

MALIBU COASTAL VULNERABILITY ASSESSMENT: FREQUENTLY ASKED QUESTIONS

Technical Study

- **What areas are included in this Coastal Vulnerability Assessment (Study)?**
 - This study focuses specifically within the city limits of Malibu only.
- **Will this presentation be posted, and will it include all of the slides and guides?**
 - The recording of the virtual presentation will be posted on the [Coastal webpage](#).
- **Why are 2.5 feet (2050-2060) and 6.6 feet (2080-2100) of sea level rise used?**
 - These numbers are standards from the Ocean Protection Council's 2018 report used across many jurisdictions. The sooner date is for extreme risk aversion of an H++ scenario (Antarctica melting), and the later date is for medium-high risk aversion where current greenhouse gas emission rates continue. Malibu's Study initiated in 2019, and the Ocean Protection Council's 2018 report was the best available science.
- **Are these sea level rise scenarios guaranteed?**
 - No, the sea level rise scenarios of 2.5 feet from 2050-2060 and 6.6 feet from 2080-2100 are projections based on the best available science and are not guaranteed. Sea level rise is expected to occur gradually.
- **Why does the Assessment evaluate an H++ scenario if the upcoming 2023 Ocean Protection Council report uses lower amounts of sea-level rise?**
 - The 2023 Ocean Protection Council report has not been released as of November 14, 2023. Malibu's Study began in 2019, and therefore used the 2018 Ocean Protection Council report data that has been implemented in numerous jurisdictions' coastal vulnerability assessments.
- **Why was 100-years (2123) of sea-level rise not evaluated, as this is a common request from California Coastal Commission?**
 - For Malibu's Study, sea level rise scenarios were selected based on guidance from the 2018 Ocean Protection Council (OPC), 2018 California Coastal Commission (CCC), and coastal hazard mapping data available from the USGS Coastal Storm Modeling System (CoSMoS), and AdaptLA. New sea level rise science updates from National Oceanic and Atmospheric Administration (NOAA) 2022 suggest that the sea level rise amounts used for the Malibu Study could be projected to occur later. The forthcoming OPC sea level rise guidance update (anticipated in 2023) will provide updated sea level rise projections based on this updated 2022 NOAA study. The updated OPC guidance may likely recommend sea level rise scenarios for planning in which 6.6 feet of sea level rise is projected to occur beyond 2100.
 - Our Study is a planning-level assessment meant to serve as the City's first step in identifying potential sea level rise vulnerabilities for the entire City. The Study is not yet intended to support Coastal Development Permits (CDP), for which the CCC may apply different requirements. Development project-specific studies for Coastal Development Permits should evaluate sea level rise scenarios based on the anticipated life of the project and the latest available sea level rise science, per CCC guidance. The CCC may routinely request that specific projects evaluate sea level rise over as much as 100 years.

- **Why did the Study not include economics or cost analysis?**
 - Typically, a cost-benefit analysis is conducted when evaluating adaptation measures to predict whether the benefits of a measure outweigh its costs relative to other alternatives.
- **Does Malibu’s Study align with the updated FEMA maps?**
 - This project that evaluates sea-level rise is a separate process from Federal Emergency Management Agency (FEMA) mapping, which is produced for the purpose of flood insurance.
- **Are the sea level rise projections based on base flood elevations?**
 - No, sea level rise projections are based on an ensemble of global climate models and digested by our guidance providers at the State of California. The sea level rise projections are increases in mean sea level. Conversely, base flooding elevations from FEMA are specific to the coast and topography.

