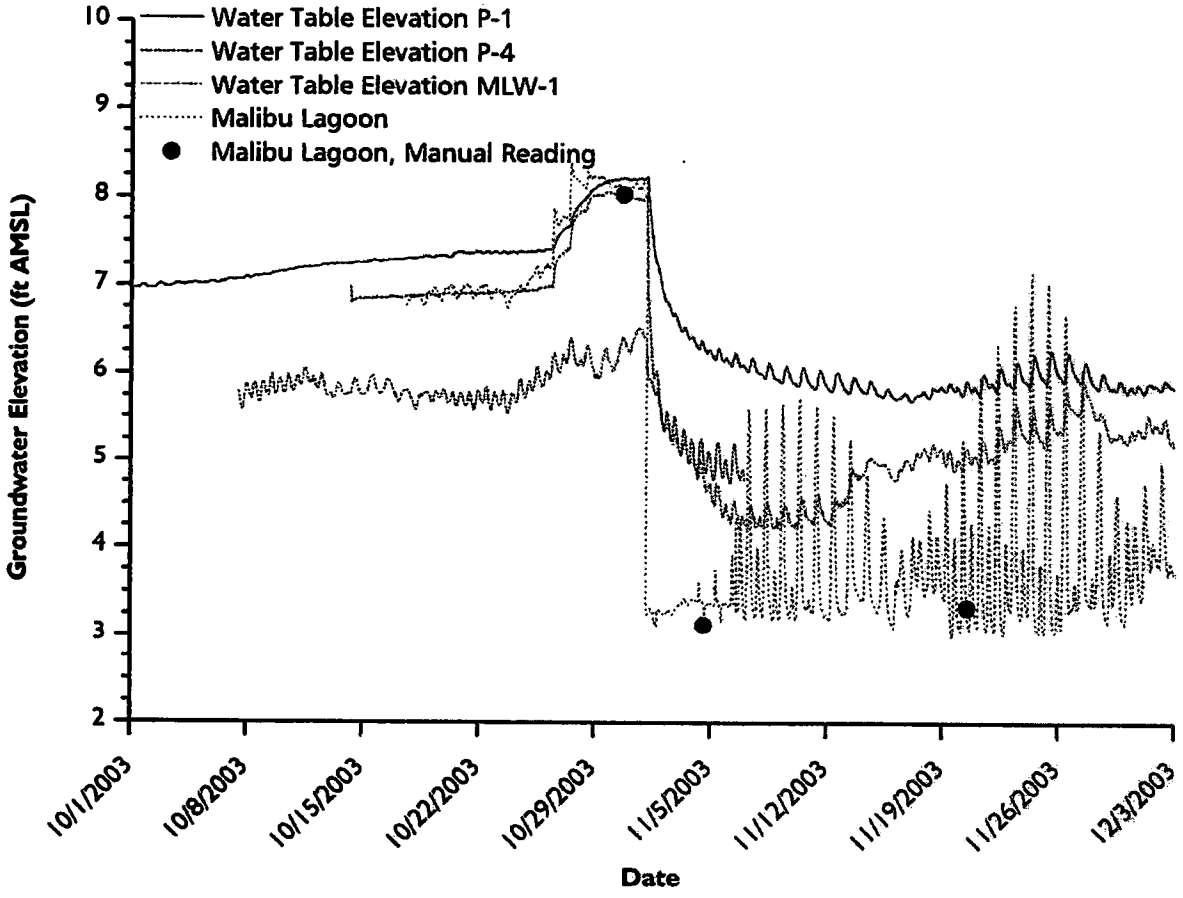
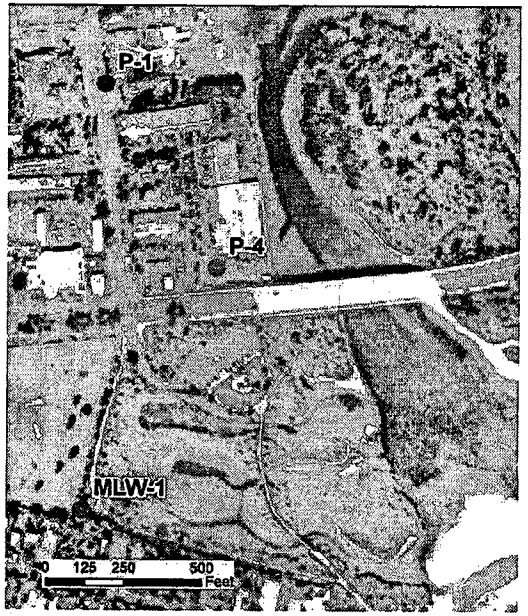
Tides and Lagoon Stage Both Influence Groundwater Elevations





Continuous observations of water table elevations in Malibu Lagoon and nearby monitoring wells.
Source: Stone Environmental Inc. and McDonald Morrissey Inc., 2004.

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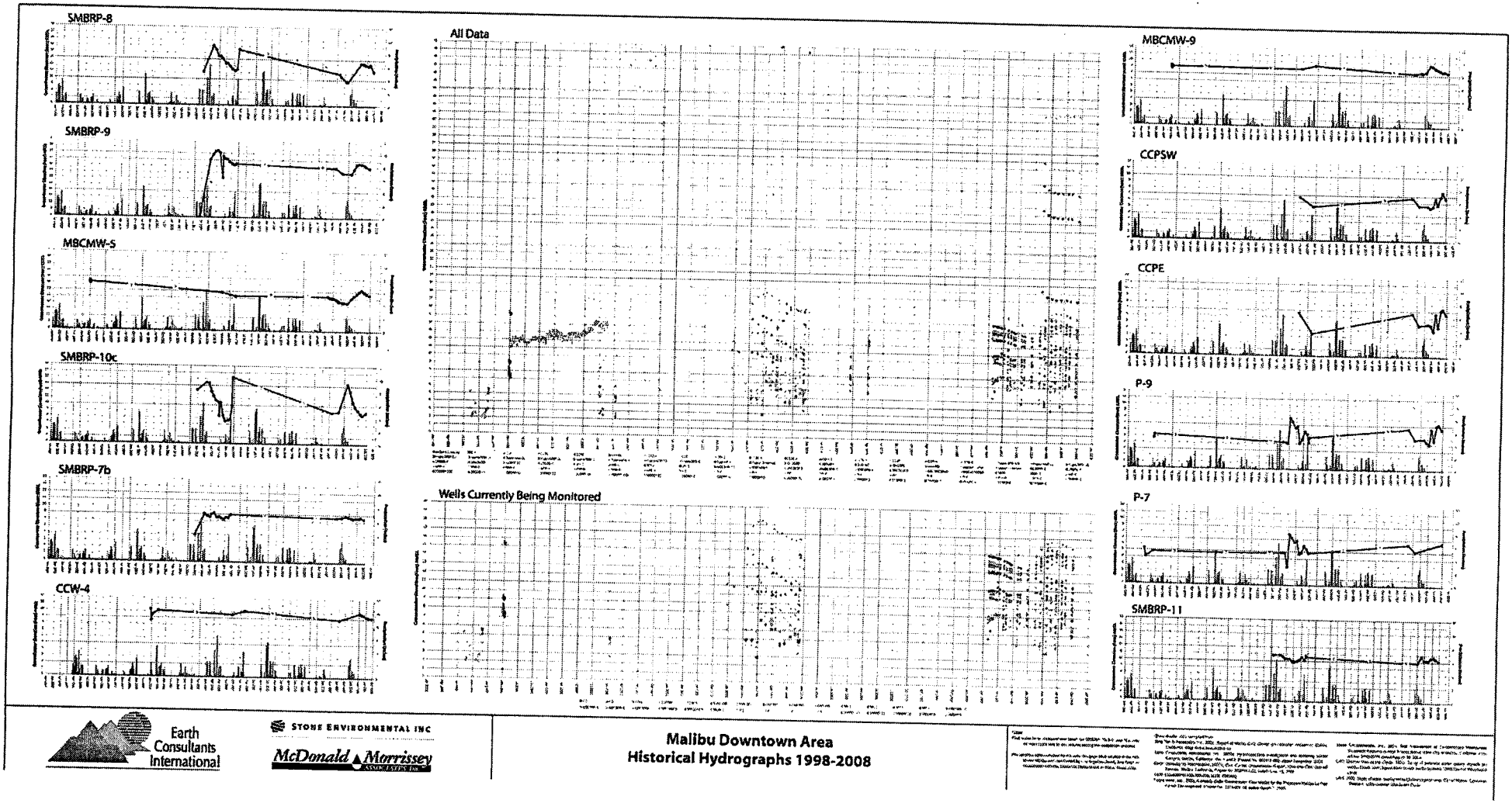
Long-Term Groundwater Elevation Trends in Civic Center Area



STONE ENVIRONMENTAL INC

Expert Testimony

Bruce Douglas, P.E.

Stone Environmental, Inc.

Groundwater Modeling Study/Malibu Civic Center

2-699

Civic Center Hydrology

Consulting Team:	Stone Environmental, Inc. McDonald Morrissey Associates, Inc. Earth Consultants International, Inc.
Presented by:	Bruce F. Douglas Stone Environmental, Inc.

Los Angeles Regional Water Quality Control Board,

Los Angeles, California

November 5, 2009

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Background

- Stone (2004) Risk Assessment of Decentralized Wastewater Treatment Systems in High Priority Areas in the City of Malibu, California

- Questa (2005). Malibu Civic Center Integrated Water Quality Management Feasibility Study

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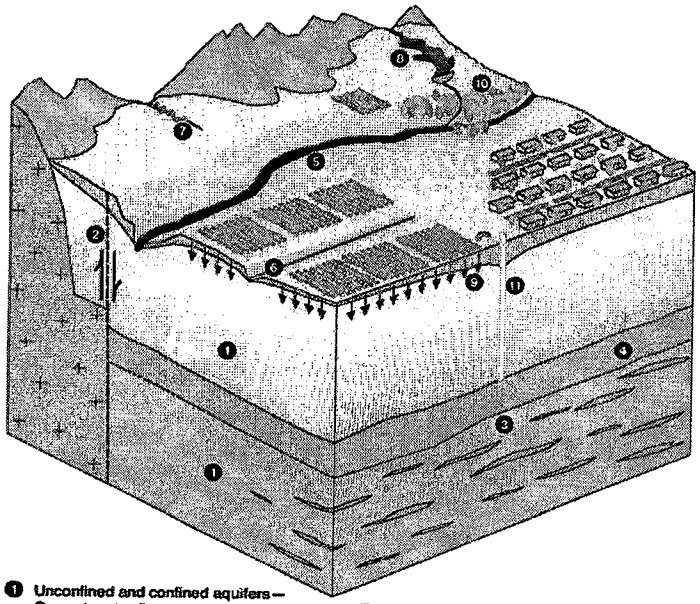
Hydrogeologic Model Development



1. Unconfined and confined aquifers—Ground-water flow and storage changes
2. Faults and other barriers—Resistance to horizontal ground-water flow
3. Fine-grained confining units and interbeds
4. Confining units—Ground-water flow and storage changes
5. Rivers—Exchange of water with aquifers
6. Drains and springs—Discharge of water from aquifers
7. Ephemeral streams—Exchange of water with aquifers
8. Reservoirs—Exchange of water with aquifers
9. Recharge from precipitation and irrigation
10. Evapotranspiration
11. Wells—Withdrawal or recharge at specified rates

Figure 1. Features of an aquifer system that can be simulated by MODFLOW.

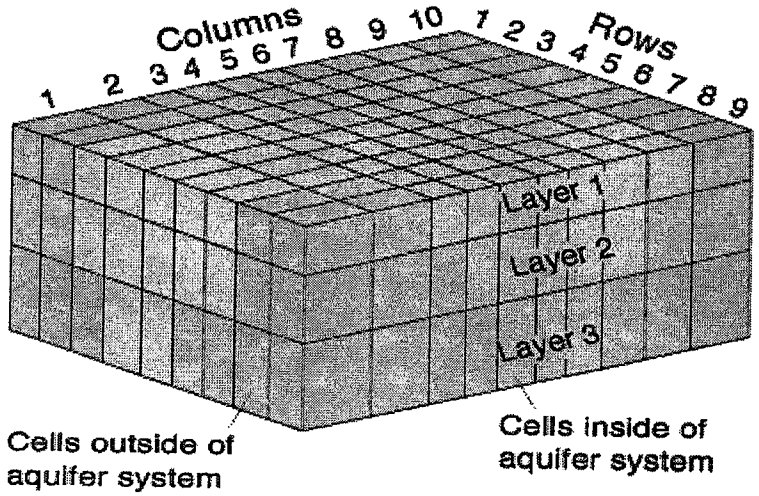


Figure 2. Example of model grid for simulating three-dimensional ground-water flow.

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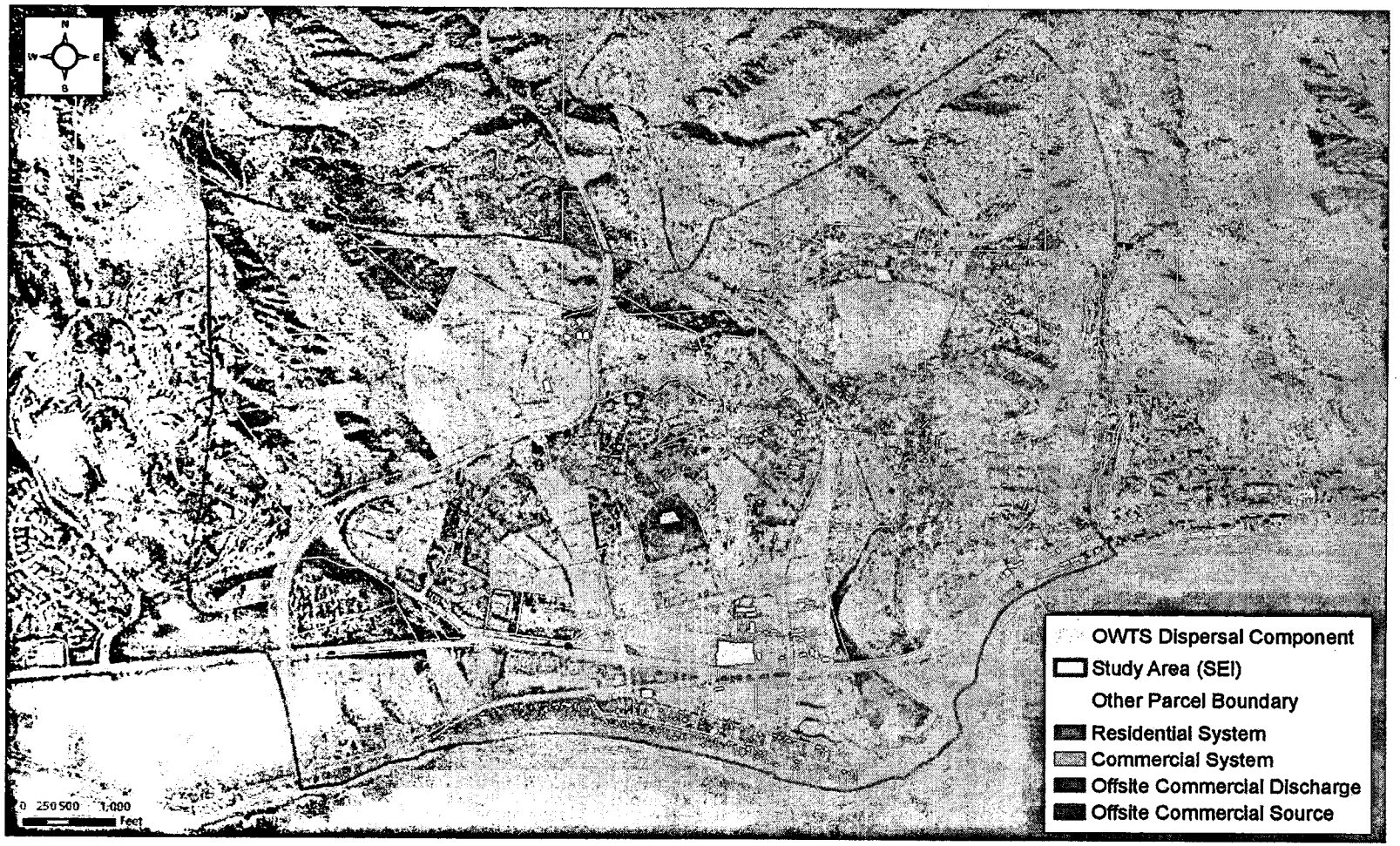
OWTS in the Study Area



Sources: Dispersal components digitized by Stone, 2009; Study Area and Groundwater Recharge Areas, Stone, 2004; Parcel boundaries, LA County Assessor; Imagery, ESRI.

STONE ENVIRONMENTAL INC

OWTS in the Study Area

Sources: Dispersal components digitized by Stone, 2009; Study Area and Groundwater Recharge Areas, Stone, 2004; Parcel boundaries, LA County Assessor; Imagery, ESRI.

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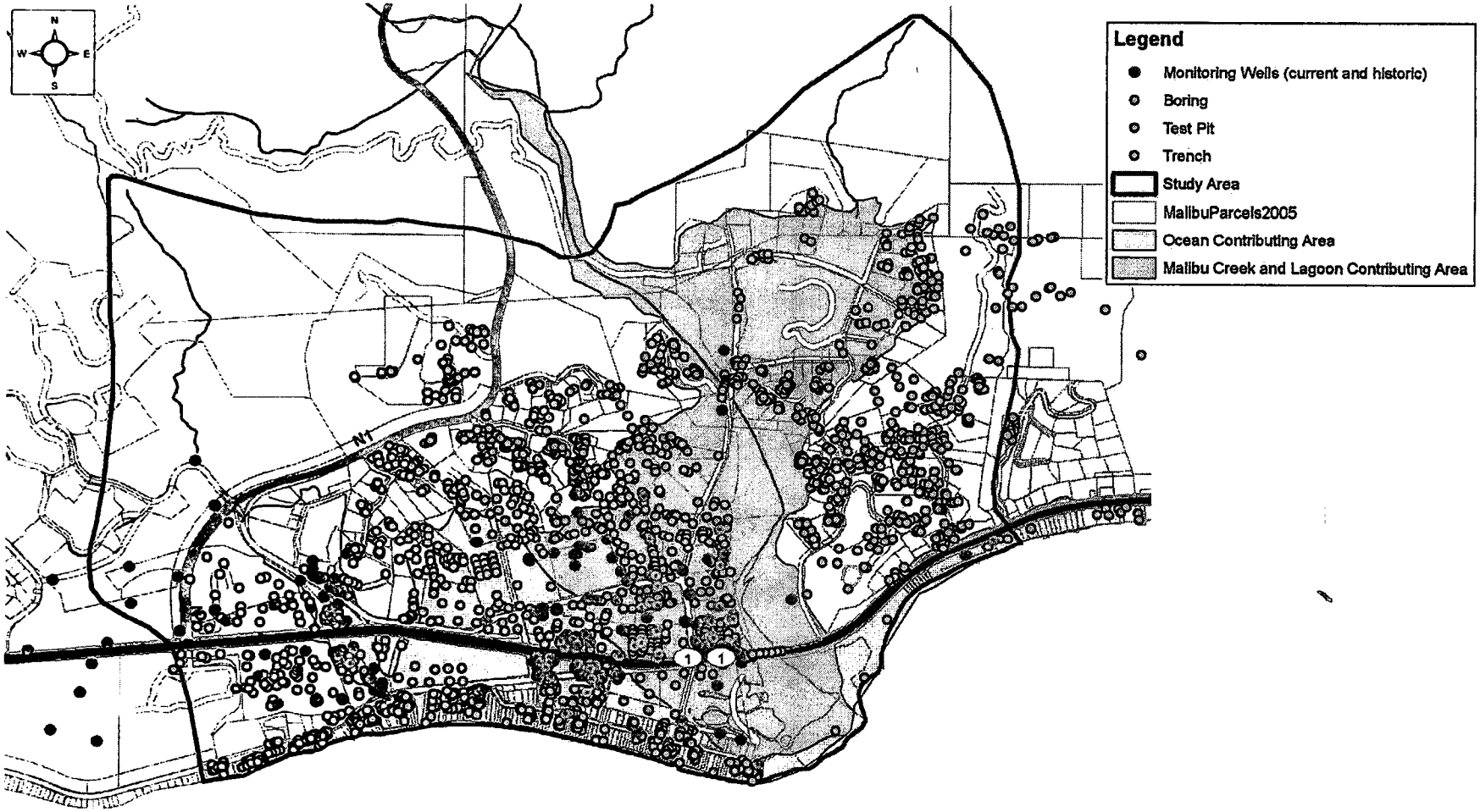
Monitoring Wells, Borings, and Test Pits in the Study Area



Sources: Groundwater well locations and soil boring locations digitized by Stone, 2002-2009; Hydrography digitized by Stone using LAR-IAC 2006-2007 topography, 2009; Study Area and Groundwater Recharge Areas, Stone and McDonald Morrissey Assoc., 2004.

STONE ENVIRONMENTAL INC

Ground Surface in Study Area

Sources: Topographic contours generated from LAR-IAC 2006-2007 digital elevation model, 2009; Hydrography digitized by Stone using LAR-IAC 2006-2007 digital elevation model, 2009; Study area, Stone, 2004; Imagery, ESRI.

STONE ENVIRONMENTAL INC

Ground Surface in Study Area

Sources: Topographic contours generated from LAR-IAC 2006-2007 digital elevation model, 2009; Hydrography digitized by Stone using LAR-IAC 2006-2007 digital elevation model, 2009; Study area, Stone, 2004.

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Malibu Hydrology Project Status

- Completed
  - Organized available geologic & hydrologic information
  - Created databases & identified additional data needs
- Ongoing
  - Conceptual model refinement
  - Numerical model refinement
- Upcoming
  - Simulate existing OWTS conditions
  - Predict impacts of alternative scenarios of wastewater management

Expert Testimony

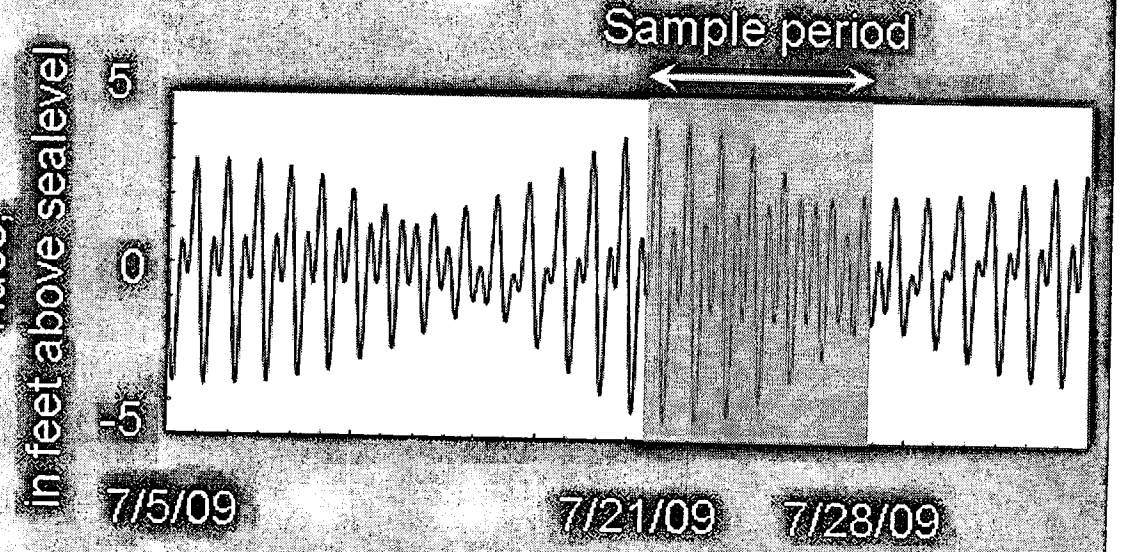
Dr. John Izbicki,
U.S. Geological Survey

Water Resources Study/Malibu Creek,
Lagoon & Surfrider Beach

2-709

Scope of USGS work

- Groundwater level data
- Continuous radon-222, direct-current resistivity data

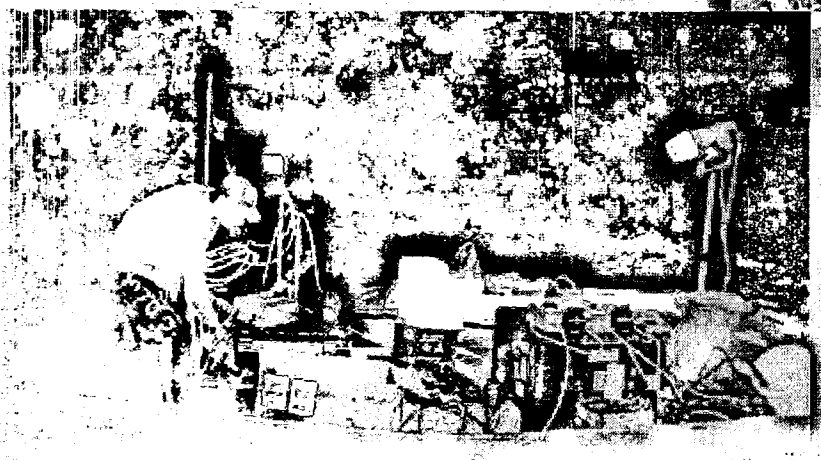


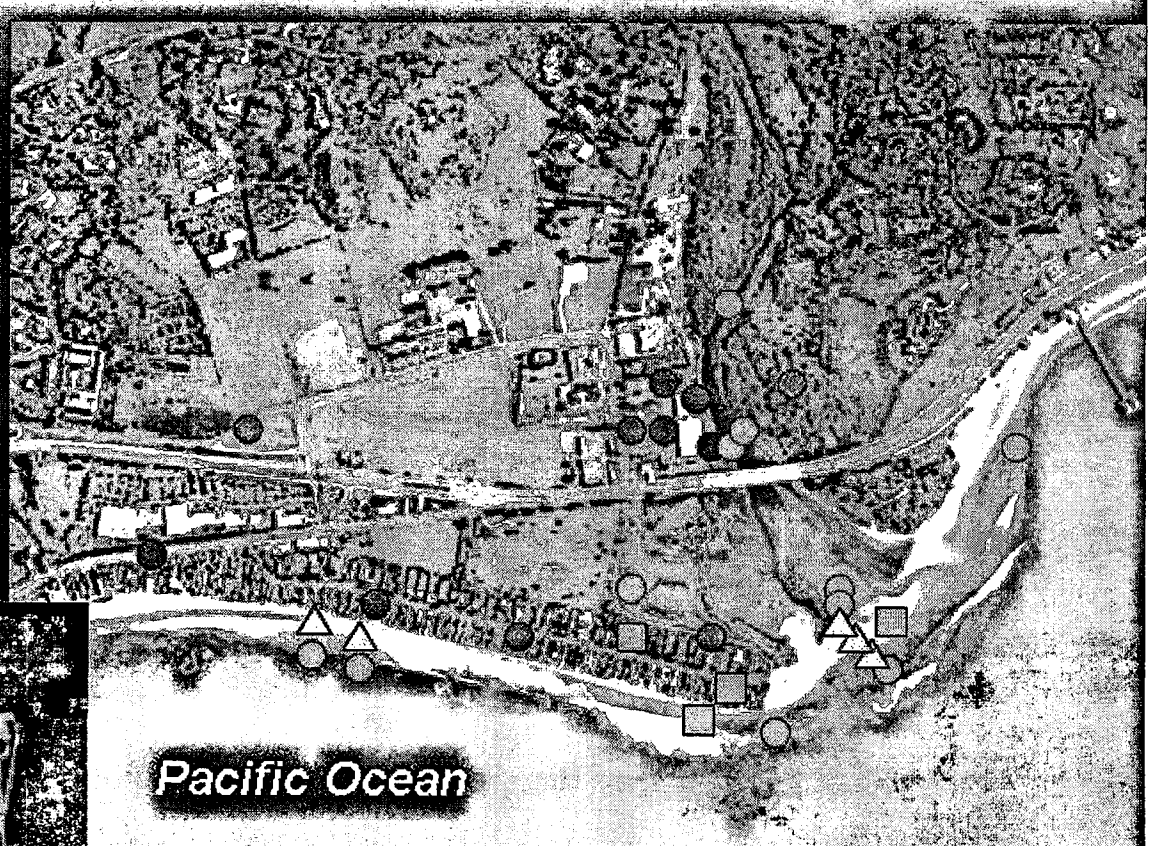
- Fecal indicator bacteria (FIB) in groundwater, Malibu Lagoon, and near-shore ocean water
- Bacterial source-tracking data including genetic (T-RFLP and human-specific Bacteroides), molecular (PLFA), and chemical (wastewater indicators) data

USGS

Scope of USGS work

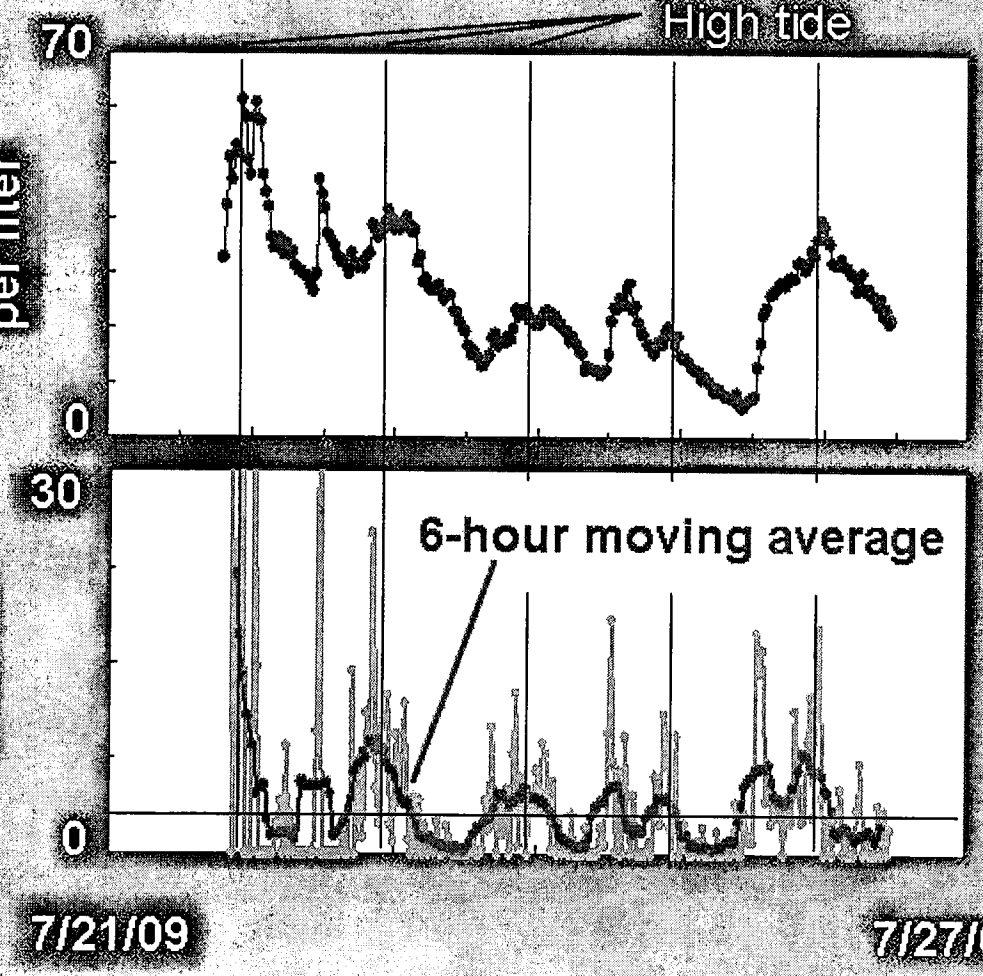
- More than 200 samples collected
- Sample collection was done around the clock to capture tidally driven changes in FIB concentrations





