



## **Resilient Coast Santa Cruz 2.0 - Shoreline Adaptation Blueprint**

### **FREQUENTLY ASKED QUESTIONS (updated 12/2/25)**

Staff have compiled all questions received from the feedback form available for comment throughout the duration of the project, community conversations (registration, discussions, comment cards) and advisory committee meetings. It will be updated periodically at major project milestones

#### **GENERAL PROJECT QUESTIONS**

**Why are we still talking about future coastal management and climate change?** *Most of the City Council's decisions on coastal management have been made around the near term, e.g., 5-10 years. This project will look further out 20-30 years to define projects in the medium term and will satisfy the state's Senate Bill 272 requirements for sea level rise planning. This project builds on recently adopted plan and policy documents (earlier Council direction, West Cliff Roadmap, Local Coastal Program Beaches and Bluffs chapter, etc.) and Council directed staff to complete this SAMPs project. It also considers the recently completed Nature Based Solutions Feasibility Study, an upcoming Lighthouse Point Hazard Analysis and other studies and models completed by others (e.g., Save the Waves Surfonomics, USGS models, etc).*

**Is this just another plan that will sit on a shelf?** *No. Like prior adopted plans, the City has immediately set to work on identifying funding to complete projects identified. This plan is an implementation focused roadmap that will address the enabling conditions, including funding, to ensure projects are completed.*

**Is Santa Cruz ahead of state policy and requirements?** *That is a difficult question to answer. Santa Cruz, like many other cities, has completed several rounds of studies, plans and policies to meet state requirements and policy. This iterative approach is the nature of coastal management in California. The City is in a good position in that it has completed extensive studies and adopted a Beaches and Bluffs chapter to its Local Coastal Program that was developed in collaboration with the Coastal Commission. While technically compliance with Senate Bill 272 is not required until 2034, the City has already satisfied many of the criteria for Senate Bill 272's requirements and this SAMPs project will package all of that work together and fill the gaps to demonstrate compliance.*

**Why didn't I learn about the community conversation #1 dates farther in advance and one date conflicts with a city advisory group meeting?** *Thank you for being so active in our community. There are many community meetings and the selection of the Community Conversation dates posed the least conflict with other City related meetings being held. This project was announced in a City Manager's newsletter on 10/16 emailed to all contact*



*lists. That same week 300 flyers were posted along the coast and the City began social media posts across all its channels. That same week, a 33 person advisory group was requested to share the project flyer/notification with their networks and reminded to do so on 10/30. The City planned to issue nearly 3,000 mailers to coastal property owners but delayed the release over concern regarding the impact of the federal shutdown on the use of the federal facility secured for the events and the fear of putting out incorrect information. Once the decision was made to change locations, it was too late to change and send the mailers. Instead, the City Manager's newsletter contact list was notified of the location changes in a standalone email on 11/3/25. The City is committed to notifying residents at least 3 to 4 weeks in advance through multiple channels under typical circumstances. We encourage interested residents to read the City Manager's newsletter as it the primary source of information about the project.*

**Who reads the Community Conversation comment cards and evaluations?** *City staff and the consultant team read, summarize and address comments in the comment cards and evaluations. You can view a summary of the comment cards and evaluation at the project webpage. The Project Team will adjust engagement methods to respond to evaluation suggestions/feedback and to improve the engagement going forward.*

**How will my input from Community Conversations show up in the next steps or final plans?** *The scope of this project requires that project deliverables include a clear explanation of how community feedback was considered in the preparation of the deliverables.*

**How will you reach people who didn't or couldn't come to the Community Conversations? How can I participate in focus groups?** *We will post the meeting materials, a summary of the feedback received and a working set of questions and answers at the project website. Interested parties are always welcome to reach out to City staff with feedback. The City is also meeting with interested organizations through its advisory committee and smaller sets of residents in topically or geographically specific focus groups. To participate in a focus group, please complete a feedback form at the project website indicating your interest.*