Adaptation & Implementation

- **How will the community adapt to projected sea level rise?**
 - The Coastal Vulnerability Assessment is a technical assessment only depicting the projected levels of sea level rise and potential impacted assets. The Study does not include adaptation measures or a “fix.” One workshop attendee stated that “solutions will depend on everyone’s individual situations.” The City encourages the community to attend the Phase 2 workshop in early 2024 to provide input for the next steps. Visit our [website](#) for more details.
- **What geotechnical alternatives for adaptation are there (i.e., breakwaters, sea walls, other structures)?**
 - There are numerous adaptation strategies that occur in Malibu. For example, 30% of Malibu coast is protected by a range of coastal armoring such as sea walls, beach nourishment has occurred at Las Tunas and Zuma Beaches in the 1960s-70s, temporary berms are regularly built today along important structures at Zuma Beach to reduce wave runup impacts, and a living shoreline has been implemented to restore sandy beach and dune habitats at Zuma and Point Dume beaches. There are also numerous adaptation strategies that other jurisdictions have implemented, including bluff erosion protection, sand retention structures, shoreline protection devices (e.g., rock revetments, seawalls), elevating or waterproofing assets, elevating property grades, elevating roads, installing sump pumps for low-elevation areas, installing flood walls, and managed retreat.
- **Will future projections include existing coastal armoring?**
 - This Study identifies where the existing coastal armoring is located but does not include existing coastal armoring in the depicted projections of future sea level rise to evaluate.
- **Who will be responsible for implementation?**
 - Responsibility will vary based on the type of implementation utilized.
- **Will multiple agencies need to approve any proposed adaptation measures?**
 - Generally, yes, multiple agencies are involved in reviewing development projects. The public agencies reviewing the proposed adaptation measure may differ depending on what the proposed measure is.

- **Can the City be forced to implement a plan the community does not want?**
 - If there is a requirement from the state or federal government, then the City will be required to implement a plan that addresses that requirement. Otherwise, the current direction from CCC is to have individual cities provide their own implementation plans as each city is unique in environment, geology, topography, and more. The goal of Phase 2 of the Study is to see what direction the community wants to take and implement, and then City staff can present this information to City Council.

Codes & Regulations

- **Will this Study affect updates to the Local Implementation Plan (LIP)?**
 - The results do not currently impact the LIP because sea level rise is evaluated on a project-by-project basis. In the future, the LIP will be updated to address requirements per the [SB 272 Sea Level Rise: Planning and Adaptation](#) that was approved on October 7, 2023. In summary, SB 272 requires local government in coastal zones to develop a sea level rise plan for the implementation of sea level rise adaptation strategies and recommended projects by January 1, 2034.
- **Adaptation to sea level rise is a big enterprise—too big for a city. Should adaptation be handled at the state or federal level?**
 - [SB 272 Sea Level Rise: Planning and Adaptation](#) requires that by December 31, 2024, the CCC coordinate with the Ocean Protection Council and the California Sea Level Rise State and Regional Support Collaborative to establish guidelines for local government’s preparation of a sea level rise plan. The current direction from CCC is to have individual cities provide their own implementation plans as each city is unique in environment, geology, topography, and more.
- **What impact will this have on the building code?**
 - This Study does not have an impact on the building code. Malibu’s Study will be incorporated into the sea level rise plan per [SB 272 Sea Level Rise: Planning and Adaptation](#).
- **Will this Study lead to a Climate Action Plan per SB 379?**
 - [SB 379](#) requires cities and counties within California to include goals, policies, and objectives based on a vulnerability assessment that identifies the risks that climate change poses to the local jurisdiction to the revised local hazard mitigation plan. The Las Virgenes – Malibu Council of Governments (LVMCOG), consisting of Malibu, Agoura Hills, Calabasas, Hidden Hills, and Westlake Village, is actively working on the update of the regional [Hazard Mitigation Plan](#) and will evaluate risks from climate change. Furthermore, Los Angeles County has addressed SB 379 in their [October 2021 LA County Climate Vulnerability Assessment](#) which specifically includes Malibu as a focus area.

If you have additional questions, contact Environmental Sustainability Analyst Solishia Andico at 310-456-2489, extension 292 or sandico@malibucity.org.