USGS
Science for a changing world

Discharge of water to Malibu Lagoon from alluvial deposits

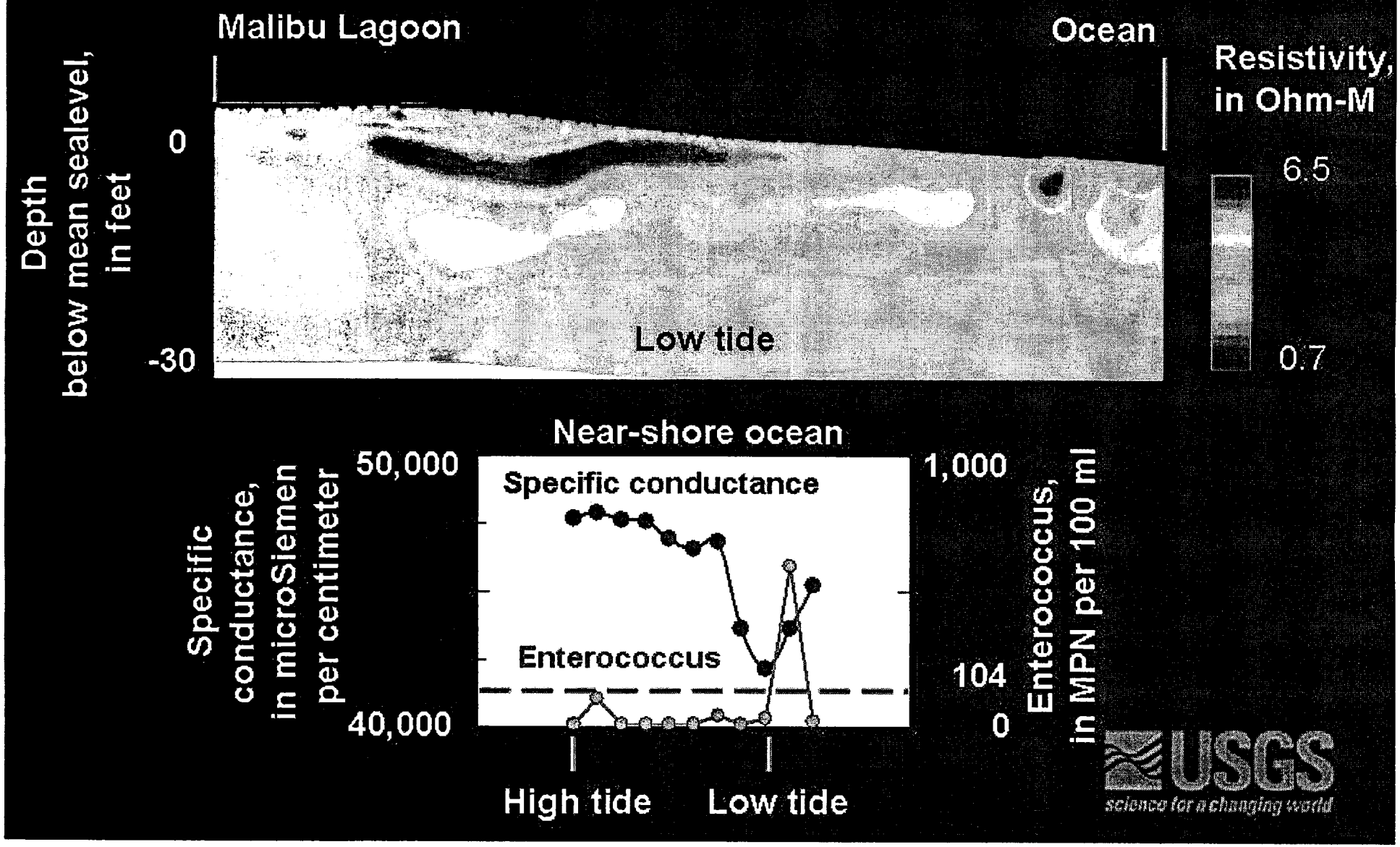


Deployment of Radon-222 measurement equipment

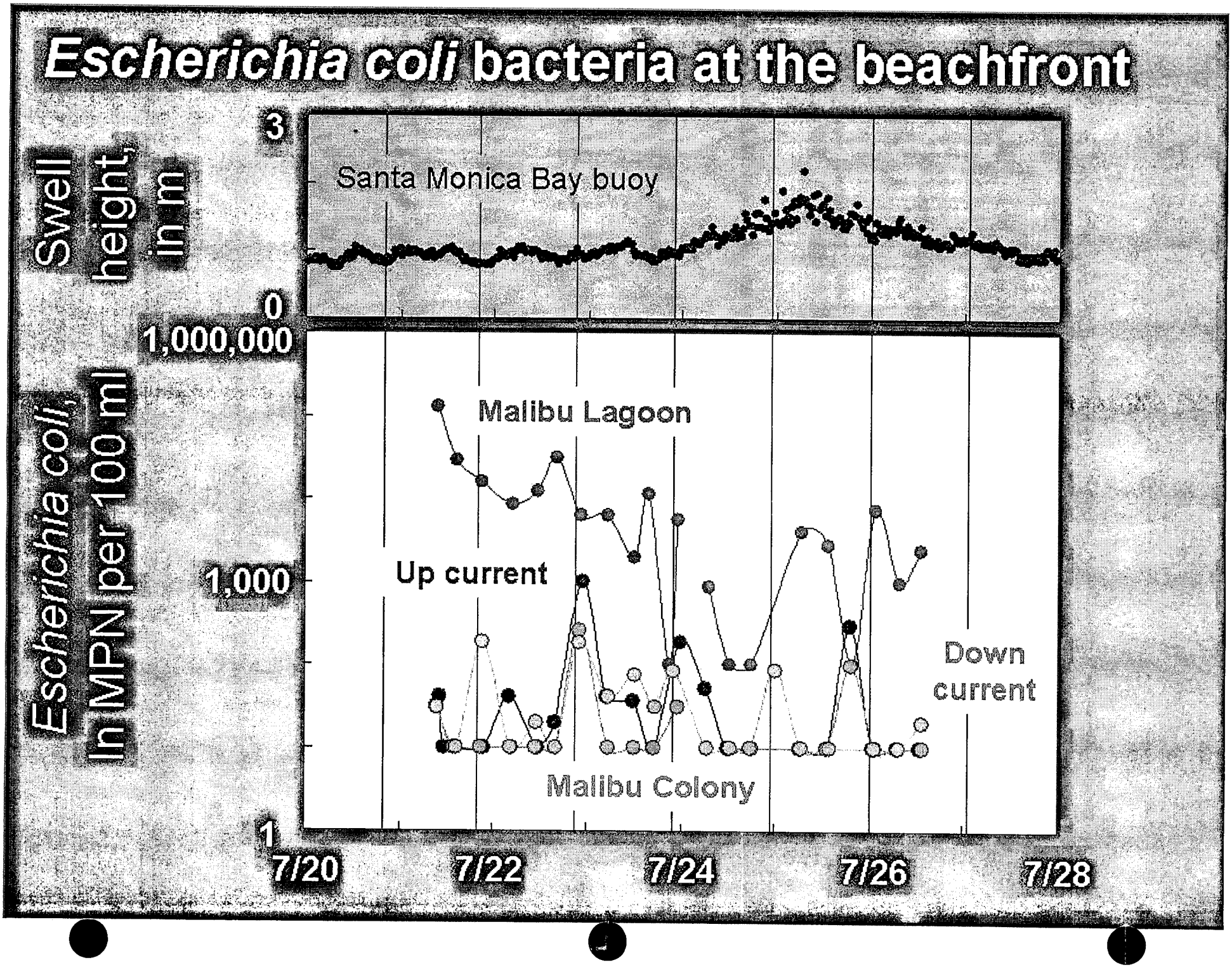
- 10 of 11 sampled wells had FIB less than detection limit—groundwater not a source of FIB

USGS
Science for a changing world

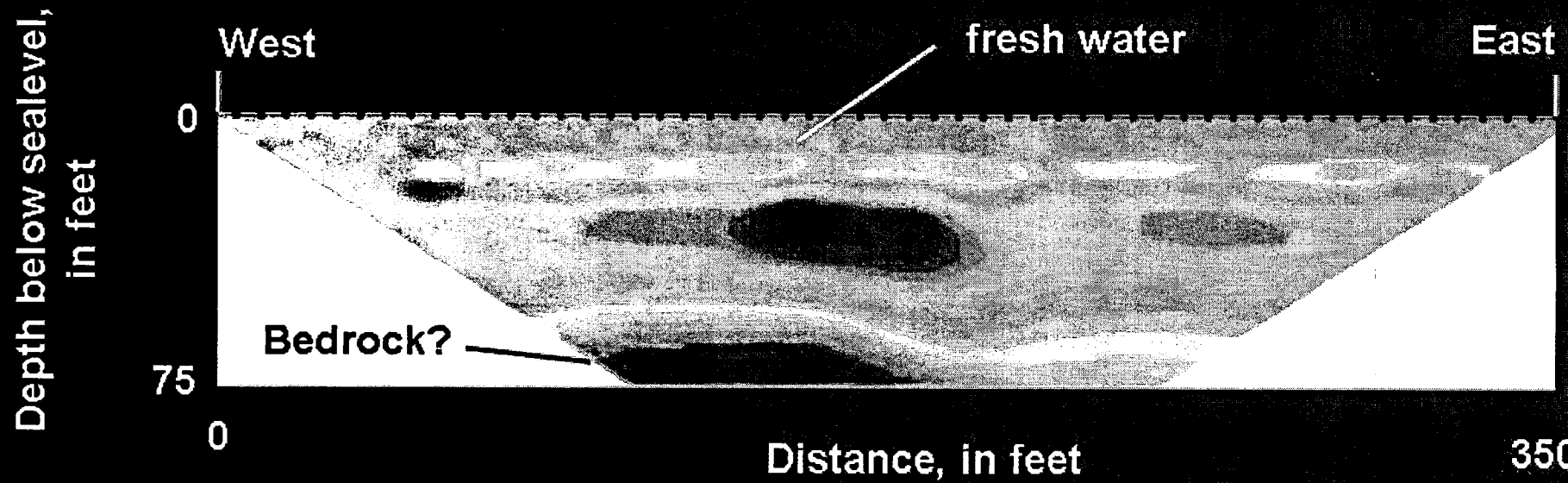
Discharge of water from Malibu Lagoon to the near-shore ocean



USGS
science for a changing world


Escherichia coli bacteria at the beachfront
Swell height, in m
3
0
Santa Monica Bay buoy
Escherichia coli, In MPN per 100 ml
1,000,000
1,000
1
Malibu Lagoon
Up current
Down current
Malibu Colony
7/20
7/22
7/24
7/26
7/28

Water level and DC-Resistivity data at Malibu Colony beachfront

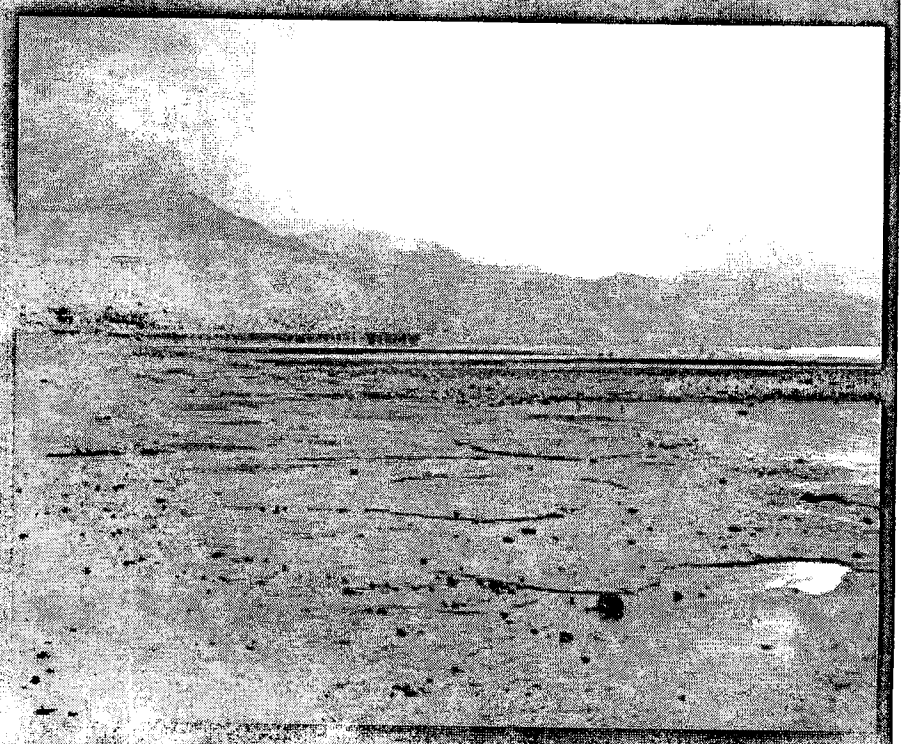


- Seawall at Malibu Colony—pilings extend to a depth of 15 to 18 feet below land surface

USGS
science for a changing world

Summary of Results

- FIB concentrations were less than the detection limit or present at low concentrations in samples from 10 of 11 water-table wells
- Shallow groundwater was discharging to Malibu Lagoon at an average rate of 2.8 cm/d during the sample period
- High concentrations of FIB were present in Malibu Lagoon. Water movement through the berm at the mouth of the lagoon was a source of FIB to the near-shore ocean during low tide
- FIB concentrations increased during high tide at three sampled beaches. This is consistent with wave run-up on the beach washing FIB from the rack line and beach sands



USGS

Expert Testimony

Dr. Vanessa Thulsiraj on behalf of
Dr. Richard Ambrose,
University of California Los Angeles

Investigation of FIB and human-specific *Bacteroidales* within Malibu Creek & Lagoon

Summary of UCLA 2009 Study

Investigation of FIB and human-specific *Bacteroidales* within Malibu Creek & Lagoon

Collaborative study between Dr. Jennifer Jay
and Dr. Richard Ambrose

Presentation by Vanessa Thulsiraj, PhD Candidate

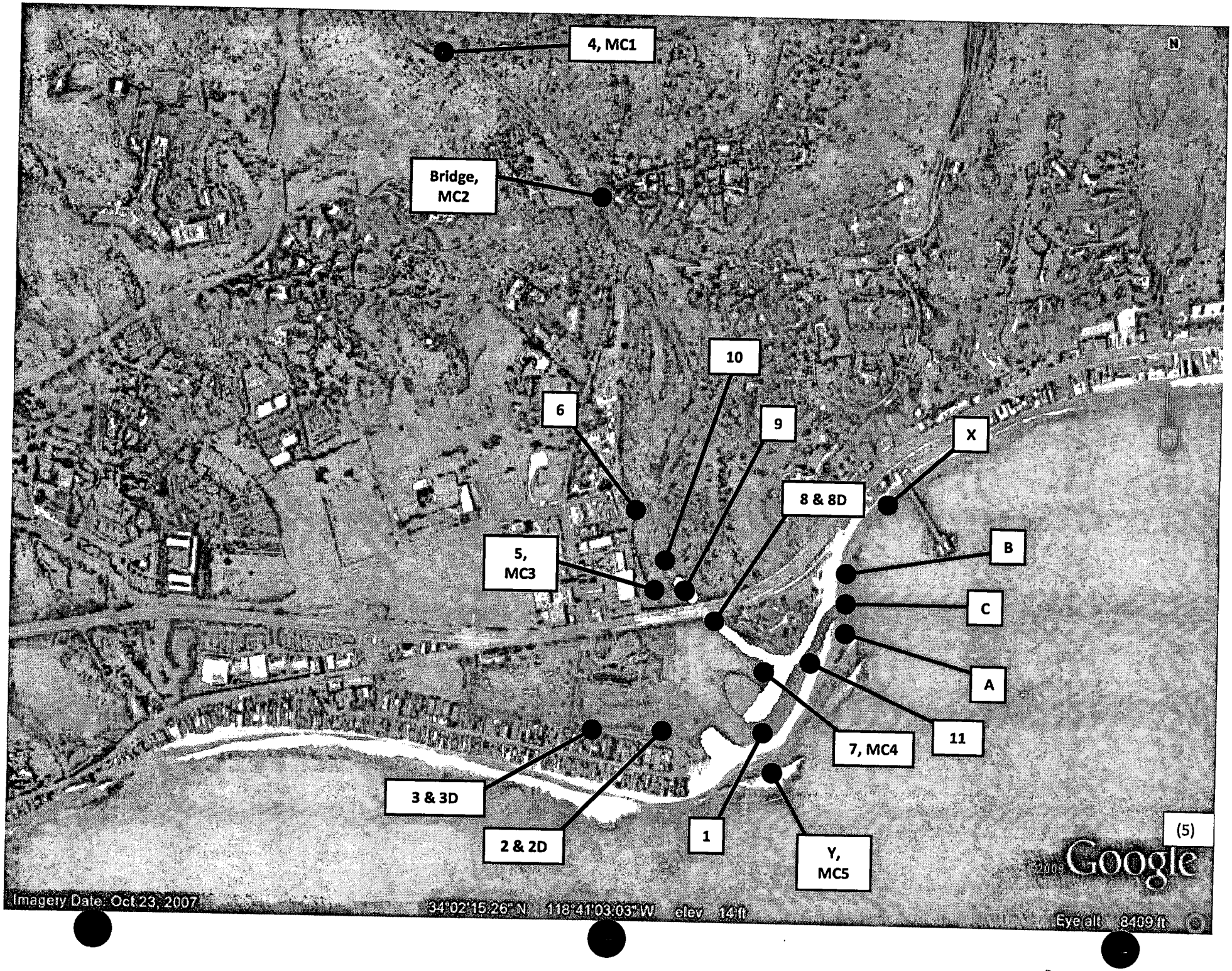
2-718

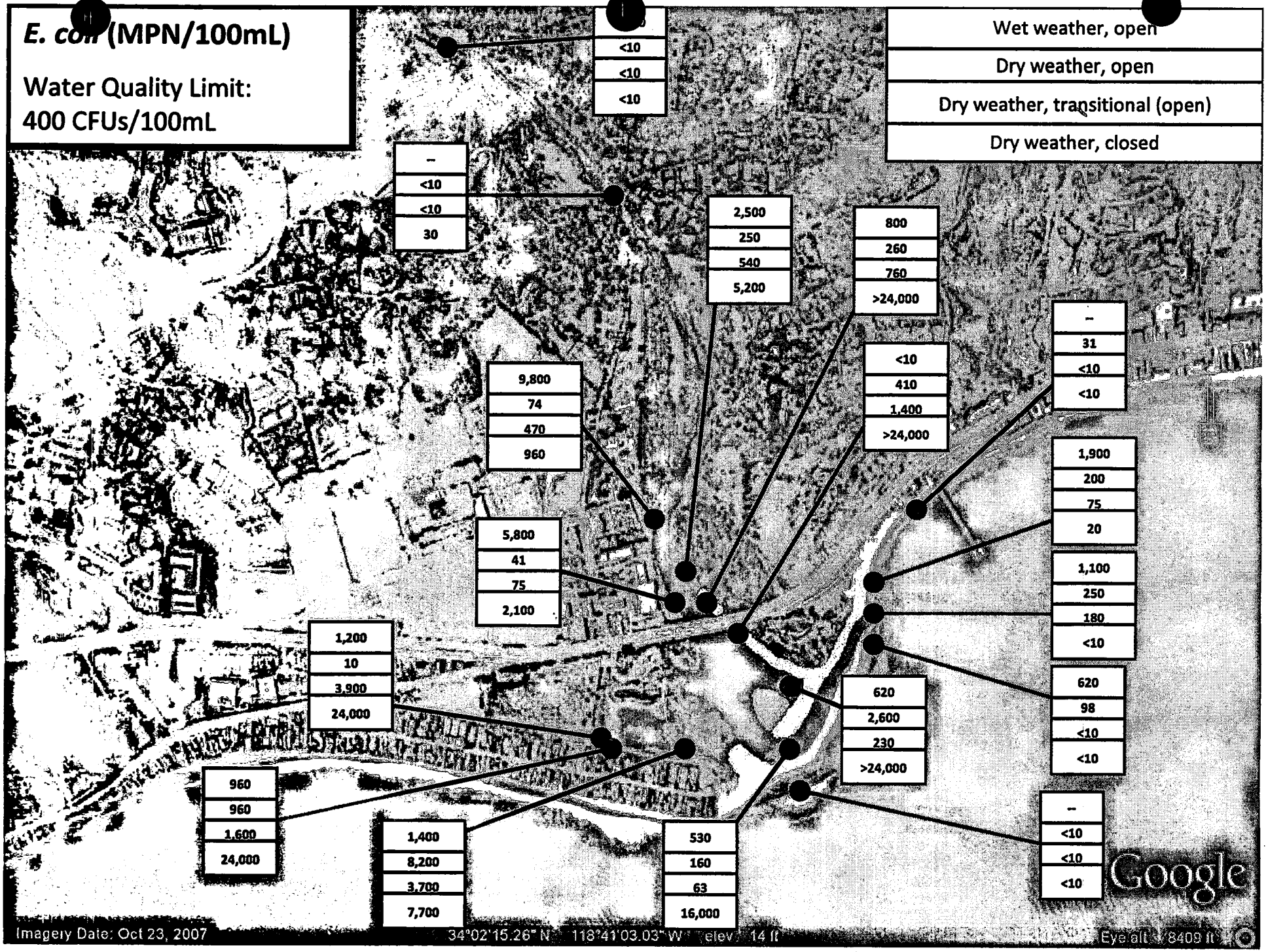
Objectives: Malibu Lagoon

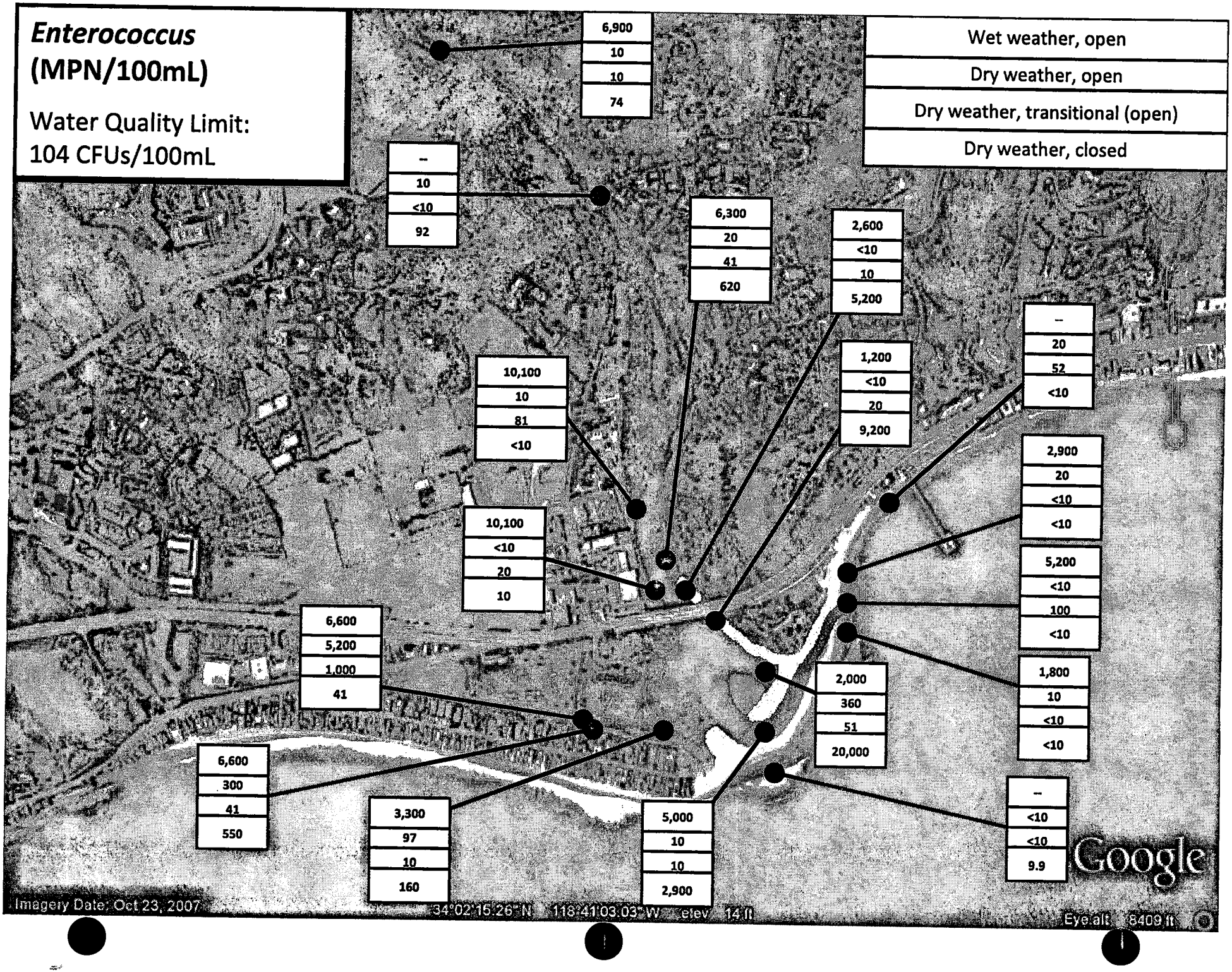
1) Compare FIB concentrations for the following environmental conditions

    a) Wet weather, open lagoon
    b) Dry weather, open lagoon
    c) Dry weather, closed lagoon

2) Compare traditional FIB concentrations to human-specific *Bacteroidales* marker


4, MC1
Bridge, MC2
10
6
9
X
8 & 8D
5, MC3
B
C
A
11
7, MC4
3 & 3D
2 & 2D
1
Y, MC5
(5)
Google
Imagery Date: Oct 23, 2007
34°02'15.26" N 118°41'03.03" W elev 14 ft
Eye alt 8409 ft


E. coli (MPN/100mL)
Water Quality Limit:
400 CFUs/100mL
Wet weather, open
Dry weather, open
Dry weather, transitional (open)
Dry weather, closed
--
<10
<10
30
<10
<10
<10
2,500
250
540
5,200
800
260
760
>24,000
--
31
<10
<10
<10
410
1,400
>24,000
9,800
74
470
960
1,900
200
75
20
5,800
41
75
2,100
1,100
250
180
<10
1,200
10
3,900
24,000
620
98
<10
<10
620
2,600
230
>24,000
960
960
1,600
24,000
1,400
8,200
3,700
7,700
530
160
63
16,000
--
<10
<10
<10
Google
Imagery Date: Oct 23, 2007
34°02'15.26" N 118°41'03.03" W elev 14 ft
Eye alt 8409 ft


Enterococcus (MPN/100mL)
Water Quality Limit: 104 CFUs/100mL
Wet weather, open
Dry weather, open
Dry weather, transitional (open)
Dry weather, closed
6,900
10
10
74
--
10
<10
92
6,300
20
41
620
2,600
<10
10
5,200
--
20
52
<10
1,200
<10
20
9,200
10,100
10
81
<10
2,900
20
<10
<10
10,100
<10
20
10
5,200
<10
100
<10
6,600
5,200
1,000
41
2,000
360
51
20,000
1,800
10
<10
<10
6,600
300
41
550
3,300
97
10
160
5,000
10
10
2,900
--
<10
<10
9.9
Google
Imagery Date: Oct 23, 2007
34°02'15.26" N 118°41'03.03" W elev 14 ft
Eye alt 8409 ft

Conclusions: Fecal Indicator Bacteria

- FIB concentrations high throughout stream, lagoon and ocean after rainfall
  - Only time of high FIB upstream and in ocean
- FIB concentrations generally low when lagoon open during wet season
  - Specific hot spot areas
- FIB concentrations high throughout lagoon when lagoon closed

Background

- Griffith et al found detection of *Bacteroidales* to be the most effective method to detect human fecal pollution in various mixtures of fecal sources
  - human-specific *Bacteroidales* in all samples containing human waste, with no false positives
- Members of the order *Bacteroidales* are found exclusively within feces, digestive tract, and other body cavities
- Members of the order *Bacteroidales* from different types of fecal sources exhibit distinct genetic sequences

Methods

- Samples were analyzed for human-specific Bacteroides as in Seurinck et al. (2005)
- A melting point of 76.4°C ± 0.2°C indicated positive, correct amplification of the human-specific Bacteroides
- The presence of environmental interference was assessed by running samples spiked with a 2×10^5 copies / µL dilution of a human-specific Bacteroides plasmid

Methods

MM = Mastermix
m-H2O = sterile RNAse free H2O
standard/plasmid = we got a Bacteroides plasmid from Dr. Fuhrman's lab. The standard is used both in the SAMPLE+SPIKE and the STANDARD CURVE.

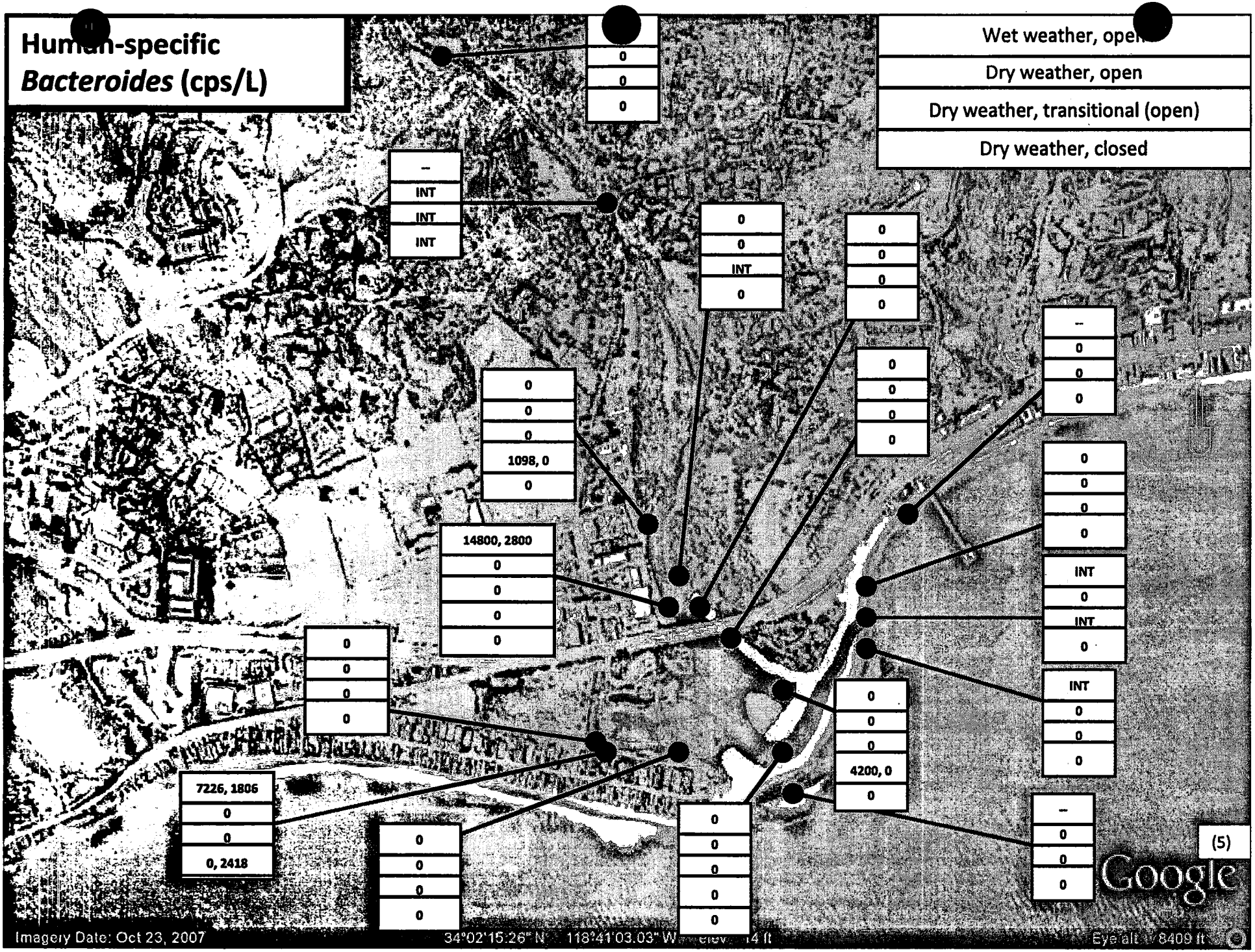
SAMPLE	SAMPLE+SPIKE	STANDARD
1 uL sample 11.18 uL m-h2o 12.82 uL MM	1 uL sample 1 uL standard (plasmid) 10.18 uL m-H2O 12.82 uL MM	1 uL standard (plasmid) 11.18 uL m-H2O 12.82 uL MM

X1	*X1*	Y1	*Y1*	X1+Spike	Y1+Spike	Std-D1	*Std-D1*			
X2	*X2*	Y2	*Y2*	X2+Spike	Y2+Spike	Std-D2	*Std-D2*			
X3	*X3*	Y3	*Y3*	X3+Spike	Y3+Spike	Std-D3	*Std-D3*			
X4	*X4*	Y4	*Y4*	X4+Spike	Y4+Spike	Std-D4	*Std-D4*			
X5	*X5*	Y5	*Y5*	X5+Spike	Y5+Spike	Std-D5	*Std-D5*			
X6	*X6*	Y6	*Y6*	X6+Spike	Y6+Spike	Std-D6	*Std-D6*			
X7	*X7*	Y7	*Y7*	X7+Spike	Y7+Spike	Std-D7	*Std-D7*			
X8	*X8*	Y8	*Y8*	X8+Spike	Y8+Spike	Std-D8	*Std-D8*		Neg control	Neg control
1	**2**	**3**	**4**	**5**	**7**	**8**	**9**	**10**	**11**	**12**
Samples & dups (16 tot)				Spikes, no dups		Std curve + dups			negative controls	

Actual Plate is the dark border with dashed gridlines.

Sample Calculation: $\frac{\text{Human cps/ul}}{\text{ul extract used}} \times \frac{\text{50ul total}}{\text{L filtered}}$

2-726


Human-specific
Bacteroides (cps/L)
Wet weather, open
Dry weather, open
Dry weather, transitional (open)
Dry weather, closed
0
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INT
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(5)
Google
Imagery Date: Oct 23, 2007
34°02'15.26" N 118°41'03.03" W
Eye alt 8409 ft

City of Malibu Study

- 2 week study conducted in Malibu Creek and Lagoon
  - 5 sample locations (MC1 – MC5) were further analyzed for presence of HBM
  - MC1 – MC4 sampled on 4/29
  - MC5 samples on 4/29, 4/30, 5/5, 5/7
  - No detection of HBM in any samples taken during this time (April/May)

Summary

- HBM not detected in dry weather open lagoon (39)
- 5 samples were positive for HBM (7%)
- Human-specific *Bacteroides* marker was detected in dry and wet weather samples in Malibu Lagoon

– HBM detected in 15% (2/13) wet weather open lagoon samples
    - Sites 3, 5
– HBM detected in 14% (3/22) dry weather closed lagoon samples
    - Sites 3, 6, 7

RFA1

Summary

- 74 total samples analyzed for HBM
  - 69 samples did not contain HBM (93%)
- Human-specific *Bacteroides* marker was not detected in any ocean water samples

RFA2

- Exceedance of FIB water quality health standards occurred at sites where no HBM was detected
- No correlation between FIB and HBM

Slide 56

RFA1 personally, I don't think the wet-weather/dry-weather dichotomy is useful here when you are just telling us what % of samples were positive. Better to separate dry/lagoon open and dry/lagoon closed.