**How is this different, or how does this impact, the 5-year West Cliff roadmap recently completed?** *This project takes off from and builds on the 50 Year West Cliff Vision, 5-Year West Cliff Roadmap and other recent studies and policy work the City has completed to define how to adapt the coast 20-30 years out and satisfy state Senate Bill 272 requirements. It was specifically called out as being in-progress in the 5-Year West Cliff Roadmap.*



**How does this project fit with the West Cliff 50-Year Vision already adopted by the city?** *The West Cliff 50-Year vision was adopted by the City in 2024 but not the Coastal Commission as the Coastal Commission does not approve vision documents. This project builds on the 50 Year West Cliff Vision, 5-Year West Cliff Roadmap and other recent studies and policy work the City has completed to define how to adapt the coast 20-30 years out and satisfy state Senate Bill 272 requirements. It was specifically called out as being in-progress in the 5-Year West Cliff Roadmap. The Coastal Commission staff is on the advisory group for the project and the Commission will approve the final deliverable for this SAMPs project.*

**What is our vision for bringing community stakeholders together to not only discuss solutions, but build relationship of accountability and action?** *The future of coastal management is planned with the community, regulators and adjacent jurisdictions. The implementation of coastal management plans is the responsibility of the City primarily. The City utilizes an adaptation pathways approach that includes triggers – usually observation of specific physical conditions - to signal when to transition to next step coastal adaptation solutions. City staff also regularly report to City Council and the community on implementation progress.*

**What have other cities done to adapt the sea level rise? Is the City in communication with them?** *The City is involved in many peer exchange networks to learn about and share experiences with other coastal jurisdictions. For example, City staff and a councilmember participate in the League of California Cities' Coastal Cities Leadership Committee. The City was also accepted into and participates in the Resilient Cities Catalyst's California Coastal Accelerator along with Oceanside, Santa Barbara, Alameda and Fort Bragg. The City also regularly participates in one-on-one conversations with various jurisdictions on sea level rise and coastal management issues.*

## **EXISTING COASTAL CONDITIONS**

**Where did this data come from and how recent is it?** *The City has completed and updated inventories of coastal conditions including infrastructure, habitat, traffic patterns, usage, and etc. through several studies over the last 7 years. Basemapping utilizes the most recent aerial imagery available.*

**Why isn't my block / beach / concern shown here?** *This project only includes beaches and adjacent property that the City owns and operates as well as city blocks that are within the modeled coastal hazard evaluation area. State Parks owns Natural Bridges and Seabright State Beaches and the City maintains the bluffs above Seabright Beach. We are coordinating State Parks and the County, however, on the project.*



**Are you overstating the risks to justify big changes?** *The existing conditions are simply a reflection of what is actually occurring as ascertained through monitoring and inspections.*

**Mitigation of the bridge renovation impacts: Will there be an expedited bike/walking path over the harbor asap?** *The Murray Street Bridge and harbor are not within the scope of this project. The Harbor is its own district and we are coordinating with them. We have passed your concern onto the Public Works Department.*

**The heavy trucks are ripping up Pelton Ave with the building of the retirement home. The butterflies are not roosting. There is an old sign from the school that requires left turn only. If that sign could be changed so the trucks can turn onto Lighthouse, it will save the butterflies and Pelton Avenue asphalt.** *We have forwarded your concerns and suggestions to the Public Works Department for follow up.*

**I'm curious about updates for the repair at lighthouse field. The current erosion control is leading to plastic trash all over the area as well.** *The City plans to relocate West Cliff Drive at the damaged section to 100-ft into Lighthouse Field and improve stormwater runoff to reduce erosion in cooperation with Coastal Commission and State Parks. Those plans are under design and will be under construction at the end of 2027 and fully constructed by summer 2028. We have forwarded the comments regarding erosion control to the Public Works Department to follow up on and they replied that the degraded visqueen plastic covering the damaged area will either be removed entirely or removed and replaced shortly.*

**How can we ensure safety around accessing beaches, water, and cliffs?** *In addition to signage, the City's Marine Safety Division is patrolling these areas. The City also regularly maintains access points and provides fencing for public safety.*

**What about the erosion along the riprap/jacks along the jetty or more natives along the jetty harbor side?** *The Jetty is owned by the harbor district; the harbormaster participates on the advisory groups for the City's coastal resilience projects. Groundswell Coastal Ecology hosts coastal restoration workdays to restore native plants on the vegetated dune adjacent to the west jetty on Seabright Beach.*

## **FUTURE COASTAL CONDITIONS**

**Where did this data come from and how recent is it? Is this work research based?** *The information shared in the future conditions maps consists of models and research including recent coastal erosion, flooding and sea level rise models developed by USGS, habitat information prepared by local UCSC scientists as part of the recently completed Nature Based Solutions Feasibility Study, and surfability information prepared by Save the Waves in their recently published report. A citation list of data sources is included at the project webpage.*



**Are you overstating the risks to justify big changes?** *The City is evaluating a specific range of sea level rise and risk scenarios defined by the state in their requirements for sea level rise planning. However, the City utilizes an “adaptation pathways” approach meaning major changes in approach to coastal management must be triggered by a condition that our community, decision makers and the Coastal Commission agree on. For example, if beach width narrows to a certain width, it could trigger the placement of sand. While there are a working set of triggers identified, this project will refine and finalize them for the medium term (20-30 years).*

**What is the cause of sea level rise and more intense coastal storms?** *Because of global warming caused primarily by the man-made release of greenhouse gas emissions from the burning of fossil fuel, the ocean is expanding, ocean ice caps are melting and warmer air creates more energy causing more intense coastal storms.*

**What is the status of the Lighthouse Point study (i.e. Lighthouse Point Hazard Analysis)? Why didn't it get done this summer/fall?** *City staff identified funding in the fiscal year 2025-2026 budget to complete the study and are in the process of scoping the project and bringing an engineering consultant on board to complete the study in 2026. The study will evaluate how different options for Lighthouse Point (e.g., armoring, retreat, etc.) will affect surfing resources, among other considerations.*

**When is the Lighthouse Museum moving across the road?** *While relocation of the Lighthouse has been on the table for decades, the City has not completed a thorough evaluation of options for Lighthouse Point yet. The City is scheduled to complete the Lighthouse Point Hazard Analysis in 2026 that will evaluate risks and adaptation options where relocation of Lighthouse Point will be one option considered along with others.*

**Why has the City stopped consideration of potential one lane traffic configurations on portions of West Cliff Drive?** *The City Council directed staff not to proceed with a grant application to pilot temporary one lane configurations when the West Cliff 50-Year Vision was adopted in 2024. However, the West Cliff 50-Year Vision still includes consideration of traffic control options including potential one lane configurations. This project will resume consideration of this option.*

**Are any changes happening to the Cowell's parking lot?** *The project has just begun and no recommendations or decisions have been made regarding the parking lot at Cowell Beach.*

**How is the city planning on keeping sand generation, natural beach development given sea level rise and the current rip rap use?** *While the City has evaluated the initial feasibility of options for maintaining beach sand, further study is required and will be considered during this project. Each of the 3 subareas will have standalone implementation plan but they must work together and consider the totality of current*



coastal infrastructure and any proposed options/projects must be permissible by the Coastal Commission.