Also, label this slide "Conclusions - Human-specific Bacteriodales"
Richard F. Ambrose, 11/3/2009

RFA2 Whether you do this in text on a conclusions slide or just verbally, this is where you need to give a lot more context to the results. You are just restating the results here - this is really a summary slide, not a conclusions slide. What they want is a Conclusions slide - something to tell them what the results mean. So, I think you should use this slide, properly labeled as "Summary", but then you should add a Conclusions slide that covers some of the topics discussed in the email
Richard F. Ambrose, 11/3/2009

February 16, 2009

Date	Sample	Cps/uL extract	Duplicate Cps/uL extract	Human cps/L	Duplicate Human cps/L	Average Human cps/L
2/16/09	A	-	-	-	-	-
2/16/09	B	0.0	0.0	0.0	0.0	0.0
2/16/09	C	-	-	-	-	-
2/16/09	1	0.0	0.0	0.0	0.0	0.0
2/16/09	2	0.0	0.0	0.0	0.0	0.0
2/16/09	2D	0.0	0.0	0.0	0.0	0.0
2/16/09	3	5.6	1.4	7226	1806	4516
2/16/09	3D	0.0	0.0	0.0	0.0	0.0
2/16/09	5	7.4	1.4	14800	2800	8800
2/16/09	6	0.0	0.0	0.0	0.0	0.0
2/16/09	7	0.0	0.0	0.0	0.0	0.0
2/16/09	8	0.0	0.0	0.0	0.0	0.0
2/16/09	8D	0.0	0.0	0.0	0.0	0.0
2/16/09	9	0.0	0.0	0.0	0.0	0.0
2/16/09	10	0.0	0.0	0.0	0.0	0.0

March 20, 2009

Date	Sample	Cps/uL extract	Duplicate Cps/uL extract	Human cps/L	Duplicate Human cps/L	Average Human cps/L
3/20/09	A	0.0	0.0	0.0	0.0	0.0
3/20/09	B	0.0	0.0	0.0	0.0	0.0
3/20/09	C	0.0	0.0	0.0	0.0	0.0
3/20/09	X	0.0	0.0	0.0	0.0	0.0
3/20/09	Y	0.0	0.0	0.0	0.0	0.0
3/20/09	Bridge	-	-	-	-	-
3/20/09	1	0.0	0.0	0.0	0.0	0.0
3/20/09	2	0.0	0.0	0.0	0.0	0.0
3/20/09	3	0.0	0.0	0.0	0.0	0.0
3/20/09	3D	0.0	0.0	0.0	0.0	0.0
3/20/09	4	0.0	0.0	0.0	0.0	0.0
3/20/09	5	0.0	0.0	0.0	0.0	0.0
3/20/09	6	0.0	0.0	0.0	0.0	0.0
3/20/09	7	0.0	0.0	0.0	0.0	0.0
3/20/09	8	0.0	0.0	0.0	0.0	0.0
3/20/09	8D	0.0	0.0	0.0	0.0	0.0
3/20/09	9	0.0	0.0	0.0	0.0	0.0
3/20/09	10	0.0	0.0	0.0	0.0	0.0

May 21, 2009

Date	Sample	Cps/uL extract	Duplicate Cps/uL extract	Human cps/L	Duplicate Human cps/L	Average Human cps/L
5/21/09	A	0.0	0.0	0.0	0.0	0.0
5/21/09	B	0.0	0.0	0.0	0.0	0.0
5/21/09	C	-	-	-	-	-
5/21/09	X	0.0	0.0	0.0	0.0	0.0
5/21/09	Y	0.0	0.0	0.0	0.0	0.0
5/21/09	Bridge	-	-	-	-	-
5/21/09	1	0.0	0.0	0.0	0.0	0.0
5/21/09	2	0.0	0.0	0.0	0.0	0.0
5/21/09	3	0.0	0.0	0.0	0.0	0.0
5/21/09	3D	0.0	0.0	0.0	0.0	0.0
5/21/09	4	0.0	0.0	0.0	0.0	0.0
5/21/09	5	0.0	0.0	0.0	0.0	0.0
5/21/09	6	0.0	0.0	0.0	0.0	0.0
5/21/09	7	0.0	0.0	0.0	0.0	0.0
5/21/09	8	0.0	0.0	0.0	0.0	0.0
5/21/09	9	0.0	0.0	0.0	0.0	0.0
5/21/09	10	-	-	-	-	-
5/21/09	11	0.0	0.0	0.0	0.0	0.0

July 18, 2009

Date	Sample	Cps/uL extract	Duplicate Cps/uL extract	Human cps/L	Duplicate Human cps/L	Average Human cps/L
7/18/09	A	0.0	0.0	0.0	0.0	0.0
7/18/09	B	0.0	0.0	0.0	0.0	0.0
7/18/09	C	0.0	0.0	0.0	0.0	0.0
7/18/09	X	0.0	0.0	0.0	0.0	0.0
7/18/09	Y	0.0	0.0	0.0	0.0	0.0
7/18/09	Bridge	-	-	-	-	-
7/18/09	1	0.0	0.0	0.0	0.0	0.0
7/18/09	2	0.0	0.0	0.0	0.0	0.0
7/18/09	2D	0.0	0.0	0.0	0.0	0.0
7/18/09	3	0.0	1.3	0.0	2418	1209
7/18/09	3D	0.0	0.0	0.0	0.0	0.0
7/18/09	4	0.0	0.0	0.0	0.0	0.0
7/18/09	5	0.0	0.0	0.0	0.0	0.0
7/18/09	6	1.4	0.0	1098	0.0	549
7/18/09	7	1.1	0.0	4200	0.0	2100
7/18/09	8	0.0	0.0	0.0	0.0	0.0
7/18/09	9	0.0	0.0	0.0	0.0	0.0
7/18/09	10	0.0	0.0	0.0	0.0	0.0
7/18/09	11	0.0	0.0	0.0	0.0	0.0

Fatal Flaws With Regional Board's Proposed Prohibition

2-736

Fatal Flaws

- **Faulty finding upon which the entire proposal is based – the groundwater in our region (Malibu Valley) is listed by the state as a "potential" drinking source.** ***(City of Arcadia v. State Water Resources Control Board found that it is improper to base standards on "potential" beneficial water uses and only "probable" source of drinking water can be considered)***

- **As currently written, prohibition does not allow for construction of a centralized wastewater treatment facility (CWWF) as the resolution prohibits all new discharges within the boundary (and therefore no new systems can be permitted)**

- **Proposed Prohibition Boundary Map limits are too expansive and contain no justification. Based upon Map, it is estimated that up to 600,000 gpd would need to be treated and dispersed. Preliminary indications do not show Winter Canyon would have capacity**

Fatal Flaws

- The proposal as written is too vague and could have unintended adverse impacts to water quality
  - Commercial and residential remodeling projects that would upgrade to AOWTS and include disinfection and nutrient reductions would not be allowed
  - Fire or earthquake rebuilds may be prohibited
  - Projects that have are proposing "no discharge" are prohibited

- Inadequate environmental review and changes to project description last week require recirculation

- The findings in the resolution are conclusory and not supported by evidence

Fatal Flaws

Tech Memo #1 – "Dischargers Have Poor Records of Compliance with Regional Board Orders"

- Dischargers do NOT have poor records of compliance. Virtually no NOV's were issue prior to March of 2009

Tech Memo #2- ***"Pathogens and Nitrogen in Wastewaters Impair Underlying Groundwater as a Potential Source of Drinking Water"***

- Is not based on an understanding of hydrogeology
- Fails to demonstrate connection between OWTS and ground water quality in the historic water supply aquifer
- Does not document that the historic water supply aquifer had limited capacity and the quality was diminished due to saltwater intrusion
- Does not consider other potential sources of pollutants

Fatal Flaws

Tech Memo #3 – *"Pathogens in Wastewaters that are in Hydraulic Connection with Beaches Represent a Source of Impairment for Water Contact Recreation"*

- Studies show that bacteria in Malibu Creek are rarely from human sources
- Does not provide hydrologic data to support assumption of hydraulic connection
- Does not demonstrate that wastewater discharges result in transport of pathogens to the beach
- Does not account for limited survival of bacteria in groundwater and the time of travel to Lagoon
- Relies on outdated data
- Premature- Five additional studies pending on *this* very issue

2-710

Fatal Flaws

Tech Memo #4 – "Nitrogen Loads from Wastewater Flowing to Malibu Lagoon are a Significant Source of Impairment to Aquatic Life"

- Does not demonstrate nitrogen from OWTS is a significant source of impairment to aquatic life
- Ignores published hydrologic data and analysis

Tech Memo #5- ***"Dischargers with Unsuitable Hydrogeologic Conditions for High Flows of Wastewaters Resort to hauling Liquid Sewage and Sludge to communities that have Sewer and Wastewater Treatment Facilities"***

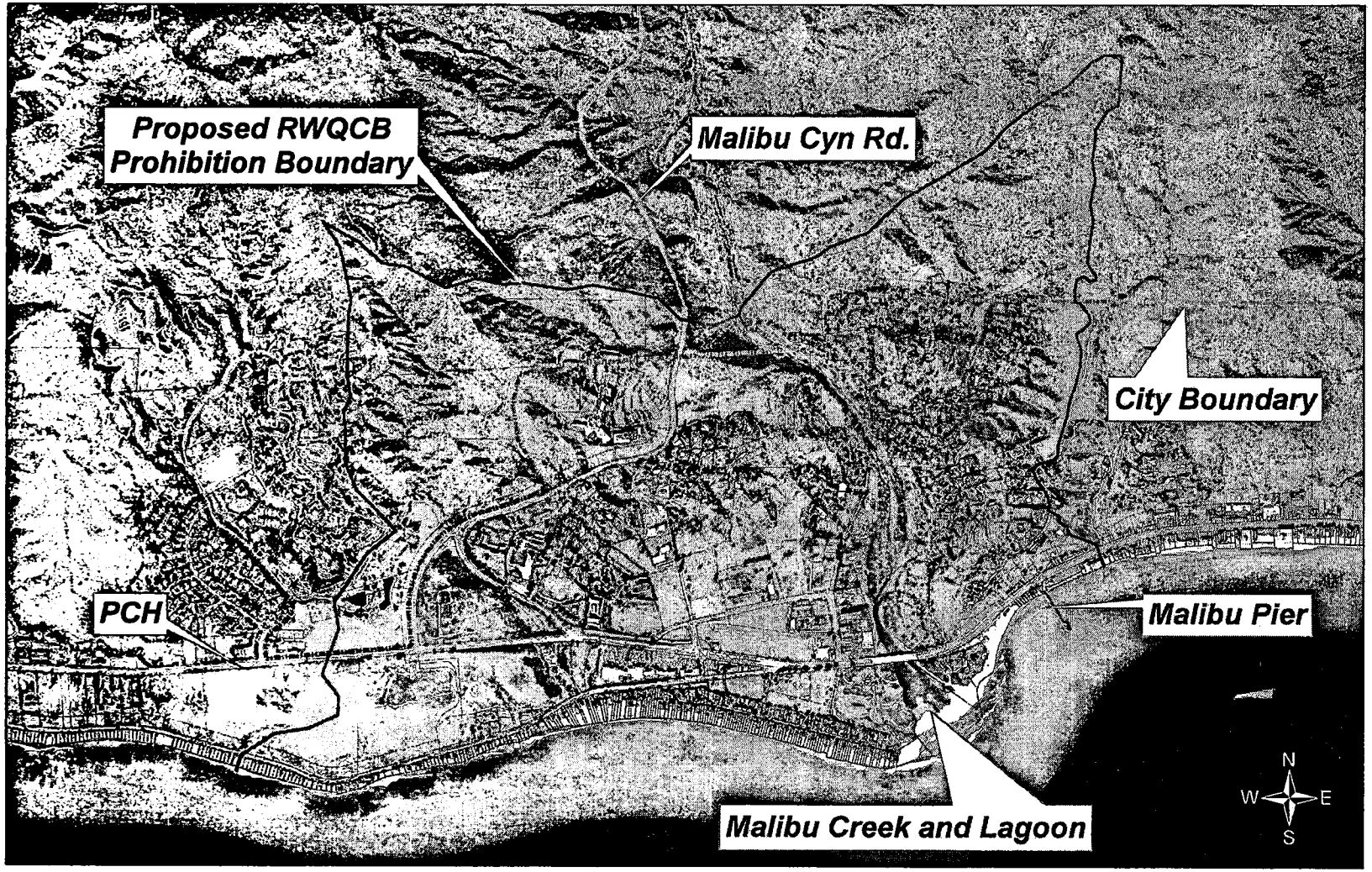
- Does not differentiate between pumping sludge for maintenance and pumping effluent
- Civic Center area does not have "intensive" land use activity (no new commercial projects constructed in last 18 years – only remodel)
- Wastewater calculations include arbitrary assumptions and are not based on actual evidence

City of Malibu's Proposed

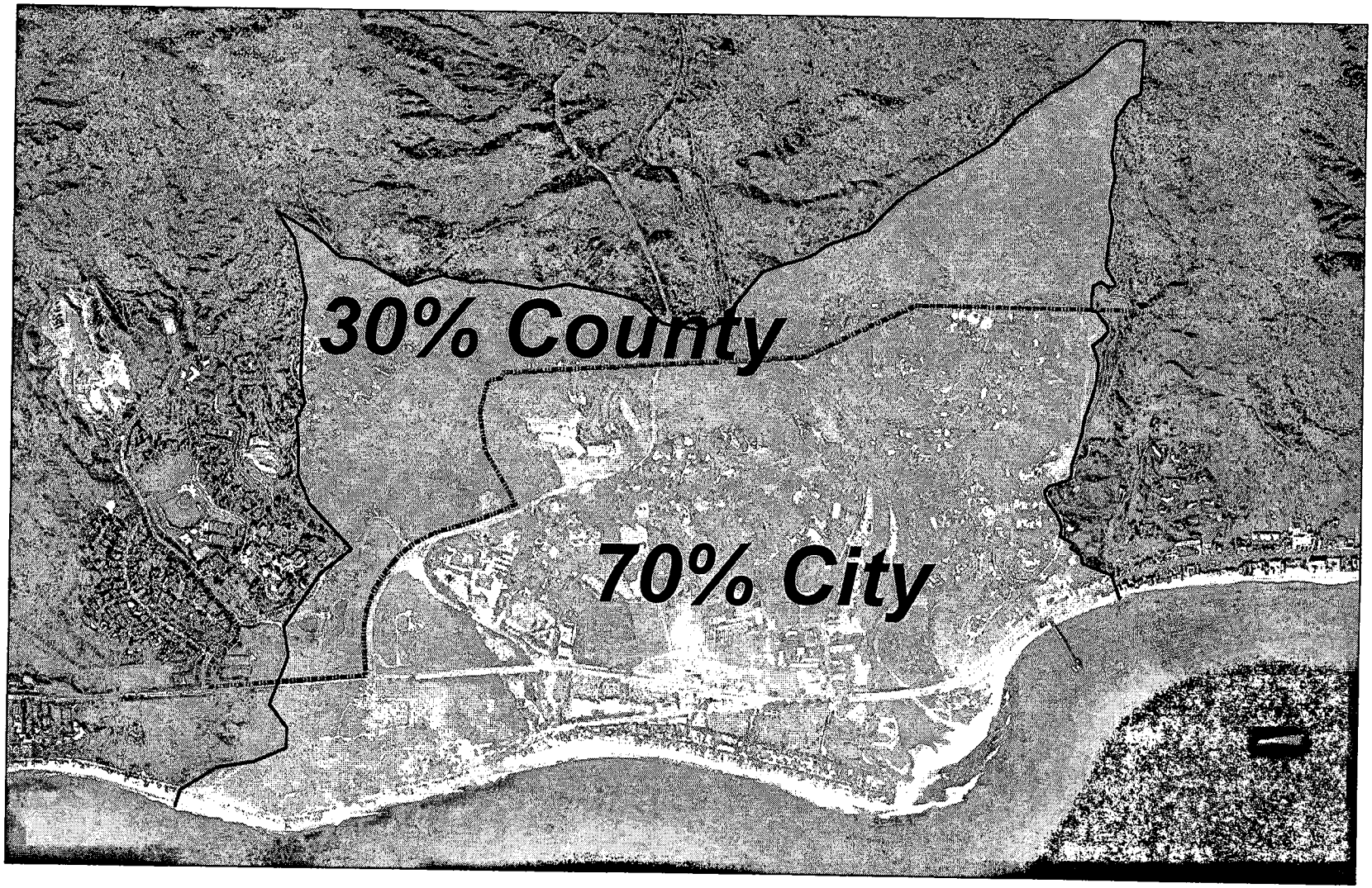
Alternate Plan Components

2-742

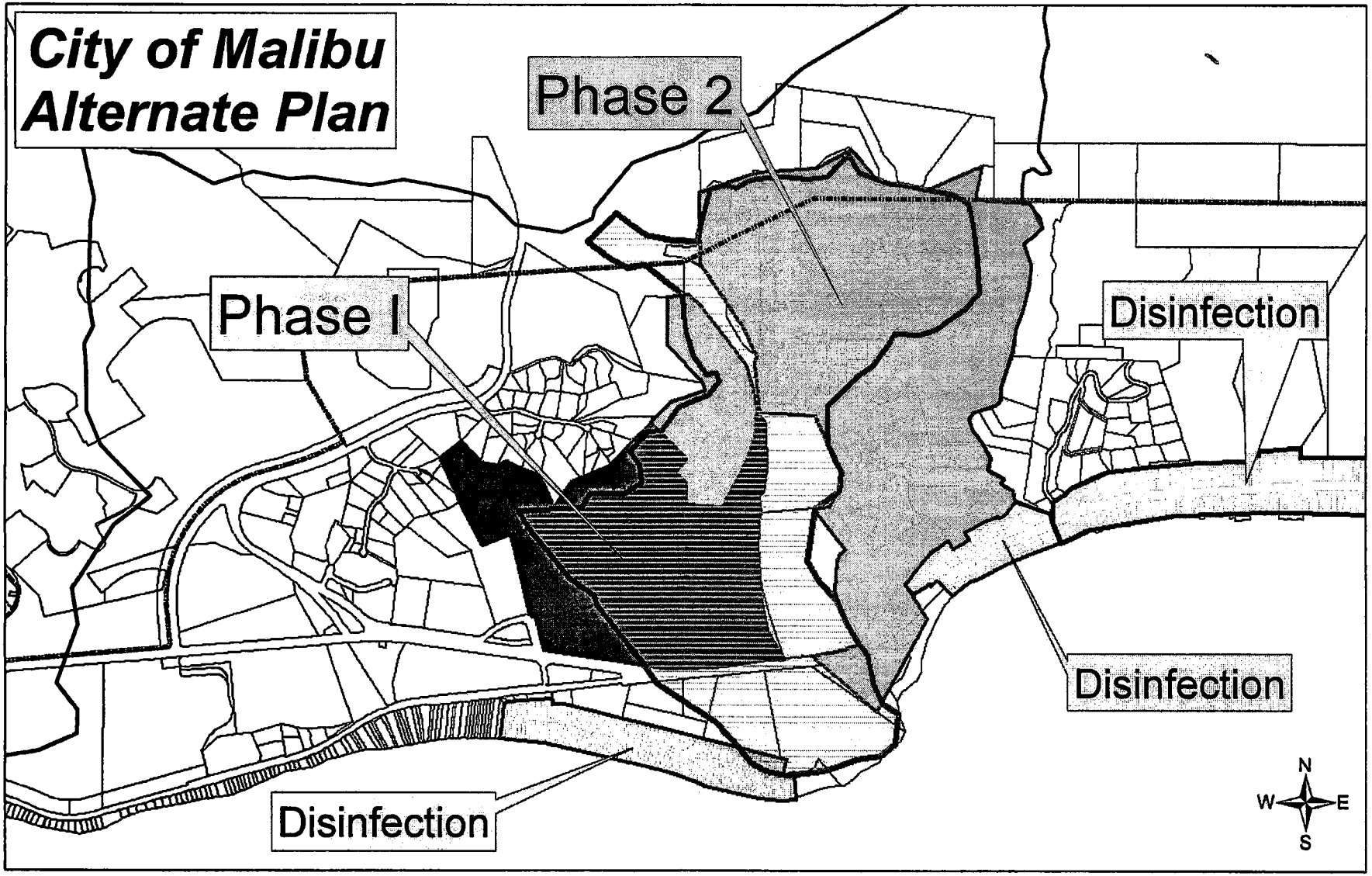
Region Overview



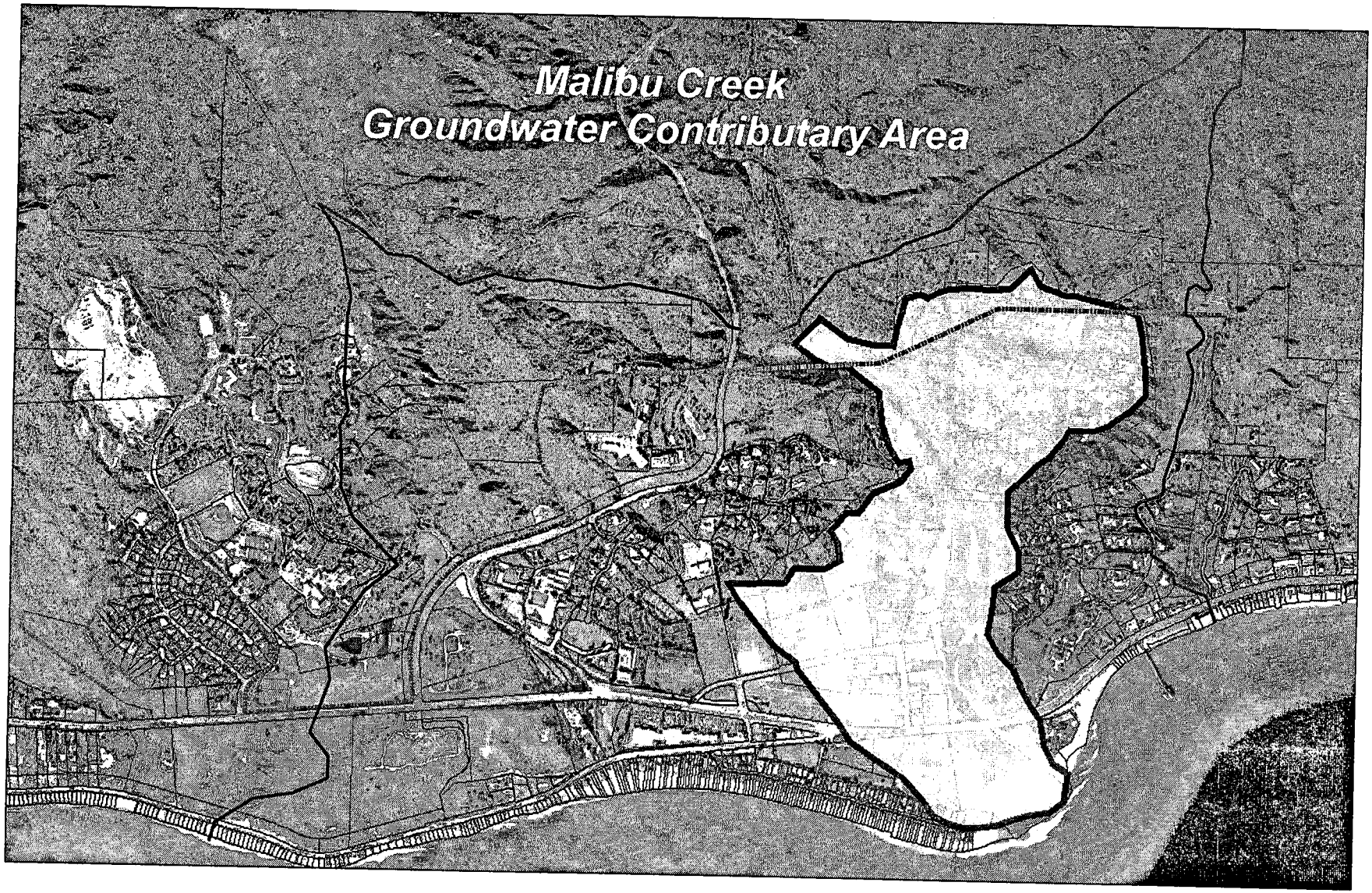
Region Overview



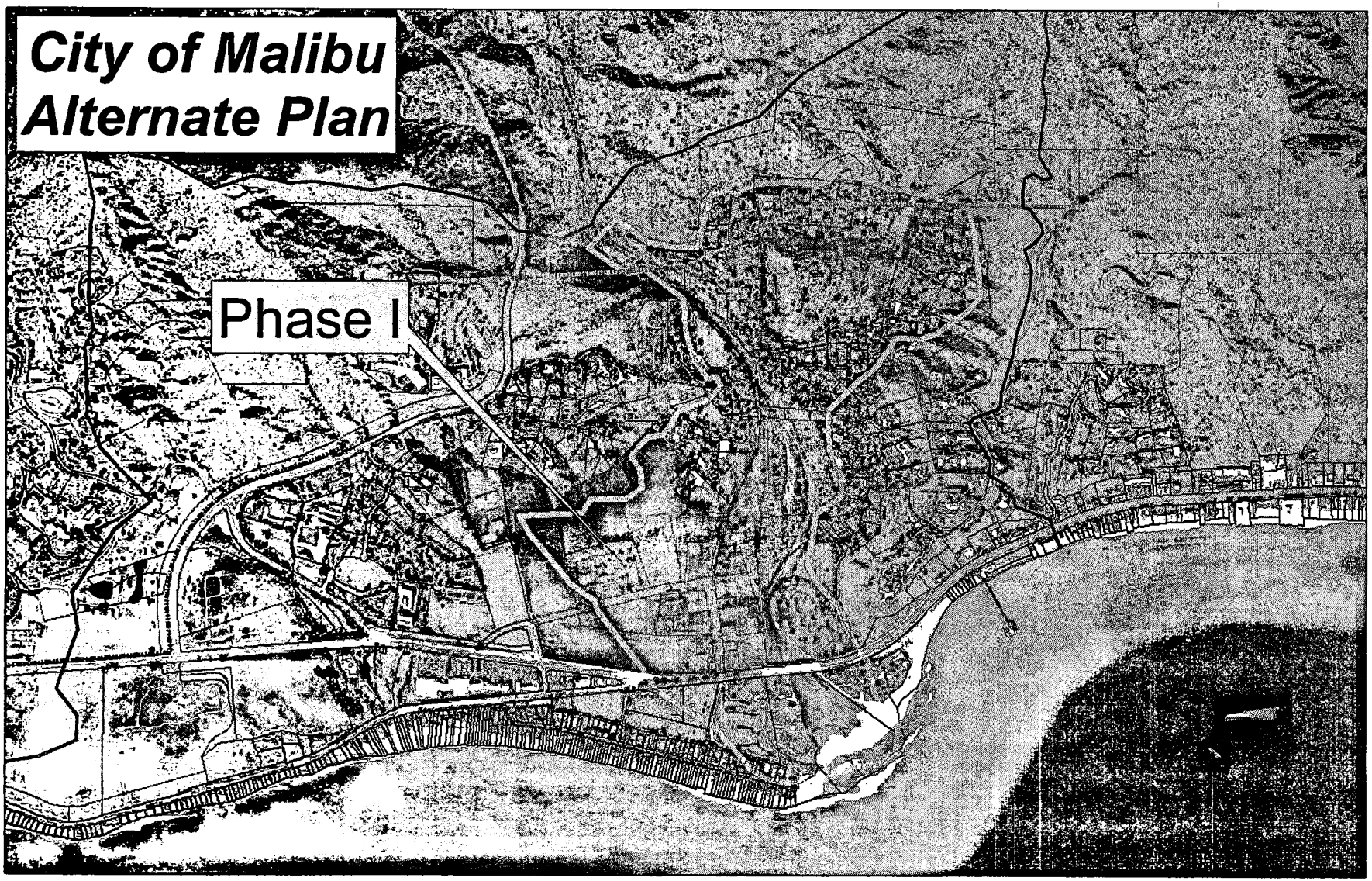
Alternate Plan Boundary & Components



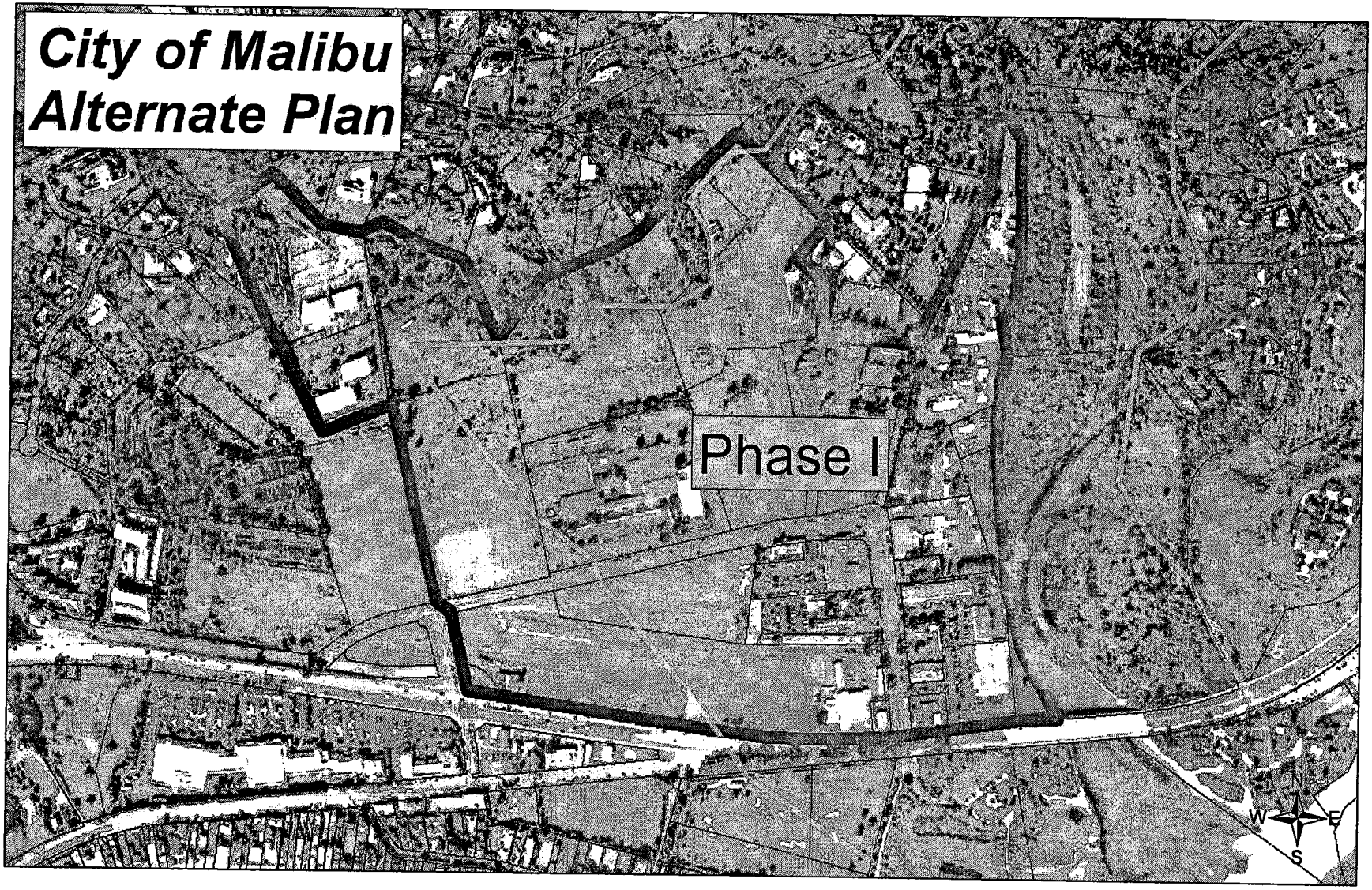
Alternate Plan Boundary & Components



Alternate Plan Boundary & Components



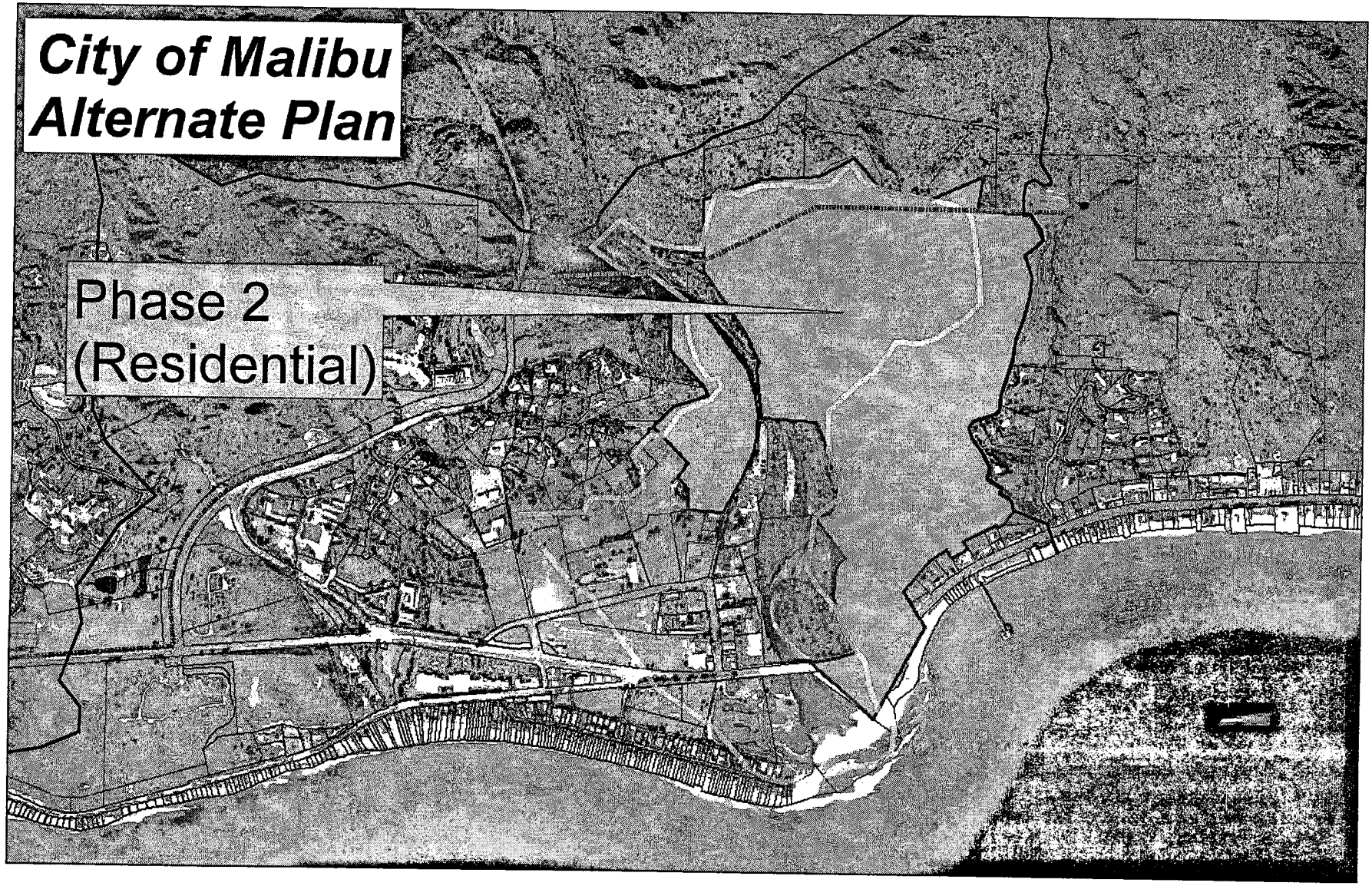
Alternate Plan Boundary & Components



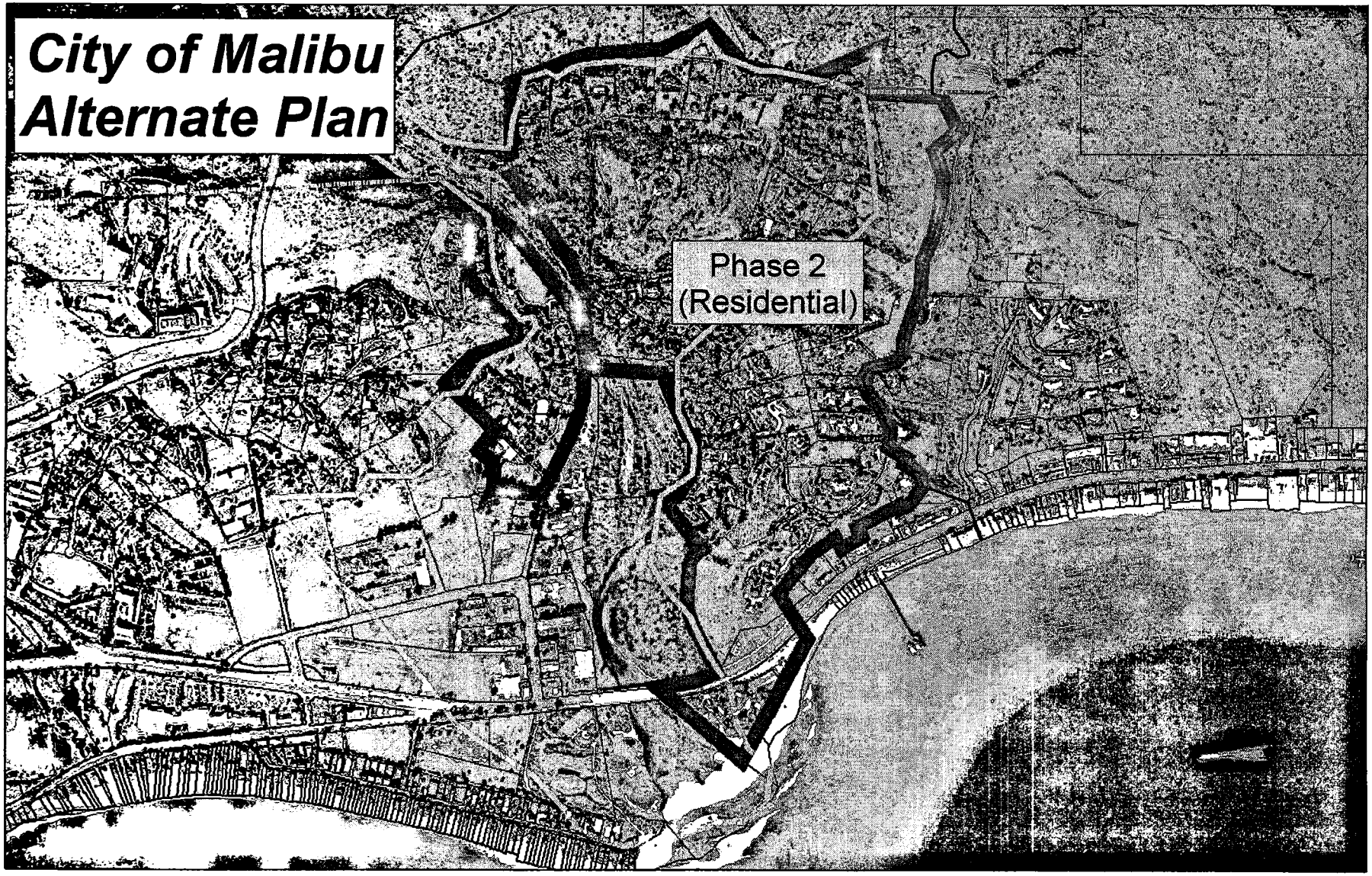
Centralized Wastewater System For Civic Center Area

- State-of-the-art reclamation plant
  - Membrane bioreactor (MBR) technology
- Designed to maximize the use of recycled water
- Treatment facility could be located at La Paz, Wave property or other site (Min. 2 acres needed)
- Dispersal fields located in Winter Canyon
- Capacity to treat 190,000 gallons per day
- Targets commercial properties that have high effluent levels within close proximity to Malibu Creek
- Eliminates bacteria & reduces nitrogen infiltration

Alternate Plan Boundary & Components



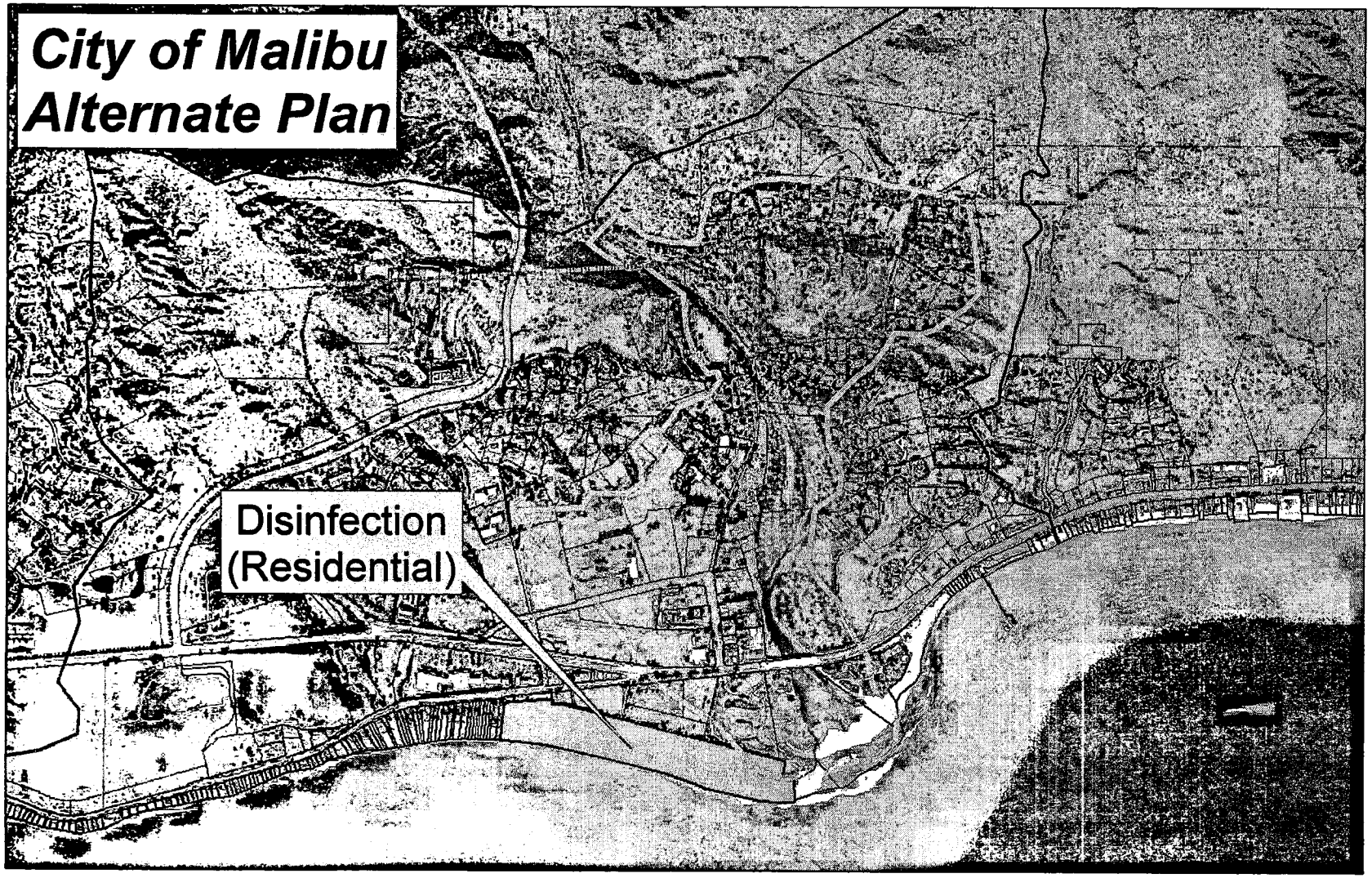
Alternate Plan Boundary & Components



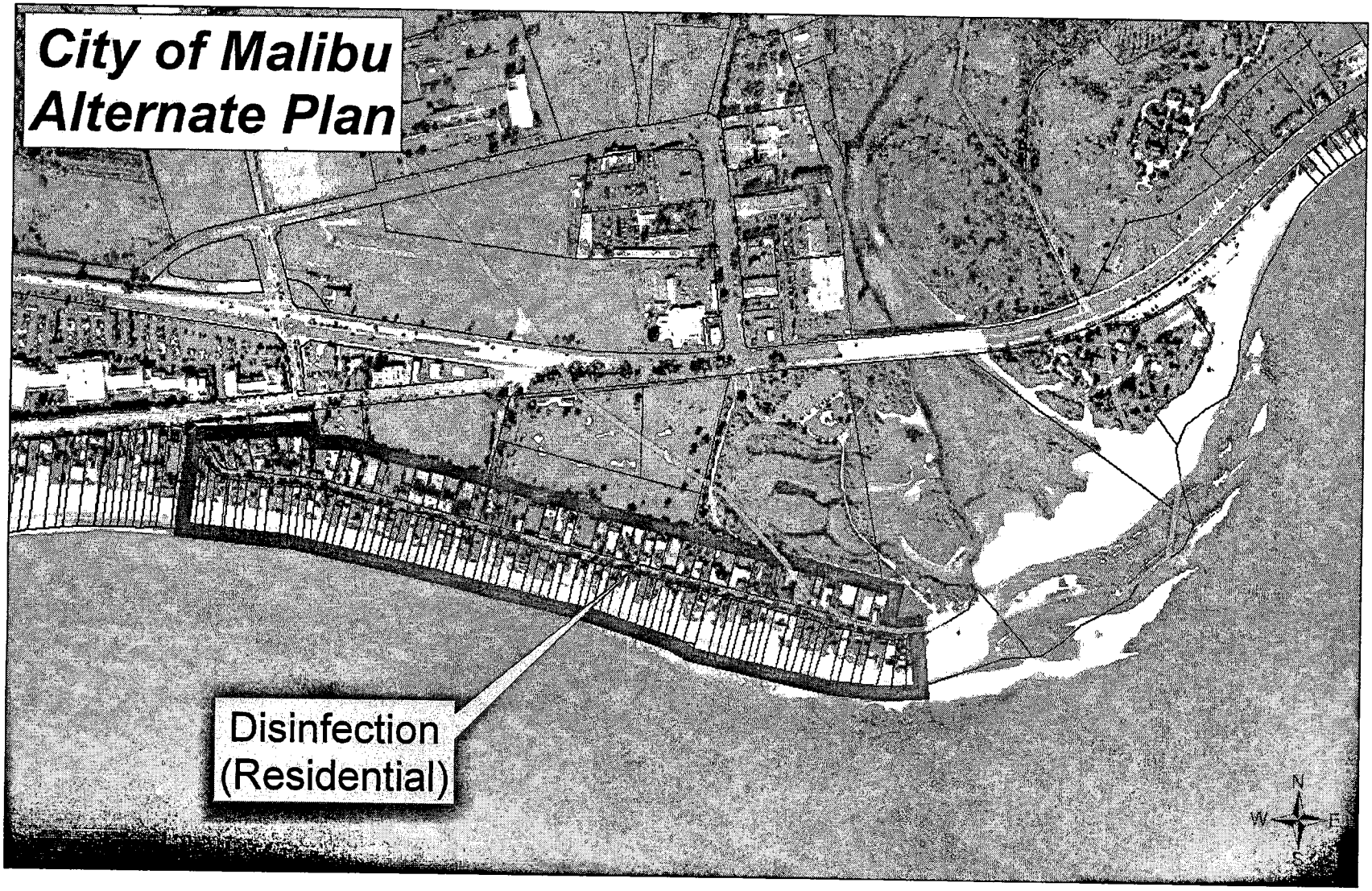
Centralized Wastewater System For Residential (Serra Retreat)

- Connect into Phase I reclamation facility
- Dispersal fields located in Winter Canyon or other acceptable location
- Capacity to treat 50,000 gallons per day
- Design to maximize use of recycled water
- Addresses residential onsite systems within close proximity to Malibu Creek
- Eliminates bacteria & reduces nitrogen infiltration

Alternate Plan Boundary & Components



Alternate Plan Boundary & Components



Disinfection System For Residential (Malibu Colony)

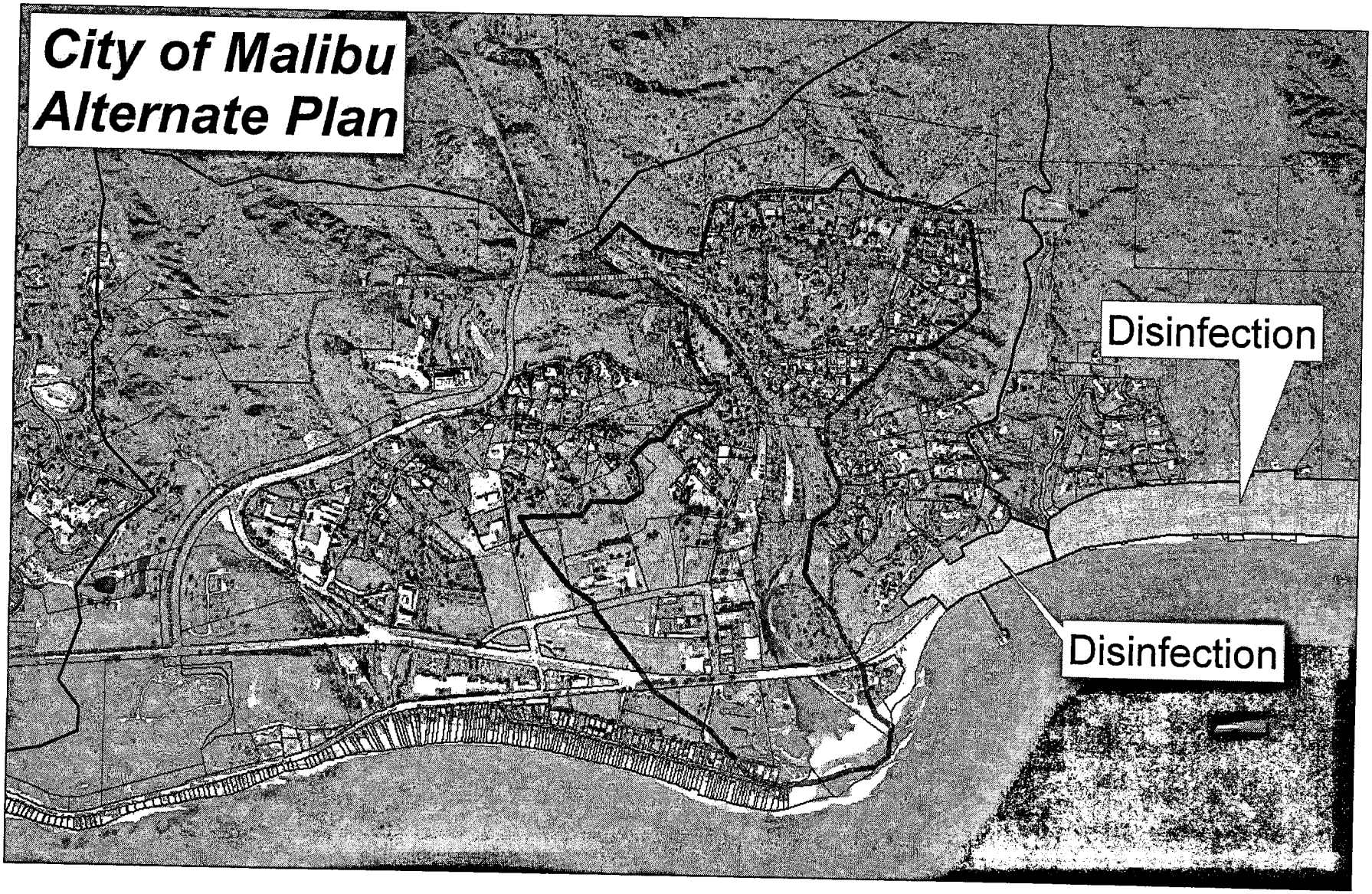
- Disinfection removes bacteria/pathogens
  - Ultraviolet light
  - Chlorination
  - Ozonization

- City to adopt local ordinance requiring installation of disinfection systems
  - Ordinance adopted within one year
  - Systems installed by 2018

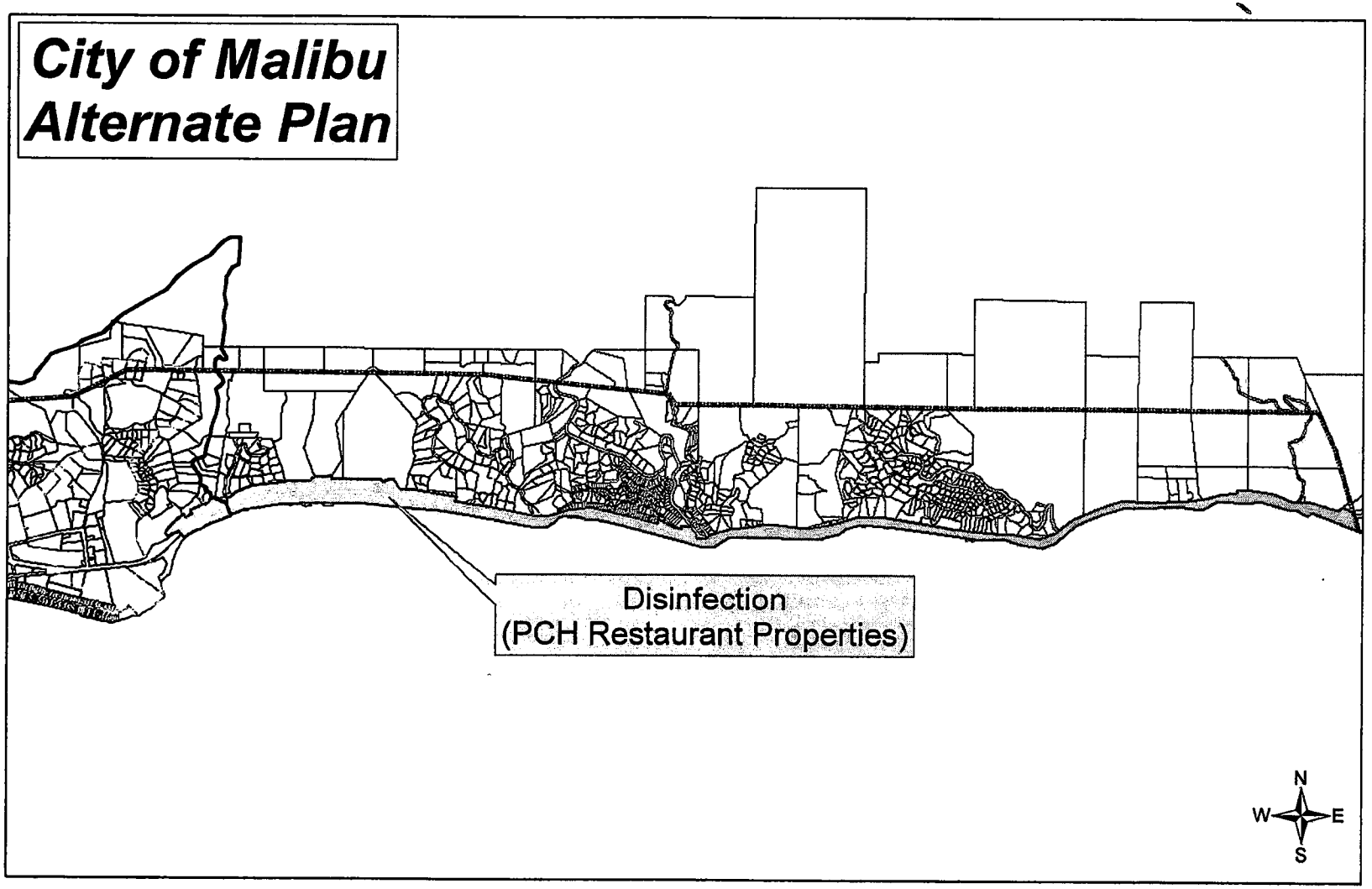
- Ordinance currently exists mandating homeowners install disinfection if *adding* to waste disposal (i.e.: shower, toilet, etc.)

- 10-20% of Colony homes already have advanced disinfection treatment systems
  - 100 houses would need to comply

Alternate Plan Boundary & Components



Alternate Plan Boundary & Components



Disinfection System For PCH Restaurant Areas

Disinfection removes bacteria/pathogens

- Ultraviolet light
- Chlorination
- Ozonization

City to adopt local ordinance requiring installation of disinfection systems

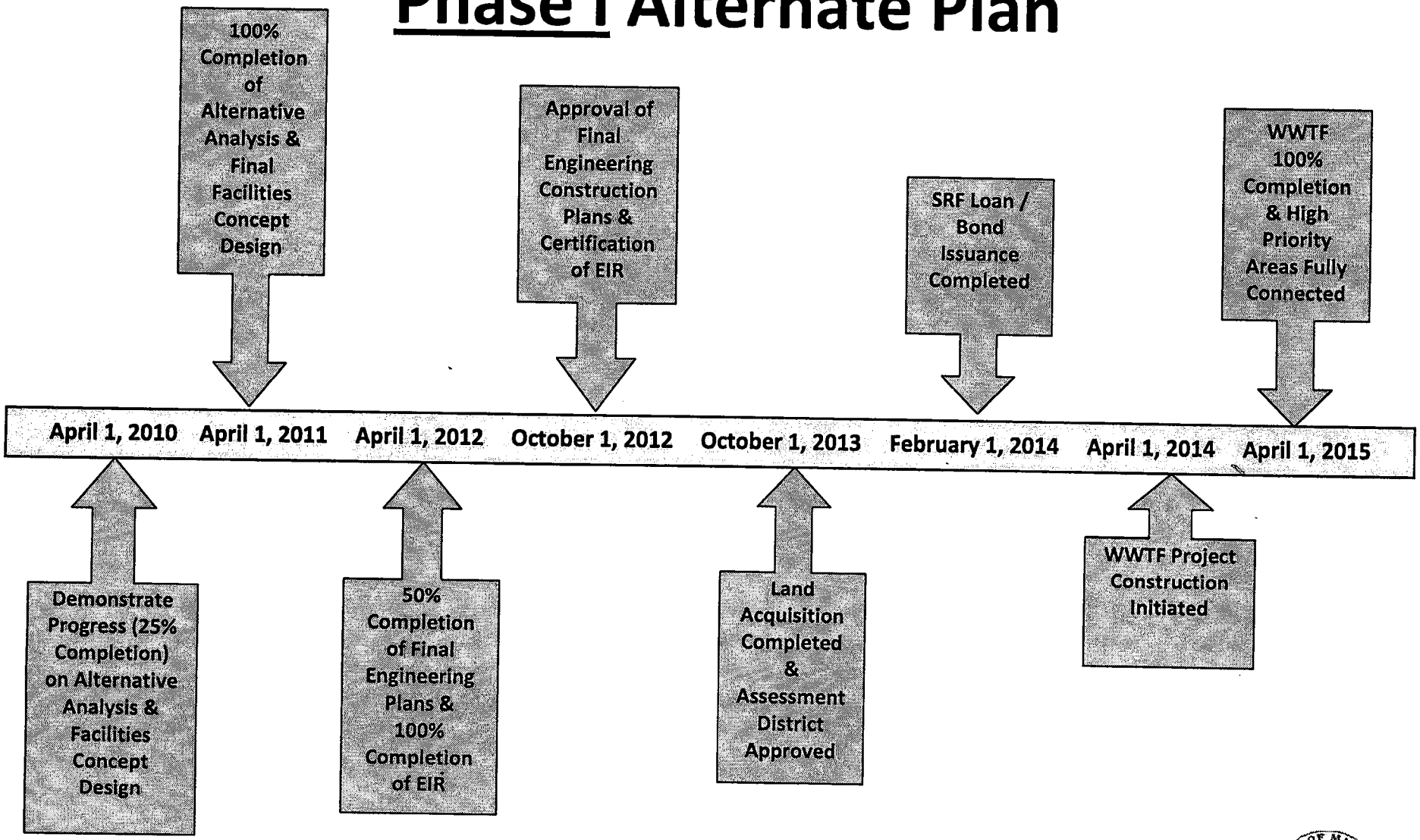
- Ordinance adopted within one year
- Systems installed by 2018

- 5 properties with restaurants already have advanced disinfection treatment systems installed
- 14 properties with restaurants would need to comply

Benefits Of Alternate Plan

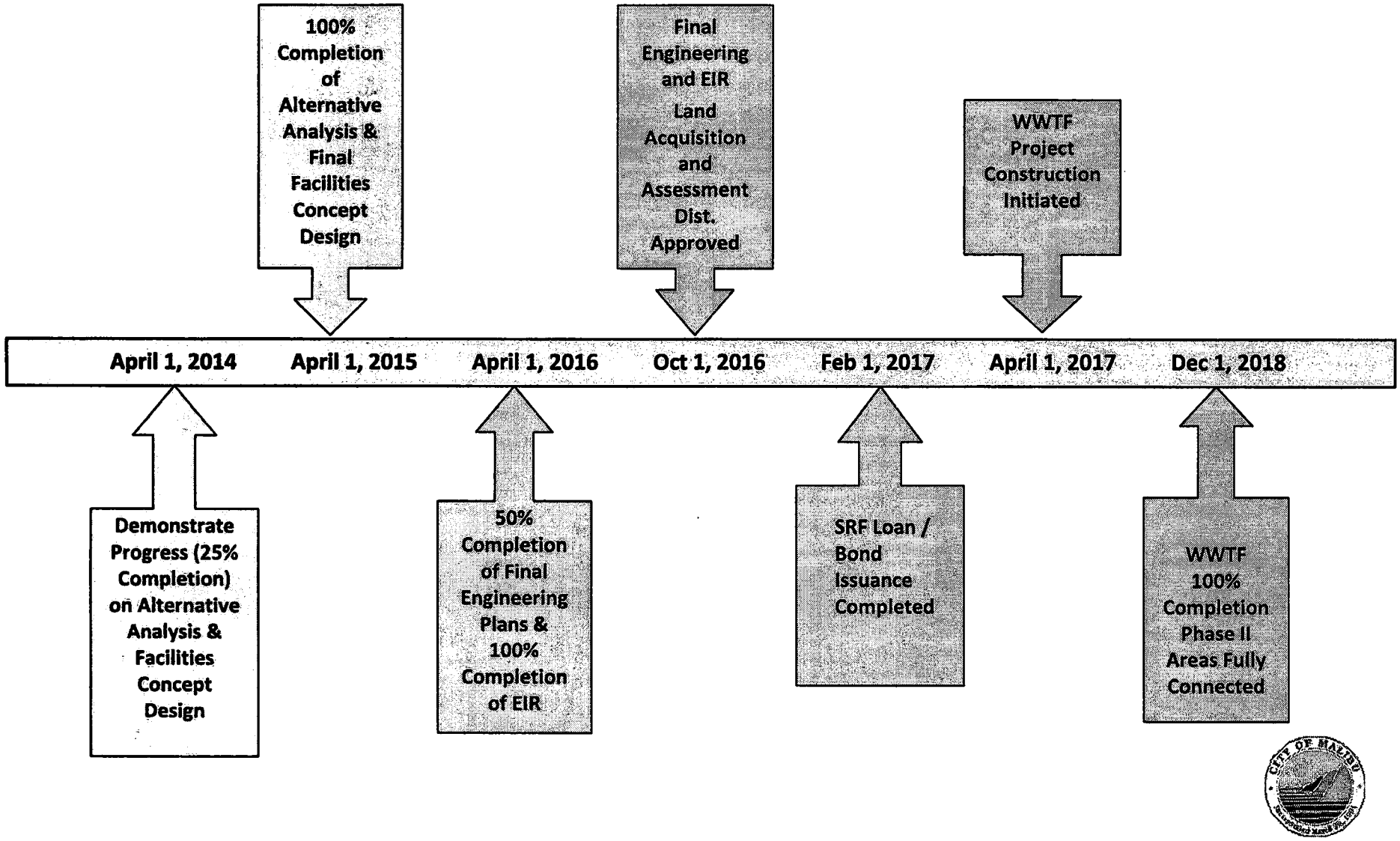
- Effectively achieves water quality objectives
- Bases decisions on best available science
- Implements risk-based targeted approach to wastewater treatment
  - Focuses on high impact areas
  - Deploys appropriate technologies for sub-regions
  - Allows for Construction of a modular wastewater treatment system
  - Capable of collectively treating 240,000 gallons per day
  - Realistic dispersal area in Winter Canyon
- Incorporates realistic and achievable implementation schedule
- Avoids State hearing and potential litigation

Implementation Schedule For Phase I Alternate Plan



2-760

Implementation Schedule For
Phase II Alternate Plan



Preliminary Budget Estimates

Regional Board Prohibition Zone:

Construction*	$52 million
O&M	$1.6M/yr
Business Monthly Cost	$6,800 - $17,000 (10,000 gpd - 25,000 gpd)
Residential Monthly Cost	$400-500

City of Malibu Alternate Plan (Phase I & II):

Construction*	$30.8 million
O&M	$700K/yr
Business Monthly Cost	$6,800 - $17,000 (10,000 gpd - 25,000 gpd)
Residential Monthly Cost	$400-500

Disinfection systems:

Restaurant installation	$80,000 – $100,000
Residential installation	$30,000 - $60,000

***NOTE:** Construction estimates exclude cost of land for Dispersal Areas or cost of land for WWTF

Financing Options

- SWRCB Clean Water State Revolving Fund (20 yr. low interest loan). City's application is on file and listed as high priority

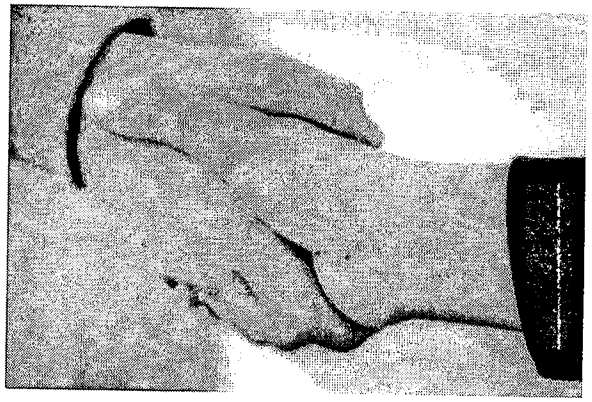
- OR –

- Local bond measure (30 yr. loan)

- **Formation of assessment district (parcel tax)**
  - ❖ **Requires 2/3 majority vote of benefitting property owners**

Conclusion: Continue Towards a Successful Partnership Between City & Regional Board

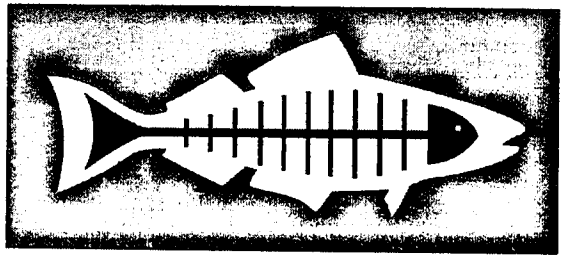
- City shares common goal of improving water quality
- City committed to moving forward to protect the public's health & the environment's natural resources
- We have developed a plan based upon a collaborative effort with residents, business owners, stakeholders, and with discussions with Board staff
- Recommend approving the City of Malibu's "Alternate Plan"



Presentation by
Heal the Bay staff

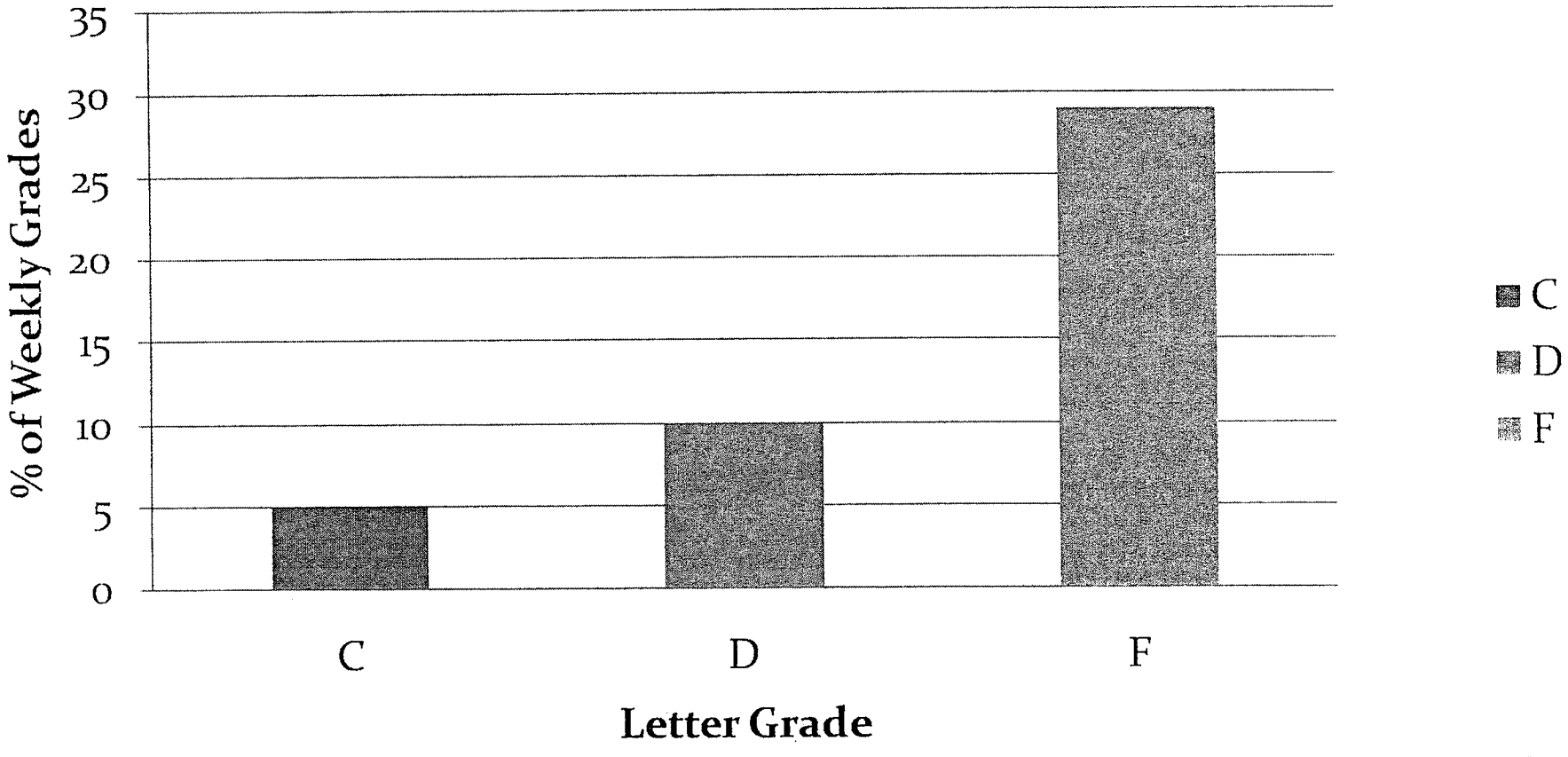
Malibu Septic Prohibition

November 5, 2009



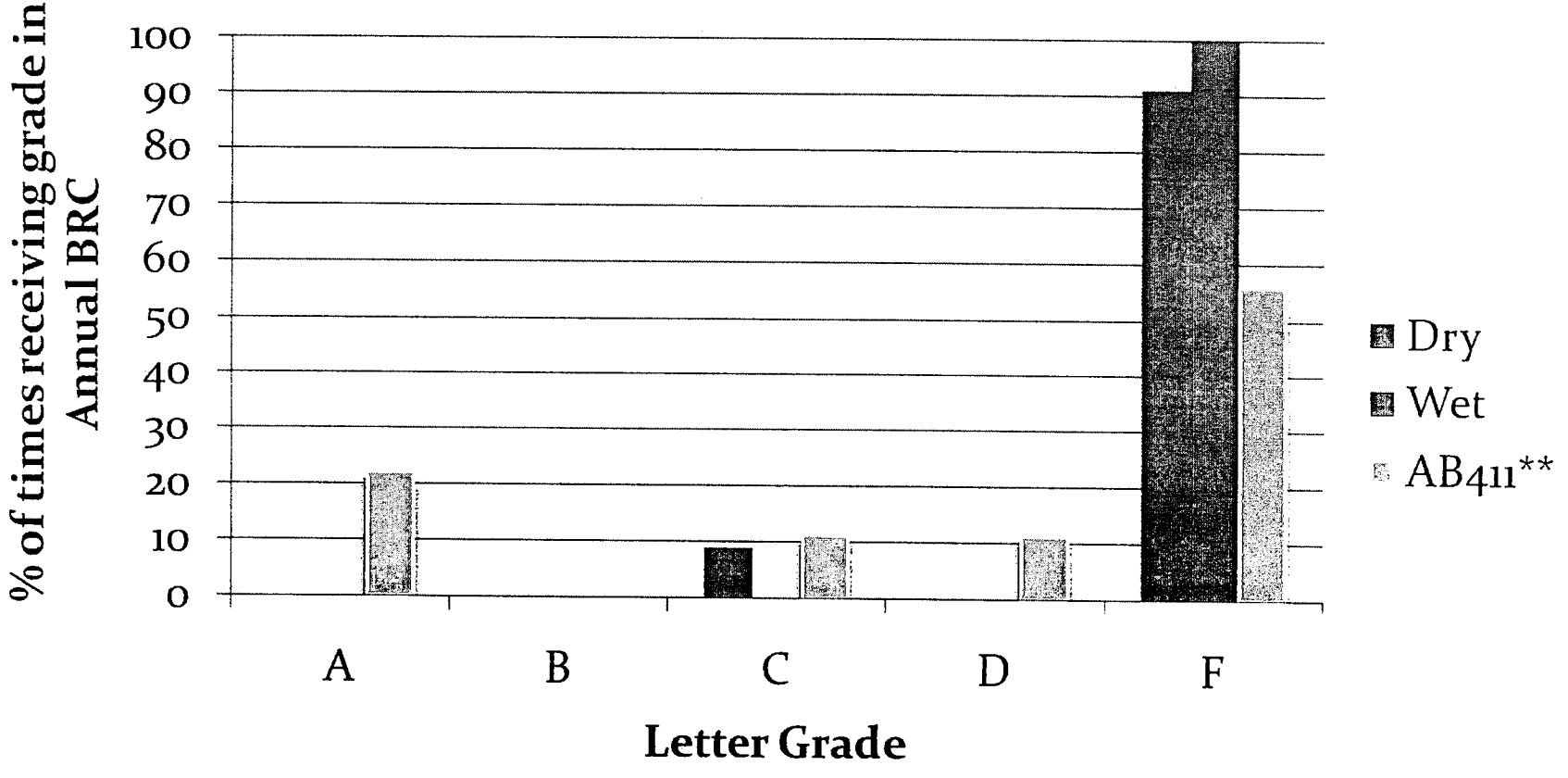
Heal the Bay

Surfrider Beach Grades
4/09-9/09



Heal the Bay

Surfrider Beach - Annual Grades
1999-2009



**Samples taken from April-September
(CA State law)

Heal the Bay

Total Maximum Daily Loads

- **Malibu Creek and Lagoon Bacteria**
  - In effect January 2006
  - January 2009 – compliance with summer dry weather WLAs
- **Malibu Creek and Lagoon Nutrients**
  - Established March 2002
  - Septics LAs: 6 lbs/d total N in summer; 0.9 lbs/d total P in summer; 8 mg/l total N in winter
- **Santa Monica Bay Beaches Bacteria TMDL**
  - In effect July 2003
  - July 2006 – compliance with summer dry weather WLAs
  - Nov 2009 – compliance with winter dry weather WLAs