**What, if any, long term plans are there for the coast?** *This SAMPs project focuses on the medium term, that is 20 to 30 years out. However, past work as part of the Resilient Coast Santa Cruz 1.0 initiative laid out longer term options and potential coastal conditions that would trigger those options. In each subsequent project since then, City staff has used new information to refine the feasibility of longer-term options. In this SAMPs project, the longer-term options for coastal adaptation and the conditions triggering transitioning to them will be refined again. As conditions change, public support shifts and the regulatory environment evolves, the City will need to revisit evaluation of long term options, narrow them and City Council will need to make decisions about which long term options to implement.*

**With sea level rise of 3-6” what happens to the flow of sand coming from the San Lorenzo River? Will the current jetty ‘dam’ be mollified?** *The City has not specifically modeled that condition with respect to river / ocean dynamics. As far as a jetty ‘dam’, staff are unclear with this is or what the question means.*

## **NATURE BASED SOLUTIONS + MAIN BEACH LIVING SHORELINE**

**How much does this cost?** *The virtual reality app released in the fall of 2025 that shows what a nature based solutions along West Cliff and a living shoreline at Main Beach might look like was paid for by a grant at a cost of \$25,000 to develop. As far as the cost of the Nature Based Solutions options outlined in the VR app, the City has developed high level cost estimates for the construction of a Main Beach Living Shoreline (\$500k) and rip rap repairs with habitat elements and stormwater improvements (\$5M+) to access grant funding. Those cost estimates will be refined during the design of those improvements.*

**Is the Main Beach Living Shoreline just an experiment—what happens if it fails?** *The Main Beach Living Shoreline, if implemented, will be a pilot study to assess the effectiveness of different design options for a vegetated dune to build beach sand and buffer storm surge. The information learned will be critical to development of longer term options for the Main Beach area.*

**How much do Nature Based Solutions cost compared to traditional engineering options?** *Comparing costs of nature based solutions to traditional engineering options is very context dependent. The City has done some high level cost comparisons in earlier work but will do a more detailed analysis as part of this project since cost will be one criterion in evaluating projects for coastal resilience.*





**Can kelp help reduce wave impacts?** *In the City's Nature Based Solutions feasibility study, UCSC scientists concluded that kelp provides a minimal reduction in wave energy due to friction. The healthy kelp beds off the coast can help protect the shoreline from small, wind-driven waves. They cannot protect against large storm events with powerful waves. Because of the minimal effectiveness of kelp to mitigate wave energy and the fact that the kelp forest is already very healthy off the coast of Santa Cruz, kelp restoration is not an effective option to pursue in the near term. Also, the location of the kelp forest impacts the feasibility of certain nature based solutions (e.g., artificial reefs).*

**Where can I find more information on the effectiveness and limitations of nature based solutions?** *Please see the City's Nature Based Solutions webpage and specifically, the booklet that outlines the green to grey spectrum for nature based solutions, common nature based solutions and their pros and cons as well as examples of where to find them locally.*

## **HARD ARMORING (OR REVETMENT)**

**Has the City considered Anchored locking jacks vs. Boulders (in reference to rip rap)?**

*The harbor district uses anchored locking jacks for protection on the jetties. The City has not specifically looked at this design for rip rap and is not currently considering any new riprap. Instead, in the near-term, the City is focusing on repair of existing riprap that is degraded potentially integrating nature based solutions elements like step pools or interlocking tide pool blocks. Rip rap is one of many shoreline protection options that will be considered in the longer term.*

**Can we add riprap where there is none currently?** Rip rap is a hard armoring option that entails stacking boulders along the coast to dampen wave energy and protect the bluffs. Over 50% of West Cliff Drive has rip rap. Rip rap is not a preferred option for the Coastal Commission who regulates the coastal zone because it can take up beach space that can be used for recreation, smother intertidal habitat and cause increased erosion in adjacent non-armored locations. However, in some cases rip rap is allowable if it protects critical infrastructure and is the "least environmentally damaging" alternative. Importantly, all hard armoring requires "mitigation" of the harms rip rap can cause. This means that another location needs to be improved in terms of access, habitat or allowing retreat of the coastline. It will be important in this project any hard armoring options that are recommended consider mitigation on both the subarea scale and citywide.