Heal the Bay

SMBB Bacteria TMDL Violations

Surfrider Beach – AB411

Year	# of Violations
2006	14
2007	14
2008	76
2009	64

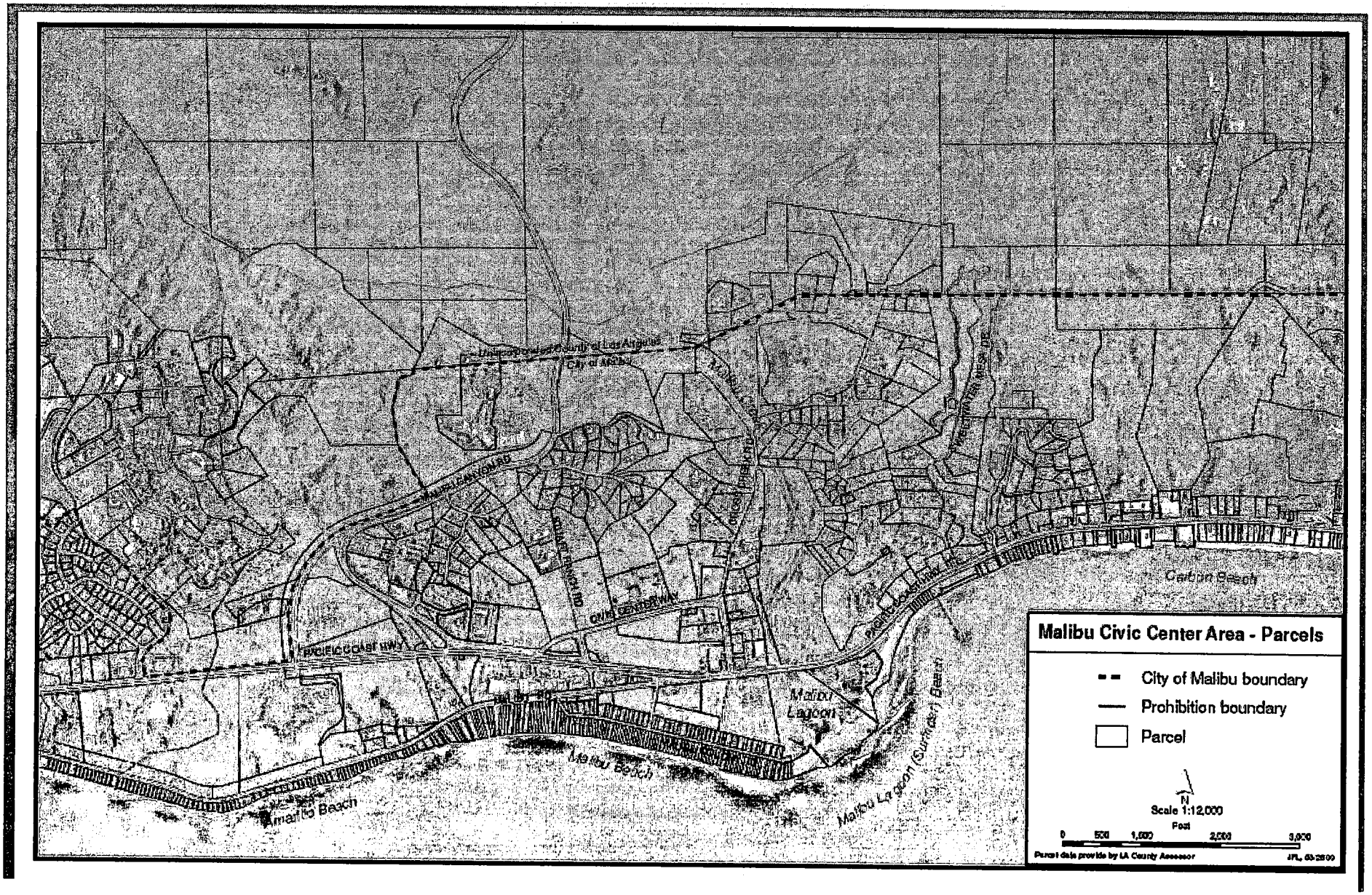
Tabulated by Heal the Bay

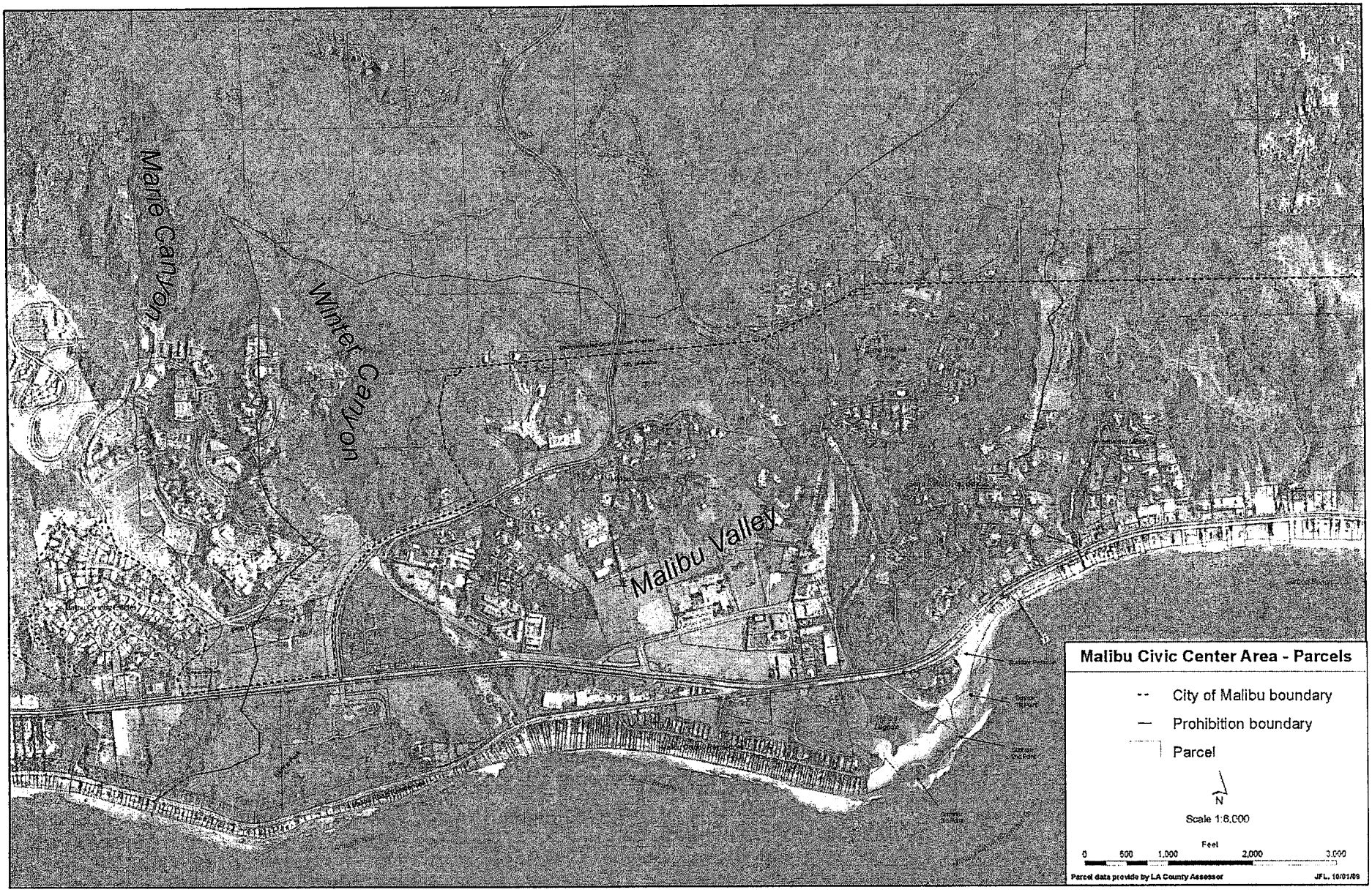
NOVs Issued to the City of Malibu

March 4, 2008 & October 15, 2009

Sept 2006-Oct 2007

- 836 instances when bacteria WQOs were exceeded (12 locations citywide)
- 16% at Surfrider


Malibu Civic Center Area - Parcels
City of Malibu boundary
Prohibition boundary
Parcel
N
Scale 1:12,000
Feet
0
500
1,000
2,000
3,000
Parcel data provide by LA County Assessor
PACIFIC COAST HWY
CIVIC CENTER WAY
Malibu Lagoon
Malibu Beach
Carbon Beach
Zuma Beach
Malibu Lagoon (Surfrider) Beach


Marie Canyon
Winter Canyon
Malibu Valley
Malibu Civic Center Area - Parcels
City of Malibu boundary
Prohibition boundary
Parcel
N
Scale 1:6,000
Feet
0
500
1,000
2,000
3,000
Parcel data provide by LA County Assessor
JFL, 10/01/09

Public Meeting
Sign-In Sheet

State of California
Environmental Protection Agency
State Water Resources Control Board
Los Angeles Regional Water Quality Control Board

SIGN-IN SHEET

Board Meeting
November 5, 2009

Name	Mail Address Company Name/Organization	E-Mail Address or Telephone Number	Add Name to Mail List
Bruce Douglas	Stone Environmental 535 Stone Cutters Way Montpelier, VT 05461	bdouglas@stone-env.com	✓
Chris Stone	"	cstone@stone-env.com	✓
JOE MEZCHIONE	MALIBU SURFING ASSOC ST BOARDER		
John Heintz	Latham & Watkins	john.heintz@lw.com	✓
Jenny Fung	CSULB - ESP Major	jennyf28@gmail.com	
Nicole Bullum	CSULB - ES•P Major	nbullum@aim.com	✓
INA ROMETSCH	Freelance Journalist	INA@INAROMETSCH.COM	
Mike Dreebin	12107 Stanwood Dr. L.A. CA 90066	mdreebin@earthlink.net	✓

2-173

State of California
Environmental Protection Agency
State Water Resources Control Board
Los Angeles Regional Water Quality Control Board

SIGN-IN SHEET

Board Meeting
November 5, 2009

Name	Mail Address Company Name/Organization	E-Mail Address or Telephone Number	Add Name to Mail List
HOWARD SMITH	MALIBU TC	318-929-2005	Yes
Brent Thorell	HRL Laboratories, LLC 3011 Malibu Canyon Rd. Malibu, Ca 90265	bthorell@hrl.com	Yes
DAVID REZNIK	MALIBU BAY CO	REZ1@EARTHLINK.NET	Yes
Gene Lucero	Latham & Watkins for Malibu Realty	gene.lucero@lw.com	yes
Tatiana K. Gaur	SMBK 120 Broadway #105, SM, CA 90401	tgaur@smbaykeeper.org	
Tom Ford	— " —	tford@smbaykeeper.org	
CHRIS SORENSEN	SORENSEN ARCHITECTS	chris@sorensenarchitects.com	
Peter Thams	EIC Services	thams.peter@gmail.com	yes

2-774

State of California
Environmental Protection Agency
State Water Resources Control Board
Los Angeles Regional Water Quality Control Board

SIGN-IN SHEET

Board Meeting
November 5, 2009

Name	Mail Address Company Name/Organization	E-Mail Address or Telephone Number	Add Name to Mail List
Robert Gold	A2 Winter Mesa/Bigrock Partners	rgold@bigrockpartners.com	
Jennifer Voccola	City of Malibu	jvoccola@ci.malibu.ca.us	
ANDREA BOCCALETTI	The Surfrider Foundation	andreaboccalettii@gmail.com	
SUSAN SHEROD	SURFRIDER & SELF	sherod_suzy@yahoo.com	
PHIL GEORGE	SF	pgeorgemiles@yahoo.com	
Richard Stapler	24455 PCH Malibu Knolls Property Owners Assn	RJSMalibu@charter.net	
Jacqueline Gamble	Las Virgenes MWD	jgamble@LVMWD.com	

2-775

Speaker Cards
from Public Meeting

State of California
Environmental Protection Agency
Water Resources Control Board
Los Angeles Regional Water Quality Control Board

SPEAKER REQUEST CARD

Date: Nov. 5, 2009

I wish to speak during the Board Meeting:

✓ **I wish to speak on Agenda Item No.** 9
___ **I wish to speak during Public Forum on a non-agenda item.**

I do not wish to speak but I do want to express the following position:

___ **I support Agenda Item No.** _____
___ **I oppose Agenda Item No.** _____

Name: Pio LOMBARDO, P.E

___ **Representing Self**
✓ **Representing:** MALIBU VILLAGE PLAZA MALIBU SYCAMORE VILLAGE, LA PAZ, MIRAMAR PROPERTY IN CIVIC CENTER, SOBORO-P PARTNERS

Unless exempted by the Board, comments are limited to three (3) minutes.

State of California
Environmental Protection Agency
Water Resources Control Board
Los Angeles Regional Water Quality Control Board

SPEAKER REQUEST CARD

Date: 11/5/09

*20 minutes approved

I wish to speak during the Board Meeting:

X **I wish to speak on Agenda Item No.** 9 (Malibu Septics)
___ **I wish to speak during Public Forum on a non-agenda item.**

I do not wish to speak but I do want to express the following position:

___ **I support Agenda Item No.** _____
___ **I oppose Agenda Item No.** _____

Name: Mark Gold

___ **Representing Self**
___ **Representing:** Heal the Bay

Unless exempted by the Board, comments are limited to three (3) minutes.

State of California
Environmental Protection Agency
Water Resources Control Board
Los Angeles Regional Water Quality Control Board

SPEAKER REQUEST CARD

Date: 11/5/09

____ **I wish to speak during Public Forum on a non-agenda item.**

I wish to speak during the Board Meeting:

____ **I wish to speak on Agenda Item No.** 9

____ **In Support** ✓ **In Opposition**

I do not wish to speak but I do want to express the following position:

____ **I support Agenda Item No.** _____

____ **I oppose Agenda Item No.** _____

Name: STEVE BRABAND

____ **Representing Self**

____ **Representing:** MALIBU WASTEWATER ADVISORY COMMITTEE

Unless exempted by the Board, comments are limited to three (3) minutes.

State of California
Environmental Protection Agency
Water Resources Control Board
Los Angeles Regional Water Quality Control Board

SPEAKER REQUEST CARD

Date: 11/5/09

I wish to speak during the Board Meeting:

✓ **I wish to speak on Agenda Item No.** 9

____ **I wish to speak during Public Forum on a non-agenda item.**

I do not wish to speak but I do want to express the following position:

____ **I support Agenda Item No.** _____

____ **I oppose Agenda Item No.** _____

Name: TAMAR C. STEIN

____ **Representing Self**

✓ **Representing:** Malibu La Paz Ranch LLC

Unless exempted by the Board, comments are limited to three (3) minutes.

State of California
Environmental Protection Agency
Water Resources Control Board
Los Angeles Regional Water Quality Control Board

Approved for 8 Minutes

SPEAKER REQUEST CARD

~~8 minutes~~

Date: 11-5-09

I wish to speak during the Board Meeting:

X **I wish to speak on Agenda Item No.** _____
___ **I wish to speak during Public Forum on a non-agenda item.**

I do not wish to speak but I do want to express the following position:

___ **I support Agenda Item No.** _____
___ **I oppose Agenda Item No.** _____

Sally McGraven - 3 min

Name: Dean R. Isaacson

X **Representing Self**
___ **Representing:** _____

5 min

Unless exempted by the Board, comments are limited to three (3) minutes.

1 of 2

State of California
Environmental Protection Agency
Water Resources Control Board
Los Angeles Regional Water Quality Control Board

SPEAKER REQUEST CARD

Date: 11/5/09

___ **I wish to speak during Public Forum on a non-agenda item.**

I wish to speak during the Board Meeting:

X **I wish to speak on Agenda Item No.** 9

X **In Support** _____ **In Opposition**

I do not wish to speak but I do want to express the following position:

___ **I support Agenda Item No.** _____
___ **I oppose Agenda Item No.** _____

Name: Sally McGraven

✓ **Representing Self** 78

State of California
Environmental Protection Agency
Water Resources Control Board
Los Angeles Regional Water Quality Control Board

SPEAKER REQUEST CARD

Date: 11/5/2009

I wish to speak during the Board Meeting:

✓ **I wish to speak on Agenda Item No.** 9 Septic System Ban
____ **I wish to speak during Public Forum on a non-agenda item.**

I do not wish to speak but I do want to express the following position:

____ **I support Agenda Item No.** _____
____ **I oppose Agenda Item No.** _____

Name: Gene Lucero

____ **Representing Self**
✓ **Representing:** Malibu Realty

Unless exempted by the Board, comments are limited to three (3) minutes.
Request 5 mins.

State of California
Environmental Protection Agency
Water Resources Control Board
Los Angeles Regional Water Quality Control Board

SPEAKER REQUEST CARD

Date: 11/5/2009

I wish to speak during the Board Meeting:

____ **I wish to speak on Agenda Item No.** 9
____ **I wish to speak during Public Forum on a non-agenda item.**

I do not wish to speak but I do want to express the following position:

____ **I support Agenda Item No.** _____
✗ **I oppose Agenda Item No.** 9

Name: Pio Lombardo

____ **Representing Self**
✗ **Representing:** La Paz, Sycamore Village, Whole Foods

Unless exempted by the Board, comments are limited to three (3) minutes.

State of California
Environmental Protection Agency
Water Resources Control Board
Los Angeles Regional Water Quality Control Board

SPEAKER REQUEST CARD

Date: 11/5/09

I wish to speak during the Board Meeting:

__✓__ **I wish to speak on Agenda Item No.** 9 (support)
____ **I wish to speak during Public Forum on a non-agenda item.**

I do not wish to speak but I do want to express the following position:

____ **I support Agenda Item No.** _____
____ **I oppose Agenda Item No.** _____

Name: Ken Seino

__✓__ **Representing Self**
____ **Representing:** _____

Unless exempted by the Board, comments are limited to three (3) minutes.

State of California
Environmental Protection Agency
Water Resources Control Board
Los Angeles Regional Water Quality Control Board

SPEAKER REQUEST CARD

Date: 11-5-09

I wish to speak during the Board Meeting:

__✓__ **I wish to speak on Agenda Item No.** _____
____ **I wish to speak during Public Forum on a non-agenda item.**

I do not wish to speak but I do want to express the following position:

____ **I support Agenda Item No.** 9
____ **I oppose Agenda Item No.** _____

Name: Grant Adamson

____ **Representing Self**
__✓__ **Representing:** M.H.A.B. Trust

Unless exempted by the Board, comments are limited to three (3) minutes.

State of California
Environmental Protection Agency
Water Resources Control Board
Los Angeles Regional Water Quality Control Board

SPEAKER REQUEST CARD

Date: 11/5/09

I wish to speak during the Board Meeting:

____ I wish to speak on Agenda Item No. _____
____ I wish to speak during Public Forum on a non-agenda item.

I do not wish to speak but I do want to express the following position:

✓ I support Agenda Item No. 9
____ I oppose Agenda Item No. _____

Name: Renata V Woldorff
✓ Representing Self
____ Representing: _____

State of California
Environmental Protection Agency
Water Resources Control Board
Los Angeles Regional Water Quality Control Board

SPEAKER REQUEST CARD

Date: 11-5-09

I wish to speak during the Board Meeting:

____ I wish to speak on Agenda Item No. _____
____ I wish to speak during Public Forum on a non-agenda item.

I do not wish to speak but I do want to express the following position:

✓ I support Agenda Item No. 9
____ I oppose Agenda Item No. _____

Name: Lihan Chen
X Representing Self
____ Representing: _____

State of California
Environmental Protection Agency
Water Resources Control Board
Los Angeles Regional Water Quality Control Board

SPEAKER REQUEST CARD

Date: 11/5/09

I wish to speak during the Board Meeting:

____ I wish to speak on Agenda Item No. _____
____ I wish to speak during Public Forum on a non-agenda item.

I do not wish to speak but I do want to express the following position:

__X__ I support Agenda Item No. 9
____ I oppose Agenda Item No. _____

Name: PATRICK MATAMA220
__X__ Representing Self
____ Representing: _____

State of California
Environmental Protection Agency
Water Resources Control Board
Los Angeles Regional Water Quality Control Board

SPEAKER REQUEST CARD

Date: 11-5-09

____ I wish to speak during Public Forum on a non-agenda item.

I wish to speak during the Board Meeting:

____ I wish to speak on Agenda Item No. ____

_____ In Support _____ In Opposition

I do not wish to speak but I do want to express the following position:

__X__ I support Agenda Item No. 9
____ I oppose Agenda Item No. _____

Name: [signature]
__X__ Representing Self
____ Representing: R-782

State of California
Environmental Protection Agency
Water Resources Control Board
Los Angeles Regional Water Quality Control Board

SPEAKER REQUEST CARD

Date: 11/5/2009

____ I wish to speak during Public Forum on a non-agenda item.

I wish to speak during the Board Meeting:

____ I wish to speak on Agenda Item No. _____

_____ In Support _____ In Opposition

I do not wish to speak but I do want to express the following position:

✓ I support Agenda Item No. _____
____ I oppose Agenda Item No. _____

Name: Margarito Catig

✓ Representing Self
____ Representing: _____

Unless exempted by the Board, comments are limited to three (3) minutes.

State of California
Environmental Protection Agency
Water Resources Control Board
Los Angeles Regional Water Quality Control Board

SPEAKER REQUEST CARD

Date: 11/5/09

I wish to speak during the Board Meeting:

____ I wish to speak on Agenda Item No. 9
____ I wish to speak during Public Forum on a non-agenda item.

I do not wish to speak but I do want to express the following position:

✓ I support Agenda Item No. 9
____ I oppose Agenda Item No. _____

Name: Walter Patrick

✓ Representing Self
____ Representing: _____

State of California
Environmental Protection Agency
Water Resources Control Board
Los Angeles Regional Water Quality Control Board

SPEAKER REQUEST CARD

Date: 11/5/09

I wish to speak during the Board Meeting:

____ I wish to speak on Agenda Item No. 9
____ I wish to speak during Public Forum on a non-agenda item.

I do not wish to speak but I do want to express the following position:

✓ I support Agenda Item No. 9
____ I oppose Agenda Item No. _____

Name: John Yep
✓ Representing Self
____ Representing: _____

State of California
Environmental Protection Agency
Water Resources Control Board
Los Angeles Regional Water Quality Control Board

SPEAKER REQUEST CARD

Date: 11/5/09

____ I wish to speak during Public Forum on a non-agenda item.

I wish to speak during the Board Meeting:

____ I wish to speak on Agenda Item No. 9

_____ In Support _____ In Opposition

I do not wish to speak but I do want to express the following position:

✓ I support Agenda Item No. 9
____ I oppose Agenda Item No. _____

Name: GENER DETERA
✓ Representing Self
Representing:

State of California
Environmental Protection Agency
Water Resources Control Board
Los Angeles Regional Water Quality Control Board

SPEAKER REQUEST CARD

Date: 11/5/09

____ **I wish to speak during Public Forum on a non-agenda item.**

I wish to speak during the Board Meeting:

____ **I wish to speak on Agenda Item No.** _____

_____ **In Support** _____ **In Opposition**

I do not wish to speak but I do want to express the following position:

X **I support Agenda Item No.** 9
____ **I oppose Agenda Item No.** _____

Name: B. A. SAYA

X **Representing Self**
____ **Representing:** _____

Unless exempted by the Board, comments are limited to three (3) minutes.

State of California
Environmental Protection Agency
Water Resources Control Board
Los Angeles Regional Water Quality Control Board

SPEAKER REQUEST CARD

Date: 11/5/09

I wish to speak during the Board Meeting:

____ **I wish to speak on Agenda Item No.** 9
____ **I wish to speak during Public Forum on a non-agenda item.**

I do not wish to speak but I do want to express the following position:

X **I support Agenda Item No.** 9
____ **I oppose Agenda Item No.** _____

Name: Rungsub Sumethasorn

X **Representing Self**
____ **Representing:** _____

State of California
Environmental Protection Agency
Water Resources Control Board
Los Angeles Regional Water Quality Control Board

SPEAKER REQUEST CARD

Date: 11/5/2009

____ I wish to speak during Public Forum on a non-agenda item.

I wish to speak during the Board Meeting:

____ I wish to speak on Agenda Item No. _____

_____ In Support _____ In Opposition

I do not wish to speak but I do want to express the following position:

X I support Agenda Item No. 9

____ I oppose Agenda Item No. _____

Name: GILLIAN HUMES

X Representing Self

____ Representing: _____

Unless exempted by the Board, comments are limited to three (3) minutes.

State of California
Environmental Protection Agency
Water Resources Control Board
Los Angeles Regional Water Quality Control Board

SPEAKER REQUEST CARD

Date: 11/5/09

____ I wish to speak during Public Forum on a non-agenda item.

I wish to speak during the Board Meeting:

____ I wish to speak on Agenda Item No. _____

_____ In Support _____ In Opposition

I do not wish to speak but I do want to express the following position:

X I support Agenda Item No. 9

____ I oppose Agenda Item No. _____

Name: FRANK CHIA

X Representing Self

Representing: 2-786

State of California
Environmental Protection Agency
Water Resources Control Board
Los Angeles Regional Water Quality Control Board

SPEAKER REQUEST CARD

Date: 11/___

____ **I wish to speak during Public Forum on a non-agenda item.**

I wish to speak during the Board Meeting:

____ **I wish to speak on Agenda Item No.** _____

_____ **In Support** _____ **In Opposition**

I do not wish to speak but I do want to express the following position:

__✓__ **I support Agenda Item No.** __9__
____ **I oppose Agenda Item No.** _____

Name: Joann Gonzales
__X__ **Representing Self**
____ **Representing:** _____

Unless exempted by the Board, comments are limited to three (3) minutes.

State of California
Environmental Protection Agency
Water Resources Control Board
Los Angeles Regional Water Quality Control Board

SPEAKER REQUEST CARD

Date: 11/5/09

I wish to speak during the Board Meeting:

____ **I wish to speak on Agenda Item No.** __9__
____ **I wish to speak during Public Forum on a non-agenda item.**

I do not wish to speak but I do want to express the following position:

__✓__ **I support Agenda Item No.** __9__
____ **I oppose Agenda Item No.** _____

Name: Cindy Alvarez
__✓__ **Representing Self**
____ **Representing:** Infrastructure Academy

State of California
Environmental Protection Agency
Water Resources Control Board
Los Angeles Regional Water Quality Control Board

SPEAKER REQUEST CARD

Date: 11/5/09

___ I wish to speak during Public Forum on a non-agenda item.

I wish to speak during the Board Meeting:

___ I wish to speak on Agenda Item No. 9

_✓_ In Support _____ In Opposition

I do not wish to speak but I do want to express the following position:

_✓_ I support Agenda Item No. 9

___ I oppose Agenda Item No. _____

Name: Bi-Lian Cheng

_✓_ Representing Self

___ Representing: _____

Unless exempted by the Board, comments are limited to three (3) minutes.

State of California
Environmental Protection Agency
Water Resources Control Board
Los Angeles Regional Water Quality Control Board

SPEAKER REQUEST CARD

Date: 11/5/09

___ I wish to speak during Public Forum on a non-agenda item.

I wish to speak during the Board Meeting:

___ I wish to speak on Agenda Item No. 9

_X_ In Support _____ In Opposition

I do not wish to speak but I do want to express the following position:

_X_ I support Agenda Item No. 9

___ I oppose Agenda Item No. _____

Name: Ryan Payne

_X_ Representing Self

Representing:

State of California
Environmental Protection Agency
Water Resources Control Board
Los Angeles Regional Water Quality Control Board

SPEAKER REQUEST CARD

Date: Nov 5/09

I wish to speak during the Board Meeting:

____ I wish to speak on Agenda Item No. _____
____ I wish to speak during Public Forum on a non-agenda item.

I do not wish to speak but I do want to express the following position:

__X__ I support Agenda Item No. 9
____ I oppose Agenda Item No. _____

Name: Justin Loveless
____ Representing Self
____ Representing: _____

State of California
Environmental Protection Agency
Water Resources Control Board
Los Angeles Regional Water Quality Control Board

SPEAKER REQUEST CARD

Date: 11/5/09

____ I wish to speak during Public Forum on a non-agenda item.

I wish to speak during the Board Meeting:

____ I wish to speak on Agenda Item No. 9
__✓__ In Support _____ In Opposition

I do not wish to speak but I do want to express the following position:
__✓__ I support Agenda Item No. 9
____ I oppose Agenda Item No. _____

Name: ~~Devin~~ Devin Carter
__✓__ Representing Self

State of California
Environmental Protection Agency
Water Resources Control Board
Los Angeles Regional Water Quality Control Board

SPEAKER REQUEST CARD

Date: 11/5/09

____ I wish to speak during Public Forum on a non-agenda item.

I wish to speak during the Board Meeting:

____ I wish to speak on Agenda Item No. _____

____ _____ In Support _____ In Opposition

I do not wish to speak but I do want to express the following position:

__✓__ I support Agenda Item No. 9
____ I oppose Agenda Item No. _____

Name: GONG-HORNG CHENG

____ Representing Self
____ Representing: MY SELF.

Unless exempted by the Board, comments are limited to three (3) minutes.

State of California
Environmental Protection Agency
Water Resources Control Board
Los Angeles Regional Water Quality Control Board

SPEAKER REQUEST CARD

Date: 11/5/09

I wish to speak during the Board Meeting:

____ I wish to speak on Agenda Item No. _____
__/__ I wish to speak during Public Forum on a non-agenda item.

I do not wish to speak but I do want to express the following position:

__X__ I support Agenda Item No. 9
____ I oppose Agenda Item No. _____

Name: Alli Mickens

__X__ Representing Self
____ Representing: _____

State of California
Environmental Protection Agency
Water Resources Control Board
Los Angeles Regional Water Quality Control Board

SPEAKER REQUEST CARD

Date: 11/5/09

____ I wish to speak during Public Forum on a non-agenda item.

I wish to speak during the Board Meeting:

____ I wish to speak on Agenda Item No. _____

_____ In Support _____ In Opposition

I do not wish to speak but I do want to express the following position:

____ I support Agenda Item No. 9

____ I oppose Agenda Item No. _____

Name: Jaime Daniels

✓ Representing Self

____ Representing: Self

Unless exempted by the Board, comments are limited to three (3) minutes.

State of California
Environmental Protection Agency
Water Resources Control Board
Los Angeles Regional Water Quality Control Board

SPEAKER REQUEST CARD

Date: 11/5/09

____ I wish to speak during Public Forum on a non-agenda item.

I wish to speak during the Board Meeting:

____ I wish to speak on Agenda Item No. _____

_____ In Support _____ In Opposition

I do not wish to speak but I do want to express the following position:

✓ I support Agenda Item No. 9

____ I oppose Agenda Item No. _____

Name: Barbara Boucher

✓ Representing Self

____ Representing: _____

State of California
Environmental Protection Agency
Water Resources Control Board
Los Angeles Regional Water Quality Control Board

SPEAKER REQUEST CARD

Date: 11/5/09

I wish to speak during the Board Meeting:

____ **I wish to speak on Agenda Item No.** 9
____ **I wish to speak during Public Forum on a non-agenda item.**

I do not wish to speak but I do want to express the following position:

✓ **I support Agenda Item No.** 9
____ **I oppose Agenda Item No.** _____

Name: ANKIT HANAMTE

✓ **Representing Self**
____ **Representing:** _____

State of California
Environmental Protection Agency
Water Resources Control Board
Los Angeles Regional Water Quality Control Board

SPEAKER REQUEST CARD

Date: 11/5/09

____ **I wish to speak during Public Forum on a non-agenda item.**

I wish to speak during the Board Meeting:

____ **I wish to speak on Agenda Item No.** _____

_____ **In Support** _____ **In Opposition**

I do not wish to speak but I do want to express the following position:

✓ **I support Agenda Item No.** 9
____ **I oppose Agenda Item No.** _____

Name: Troy William

✓ **Representing Self**

State of California
Environmental Protection Agency
Water Resources Control Board
Los Angeles Regional Water Quality Control Board

SPEAKER REQUEST CARD

Date: 11/5/09

I wish to speak during the Board Meeting:

____ **I wish to speak on Agenda Item No.** ____
____ **I wish to speak during Public Forum on a non-agenda item.**

I do not wish to speak but I do want to express the following position:

✓ **I support Agenda Item No.** 9
____ **I oppose Agenda Item No.** ____

Name: Tim O'Brien
✓ **Representing Self**
____ **Representing:** ____

State of California
Environmental Protection Agency
Water Resources Control Board
Los Angeles Regional Water Quality Control Board

SPEAKER REQUEST CARD

Date: 11/5/09

I wish to speak during the Board Meeting:

____ **I wish to speak on Agenda Item No.** ____
____ **I wish to speak during Public Forum on a non-agenda item.**

I do not wish to speak but I do want to express the following position:

X **I support Agenda Item No.** 9
____ **I oppose Agenda Item No.** ____

Name: Armando Cabrera
____ **Representing Self**
____ **Representing:** ____

State of California
Environmental Protection Agency
Water Resources Control Board
Los Angeles Regional Water Quality Control Board

SPEAKER REQUEST CARD

Date: 11/5/09

I wish to speak during the Board Meeting:

___ I wish to speak on Agenda Item No. _____
___ I wish to speak during Public Forum on a non-agenda item.

I do not wish to speak but I do want to express the following position:

X I support Agenda Item No. 9
___ I oppose Agenda Item No. _____

Name: CHUCK TOUSSIENG
X Representing Self
___ Representing: MSA - SELF

State of California
Environmental Protection Agency
Water Resources Control Board
Los Angeles Regional Water Quality Control Board

SPEAKER REQUEST CARD

Date: 11/5/09

___ I wish to speak during Public Forum on a non-agenda item.

I wish to speak during the Board Meeting:

___ I wish to speak on Agenda Item No. _____

_____ In Support _____ In Opposition

I do not wish to speak but I do want to express the following position:

✓ I support Agenda Item No. 9
___ I oppose Agenda Item No. _____

Name: Amany Samaan
✓ Representing Self
Representing: 3-794

State of California
Environmental Protection Agency
Water Resources Control Board
Los Angeles Regional Water Quality Control Board

SPEAKER REQUEST CARD

Date: 11/5/09

____ **I wish to speak during Public Forum on a non-agenda item.**

I wish to speak during the Board Meeting:

____ **I wish to speak on Agenda Item No.** _____

_____ **In Support** _____ **In Opposition**

I do not wish to speak but I do want to express the following position:

✓ **I support Agenda Item No.** 9

____ **I oppose Agenda Item No.** _____

Name: Saul Gutierrez

✓ **Representing Self**

____ **Representing:** _____

Unless exempted by the Board, comments are limited to three (3) minutes.

State of California
Environmental Protection Agency
Water Resources Control Board
Los Angeles Regional Water Quality Control Board

SPEAKER REQUEST CARD

Date: 11/5/09

____ **I wish to speak during Public Forum on a non-agenda item.**

I wish to speak during the Board Meeting:

____ **I wish to speak on Agenda Item No.** _____

_____ **In Support** _____ **In Opposition**

I do not wish to speak but I do want to express the following position:

✓ **I support Agenda Item No.** 9

____ **I oppose Agenda Item No.** _____

Name: Jeff Benoit

____ **Representing Self**

____ **Representing:** ~~795~~ Self

State of California
Environmental Protection Agency
Water Resources Control Board
Los Angeles Regional Water Quality Control Board

SPEAKER REQUEST CARD

Date: 11/5/09

____ I wish to speak during Public Forum on a non-agenda item.

I wish to speak during the Board Meeting:

____ I wish to speak on Agenda Item No. _____

_____ In Support _____ In Opposition

I do not wish to speak but I do want to express the following position:

✓ I support Agenda Item No. 9
____ I oppose Agenda Item No. _____

Name: Luis Villegas.
✓ Representing Self
____ Representing: _____

Unless exempted by the Board, comments are limited to three (3) minutes.

State of California
Environmental Protection Agency
Water Resources Control Board
Los Angeles Regional Water Quality Control Board

SPEAKER REQUEST CARD

Date: 11/5/09

I wish to speak during the Board Meeting:

____ I wish to speak on Agenda Item No. _____
____ I wish to speak during Public Forum on a non-agenda item.

I do not wish to speak but I do want to express the following position:

X I support Agenda Item No. 9
____ I oppose Agenda Item No. _____

Name: TRICIA SAWYER
____ Representing Self
____ Representing: MSA / self

State of California
Environmental Protection Agency
Water Resources Control Board
Los Angeles Regional Water Quality Control Board

SPEAKER REQUEST CARD

Date: 11/5/09

I wish to speak during the Board Meeting:

____ I wish to speak on Agenda Item No. _____
____ I wish to speak during Public Forum on a non-agenda item.

I do not wish to speak but I do want to express the following position:

✓ I support Agenda Item No. 9
____ I oppose Agenda Item No. _____

Name: Bonnie McTeed

X Representing Self
____ Representing: _____

State of California
Environmental Protection Agency
Water Resources Control Board
Los Angeles Regional Water Quality Control Board

SPEAKER REQUEST CARD

Date: 11/5/09

I wish to speak during the Board Meeting:

____ I wish to speak on Agenda Item No. _____
____ I wish to speak during Public Forum on a non-agenda item.

I do not wish to speak but I do want to express the following position:

✓ I support Agenda Item No. 9
____ I oppose Agenda Item No. _____

Name: Perry Hentges

✓ Representing Self
____ Representing: _____

State of California
Environmental Protection Agency
Water Resources Control Board
Los Angeles Regional Water Quality Control Board

SPEAKER REQUEST CARD

Date: 11/05

I wish to speak during the Board Meeting:

___ I wish to speak on Agenda Item No. 9
___ I wish to speak during Public Forum on a non-agenda item.

I do not wish to speak but I do want to express the following position:

X I support Agenda Item No. 9
___ I oppose Agenda Item No. _____

Name: JEFF SNOW
___ Representing Self
X Representing: SURFRIDER

State of California
Environmental Protection Agency
Water Resources Control Board
Los Angeles Regional Water Quality Control Board

SPEAKER REQUEST CARD

Date: 11/5/09

I wish to speak during the Board Meeting:

NO I wish to speak on Agenda Item No. 9
___ I wish to speak during Public Forum on a non-agenda item.

I do not wish to speak but I do want to express the following position:

yes I support Agenda Item No. 9
___ I oppose Agenda Item No. _____

Name: Yosnel Molina
X Representing Self
___ Representing: _____

Unless exempted by the Board, comments are limited to three (3) minutes.

State of California
Environmental Protection Agency
Water Resources Control Board
Los Angeles Regional Water Quality Control Board

SPEAKER REQUEST CARD

Date: 11/5/09

____ **I wish to speak during Public Forum on a non-agenda item.**

I wish to speak during the Board Meeting:

____ **I wish to speak on Agenda Item No.** 9

____ **In Support** ____ **In Opposition**

I do not wish to speak but I do want to express the following position:

X **I support Agenda Item No.** 9
____ **I oppose Agenda Item No.** _____

Name: Roger L?

✓ **Representing Self**
____ **Representing:** _____

Unless exempted by the Board, comments are limited to three (3) minutes.

State of California
Environmental Protection Agency
Water Resources Control Board
Los Angeles Regional Water Quality Control Board

SPEAKER REQUEST CARD

Date: 11/5/09

I wish to speak during the Board Meeting:

No **I wish to speak on Agenda Item No.** 9
____ **I wish to speak during Public Forum on a non-agenda item.**

I do not wish to speak but I do want to express the following position:

X **I support Agenda Item No.** 9
____ **I oppose Agenda Item No.** _____

Name: Max Fleischauer

✓ **Representing Self**
____ **Representing:** _____

Unless exempted by the Board, comments are limited to three (3) minutes.

State of California
Environmental Protection Agency
Water Resources Control Board
Los Angeles Regional Water Quality Control Board

SPEAKER REQUEST CARD

Date: 11/5/09

I wish to speak during the Board Meeting:

____ **I wish to speak on Agenda Item No.** 9
____ **I wish to speak during Public Forum on a non-agenda item.**

I do not wish to speak but I do want to express the following position:

____ ✓ **I support Agenda Item No.** 9
____ **I oppose Agenda Item No.** _____

Name: Bahram Akhavan
✓ **Representing Self**
____ **Representing:** _____

Unless exempted by the Board, comments are limited to three (3) minutes.

State of California
Environmental Protection Agency
Water Resources Control Board
Los Angeles Regional Water Quality Control Board

SPEAKER REQUEST CARD

Date: 11/5/09

I wish to speak during the Board Meeting:

____ **I wish to speak on Agenda Item No.** 9
____ **I wish to speak during Public Forum on a non-agenda item.**

I do not wish to speak but I do want to express the following position:

✓ **I support Agenda Item No.** 9
____ **I oppose Agenda Item No.** _____

Name: JEHIE MIDGETTE
✓ **Representing Self**
____ **Representing:** _____

State of California
Environmental Protection Agency
Water Resources Control Board
Los Angeles Regional Water Quality Control Board

SPEAKER REQUEST CARD

Date: 11/5/09

I wish to speak during the Board Meeting:

____ **I wish to speak on Agenda Item No.** 9
____ **I wish to speak during Public Forum on a non-agenda item.**

I do not wish to speak but I do want to express the following position:

__X__ **I support Agenda Item No.** 9
____ **I oppose Agenda Item No.** _____

Name: Christine Myers
__✓__ **Representing Self**
____ **Representing:** _____

Unless exempted by the Board, comments are limited to three (3) minutes.

State of California
Environmental Protection Agency
Water Resources Control Board
Los Angeles Regional Water Quality Control Board

SPEAKER REQUEST CARD

Date: 11/5/09

I wish to speak during the Board Meeting:

____ **I wish to speak on Agenda Item No.** 9
____ **I wish to speak during Public Forum on a non-agenda item.**

I do not wish to speak but I do want to express the following position:

__X__ **I support Agenda Item No.** 9
____ **I oppose Agenda Item No.** _____

Name: Jane Chambliss
__X__ **Representing Self**
____ **Representing:** _____

Unless exempted by the Board, comments are limited to three (3) minutes.

State of California
Environmental Protection Agency
Water Resources Control Board
Los Angeles Regional Water Quality Control Board

SPEAKER REQUEST CARD

Date: 11/5/09

I wish to speak during the Board Meeting:

____ I wish to speak on Agenda Item No. _____
____ I wish to speak during Public Forum on a non-agenda item.

I do not wish to speak but I do want to express the following position:

__X__ I support Agenda Item No. 9
____ I oppose Agenda Item No. _____

Name: Paul Fisher

__X__ Representing Self
____ Representing: _____

Unless exempted by the Board, comments are limited to three (3) minutes.

State of California
Environmental Protection Agency
Water Resources Control Board
Los Angeles Regional Water Quality Control Board

SPEAKER REQUEST CARD

Date: 11/5/09

I wish to speak during the Board Meeting:

____ I wish to speak on Agenda Item No. 9
____ I wish to speak during Public Forum on a non-agenda item.

I do not wish to speak but I do want to express the following position:

__✓__ I support Agenda Item No. 9
____ I oppose Agenda Item No. _____

Name: Barbara Parker

__✓__ Representing Self
____ Representing: _____

State of California
Environmental Protection Agency
Water Resources Control Board
Los Angeles Regional Water Quality Control Board

SPEAKER REQUEST CARD

Date: 11/5/09

I wish to speak during the Board Meeting:

____ I wish to speak on Agenda Item No. _____
____ I wish to speak during Public Forum on a non-agenda item.

I do not wish to speak but I do want to express the following position:

__✓__ I support Agenda Item No. 9
____ I oppose Agenda Item No. _____

Name: JOHN MAZZA
__✓__ Representing Self
____ Representing: _____

State of California
Environmental Protection Agency
Water Resources Control Board
Los Angeles Regional Water Quality Control Board

SPEAKER REQUEST CARD

Date: 11/5/09

I wish to speak during the Board Meeting:

____ I wish to speak on Agenda Item No. 9
____ I wish to speak during Public Forum on a non-agenda item.

I do not wish to speak but I do want to express the following position:

__X__ I support Agenda Item No. 9
____ I oppose Agenda Item No. _____

Name: LYNNE VOLOSHEN
__X__ Representing Self
____ Representing: _____

...ments are limited to three (3) minutes.

State of California
Environmental Protection Agency
Water Resources Control Board
Los Angeles Regional Water Quality Control Board

SPEAKER REQUEST CARD

Date: 11/5/09

I wish to speak during the Board Meeting:

____ I wish to speak on Agenda Item No. _____
____ I wish to speak during Public Forum on a non-agenda item.

I do not wish to speak but I do want to express the following position:

__✓__ I support Agenda Item No. 9
____ I oppose Agenda Item No. _____

Name: Ozzie Silva
____ Representing Self
____ Representing: _____

State of California
Environmental Protection Agency
Water Resources Control Board
Los Angeles Regional Water Quality Control Board

SPEAKER REQUEST CARD

Date: 11/5/09

I wish to speak during the Board Meeting:

____ I wish to speak on Agenda Item No. _____
____ I wish to speak during Public Forum on a non-agenda item.

I do not wish to speak but I do want to express the following position:

__✓__ I support Agenda Item No. 9
____ I oppose Agenda Item No. _____

Name: DAVID REICHARD
__X__ Representing Self
____ Representing: _____

State of California
Environmental Protection Agency
Water Resources Control Board
Los Angeles Regional Water Quality Control Board

SPEAKER REQUEST CARD

Date: 11/5/09

____ **I wish to speak during Public Forum on a non-agenda item.**

I wish to speak during the Board Meeting:

____ **I wish to speak on Agenda Item No.** _____

_____ **In Support** _____ **In Opposition**

I do not wish to speak but I do want to express the following position:

____ **I support Agenda Item No.** 9

____ **I oppose Agenda Item No.** _____

Name: David Koo

__X__ **Representing Self**

____ **Representing:** _____

Unless exempted by the Board, comments are limited to three (3) minutes.

State of California
Environmental Protection Agency
Water Resources Control Board
Los Angeles Regional Water Quality Control Board

SPEAKER REQUEST CARD

Date: 11/5

____ **I wish to speak during Public Forum on a non-agenda item.**

I wish to speak during the Board Meeting:

____ **I wish to speak on Agenda Item No.** _____

_____ **In Support** _____ **In Opposition**

I do not wish to speak but I do want to express the following position:

__X__ **I support Agenda Item No.** 9

____ **I oppose Agenda Item No.** _____

Name: Hillary Mogler

__X__ **Representing Self**

State of California
Environmental Protection Agency
Water Resources Control Board
Los Angeles Regional Water Quality Control Board

SPEAKER REQUEST CARD

Date: 11-5-09

____ I wish to speak during Public Forum on a non-agenda item.

I wish to speak during the Board Meeting:

____ I wish to speak on Agenda Item No. _____

_____ In Support _____ In Opposition

I do not wish to speak but I do want to express the following position:

X I support Agenda Item No. 9

____ I oppose Agenda Item No. _____

Name: Maria Larios

X Representing Self

____ Representing: _____

Unless exempted by the Board, comments are limited to three (3) minutes.

State of California
Environmental Protection Agency
Water Resources Control Board
Los Angeles Regional Water Quality Control Board

SPEAKER REQUEST CARD

Date: 11/5/09

____ I wish to speak during Public Forum on a non-agenda item.

I wish to speak during the Board Meeting:

____ I wish to speak on Agenda Item No. _____

_____ In Support _____ In Opposition

I do not wish to speak but I do want to express the following position:

✓ I support Agenda Item No. 9

____ I oppose Agenda Item No. _____

Name: Tyson Hall

✓ Representing Self

State of California
Environmental Protection Agency
Water Resources Control Board
Los Angeles Regional Water Quality Control Board

SPEAKER REQUEST CARD

Date: 11/5/09

____ **I wish to speak during Public Forum on a non-agenda item.**

I wish to speak during the Board Meeting:

____ **I wish to speak on Agenda Item No.** _____

_____ **In Support** _____ **In Opposition**

I do not wish to speak but I do want to express the following position:

__X__ **I support Agenda Item No.** 9 BAN OF SEPTIC TANKS
____ **I oppose Agenda Item No.** _____

Name: MIRZA M. ALIKHAN

__X__ **Representing Self**
____ **Representing:** _____

Unless exempted by the Board, comments are limited to three (3) minutes.

State of California
Environmental Protection Agency
Water Resources Control Board
Los Angeles Regional Water Quality Control Board

SPEAKER REQUEST CARD

Date: 11/5/09

I wish to speak during the Board Meeting:

____ **I wish to speak on Agenda Item No.** _____
____ **I wish to speak during Public Forum on a non-agenda item.**

I do not wish to speak but I do want to express the following position:

__✓__ **I support Agenda Item No.** 9
____ **I oppose Agenda Item No.** _____

Name: TERESA GARCIA

__✓__ **Representing Self**
____ **Representing:** _____

State of California
Environmental Protection Agency
Water Resources Control Board
Los Angeles Regional Water Quality Control Board

SPEAKER REQUEST CARD

Date: 11/5/09

____ **I wish to speak during Public Forum on a non-agenda item.**

I wish to speak during the Board Meeting:

____ **I wish to speak on Agenda Item No.** _____

_____ **In Support** _____ **In Opposition**

I do not wish to speak but I do want to express the following position:

X **I support Agenda Item No.** 9
____ **I oppose Agenda Item No.** _____

Name: Maria Galvan
____ **Representing Self**
____ **Representing:** _____

Unless exempted by the Board, comments are limited to three (3) minutes.

State of California
Environmental Protection Agency
Water Resources Control Board
Los Angeles Regional Water Quality Control Board

SPEAKER REQUEST CARD

Date: 11/5/09

I wish to speak during the Board Meeting:

____ **I wish to speak on Agenda Item No.** _____
____ **I wish to speak during Public Forum on a non-agenda item.**

I do not wish to speak but I do want to express the following position:

✓ **I support Agenda Item No.** 9
____ **I oppose Agenda Item No.** _____

Name: Cathy Williams
✓ **Representing Self**
____ **Representing:** 808

State of California
Environmental Protection Agency
Water Resources Control Board
Los Angeles Regional Water Quality Control Board

SPEAKER REQUEST CARD

Date: Nov. 5 09

I wish to speak during the Board Meeting:

___ **I wish to speak on Agenda Item No.** _____
X **I wish to speak during Public Forum on a non-agenda item.**

I do not wish to speak but I do want to express the following position:

___ 9 **I support Agenda Item No.** _____
___ **I oppose Agenda Item No.** _____

Name: Tom Raddon
___ **Representing Self**
___ **Representing:** Surfrider

Unless exempted by the Board, comments are limited to three (3) minutes.

State of California
Environmental Protection Agency
Water Resources Control Board
Los Angeles Regional Water Quality Control Board

SPEAKER REQUEST CARD

Date: 10-5-09

I wish to speak during the Board Meeting:

___ **I wish to speak on Agenda Item No.** _____
___ **I wish to speak during Public Forum on a non-agenda item.**

I do not wish to speak but I do want to express the following position:

___ **I support Agenda Item No.** 9
___ **I oppose Agenda Item No.** _____

Name: Gary Stellern
X **Representing Self**
___ **Representing:** Malibu Surfing Association

Unless exempted by the Board, comments are limited to three (3) minutes.

State of California
Environmental Protection Agency
Water Resources Control Board
Los Angeles Regional Water Quality Control Board

SPEAKER REQUEST CARD

Date: 11/5/09

I wish to speak during the Board Meeting:

____ **I wish to speak on Agenda Item No.** _____
____ **I wish to speak during Public Forum on a non-agenda item.**

I do not wish to speak but I do want to express the following position:

__✓__ **I support Agenda Item No.** 9
____ **I oppose Agenda Item No.** _____

Name: Chantel Brame
____ **Representing Self**
____ **Representing:** _____

Unless exempted by the Board, comments are limited to three (3) minutes.

State of California
Environmental Protection Agency
Water Resources Control Board
Los Angeles Regional Water Quality Control Board

SPEAKER REQUEST CARD

Date: 11-5-09

I wish to speak during the Board Meeting:

____ **I wish to speak on Agenda Item No.** _____
____ **I wish to speak during Public Forum on a non-agenda item.**

I do not wish to speak but I do want to express the following position:

__✓__ **I support Agenda Item No.** 9
____ **I oppose Agenda Item No.** _____

Name: Matt King
__✓__ **Representing Self**
____ **Representing:** _____

State of California
Environmental Protection Agency
Water Resources Control Board
Los Angeles Regional Water Quality Control Board

SPEAKER REQUEST CARD

Date: 5/11/2009

I wish to speak during the Board Meeting:

____ **I wish to speak on Agenda Item No.** _____
____ **I wish to speak during Public Forum on a non-agenda item.**

I do not wish to speak but I do want to express the following position:

__X__ **I support Agenda Item No.** 9
____ **I oppose Agenda Item No.** _____

Name: John Blasig
____ **Representing Self**
____ **Representing:** _____

Unless exempted by the Board, comments are limited to three (3) minutes.

State of California
Environmental Protection Agency
Water Resources Control Board
Los Angeles Regional Water Quality Control Board

SPEAKER REQUEST CARD

Date: 11/5/09

I wish to speak during the Board Meeting:

____ **I wish to speak on Agenda Item No.** _____
____ **I wish to speak during Public Forum on a non-agenda item.**

I do not wish to speak but I do want to express the following position:

__✓__ **I support Agenda Item No.** 9
____ **I oppose Agenda Item No.** _____

Name: Zhongpeng Li ZHENGPENG LI
__✓__ **Representing Self**
____ **Representing:** _____

Unless exempted by the Board, comments are limited to three (3) minutes.

State of California
Environmental Protection Agency
Water Resources Control Board
Los Angeles Regional Water Quality Control Board

SPEAKER REQUEST CARD

Date: 11/5/01

I wish to speak during the Board Meeting:

___ I wish to speak on Agenda Item No. 9 (prohibition)
___ I wish to speak during Public Forum on a non-agenda item.

I do not wish to speak but I do want to express the following position:

___ I support Agenda Item No. _____
X I oppose Agenda Item No. 9

Name: Donald W. Schmitz

___ Representing Self
X Representing: Malibu La Paz Ranch

Unless exempted by the Board, comments are limited to three (3) minutes.

State of California
Environmental Protection Agency
Water Resources Control Board
Los Angeles Regional Water Quality Control Board

SPEAKER REQUEST CARD

Date: 11/05/01

I wish to speak during the Board Meeting:

X I wish to speak on Agenda Item No. 7
___ I wish to speak during Public Forum on a non-agenda item.

I do not wish to speak but I do want to express the following position:

X I support Agenda Item No. 9
___ I oppose Agenda Item No. _____

Name: JOE MERCHANT

___ Representing Self
✓ Representing: MALIBU SURFING ASSOCIATION

2-812

...ed by the Board, comments are limited to three (3) minutes.

State of California
Environmental Protection Agency
Water Resources Control Board
Los Angeles Regional Water Quality Control Board

SPEAKER REQUEST CARD

Date: 11/5/2009

I wish to speak during the Board Meeting:

- ✓ I wish to speak on Agenda Item No. 2
- ____ I wish to speak during Public Forum on a non-agenda item.

I do not wish to speak but I do want to express the following position:

- ✓ I support Agenda Item No. 9
- ____ I oppose Agenda Item No. ____

Name: Dale Howard

- ✓ Representing Self
- ____ Representing: ____

Unless exempted by the Board, comments are limited to three (3) minutes.

State of California
Environmental Protection Agency
Water Resources Control Board
Los Angeles Regional Water Quality Control Board

SPEAKER REQUEST CARD

Date: 11/5/09

I wish to speak during the Board Meeting:

- ____ I wish to speak on Agenda Item No. ____
- ____ I wish to speak during Public Forum on a non-agenda item.

I do not wish to speak but I do want to express the following position:

- ✓ I support Agenda Item No. 9
- ____ I oppose Agenda Item No. ____

Name: Rob Tossberg

- ____ Representing Self
- X Representing: PLAN IT GREEN PRINTING

Unless exempted by the Board, comments are limited to three (3) minutes.

State of California
Environmental Protection Agency
Water Resources Control Board
Los Angeles Regional Water Quality Control Board

SPEAKER REQUEST CARD

Date: 11/5/09

I wish to speak during the Board Meeting:

____ I wish to speak on Agenda Item No. 9
____ I wish to speak during Public Forum on a non-agenda item.

I do not wish to speak but I do want to express the following position:

__X__ I support Agenda Item No. 9
____ I oppose Agenda Item No. _____

Name: Edward Belden
__X__ Representing Self
____ Representing: _____

Unless exempted by the Board, comments are limited to three (3) minutes.

State of California
Environmental Protection Agency
Water Resources Control Board
Los Angeles Regional Water Quality Control Board

SPEAKER REQUEST CARD

Date: 11/5/09

I wish to speak during the Board Meeting:

____ I wish to speak on Agenda Item No. 9
____ I wish to speak during Public Forum on a non-agenda item.

I do not wish to speak but I do want to express the following position:

____ I support Agenda Item No. _____
__X__ I oppose Agenda Item No. Malibu Sewers

Name: H. Sawyer
____ Representing Self
____ Representing: Malibu Road Assn.

Unless exempted by the Board, comments are limited to three (3) minutes.

State of California
Environmental Protection Agency
Water Resources Control Board
Los Angeles Regional Water Quality Control Board

SPEAKER REQUEST CARD

Date: 11-5-09

I wish to speak during the Board Meeting:

____ **I wish to speak on Agenda Item No.** _____
____ **I wish to speak during Public Forum on a non-agenda item.**

I do not wish to speak but I do want to express the following position:

__✓__ **I support Agenda Item No.** 9
____ **I oppose Agenda Item No.** _____

Name: Peter van der Bosch

__✓__ **Representing Self**
____ **Representing:** _____

Unless exempted by the Board, comments are limited to three (3) minutes.

State of California
Environmental Protection Agency
Water Resources Control Board
Los Angeles Regional Water Quality Control Board

SPEAKER REQUEST CARD

Date: 11/05/09

I wish to speak during the Board Meeting:

____ **I wish to speak on Agenda Item No.** _____
____ **I wish to speak during Public Forum on a non-agenda item.**

I do not wish to speak but I do want to express the following position:

__X__ **I support Agenda Item No.** 9
____ **I oppose Agenda Item No.** _____

Name: Ed Schlegel

__X__ **Representing Self**
__X__ **Representing:** SAVE SAN ONOFRE

Unless exempted by the Board, comments are limited to three (3) minutes.

State of California
Environmental Protection Agency
Water Resources Control Board
Los Angeles Regional Water Quality Control Board

SPEAKER REQUEST CARD

Date: NOV/5/09

I wish to speak during the Board Meeting:

____ I wish to speak on Agenda Item No. _____
____ I wish to speak during Public Forum on a non-agenda item.

I do not wish to speak but I do want to express the following position:

__X__ I support Agenda Item No. 9
____ I oppose Agenda Item No. _____

Name: ANGUS MCDONALD

__X__ Representing Self
__X__ Representing: SURFRIDER FOUNDATION / MOTHER EARTH

Unless exempted by the Board, comments are limited to three (3) minutes.

State of California
Environmental Protection Agency
Water Resources Control Board
Los Angeles Regional Water Quality Control Board

SPEAKER REQUEST CARD

Date: 11-5-09

I wish to speak during the Board Meeting:

____ I wish to speak on Agenda Item No. _____
____ I wish to speak during Public Forum on a non-agenda item.

I do not wish to speak but I do want to express the following position:

__X__ I support Agenda Item No. 9
____ I oppose Agenda Item No. _____

Name: JERRY COLLAMER

____ Representing Self
____ Representing: SAVE SAN ONOFRE

State of California
Environmental Protection Agency
Water Resources Control Board
Los Angeles Regional Water Quality Control Board

SPEAKER REQUEST CARD

Date: 11/5/09

I wish to speak during the Board Meeting:

____ I wish to speak on Agenda Item No. _____
____ I wish to speak during Public Forum on a non-agenda item.

I do not wish to speak but I do want to express the following position:

__X__ I support Agenda Item No. 9
____ I oppose Agenda Item No. _____

Name: Jennifer Nguyen
____ Representing Self
__X__ Representing: Surfrider

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State of California
Environmental Protection Agency
Water Resources Control Board
Los Angeles Regional Water Quality Control Board

SPEAKER REQUEST CARD

Date: 11/5/09

I wish to speak during the Board Meeting:

____ I wish to speak on Agenda Item No. 9
____ I wish to speak during Public Forum on a non-agenda item.

I do not wish to speak but I do want to express the following position:

__X__ I support Agenda Item No. 9
____ I oppose Agenda Item No. _____

Name: WESLEY MEGUS
____ Representing Self
__X__ Representing: SURFRIDER FOUNDATION

State of California
Environmental Protection Agency
Water Resources Control Board
Los Angeles Regional Water Quality Control Board

SPEAKER REQUEST CARD

Date: 11/5/09

I wish to speak during the Board Meeting:

____ I wish to speak on Agenda Item No. _____
____ I wish to speak during Public Forum on a non-agenda item.

I do not wish to speak but I do want to express the following position:

__X__ I support Agenda Item No. 9
____ I oppose Agenda Item No. _____

Name: Andrew Alfonzo
____ Representing Self
____ Representing: Surfrider

Unless exempted by the Board, comments are limited to three (3) minutes.

State of California
Environmental Protection Agency
Water Resources Control Board
Los Angeles Regional Water Quality Control Board

SPEAKER REQUEST CARD

Date: 11-5-2009

I wish to speak during the Board Meeting:

____ I wish to speak on Agenda Item No. 9
____ I wish to speak during Public Forum on a non-agenda item.

I do not wish to speak but I do want to express the following position:

__X__ I support Agenda Item No. 9
____ I oppose Agenda Item No. _____

Name: Xavier Stevens
____ Representing Self
__X__ Representing: Surfrider

State of California
Environmental Protection Agency
Water Resources Control Board
Los Angeles Regional Water Quality Control Board

SPEAKER REQUEST CARD

Date: 11/5/09

I wish to speak during the Board Meeting:

____ I wish to speak on Agenda Item No. _____
____ I wish to speak during Public Forum on a non-agenda item.

I do not wish to speak but I do want to express the following position:

✓ I support Agenda Item No. 9
____ I oppose Agenda Item No. _____

Name: Nick Karno

X Representing Self
X Representing: [redacted]

Unless exempted by the Board, comments are limited to three (3) minutes.

State of California
Environmental Protection Agency
Water Resources Control Board
Los Angeles Regional Water Quality Control Board

SPEAKER REQUEST CARD

Date: 11/5/09

I wish to speak during the Board Meeting:

____ I wish to speak on Agenda Item No. _____
____ I wish to speak during Public Forum on a non-agenda item.

I do not wish to speak but I do want to express the following position:

✓ I support Agenda Item No. 9
____ I oppose Agenda Item No. _____

Name: Jessica Lacson

✓ Representing Self
✓ Representing: surfrider Foundation

Unless exempted by the Board, comments are limited to three (3) minutes.

State of California
Environmental Protection Agency
Water Resources Control Board
Los Angeles Regional Water Quality Control Board

SPEAKER REQUEST CARD

Date: 11/5/09

I wish to speak during the Board Meeting:

____ **I wish to speak on Agenda Item No.** 9
____ **I wish to speak during Public Forum on a non-agenda item.**

I do not wish to speak but I do want to express the following position:

__✓__ **I support Agenda Item No.** 9
____ **I oppose Agenda Item No.** _____

Name: Nicole Lucido
__✓__ **Representing Self**
____ **Representing:** _____

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State of California
Environmental Protection Agency
Water Resources Control Board
Los Angeles Regional Water Quality Control Board

SPEAKER REQUEST CARD

Date: 11/5/09

I wish to speak during the Board Meeting:

__✓__ **I wish to speak on Agenda Item No.** 9
____ **I wish to speak during Public Forum on a non-agenda item.**

I do not wish to speak but I do want to express the following position:

__✓__ **I support Agenda Item No.** 9
____ **I oppose Agenda Item No.** _____

Name: Ken Seino
____ **Representing Self**
____ **Representing:** _____

Unless exempted by the Board, comments are limited to three (3) minutes.

State of California
Environmental Protection Agency
Water Resources Control Board
Los Angeles Regional Water Quality Control Board

SPEAKER REQUEST CARD

Date: 11/5/2009

I wish to speak during the Board Meeting:

__X__ **I wish to speak on Agenda Item No.** 9
____ **I wish to speak during Public Forum on a non-agenda item.**

I do not wish to speak but I do want to express the following position:

____ **I support Agenda Item No.** _____
____ **I oppose Agenda Item No.** _____

Name: Bic VARDEL
__X__ **Representing Self**
____ **Representing:** _____

State of California
Environmental Protection Agency
Water Resources Control Board
Los Angeles Regional Water Quality Control Board

SPEAKER REQUEST CARD

Date: 11/5/09

I wish to speak during the Board Meeting:

__X__ **I wish to speak on Agenda Item No.** 9
____ **I wish to speak during Public Forum on a non-agenda item.**

I do not wish to speak but I do want to express the following position:

____ **I support Agenda Item No.** _____
____ **I oppose Agenda Item No.** _____

Name: Amanda Griesbach
__X__ **Representing Self**
____ **Representing:** [illegible]

Unless exempted by the Board, comments are limited to three (3) minutes.

State of California
Environmental Protection Agency
Water Resources Control Board
Los Angeles Regional Water Quality Control Board

SPEAKER REQUEST CARD

Date: 11/5/09

I wish to speak during the Board Meeting:

X I wish to speak on Agenda Item No. 9
___ I wish to speak during Public Forum on a non-agenda item.

I do not wish to speak but I do want to express the following position:

___ I support Agenda Item No. _____
___ I oppose Agenda Item No. _____

Name: DAVID REZNICK
___ Representing Self
X Representing: MALIBU BAY COMPANY

State of California
Environmental Protection Agency
Water Resources Control Board
Los Angeles Regional Water Quality Control Board

SPEAKER REQUEST CARD

Date: 11/5/09

___ I wish to speak during Public Forum on a non-agenda item.

I wish to speak during the Board Meeting:

X I wish to speak on Agenda Item No. Malibu wide

_____ In Support _____ In Opposition

I do not wish to speak but I do want to express the following position:

___ I support Agenda Item No. _____
___ I oppose Agenda Item No. _____

Name: Lloyd Ahern
___ Representing Self
___ Representing: 2822

State of California
Environmental Protection Agency
Water Resources Control Board
Los Angeles Regional Water Quality Control Board

SPEAKER REQUEST CARD

Date: 11/5/09

I wish to speak during the Board Meeting:

Y **I wish to speak on Agenda Item No.** 9
___ **I wish to speak during Public Forum on a non-agenda item.**

I do not wish to speak but I do want to express the following position:

___ **I support Agenda Item No.** _____
___ **I oppose Agenda Item No.** _____

Name: Marilyn Dove
X **Representing Self**
___ **Representing:** _____

State of California
Environmental Protection Agency
Water Resources Control Board
Los Angeles Regional Water Quality Control Board

SPEAKER REQUEST CARD

Date: 11/5

I wish to speak during the Board Meeting:

___ **I wish to speak on Agenda Item No.** Maev 9
___ **I wish to speak during Public Forum on a non-agenda item.**

I do not wish to speak but I do want to express the following position:

___ **I support Agenda Item No.** _____
___ **I oppose Agenda Item No.** _____

Name: Steven Soboroff
X **Representing Self**
___ **Representing:** _____

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State of California
Environmental Protection Agency
Water Resources Control Board
Los Angeles Regional Water Quality Control Board

SPEAKER REQUEST CARD

Date: 11/5/09

I wish to speak during the Board Meeting:

- ✓ **I wish to speak on Agenda Item No.** 9
- ____ **I wish to speak during Public Forum on a non-agenda item.**

I do not wish to speak but I do want to express the following position:

- ____ **I support Agenda Item No.** _____
- ____ **I oppose Agenda Item No.** _____

Name: Robert Gold

- ____ **Representing Self**
- ____ **Representing:** A2 Winter Mesa / Big Rock Partner

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State of California
Environmental Protection Agency
Water Resources Control Board
Los Angeles Regional Water Quality Control Board

SPEAKER REQUEST CARD

Date: 11/5/2009

I wish to speak during the Board Meeting:

- X **I wish to speak on Agenda Item No.** 9
- ____ **I wish to speak during Public Forum on a non-agenda item.**

I do not wish to speak but I do want to express the following position:

- ____ **I support Agenda Item No.** _____
- ____ **I oppose Agenda Item No.** _____

Name: ROBERT RICHTER

- X **Representing Self**
- ____ **Representing:** _____

Unless exempted by the Board, comments are limited to three (3) minutes.

State of California
Environmental Protection Agency
Water Resources Control Board
Los Angeles Regional Water Quality Control Board

SPEAKER REQUEST CARD

Date: 11/5/9

I wish to speak during the Board Meeting:

X I wish to speak on Agenda Item No. 9 Basin Plan
___ I wish to speak during Public Forum on a non-agenda item.

I do not wish to speak but I do want to express the following position:

___ I support Agenda Item No. _____
___ I oppose Agenda Item No. _____

Name: RYAN EMBREE
X Representing Self
___ Representing: _____

State of California
Environmental Protection Agency
Water Resources Control Board
Los Angeles Regional Water Quality Control Board

SPEAKER REQUEST CARD

Date: 11/5/09

___ I wish to speak during Public Forum on a non-agenda item.

I wish to speak during the Board Meeting:

✓ I wish to speak on Agenda Item No. 9

✓ In Support _____ In Opposition

I do not wish to speak but I do want to express the following position:

___ I support Agenda Item No. _____
___ I oppose Agenda Item No. _____

Name: Sarah ~~Abra~~ Sikich sick-ish
✓ Representing Self
___ Representing: ~~2-825~~

State of California
Environmental Protection Agency
Water Resources Control Board
Los Angeles Regional Water Quality Control Board

SPEAKER REQUEST CARD

Date: 11/5/09

I wish to speak during the Board Meeting:

____ **I wish to speak on Agenda Item No.** 9
____ **I wish to speak during Public Forum on a non-agenda item.**

I do not wish to speak but I do want to express the following position:

✓ **I support Agenda Item No.** 9
____ **I oppose Agenda Item No.** _____

Name: SUZANNE WILTON

✓ **Representing Self**
____ **Representing:** _____

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State of California
Environmental Protection Agency
Water Resources Control Board
Los Angeles Regional Water Quality Control Board

SPEAKER REQUEST CARD

Date: 11-5-09

____ **I wish to speak during Public Forum on a non-agenda item.**

I wish to speak during the Board Meeting:

X **I wish to speak on Agenda Item No.** 9

½ **In Support** ½ **In Opposition**

I do not wish to speak but I do want to express the following position:

____ **I support Agenda Item No.** _____
____ **I oppose Agenda Item No.** _____

Name: RICK MARGOLIS

X **Representing Self**
Representing: 826

State of California
Environmental Protection Agency
Water Resources Control Board
Los Angeles Regional Water Quality Control Board

SPEAKER REQUEST CARD

Date: 11-5-2009

I wish to speak during the Board Meeting:

____ **I wish to speak on Agenda Item No.** 9
____ **I wish to speak during Public Forum on a non-agenda item.**

I do not wish to speak but I do want to express the following position:

____ **I support Agenda Item No.** _____
____ **I oppose Agenda Item No.** _____

Name: BILL RHODES

X **Representing Self**
X **Representing:** MALIBU ROAD ASSOCIATION

Unless exempted by the Board, comments are limited to three (3) minutes.

State of California
Environmental Protection Agency
Water Resources Control Board
Los Angeles Regional Water Quality Control Board

SPEAKER REQUEST CARD

Date: 11/5/09

I wish to speak during the Board Meeting:

✓ **I wish to speak on Agenda Item No.** 9
____ **I wish to speak during Public Forum on a non-agenda item.**

I do not wish to speak but I do want to express the following position:

____ **I support Agenda Item No.** _____
____ **I oppose Agenda Item No.** _____

Name: WALTER KOLLER, PhD

✓ **Representing Self**
____ **Representing:** _____

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State of California
Environmental Protection Agency
Water Resources Control Board
Los Angeles Regional Water Quality Control Board

SPEAKER REQUEST CARD

Date: 11/5/09

____ I wish to speak during Public Forum on a non-agenda item.

I wish to speak during the Board Meeting:

____ I wish to speak on Agenda Item No. 9

____ In Support ✓ In Opposition

I do not wish to speak but I do want to express the following position:

____ I support Agenda Item No. _____

____ I oppose Agenda Item No. _____

Bar-sa-keene

Name: MIKE BARSOCCHINI ARCHITECT

✓ Representing Self

✓ Representing: MALIBU KNOLLS

Unless exempted by the Board, comments are limited to three (3) minutes.

State of California
Environmental Protection Agency
Water Resources Control Board
Los Angeles Regional Water Quality Control Board

SPEAKER REQUEST CARD

Date: 11/5/09

I wish to speak during the Board Meeting:

✓ I wish to speak on Agenda Item No. 9

____ I wish to speak during Public Forum on a non-agenda item.

I do not wish to speak but I do want to express the following position:

____ I support Agenda Item No. _____

____ I oppose Agenda Item No. _____

Name: Rhiannon Bailard

____ Representing Self

x Representing: Pepperdine University

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State of California
Environmental Protection Agency
Water Resources Control Board
Los Angeles Regional Water Quality Control Board

SPEAKER REQUEST CARD

Date: 11-5-09

____ I wish to speak during Public Forum on a non-agenda item.

I wish to speak during the Board Meeting:

X I wish to speak on Agenda Item No. 9

_____ In Support _____ In Opposition

I do not wish to speak but I do want to express the following position:

____ I support Agenda Item No. _____
____ I oppose Agenda Item No. _____

Name: Paul Grisanti

X Representing Self
____ Representing: _____

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State of California
Environmental Protection Agency
Water Resources Control Board
Los Angeles Regional Water Quality Control Board

SPEAKER REQUEST CARD

Date: 11-5-09

I wish to speak during the Board Meeting:

✓ I wish to speak on Agenda Item No. Malibu
____ I wish to speak during Public Forum on a non-agenda item.

I do not wish to speak but I do want to express the following position:

____ I support Agenda Item No. _____
____ I oppose Agenda Item No. _____

Name: Richard ~~Herman~~ Dick Sherman

X Representing Self
____ Representing: _____

State of California
Environmental Protection Agency
Water Resources Control Board
Los Angeles Regional Water Quality Control Board

SPEAKER REQUEST CARD

Date: 11/5/09

I wish to speak during the Board Meeting:

X I wish to speak on Agenda Item No. 9
___ I wish to speak during Public Forum on a non-agenda item.

I do not wish to speak but I do want to express the following position:

___ I support Agenda Item No. _____
___ I oppose Agenda Item No. _____

Name: PATRICIA SCHONE

___ Representing Self
X Representing: MALIBU ROAD OWNERS ASSOC.

State of California
Environmental Protection Agency
Water Resources Control Board
Los Angeles Regional Water Quality Control Board

SPEAKER REQUEST CARD

Date: 11/5/09

I wish to speak during the Board Meeting:

X I wish to speak on Agenda Item No. 9
___ I wish to speak during Public Forum on a non-agenda item.

I do not wish to speak but I do want to express the following position:

___ I support Agenda Item No. _____
___ I oppose Agenda Item No. _____

Name: CHRIS REED

___ Representing Self
X Representing: MALIBU ROAD OWNERS ASSOC

State of California
Environmental Protection Agency
Water Resources Control Board
Los Angeles Regional Water Quality Control Board

SPEAKER REQUEST CARD

Date: 11/5/09

X **I wish to speak during Public Forum on a non-agenda item.**

I wish to speak during the Board Meeting:

X **I wish to speak on Agenda Item No.** 9

____ **In Support** X **In Opposition**

I do not wish to speak but I do want to express the following position:

____ **I support Agenda Item No.** _____

____ **I oppose Agenda Item No.** _____

Name: DR. Jeff Harris

X **Representing Self**

____ **Representing:** _____

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State of California
Environmental Protection Agency
Water Resources Control Board
Los Angeles Regional Water Quality Control Board

SPEAKER REQUEST CARD

Date: 11/5

I wish to speak during the Board Meeting:

X **I wish to speak on Agenda Item No.** 9

____ **I wish to speak during Public Forum on a non-agenda item.**

I do not wish to speak but I do want to express the following position:

____ **I support Agenda Item No.** _____

____ **I oppose Agenda Item No.** _____

Name: Rebekah Evans, CEO

____ **Representing Self**

X **Representing:** Malibu Chamber of Commerce

Unless exempted by the Board, comments are limited to three (3) minutes.

State of California
Environmental Protection Agency
Water Resources Control Board
Los Angeles Regional Water Quality Control Board

SPEAKER REQUEST CARD

Date: 2009 Nov 5th

I wish to speak during the Board Meeting:

____ **I wish to speak on Agenda Item No.** 9
____ **I wish to speak during Public Forum on a non-agenda item.**

I do not wish to speak but I do want to express the following position:

__X__ **I support Agenda Item No.** 9
____ **I oppose Agenda Item No.** _____

Name: Brian Katz

__X__ **Representing Self**
____ **Representing:** _____

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State of California
Environmental Protection Agency
Water Resources Control Board
Los Angeles Regional Water Quality Control Board

SPEAKER REQUEST CARD

Date: Nov. -5- 2009

____ **I wish to speak during Public Forum on a non-agenda item.**

I wish to speak during the Board Meeting:

____ **I wish to speak on Agenda Item No.** 9

__X__ **In Support** __X__ **In Opposition**

I do not wish to speak but I do want to express the following position:

____ **I support Agenda Item No.** _____
____ **I oppose Agenda Item No.** _____

Name: Norman Haynie

__X__ **Representing Self**
Representing:

State of California
Environmental Protection Agency
Water Resources Control Board
Los Angeles Regional Water Quality Control Board

SPEAKER REQUEST CARD

Date: 11-5-09

I wish to speak during the Board Meeting:

____ **I wish to speak on Agenda Item No.** 9
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I do not wish to speak but I do want to express the following position:

____ **I support Agenda Item No.** 9
____ **I oppose Agenda Item No.** _____

Name: Christine Marie C Ryan
X **Representing Self**
____ **Representing:** _____

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State of California
Environmental Protection Agency
Water Resources Control Board
Los Angeles Regional Water Quality Control Board

SPEAKER REQUEST CARD

Date: 11/6/09

I wish to speak during the Board Meeting:

____ **I wish to speak on Agenda Item No.** 9
____ **I wish to speak during Public Forum on a non-agenda item.**

I do not wish to speak but I do want to express the following position:

✓ **I support Agenda Item No.** 9
____ **I oppose Agenda Item No.** _____

Name: Dennie Wolin
✓ **Representing Self**
____ **Representing:** _____

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State of California
Environmental Protection Agency
Water Resources Control Board
Los Angeles Regional Water Quality Control Board

SPEAKER REQUEST CARD

Date: 11/5/09

I wish to speak during the Board Meeting:

____ I wish to speak on Agenda Item No. _____
____ I wish to speak during Public Forum on a non-agenda item.

I do not wish to speak but I do want to express the following position:

___✓ I support Agenda Item No. 9
____ I oppose Agenda Item No. _____

Name: Eveline Bravo
____ Representing Self
____ Representing: _____

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State of California
Environmental Protection Agency
Water Resources Control Board
Los Angeles Regional Water Quality Control Board

SPEAKER REQUEST CARD

Date: 11-5-09

I wish to speak during the Board Meeting:

____ I wish to speak on Agenda Item No. 9
____ I wish to speak during Public Forum on a non-agenda item.

I do not wish to speak but I do want to express the following position:

____ I support Agenda Item No. 9
____ I oppose Agenda Item No. _____

Name: Ann Quiñones Lucas
✓ Representing Self
____ Representing: _____

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State of California
Environmental Protection Agency
Water Resources Control Board
Los Angeles Regional Water Quality Control Board

#. 1 of 2

SPEAKER REQUEST CARD

Benjamin to follow

Date: 11/5/09

I wish to speak during the Board Meeting:

✓ I wish to speak on Agenda Item No. 9
___ I wish to speak during Public Forum on a non-agenda item.

I do not wish to speak but I do want to express the following position:

___ I support Agenda Item No. _____
___ I oppose Agenda Item No. _____

Name: Lucile Keller

___ Representing Self
___ Representing: Malibu Township Council

#1 Speaker

Unless exempted by the Board, comments are limited to three (3) minutes.

State of California
Environmental Protection Agency
Water Resources Control Board
Los Angeles Regional Water Quality Control Board

2 of 2

SPEAKER REQUEST CARD

Date: 11/5/09

I wish to speak during the Board Meeting:

X I wish to speak on Agenda Item No. _____
___ I wish to speak during Public Forum on a non-agenda item.

I do not wish to speak but I do want to express the following position:

___ I support Agenda Item No. _____
X I oppose Agenda Item No. _____

Name: Sally Benjamin

___ Representing Self
X Representing: Malibu Township Council

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State of California
Environmental Protection Agency
Water Resources Control Board
Los Angeles Regional Water Quality Control Board

SPEAKER REQUEST CARD

Date: 11/5/09

I wish to speak during the Board Meeting:

X **I wish to speak on Agenda Item No.** 9
____ **I wish to speak during Public Forum on a non-agenda item.**

I do not wish to speak but I do want to express the following position:

____ **I support Agenda Item No.** _____
____ **I oppose Agenda Item No.** _____

Name: Mike Baldi

____ **Representing Self**
X **Representing:** Mesa Canyon LLC, Francisco Heights LLC, Greyrock Canyon LLC, Ranchos Mesa LLC, Ranchos Mesa LLC

Unless exempted by the Board, comments are limited to three (3) minutes.

State of California
Environmental Protection Agency
Water Resources Control Board
Los Angeles Regional Water Quality Control Board

SPEAKER REQUEST CARD

Date: 11/05/09

I wish to speak during the Board Meeting:

X **I wish to speak on Agenda Item No.** 9
____ **I wish to speak during Public Forum on a non-agenda item.**

I do not wish to speak but I do want to express the following position:

____ **I support Agenda Item No.** _____
____ **I oppose Agenda Item No.** _____

Name: MICHAEL BLUM

____ **Representing Self**
X **Representing:** MALIBU SURFING ASSOCIATION

Unless exempted by the Board, comments are limited to three (3) minutes.

State of California
Environmental Protection Agency
Water Resources Control Board
Los Angeles Regional Water Quality Control Board

SPEAKER REQUEST CARD

Date: 11-5-09

I wish to speak during the Board Meeting:

_X_ **I wish to speak on Agenda Item No.** 9
____ **I wish to speak during Public Forum on a non-agenda item.**

I do not wish to speak but I do want to express the following position:

____ **I support Agenda Item No.** _____
____ **I oppose Agenda Item No.** _____

Name: Saira Gandhi
_✓_ **Representing Self**
____ **Representing:** _____

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State of California
Environmental Protection Agency
Water Resources Control Board
Los Angeles Regional Water Quality Control Board

SPEAKER REQUEST CARD

Date: 11-5-09

I wish to speak during the Board Meeting:

_✓_ **I wish to speak on Agenda Item No.** 9
____ **I wish to speak during Public Forum on a non-agenda item.**

I do not wish to speak but I do want to express the following position:

____ **I support Agenda Item No.** _____
____ **I oppose Agenda Item No.** _____

Name: Sonia Diaz
_✓_ **Representing Self**
____ **Representing:** _____

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State of California
Environmental Protection Agency
Water Resources Control Board
Los Angeles Regional Water Quality Control Board

SPEAKER REQUEST CARD

Date: 11/5

I wish to speak during the Board Meeting:

X I wish to speak on Agenda Item No. 9
___ I wish to speak during Public Forum on a non-agenda item.

I do not wish to speak but I do want to express the following position:

___ I support Agenda Item No. _____
___ I oppose Agenda Item No. _____

Name: JACK TOPEL

___ Representing Self
✓ Representing: SANTA MONICA BAY RESTORATION COMMISSION STAFF

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State of California
Environmental Protection Agency
Water Resources Control Board
Los Angeles Regional Water Quality Control Board

SPEAKER REQUEST CARD

Date: 11/5/09

I wish to speak during the Board Meeting:

✓ I wish to speak on Agenda Item No. 9
___ I wish to speak during Public Forum on a non-agenda item.

I do not wish to speak but I do want to express the following position:

___ I support Agenda Item No. _____
___ I oppose Agenda Item No. _____

Name: CARL EHRLICH

___ Representing Self
✓ Representing: OUR LADY OF MALIBU CHURCH

Unless exempted by the Board, comments are limited to three (3) minutes.

State of California
Environmental Protection Agency
Water Resources Control Board
Los Angeles Regional Water Quality Control Board

SPEAKER REQUEST CARD

Date: 11/5/09

I wish to speak during the Board Meeting:

✓ **I wish to speak on Agenda Item No.** Malibu Septic
____ **I wish to speak during Public Forum on a non-agenda item.**

I do not wish to speak but I do want to express the following position:

____ **I support Agenda Item No.** _____
____ **I oppose Agenda Item No.** _____

Name: Joel T. Walker

✓ **Representing Self** Malibu Road POA
____ **Representing:** _____

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State of California
Environmental Protection Agency
Water Resources Control Board
Los Angeles Regional Water Quality Control Board

SPEAKER REQUEST CARD

Date: _____

I wish to speak during the Board Meeting:

____ **I wish to speak on Agenda Item No.** 9 Septic Ban Malibu
____ **I wish to speak during Public Forum on a non-agenda item.**

I do not wish to speak but I do want to express the following position:

____ **I support Agenda Item No.** _____
____ **I oppose Agenda Item No.** _____

Name: Steve RYAN

✓ **Representing Self**
____ **Representing:** _____

Unless exempted by the Board, comments are limited to three (3) minutes.

Could not read - Was not called - Chair Only

State of California
Environmental Protection Agency
Water Resources Control Board
Los Angeles Regional Water Quality Control Board

SPEAKER REQUEST CARD

Date: 11/5/09

I wish to speak during the Board Meeting:

___ I wish to speak on Agenda Item No. 9
___ I wish to speak during Public Forum on a non-agenda item.

I do not wish to speak but I do want to express the following position:

___ I support Agenda Item No. 9
___ I oppose Agenda Item No. _____

Name: _____

___ Representing Self
___ Representing: _____

State of California
Environmental Protection Agency
Water Resources Control Board
Los Angeles Regional Water Quality Control Board

SPEAKER REQUEST CARD

Date: 11/5/09

I wish to speak during the Board Meeting:

___ I wish to speak on Agenda Item No. 9
___ I wish to speak during Public Forum on a non-agenda item.

I do not wish to speak but I do want to express the following position:

___ I support Agenda Item No. 9
___ I oppose Agenda Item No. _____

Name: _____

___ Representing Self
___ Representing: _____

State of California
Environmental Protection Agency
Water Resources Control Board
Los Angeles Regional Water Quality Control Board

1 of 2

Baykeeper

SPEAKER REQUEST CARD

Date: 11/5/2009

I wish to speak during the Board Meeting:

X I wish to speak on Agenda Item No. 9
~~X~~ I wish to speak during Public Forum on a non-agenda item.

I do not wish to speak but I do want to express the following position:

___ I support Agenda Item No. _____
___ I oppose Agenda Item No. _____

Name: Tom Ford

___ Representing Self
X Representing: Santa Monica Baykeeper

State of California
Environmental Protection Agency
Water Resources Control Board
Los Angeles Regional Water Quality Control Board

2 of 2

Baykeeper

SPEAKER REQUEST CARD

Date: 11/05/2009

___ I wish to speak during Public Forum on a non-agenda item.

I wish to speak during the Board Meeting:

X I wish to speak on Agenda Item No. 9

X In Support _____ In Opposition

I do not wish to speak but I do want to express the following position:

___ I support Agenda Item No. _____
___ I oppose Agenda Item No. _____

Name: Tatiana K. Gaur

___ Representing Self
X Representing: Santa Monica Baykeeper

State of California
Environmental Protection Agency
Water Resources Control Board
Los Angeles Regional Water Quality Control Board

SPEAKER REQUEST CARD

Date: 11/5/09

I wish to speak during the Board Meeting:

___ I wish to speak on Agenda Item No. 9
___ I wish to speak during Public Forum on a non-agenda item.

I do not wish to speak but I do want to express the following position:

___ / I support Agenda Item No. _____
___ I oppose Agenda Item No. 9

Name: Richard Scott

___ Representing Self
X Representing: Malibu Creeks Property Owners Assoc.

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State of California
Environmental Protection Agency
Water Resources Control Board
Los Angeles Regional Water Quality Control Board

SPEAKER REQUEST CARD

Date: 11-5-09

I wish to speak during the Board Meeting:

✓ I wish to speak on Agenda Item No. 9
___ I wish to speak during Public Forum on a non-agenda item.

I do not wish to speak but I do want to express the following position:

___ I support Agenda Item No. _____
___ I oppose Agenda Item No. _____

Name: Natalie Burdick

✓ Representing Self
___ Representing: _____

Unless exempted by the Board, comments are limited to three (3) minutes.

State of California
Environmental Protection Agency
Water Resources Control Board
Los Angeles Regional Water Quality Control Board

SPEAKER REQUEST CARD

Date: 11-5-09

I wish to speak during the Board Meeting:

__X__ **I wish to speak on Agenda Item No.** 9
____ **I wish to speak during Public Forum on a non-agenda item.**

I do not wish to speak but I do want to express the following position:

____ **I support Agenda Item No.** _____
____ **I oppose Agenda Item No.** _____

Name: JOE SANDERS
____ **Representing Self**
__X__ **Representing:** MSA

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State of California
Environmental Protection Agency
Water Resources Control Board
Los Angeles Regional Water Quality Control Board

SPEAKER REQUEST CARD

Date: 11-05-2009

I wish to speak during the Board Meeting:

__X__ **I wish to speak on Agenda Item No.** 9
____ **I wish to speak during Public Forum on a non-agenda item.**

I do not wish to speak but I do want to express the following position:

____ **I support Agenda Item No.** _____
____ **I oppose Agenda Item No.** _____

Name: Michael Dreebin
__X__ **Representing Self**
__X__ **Representing:** Also, Malibu Surfing Association

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State of California
Environmental Protection Agency
Water Resources Control Board
Los Angeles Regional Water Quality Control Board

SPEAKER REQUEST CARD

Date: 11/5/09

I wish to speak during the Board Meeting:

✓ **I wish to speak on Agenda Item No.** 9
___ **I wish to speak during Public Forum on a non-agenda item.**

I do not wish to speak but I do want to express the following position:

___ ✓ **I support Agenda Item No.** _____
___ **I oppose Agenda Item No.** _____

Name: Angela T. Howe, Esq.
___ **Representing Self**
✓ **Representing:** Surfrider Foundation

Unless exempted by the Board, comments are limited to three (3) minutes.

State of California
Environmental Protection Agency
Water Resources Control Board
Los Angeles Regional Water Quality Control Board

SPEAKER REQUEST CARD

Date: 11/5/09

I wish to speak during the Board Meeting:

X **I wish to speak on Agenda Item No.** 9
___ **I wish to speak during Public Forum on a non-agenda item.**

I do not wish to speak but I do want to express the following position:

___ **I support Agenda Item No.** _____
___ **I oppose Agenda Item No.** _____

Name: Chad Nelsen
___ **Representing Self**
X **Representing:** SURFRIDER FOUNDATION

Unless exempted by the Board, comments are limited to three (3) minutes.

State of California
Environmental Protection Agency
Water Resources Control Board
Los Angeles Regional Water Quality Control Board

SPEAKER REQUEST CARD

Date: Nov 5th

I wish to speak during the Board Meeting:

✓ I wish to speak on Agenda Item No. 9
___ I wish to speak during Public Forum on a non-agenda item.

I do not wish to speak but I do want to express the following position:

___ I support Agenda Item No. _____
___ I oppose Agenda Item No. _____

Name: MARILEE SWEENEY

___ Representing Self
___ Representing: SURFRIDER FOUNDATION LOCAL MALIBU CHAPTER

Unless exempted by the Board, comments are limited to three (3) minutes.

State of California
Environmental Protection Agency
Water Resources Control Board
Los Angeles Regional Water Quality Control Board

SPEAKER REQUEST CARD

Date: 11/5/09

I wish to speak during the Board Meeting:

X I wish to speak on Agenda Item No. 9
___ I wish to speak during Public Forum on a non-agenda item.

I do not wish to speak but I do want to express the following position:

___ I support Agenda Item No. _____
___ I oppose Agenda Item No. _____

Name: Angel Scott

___ Representing Self
X Representing: Self + Surfrider Foundation

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State of California
Environmental Protection Agency
Water Resources Control Board
Los Angeles Regional Water Quality Control Board

SPEAKER REQUEST CARD

Part of City of Malibu Presentation

Date: 11/5/09

I wish to speak during the Board Meeting:

X I wish to speak on Agenda Item No. 9
___ I wish to speak during Public Forum on a non-agenda item.

I do not wish to speak but I do want to express the following position:

___ I support Agenda Item No. _____
___ I oppose Agenda Item No. _____

Name: John Sibert
___ Representing Self
X Representing: City of Malibu

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State of California
Environmental Protection Agency
Water Resources Control Board
Los Angeles Regional Water Quality Control Board

SPEAKER REQUEST CARD

Date: 11/05/09

___ I wish to speak during Public Forum on a non-agenda item.

I wish to speak during the Board Meeting:

✓ I wish to speak on Agenda Item No. 9

X In Support _____ In Opposition

I do not wish to speak but I do want to express the following position:

___ I support Agenda Item No. _____
___ I oppose Agenda Item No. _____

Name: Tom Nefcy
___ Representing Self
Representing: Malibu Surfing Associat.

State of California
Environmental Protection Agency
Water Resources Control Board
Los Angeles Regional Water Quality Control Board

SPEAKER REQUEST CARD

Date: 11/5/2009

I wish to speak during the Board Meeting:

____ **I wish to speak on Agenda Item No.** _____
____ **I wish to speak during Public Forum on a non-agenda item.**

I do not wish to speak but I do want to express the following position:

__X__ **I support Agenda Item No.** 9
____ **I oppose Agenda Item No.** _____

Name: Orlando H Gonzalez
____ **Representing Self**
____ **Representing:** _____

Unless exempted by the Board, comments are limited to three (3) minutes.

State of California
Environmental Protection Agency
Water Resources Control Board
Los Angeles Regional Water Quality Control Board

Do not wish to speak

SPEAKER REQUEST CARD

Date: _____

I wish to speak during the Board Meeting:

____ **I wish to speak on Agenda Item No.** _____
____ **I wish to speak during Public Forum on a non-agenda item.**

I do not wish to speak but I do want to express the following position:

__X__ **I support Agenda Item No.** 9
____ **I oppose Agenda Item No.** _____

Name: Sharon Wilks
__X__ **Representing Self**
____ **Representing:** _____

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State of California
Environmental Protection Agency
Water Resources Control Board
Los Angeles Regional Water Quality Control Board

SPEAKER REQUEST CARD

Date: 11/5/09

I wish to speak during the Board Meeting:

____ **I wish to speak on Agenda Item No.** _____
____ **I wish to speak during Public Forum on a non-agenda item.**

I do not wish to speak but I do want to express the following position:

__X__ **I support Agenda Item No.** 9
____ **I oppose Agenda Item No.** _____

Name: (NORBERTO) NORBERTO C. BUKIRK

____ **Representing Self**
____ **Representing:** _____

Unless exempted by the Board, comments are limited to three (3) minutes.

State of California
Environmental Protection Agency
Water Resources Control Board
Los Angeles Regional Water Quality Control Board

SPEAKER REQUEST CARD

Date: 11/9/09

I wish to speak during the Board Meeting:

____ **I wish to speak on Agenda Item No.** _____
____ **I wish to speak during Public Forum on a non-agenda item.**

I do not wish to speak but I do want to express the following position:

__Y__ **I support Agenda Item No.** 9
____ **I oppose Agenda Item No.** _____

Name: [redacted]

____ **Representing Self**
____ **Representing:** _____

State of California
Environmental Protection Agency
Water Resources Control Board
Los Angeles Regional Water Quality Control Board

SPEAKER REQUEST CARD

Date: 11-5-09

I wish to speak during the Board Meeting:

____ **I wish to speak on Agenda Item No.** _____
____ **I wish to speak during Public Forum on a non-agenda item.**

I do not wish to speak but I do want to express the following position:

__X__ **I support Agenda Item No.** 9
____ **I oppose Agenda Item No.** _____

Name: Kevin Jontz
__✓__ **Representing Self**
____ **Representing:** _____

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State of California
Environmental Protection Agency
Water Resources Control Board
Los Angeles Regional Water Quality Control Board

SPEAKER REQUEST CARD

Date: 11-5-09

I wish to speak during the Board Meeting:

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____ **I wish to speak during Public Forum on a non-agenda item.**

I do not wish to speak but I do want to express the following position:

__✓__ **I support Agenda Item No.** 9
____ **I oppose Agenda Item No.** _____

Name: Charlotte Stevenson
__✓__ **Representing Self**
____ **Representing:** _____

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State of California
Environmental Protection Agency
Water Resources Control Board
Los Angeles Regional Water Quality Control Board

SPEAKER REQUEST CARD

Date: 11/5/09

I wish to speak during the Board Meeting:

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____ I wish to speak during Public Forum on a non-agenda item.

I do not wish to speak but I do want to express the following position:

____ I support Agenda Item No. 9
____ I oppose Agenda Item No. _____

Name: Gerye Odlum
X Representing Self
____ Representing: _____

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State of California
Environmental Protection Agency
Water Resources Control Board
Los Angeles Regional Water Quality Control Board

SPEAKER REQUEST CARD

Date: 11/5/09

I wish to speak during the Board Meeting:

____ I wish to speak on Agenda Item No. _____
____ I wish to speak during Public Forum on a non-agenda item.

I do not wish to speak but I do want to express the following position:

X I support Agenda Item No. 9
____ I oppose Agenda Item No. _____

Name: Kevin Jontz
X Representing Self
____ Representing: _____

Unless exempted by the Board, comments are limited to three (3) minutes.

State of California
Environmental Protection Agency
Water Resources Control Board
Los Angeles Regional Water Quality Control Board

SPEAKER REQUEST CARD

Date: 11/5/09

I wish to speak during the Board Meeting:

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____ **I wish to speak during Public Forum on a non-agenda item.**

I do not wish to speak but I do want to express the following position:

__✓__ **I support Agenda Item No.** 9
____ **I oppose Agenda Item No.** _____

Name: Jeremy Stutes
____ **Representing Self**
____ **Representing:** _____

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State of California
Environmental Protection Agency
Water Resources Control Board
Los Angeles Regional Water Quality Control Board

SPEAKER REQUEST CARD

Date: 11/5/09

I wish to speak during the Board Meeting:

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____ **I wish to speak during Public Forum on a non-agenda item.**

I do not wish to speak but I do want to express the following position:

__✓__ **I support Agenda Item No.** 9
____ **I oppose Agenda Item No.** _____

Name: Ahrha Ko
__✓__ **Representing Self**
____ **Representing:** _____

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State of California
Environmental Protection Agency
Water Resources Control Board
Los Angeles Regional Water Quality Control Board

SPEAKER REQUEST CARD

Date: 11/5/09

I wish to speak during the Board Meeting:

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____ **I wish to speak during Public Forum on a non-agenda item.**

I do not wish to speak but I do want to express the following position:

✓ **I support Agenda Item No.** 9
____ **I oppose Agenda Item No.** _____

Name: Ken Chung
____ **Representing Self**
____ **Representing:** _____

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State of California
Environmental Protection Agency
Water Resources Control Board
Los Angeles Regional Water Quality Control Board

SPEAKER REQUEST CARD

Date: 11/6/09

I wish to speak during the Board Meeting:

____ **I wish to speak on Agenda Item No.** 9
____ **I wish to speak during Public Forum on a non-agenda item.**

I do not wish to speak but I do want to express the following position:

✓ **I support Agenda Item No.** 9
____ **I oppose Agenda Item No.** _____

Name: [illegible]
✓ **Representing Self**
____ **Representing:** _____

Unless exempted by the Board, comments are limited to three (3) minutes.

State of California
Environmental Protection Agency
Water Resources Control Board
Los Angeles Regional Water Quality Control Board

SPEAKER REQUEST CARD

Date: 11-5-09

I wish to speak during the Board Meeting:

__✓__ **I wish to speak on Agenda Item No.** _____
____ **I wish to speak during Public Forum on a non-agenda item.**

I do not wish to speak but I do want to express the following position:

__✓__ **I support Agenda Item No.** 9
____ **I oppose Agenda Item No.** _____

Name: Varooj Hovsepian
__✓__ **Representing Self**
____ **Representing:** _____

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State of California
Environmental Protection Agency
Water Resources Control Board
Los Angeles Regional Water Quality Control Board

SPEAKER REQUEST CARD

Date: 11/5/09

I wish to speak during the Board Meeting:

____ **I wish to speak on Agenda Item No.** 9
____ **I wish to speak during Public Forum on a non-agenda item.**

I do not wish to speak but I do want to express the following position:

__✓__ **I support Agenda Item No.** 9
____ **I oppose Agenda Item No.** _____

Name: Jaime Medina
____ **Representing Self**
____ **Representing:** _____

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State of California
Environmental Protection Agency
Water Resources Control Board
Los Angeles Regional Water Quality Control Board

SPEAKER REQUEST CARD

Date: 11/5/09

I wish to speak during the Board Meeting:

____ **I wish to speak on Agenda Item No.** _____
____ **I wish to speak during Public Forum on a non-agenda item.**

I do not wish to speak but I do want to express the following position:

__✓__ **I support Agenda Item No.** 9
____ **I oppose Agenda Item No.** _____

Name: Marilyn A _____
__✓__ **Representing Self**
____ **Representing:** _____

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State of California
Environmental Protection Agency
Water Resources Control Board
Los Angeles Regional Water Quality Control Board

SPEAKER REQUEST CARD

Date: 11/5

I wish to speak during the Board Meeting:

____ **I wish to speak on Agenda Item No.** _____
____ **I wish to speak during Public Forum on a non-agenda item.**

I do not wish to speak but I do want to express the following position:

✓
____ **I support Agenda Item No.** 9
____ **I oppose Agenda Item No.** _____

Name: Lilly Wong
__✓__ **Representing Self**
____ **Representing:** _____

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State of California
Environmental Protection Agency
Water Resources Control Board
Los Angeles Regional Water Quality Control Board

SPEAKER REQUEST CARD

Date: 11/5/09

I wish to speak during the Board Meeting:

N/A **I wish to speak on Agenda Item No. _____**
___ **I wish to speak during Public Forum on a non-agenda item.**

I do not wish to speak but I do want to express the following position:

___ ✓ **I support Agenda Item No.** 9
___ **I oppose Agenda Item No. _____**

Name: Joseph Chavez
✓ **Representing Self**
___ **Representing: _____**

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State of California
Environmental Protection Agency
Water Resources Control Board
Los Angeles Regional Water Quality Control Board

SPEAKER REQUEST CARD

Date: 11/5/09

I wish to speak during the Board Meeting:

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I do not wish to speak but I do want to express the following position:

X **I support Agenda Item No.** 9
___ **I oppose Agenda Item No. _____**

Name: Shawn Foley
X **Representing Self**
___ **Representing: _____**

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State of California
Environmental Protection Agency
Water Resources Control Board
Los Angeles Regional Water Quality Control Board

SPEAKER REQUEST CARD

Date: 11/5/09

I wish to speak during the Board Meeting:

N/A **I wish to speak on Agenda Item No.** 9
I wish to speak during Public Forum on a non-agenda item.

I do not wish to speak but I do want to express the following position:

✓ **I support Agenda Item No.** 9
I oppose Agenda Item No. _____

Name: ARTURO DORAME
✓ **Representing Self**
Representing: _____

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State of California
Environmental Protection Agency
Water Resources Control Board
Los Angeles Regional Water Quality Control Board

SPEAKER REQUEST CARD

Date: 11/5/09

I wish to speak during the Board Meeting:

I wish to speak on Agenda Item No. 9
I wish to speak during Public Forum on a non-agenda item.

I do not wish to speak but I do want to express the following position:

✓ **I support Agenda Item No.** 9
I oppose Agenda Item No. _____

Name: MICHAEL THAMMASSEA
✓ **Representing Self**
Representing: _____

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State of California
Environmental Protection Agency
Water Resources Control Board
Los Angeles Regional Water Quality Control Board

SPEAKER REQUEST CARD

Date: 11/5/09

I wish to speak during the Board Meeting:

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I do not wish to speak but I do want to express the following position:

__✓__ **I support Agenda Item No.** 9
____ **I oppose Agenda Item No.** _____

Name: RAFAEL E RAMIREZ
__✓__ **Representing Self**
____ **Representing:** _____

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State of California
Environmental Protection Agency
Water Resources Control Board
Los Angeles Regional Water Quality Control Board

SPEAKER REQUEST CARD

Date: 11/5/2009

I wish to speak during the Board Meeting:

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I do not wish to speak but I do want to express the following position:

__✓__ **I support Agenda Item No.** 9
____ **I oppose Agenda Item No.** _____

Name: Jennifer Lutrario
__X__ **Representing Self**
____ **Representing:** _____

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State of California
Environmental Protection Agency
Water Resources Control Board
Los Angeles Regional Water Quality Control Board

SPEAKER REQUEST CARD

Date: 11/05/09

I wish to speak during the Board Meeting:

____ **I wish to speak on Agenda Item No.** _____
____ **I wish to speak during Public Forum on a non-agenda item.**

I do not wish to speak but I do want to express the following position:

____ X **I support Agenda Item No.** 9
____ **I oppose Agenda Item No.** _____

Name: Fernando Cervantes
X **Representing Self**
____ **Representing:** _____

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State of California
Environmental Protection Agency
Water Resources Control Board
Los Angeles Regional Water Quality Control Board

SPEAKER REQUEST CARD

Date: 11/5

I wish to speak during the Board Meeting:

____ **I wish to speak on Agenda Item No.** _____
____ **I wish to speak during Public Forum on a non-agenda item.**

I do not wish to speak but I do want to express the following position:

X **I support Agenda Item No.** 9
____ **I oppose Agenda Item No.** _____

Name: Bobbi Beeson
X **Representing Self**
____ **Representing:** _____

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State of California
Environmental Protection Agency
Water Resources Control Board
Los Angeles Regional Water Quality Control Board

SPEAKER REQUEST CARD

Date: 11/5/09

I wish to speak during the Board Meeting:

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____ **I wish to speak during Public Forum on a non-agenda item.**

I do not wish to speak but I do want to express the following position:

✓ **I support Agenda Item No.** 9
____ **I oppose Agenda Item No.** _____

Name: Demetrius Barker
✓ **Representing Self**
____ **Representing:** _____

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State of California
Environmental Protection Agency
Water Resources Control Board
Los Angeles Regional Water Quality Control Board

SPEAKER REQUEST CARD

Date: 11/5/09

I wish to speak during the Board Meeting:

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____ **I wish to speak during Public Forum on a non-agenda item.**

I do not wish to speak but I do want to express the following position:

✓ **I support Agenda Item No.** 9
____ **I oppose Agenda Item No.** _____

Name: Amanay Samaan
____ **Representing Self**
____ **Representing:** _____

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State of California
Environmental Protection Agency
Water Resources Control Board
Los Angeles Regional Water Quality Control Board

SPEAKER REQUEST CARD

Date: 11/5/09

I wish to speak during the Board Meeting:

✓ **I wish to speak on Agenda Item No.** 9
___ **I wish to speak during Public Forum on a non-agenda item.**

I do not wish to speak but I do want to express the following position:

✓ **I support Agenda Item No.** 9
___ **I oppose Agenda Item No.** _____

Name: Jeffery Gross
✓ **Representing Self**
___ **Representing:** _____

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State of California
Environmental Protection Agency
Water Resources Control Board
Los Angeles Regional Water Quality Control Board

SPEAKER REQUEST CARD

Date: 11/5/09

I wish to speak during the Board Meeting:

___ **I wish to speak on Agenda Item No.** 9
___ **I wish to speak during Public Forum on a non-agenda item.**

I do not wish to speak but I do want to express the following position:

✓ **I support Agenda Item No.** 9
___ **I oppose Agenda Item No.** _____

Name: Tommy Faron
✓ **Representing Self**
___ **Representing:** _____

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State of California
Environmental Protection Agency
Water Resources Control Board
Los Angeles Regional Water Quality Control Board

SPEAKER REQUEST CARD

Date: 11/5/09

I wish to speak during the Board Meeting:

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I do not wish to speak but I do want to express the following position:

__✓__ **I support Agenda Item No.** 9
____ **I oppose Agenda Item No.** _____

Name: Andy Win
__✓__ **Representing Self**
____ **Representing:** _____

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State of California
Environmental Protection Agency
Water Resources Control Board
Los Angeles Regional Water Quality Control Board

SPEAKER REQUEST CARD

Date: 11/5/09

I wish to speak during the Board Meeting:

__✓__ **I wish to speak on Agenda Item No.** 9
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I do not wish to speak but I do want to express the following position:

__✓__ **I support Agenda Item No.** 9
____ **I oppose Agenda Item No.** _____

Name: NANCY HASTINGS
__✓__ **Representing Self**
__✓__ **Representing:** Surfrider Foundation

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State of California
Environmental Protection Agency
Water Resources Control Board
Los Angeles Regional Water Quality Control Board

SPEAKER REQUEST CARD

Date: _____

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I do not wish to speak but I do want to express the following position:

____ ✓ **I support Agenda Item No.** 9
____ **I oppose Agenda Item No.** _____

Name: Chuck Osmond
✓ **Representing Self**
____ **Representing:** _____

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State of California
Environmental Protection Agency
Water Resources Control Board
Los Angeles Regional Water Quality Control Board

SPEAKER REQUEST CARD

Date: 11/5/09

I wish to speak during the Board Meeting:

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I do not wish to speak but I do want to express the following position:

X **I support Agenda Item No.** 9
____ **I oppose Agenda Item No.** _____

Name: PETE VILLALOBOS
X **Representing Self**
____ **Representing:** _____

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State of California
Environmental Protection Agency
Water Resources Control Board
Los Angeles Regional Water Quality Control Board

SPEAKER REQUEST CARD

Date: 11-5-09

I wish to speak during the Board Meeting:

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I do not wish to speak but I do want to express the following position:

__1__ **I support Agenda Item No.** 9
____ **I oppose Agenda Item No.** _____

Name: Mari Dapia
__X__ **Representing Self**
____ **Representing:** _____

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State of California
Environmental Protection Agency
Water Resources Control Board
Los Angeles Regional Water Quality Control Board

SPEAKER REQUEST CARD

Date: 11.5.09

I wish to speak during the Board Meeting:

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I do not wish to speak but I do want to express the following position:

__✓__ **I support Agenda Item No.** 9
____ **I oppose Agenda Item No.** _____

Name: Tan Blecher
__✓__ **Representing Self**
____ **Representing:** _____

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State of California
Environmental Protection Agency
Water Resources Control Board
Los Angeles Regional Water Quality Control Board

SPEAKER REQUEST CARD

Date: 11/5/09

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I do not wish to speak but I do want to express the following position:

__✓__ I support Agenda Item No. 9
____ I oppose Agenda Item No. _____

Name: LISA VIEN
____ Representing Self
____ Representing: _____

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State of California
Environmental Protection Agency
Water Resources Control Board
Los Angeles Regional Water Quality Control Board

SPEAKER REQUEST CARD

Date: 11/5/09

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I do not wish to speak but I do want to express the following position:

__✓__ I support Agenda Item No. 9
____ I oppose Agenda Item No. _____

Name: Arnold Castellanos
____ Representing Self
____ Representing: _____

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State of California
Environmental Protection Agency
Water Resources Control Board
Los Angeles Regional Water Quality Control Board

SPEAKER REQUEST CARD

Date: 11/5/09

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I do not wish to speak but I do want to express the following position:

___ ✓ I support Agenda Item No. 9
____ I oppose Agenda Item No. _____

Name: Renee Dore
✓ Representing Self
____ Representing: _____

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State of California
Environmental Protection Agency
Water Resources Control Board
Los Angeles Regional Water Quality Control Board

SPEAKER REQUEST CARD

Date: 11/5/09

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I do not wish to speak but I do want to express the following position:

✓ I support Agenda Item No. 9
____ I oppose Agenda Item No. _____

Name: M. Stella Mulpana
✓ Representing Self
____ Representing: _____

Unless exempted by the Board, comments are limited to three (3) minutes.

State of California
Environmental Protection Agency
Water Resources Control Board
Los Angeles Regional Water Quality Control Board

SPEAKER REQUEST CARD

Date: 11/5/09

I wish to speak during the Board Meeting:

____ I wish to speak on Agenda Item No. 9
____ I wish to speak during Public Forum on a non-agenda item.

I do not wish to speak but I do want to express the following position:

____ ✓ I support Agenda Item No. 9
____ I oppose Agenda Item No. _____

Name: Mary Lee

✓ Representing Self
____ Representing: _____

Unless exempted by the Board, comments are limited to three (3) minutes.

State of California
Environmental Protection Agency
Water Resources Control Board
Los Angeles Regional Water Quality Control Board

SPEAKER REQUEST CARD

Date: 11/5/09

I wish to speak during the Board Meeting:

____ I wish to speak on Agenda Item No. 9
____ I wish to speak during Public Forum on a non-agenda item.

I do not wish to speak but I do want to express the following position:

X I support Agenda Item No. 9
____ I oppose Agenda Item No. _____

Name: Eva Chipilla

X Representing Self
____ Representing: _____

Unless exempted by the Board, comments are limited to three (3) minutes.

State of California
Environmental Protection Agency
Water Resources Control Board
Los Angeles Regional Water Quality Control Board

SPEAKER REQUEST CARD

Date: 11/5/09

____ **I wish to speak during Public Forum on a non-agenda item.**

I wish to speak during the Board Meeting:

__✓__ **I wish to speak on Agenda Item No.** 9

_____ **In Support** _____ **In Opposition**

I do not wish to speak but I do want to express the following position:

__✓__ **I support Agenda Item No.** 9
____ **I oppose Agenda Item No.** _____

Name: Curtis Terry

__X__ **Representing Self**
____ **Representing:** _____

Unless exempted by the Board, comments are limited to three (3) minutes.

State of California
Environmental Protection Agency
Water Resources Control Board
Los Angeles Regional Water Quality Control Board

SPEAKER REQUEST CARD

Date: 11/5/09

I wish to speak during the Board Meeting:

__✓__ **I wish to speak on Agenda Item No.** 9
____ **I wish to speak during Public Forum on a non-agenda item.**

I do not wish to speak but I do want to express the following position:

__✓__ **I support Agenda Item No.** 9
____ **I oppose Agenda Item No.** _____

Name: Marshall Kennedy

____ **Representing Self**
__X__ **Representing:** FFA

State of California
Environmental Protection Agency
Water Resources Control Board
Los Angeles Regional Water Quality Control Board

SPEAKER REQUEST CARD

Date: 11/6/09

I wish to speak during the Board Meeting:

___ I wish to speak on Agenda Item No. X
___ I wish to speak during Public Forum on a non-agenda item.

I do not wish to speak but I do want to express the following position:

___ I support Agenda Item No. 9
___ I oppose Agenda Item No. _____

Name: [signature]
✓ Representing Self
___ Representing: _____

State of California
Environmental Protection Agency
Water Resources Control Board
Los Angeles Regional Water Quality Control Board

SPEAKER REQUEST CARD

Date: 11/5/09

I wish to speak during the Board Meeting:

___ I wish to speak on Agenda Item No. 9
___ I wish to speak during Public Forum on a non-agenda item.

I do not wish to speak but I do want to express the following position:

✓ I support Agenda Item No. 9
___ I oppose Agenda Item No. _____

Name: Nancy Smith
✓ Representing Self
___ Representing: _____

Unless exempted by the Board, comments are limited to three (3) minutes.

State of California
Environmental Protection Agency
Water Resources Control Board
Los Angeles Regional Water Quality Control Board

SPEAKER REQUEST CARD

Date: 11-5-09

I wish to speak during the Board Meeting:

✓ **I wish to speak on Agenda Item No.** 9
____ **I wish to speak during Public Forum on a non-agenda item.**

I do not wish to speak but I do want to express the following position:

~~✓~~ **I support Agenda Item No.** 9
____ **I oppose Agenda Item No.** _____

Name: Susie Santilena

~~✓~~ **Representing Self**
✓ **Representing:** Nichole & John McGinley

Unless exempted by the Board, comments are limited to three (3) minutes.

State of California
Environmental Protection Agency
Water Resources Control Board
Los Angeles Regional Water Quality Control Board

SPEAKER REQUEST CARD

Date: 11/5/09

I wish to speak during the Board Meeting:

✓ **I wish to speak on Agenda Item No.** 9
____ **I wish to speak during Public Forum on a non-agenda item.**

I do not wish to speak but I do want to express the following position:

____ **I support Agenda Item No.** _____
____ **I oppose Agenda Item No.** _____

Name: Chris Dehan

____ **Representing Self**
____ **Representing:** LA Pd

Unless exempted by the Board, comments are limited to three (3) minutes.

State of California
Environmental Protection Agency
Water Resources Control Board
Los Angeles Regional Water Quality Control Board

SPEAKER REQUEST CARD

Date: 11-5-2009

I wish to speak during the Board Meeting:

____ I wish to speak on Agenda Item No. _____
__X__ I wish to speak during Public Forum on a non-agenda item.

I do not wish to speak but I do want to express the following position:

____ I support Agenda Item No. _____
____ I oppose Agenda Item No. _____

Name: Desi Alvarez

____ Representing Self
__✓__ Representing: LA GATEWAY IRWM JPA

Unless exempted by the Board, comments are limited to three (3) minutes.

State of California
Environmental Protection Agency
Water Resources Control Board
Los Angeles Regional Water Quality Control Board

SPEAKER REQUEST CARD

Date: 10-5-09

I wish to speak during the Board Meeting:

__✓__ I wish to speak on Agenda Item No. 9
____ I wish to speak during Public Forum on a non-agenda item.

I do not wish to speak but I do want to express the following position:

[redacted] Support Agenda Item No. _____
__✓__ I oppose Agenda Item No. 9

Name: Don Schmitz

____ Representing Self
____ Representing: Malibu La Paz

Unless exempted by the Board, comments are limited to three (3) minutes.

√ = indicates spoke

OBERON DESIGN SANTA ROSA CA.

MSA
√ JOE HELCNIONS
√ MICHAEL BLUT
√ KEN SEINO

SWFMBDA
√ NANCY NASTINS
ANGELA JONES
√ MERILEE SWOBODA
BACKSTER
TOM FORD
TATIANA GUAN
√ Chad Nelson

State of California
Environmental Protection Agency
Water Resources Control Board
Los Angeles Regional Water Quality Control Board

didn't speak
support

SPEAKER REQUEST CARD

Date: 11-5-09

I wish to speak during the Board Meeting:

√ I wish to speak on Agenda Item No. 9
___ I wish to speak during Public Forum on a non-agenda item.

I do not wish to speak but I do want to express the following position:

___ I support Agenda Item No. 9
___ I oppose Agenda Item No. ____

Name: [redacted] Jessica Belsky
√ Representing Self
___ Representing: ____

Unless exempted by the Board, comments are limited to three (3) minutes.

State of California
Environmental Protection Agency
Water Resources Control Board
Los Angeles Regional Water Quality Control Board

Did not speak

SPEAKER REQUEST CARD

Date: 05-09

I wish to speak during the Board Meeting:

X I wish to speak on Agenda Item No. 9
___ I wish to speak during Public Forum on a non-agenda item.

I do not wish to speak but I do want to express the following position:

___ I support Agenda Item No. _____
___ I oppose Agenda Item No. _____

Name: John Butt

X Representing Self
___ Representing: _____

Unless exempted by the Board, comments are limited to three (3) minutes.

Did not speak

State of California
Environmental Protection Agency
Water Resources Control Board
Los Angeles Regional Water Quality Control Board

SPEAKER REQUEST CARD

Date: 11/5/09

I wish to speak during the Board Meeting:

X I wish to speak on Agenda Item No. 9
___ I wish to speak during Public Forum on a non-agenda item.

I do not wish to speak but I do want to express the following position:

X I support Agenda Item No. 9
___ I oppose Agenda Item No. _____

Name: Matthew Horns

X Representing Self
___ Representing: 2-872

State of California
Environmental Protection Agency
Water Resources Control Board
Los Angeles Regional Water Quality Control Board

Did not speak

SPEAKER REQUEST CARD

Date: 11/5/09

I wish to speak during the Board Meeting:

X I wish to speak on Agenda Item No. 9
I wish to speak during Public Forum on a non-agenda item.

I do not wish to speak but I do want to express the following position:

___ I support Agenda Item No. _____
___ I oppose Agenda Item No. _____

Name: Barbara Bradley Bradley

X Representing Self
___ Representing: _____

Unless exempted by the Board, comments are limited to three (3) minutes.

State of California
Environmental Protection Agency
Water Resources Control Board
Los Angeles Regional Water Quality Control Board

Did not speak

SPEAKER REQUEST CARD

Date: 11/5/09

___ I wish to speak during Public Forum on a non-agenda item.

I wish to speak during the Board Meeting:

✓ I wish to speak on Agenda Item No. 9

_____ In Support _____ In Opposition

I do not wish to speak but I do want to express the following position:

___ I support Agenda Item No. _____
___ I oppose Agenda Item No. _____

Name: Nicole McGinley

___ Representing Self

State of California
Environmental Protection Agency
Water Resources Control Board
Los Angeles Regional Water Quality Control Board

Did not speak

SPEAKER REQUEST CARD

Date: 11/5/09

I wish to speak during the Board Meeting:

✓ **I wish to speak on Agenda Item No.** 9
____ **I wish to speak during Public Forum on a non-agenda item.**

I do not wish to speak but I do want to express the following position:

____ **I support Agenda Item No.** _____
____ **I oppose Agenda Item No.** _____

Name: ANDREA BOCCALETTI
✓ **Representing Self**
____ **Representing:** _____

Unless exempted by the Board, comments are limited to three (3) minutes.

Support asked that could be pulled* put records as support

* no need to space mic

State of California
Environmental Protection Agency
Water Resources Control Board
Los Angeles Regional Water Quality Control Board

Did not Speak

SPEAKER REQUEST CARD

Date: Nov 5, 2009

I wish to speak during the Board Meeting:

X **I wish to speak on Agenda Item No.** 9
____ **I wish to speak during Public Forum on a non-agenda item.**

I do not wish to speak but I do want to express the following position:

____ **I support Agenda Item No.** 1
____ **I oppose Agenda Item No.** _____

Name: SUSAN SHEROD
✓ **Representing Self**
____ **Representing:** _____

Unless exempted by the Board, comments are limited to three (3) minutes.

State of California
Environmental Protection Agency
Water Resources Control Board
Los Angeles Regional Water Quality Control Board

Did not Speak

SPEAKER REQUEST CARD

Date: 11/5/09

___ I wish to speak during Public Forum on a non-agenda item.

I wish to speak during the Board Meeting:

___ I wish to speak on Agenda Item No. Malibu Sewer

___ In Support ___X___ In Opposition

I do not wish to speak but I do want to express the following position:

___ I support Agenda Item No. _____

___ I oppose Agenda Item No. _____

Name: Tom Sawyer

___ Representing Self

___X___ Representing: Malibu Road Homeowners Ass.

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State of California
Environmental Protection Agency
Water Resources Control Board
Los Angeles Regional Water Quality Control Board

2nd card- 1st card said did not want to speak- Was he abs- Do not speak

SPEAKER REQUEST CARD

Date: 10/5/09

X I wish to speak during Public Forum on a non-agenda item.

I wish to speak during the Board Meeting:

___ I wish to speak on Agenda Item No. 9

_____ In Support _____ In Opposition

I do not wish to speak but I do want to express the following position:

___ I support Agenda Item No. _____
___ I oppose Agenda Item No. _____

Name: Richard N. Scott

___ Representing Self
___ Representing: Malibu Knolls Property Owners Assoc

Unless exempted by the Board, comments are limited to three (3) minutes.

State of California
Environmental Protection Agency
Water Resources Control Board
Los Angeles Regional Water Quality Control Board

Did not speak

SPEAKER REQUEST CARD

Date: 10/5

I wish to speak during the Board Meeting:

X I wish to speak on Agenda Item No. 9
___ I wish to speak during Public Forum on a non-agenda item.

I do not wish to speak but I do want to express the following position:

___ I support Agenda Item No. _____
___ I oppose Agenda Item No. _____

Name: John Kay

___ Representing Self
___ Representing: Ryphedine

Unless exempted by the Board, comments are limited to three (3) minutes.

State of California
Environmental Protection Agency
Water Resources Control Board
Los Angeles Regional Water Quality Control Board

Did not speak

SPEAKER REQUEST CARD

Date: 11/5/09

I wish to speak during the Board Meeting:

X I wish to speak on Agenda Item No. 9
___ I wish to speak during Public Forum on a non-agenda item.

I do not wish to speak but I do want to express the following position:

___ I support Agenda Item No. _____
___ I oppose Agenda Item No. _____

Name: X Deborah Sarch
X Representing Self
___ Representing: _____

State of California
Environmental Protection Agency
Water Resources Control Board
Los Angeles Regional Water Quality Control Board

Support

Did not Speak

SPEAKER REQUEST CARD

Date: 11-5-09

I wish to speak during the Board Meeting:

___ I wish to speak on Agenda Item No. 9 Medicine
___ I wish to speak during Public Forum on a non-agenda item.

I do not wish to speak but I do want to express the following position:

___ I support Agenda Item No. _____
___ I oppose Agenda Item No. _____

Name: Bob Purvey
___ Representing Self
___ Representing: SELF

Unless exempted by the Board, comments are limited to three (3) minutes.

State of California
Environmental Protection Agency
Water Resources Control Board
Los Angeles Regional Water Quality Control Board

Did not speak

SPEAKER REQUEST CARD

Date: 11/5

I wish to speak during the Board Meeting:

✓ **I wish to speak on Agenda Item No.** Math 9
____ **I wish to speak during Public Forum on a non-agenda item.**

I do not wish to speak but I do want to express the following position:

____ **I support Agenda Item No.** _____
____ **I oppose Agenda Item No.** _____

Name: Michael Heslov
X **Representing Self**
____ **Representing:** _____

Unless exempted by the Board, comments are limited to three (3) minutes.

State of California
Environmental Protection Agency
Water Resources Control Board
Los Angeles Regional Water Quality Control Board

did not speak

SPEAKER REQUEST CARD

Date: 11/5/09

I wish to speak during the Board Meeting:

✓ **I wish to speak on Agenda Item No.** 9
____ **I wish to speak during Public Forum on a non-agenda item.**

I do not wish to speak but I do want to express the following position:

____ **I support Agenda Item No.** _____
____ **I oppose Agenda Item No.** _____

Name: JON TAT
✓ **Representing Self**
____ **Representing:** _____

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State of California
Environmental Protection Agency
Water Resources Control Board
Los Angeles Regional Water Quality Control Board

Did not speak

SPEAKER REQUEST CARD

Date: 11-5-09

I wish to speak during the Board Meeting:

X **I wish to speak on Agenda Item No.** 9
___ **I wish to speak during Public Forum on a non-agenda item.**

I do not wish to speak but I do want to express the following position:

___ **I support Agenda Item No.** _____
___ **I oppose Agenda Item No.** _____

Name: Ken Glenn

X **Representing Self**
___ **Representing:** _____

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State of California
Environmental Protection Agency
Water Resources Control Board
Los Angeles Regional Water Quality Control Board

Did not speak

SPEAKER REQUEST CARD

Date: 11/5/09

I wish to speak during the Board Meeting:

X **I wish to speak on Agenda Item No.** 9
___ **I wish to speak during Public Forum on a non-agenda item.**

I do not wish to speak but I do want to express the following position:

___ **I support Agenda Item No.** _____
___ **I oppose Agenda Item No.** _____

Name: Joan Lavine Pro Residential

X **Representing Self** Property Owner
___ **Representing:** _____

Ph. 513-8697-2201

Oppose - Name & Mic
Card pulled

State of California
Environmental Protection Agency
Water Resources Control Board
Los Angeles Regional Water Quality Control Board

SPEAKER REQUEST CARD

Date: 11/5/09

I wish to speak during the Board Meeting:

X I wish to speak on Agenda Item No. 9
___ I wish to speak during Public Forum on a non-agenda item.

I do not wish to speak but I do want to express the following position:

___ I support Agenda Item No. _____
___ I oppose Agenda Item No. _____

Name: Heidi Bernard

___ Representing Self
X Representing: Malibu Chamber of Commerce

Unless exempted by the Board, comments are limited to three (3) minutes.

Oppose - Name & Mic.
Card pulled

State of California
Environmental Protection Agency
Water Resources Control Board
Los Angeles Regional Water Quality Control Board

SPEAKER REQUEST CARD

Date: 11/5

I wish to speak during the Board Meeting:

X I wish to speak on Agenda Item No. 9
___ I wish to speak during Public Forum on a non-agenda item.

I do not wish to speak but I do want to express the following position:

___ I support Agenda Item No. _____
___ I oppose Agenda Item No. _____

Name: SCOTT WAGENSELLER

___ Representing Self
X Representing: MALIBU CHAMBER

Oppose - Name only Clinic. Card pulled

State of California
Environmental Protection Agency
Water Resources Control Board
Los Angeles Regional Water Quality Control Board

SPEAKER REQUEST CARD

Date: 11/5/09

I wish to speak during the Board Meeting:

✓ **I wish to speak on Agenda Item No.** 9
___ **I wish to speak during Public Forum on a non-agenda item.**

I do not wish to speak but I do want to express the following position:

___ **I support Agenda Item No.** _____
✓ **I oppose Agenda Item No.** 9

Name: Richard Lawyer
___ **Representing Self**
___ **Representing:** Malibu Township Council

State of California
Environmental Protection Agency
Water Resources Control Board
Los Angeles Regional Water Quality Control Board

1

oppose
NO Speak

SPEAKER REQUEST CARD

Date: 11-5-09

I wish to speak during the Board Meeting:

___ **I wish to speak on Agenda Item No.** 9
___ **I wish to speak during Public Forum on a non-agenda item.**

I do not wish to speak but I do want to express the following position:

___ **I support Agenda Item No.** _____
X **I oppose Agenda Item No.** 9

Name: Chris Deleau
___ **Representing Self**
✓ **Representing:** La Paz Ranch

State of California
Environmental Protection Agency
Water Resources Control Board
Los Angeles Regional Water Quality Control Board

No Request to Speak

SPEAKER REQUEST CARD

Date: _____

I wish to speak during the Board Meeting:

____ I wish to speak on Agenda Item No. _____
____ I wish to speak during Public Forum on a non-agenda item.

I do not wish to speak but I do want to express the following position:

____ I support Agenda Item No. _____
✓ I oppose Agenda Item No. Malibu Sewer Distribution

Name: PAUL SHOOP - OPPOSE
✓ Representing Self
____ Representing: 3401 Coastview

Unless exempted by the Board, comments are limited to three (3) minutes.

NO DATA TO SUPPORT FINDINGS -

State of California
Environmental Protection Agency
Water Resources Control Board
Los Angeles Regional Water Quality Control Board

~~9~~ 13 support

SPEAKER REQUEST CARD

Date: 11/5/09

I wish to speak during the Board Meeting:

✓ I wish to speak on Agenda Item No. 9
____ I wish to speak during Public Forum on a non-agenda item.

No speak

I do not wish to speak but I do want to express the following position:

✓ I support Agenda Item No. 9
____ I oppose Agenda Item No. _____

Name: Anna Dorlin
✓ Representing Self
____ Representing: _____

Unless exempted by the Board, comments are limited to three (3) minutes

State of California
Environmental Protection Agency
Water Resources Control Board
Los Angeles Regional Water Quality Control Board

Didnot speak NA

Support

SPEAKER REQUEST CARD

Date: 11-5-09

I wish to speak during the Board Meeting:

✓ **I wish to speak on Agenda Item No.** 9
___ **I wish to speak during Public Forum on a non-agenda item.**

I do not wish to speak but I do want to express the following position:

___ **I support Agenda Item No.** _____
___ **I oppose Agenda Item No.** _____

Name: Meredith McCarthy
✓ **Representing Self**
___ **Representing:** _____

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State of California
Environmental Protection Agency
Water Resources Control Board
Los Angeles Regional Water Quality Control Board

Didnot speak NA

Support

SPEAKER REQUEST CARD

Date: 11-5-09

I wish to speak during the Board Meeting:

✓ **I wish to speak on Agenda Item No.** 9
___ **I wish to speak during Public Forum on a non-agenda item.**

I do not wish to speak but I do want to express the following position:

___ **I support Agenda Item No.** _____
___ **I oppose Agenda Item No.** _____

Name: Alison Lipman
✓ **Representing Self**
___ **Representing:** _____

Will not speak

State of California
Environmental Protection Agency
Water Resources Control Board
Los Angeles Regional Water Quality Control Board

SPEAKER REQUEST CARD

Date: 11/5/09

I wish to speak during the Board Meeting:

____ I wish to speak on Agenda Item No. _____
____ I wish to speak during Public Forum on a non-agenda item.

I do not wish to speak but I do want to express the following position:

___ ✓ I support Agenda Item No. 9
____ I oppose Agenda Item No. _____

Name: ELDON RODAS
____ Representing Self
____ Representing: _____

Unless exempted by the Board, comments are limited to three (3) minutes.

State of California
Environmental Protection Agency
Water Resources Control Board
Los Angeles Regional Water Quality Control Board

SPEAKER REQUEST CARD

Do not wish to speak

Date: 11/05/09

I wish to speak during the Board Meeting:

____ I wish to speak on Agenda Item No. _____
____ I wish to speak during Public Forum on a non-agenda item.

I do not wish to speak but I do want to express the following position:

✓ I support Agenda Item No. 9
____ I oppose Agenda Item No. _____

Name: KEN SWANSON
____ Representing Self
____ Representing: _____

State of California
Environmental Protection Agency
Water Resources Control Board
Los Angeles Regional Water Quality Control Board

Do not wish to speak

SPEAKER REQUEST CARD

Date: _____

I wish to speak during the Board Meeting:

____ **I wish to speak on Agenda Item No.** _____
____ **I wish to speak during Public Forum on a non-agenda item.**

I do not wish to speak but I do want to express the following position:

__X__ **I support Agenda Item No.** 9
____ **I oppose Agenda Item No.** _____

Name: Sharon Wilks
__X__ **Representing Self**
____ **Representing:** _____

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State of California
Environmental Protection Agency
Water Resources Control Board
Los Angeles Regional Water Quality Control Board

Do not wish to speak.

SPEAKER REQUEST CARD

Date: 11-5-09

I wish to speak during the Board Meeting:

____ **I wish to speak on Agenda Item No.** _____
____ **I wish to speak during Public Forum on a non-agenda item.**

I do not wish to speak but I do want to express the following position:

__X__ **I support Agenda Item No.** 9
____ **I oppose Agenda Item No.** _____

Name: Ryan Thacher
____ **Representing Self**
__X__ **Representing:** ~~[illegible]~~ Surf Community

State of California
Environmental Protection Agency
Water Resources Control Board
Los Angeles Regional Water Quality Control Board

not speaking
opposition

SPEAKER REQUEST CARD

Date: 11/5/09

I wish to speak during the Board Meeting:

X I wish to speak on Agenda Item No. 9
___ I wish to speak during Public Forum on a non-agenda item.

I do not wish to speak but I do want to express the following position:

___ I support Agenda Item No. ____
X I oppose Agenda Item No. 9

Name: John Jaroslawski

___ Representing Self
X Representing: WALO