



April 22, 2024

Delivered via email

To: Carlsbad City Council

Re: Comments on April 23, 2024 Council Agenda Item #6, Adaptive management plan for the South Carlsbad Boulevard Climate Adaptation Project

Honorable Mayor and City Council,

Surfrider Foundation is a nonprofit environmental organization that engages a vast volunteer network of ocean users to protect our world's ocean, waves, and beaches for all people. Our San Diego County Chapter represents thousands of ocean recreation users — from dedicated surfers to occasional beachgoers — as well as the coastal communities and economies that rely on them throughout the region. We appreciate the opportunity to provide comments on the South Carlsbad Boulevard Climate Adaptation Project. Surfrider has been an active stakeholder on this project, for which our main interest is the improvement and long-term preservation of the beach in the realignment area.

On April 2, the Beach Preservation Commission, who advises you on matters pertaining to *protecting and enhancing the shoreline, preventing beach erosion, and preserving and maintaining beaches for the safety and optimum enjoyment of the public*¹, officially supported Retreat Now as the preferred project alternative. **We are asking you, as Carlsbad's elected leaders, to also support Retreat Now as the preferred alternative for the realignment of S Carlsbad Blvd. along the Las Encinas Creek stretch.**

From a beach preservation and climate resiliency perspective, *Retreat Now* is superior to *Phased Adaptation* by every conceivable metric. Our position is buttressed by the City's 2017 Sea Level Rise Vulnerability Assessment, the 2021 Declaration of Climate Emergency², and the General Plan Safety Element approved in January 2024³ (as explained in the Staff Report).

¹ Direct from the [Carlsbad Beach Preservation Committee webpage](#)

² Staff Report, p.4: "The declaration [of Climate Emergency] affirms the city's current sustainability efforts and ongoing commitment to protecting the environment stating, 'any meaningful action that stands a chance of success at mitigating and adapting to the effects of climate change requires mobilization without delay.'"

³ Staff Report, p.3: The Safety Element sets forth several goals related to safety along the coast:

- Give priority to non-structural shoreline protection options and limit or prohibit hard shoreline protective devices (Goal 6-P.15)



Phased Adaptation leaves the road and the piles of boulders that protect it in place for up to 96 years after vehicle traffic is realigned, all of which exacerbates beach erosion by acting as an artificial back to the beach that interrupts the beach's natural landward migration. *Retreat Now*, on the other hand, removes the aforementioned infrastructure impediments and allows for immediate beach restoration and expansion.

Our position is further bolstered by both the [Las Encinas Creek Restoration Alternatives Analysis](#) and the recent [Long Term Master Plan/Adaptive Management Plan](#), which were completed by GHD as part of the grant-funded deliverables for this project. These analyses confirm that should the existing roadway remain after traffic realignment is completed, the beach will be completely lost with 1.7 feet of sea level rise. Considering that this stretch of beach already disappears at high tides, it will be unusable much sooner from a practical perspective.

However, by removing the roadway and implementing nature-based beach preservation measures in its place, we can create a resilient beach that withstands an extreme sea level rise scenario of 6.6 feet. Such a beach will provide tremendous public value in an area dominated by bluff-backed beaches that face an existential threat from rising seas in the next 50-75 years.

To illustrate these points, we've included Section 4.3.3.2: Trade-offs between Phased Adaptation and Retreat Now, of the *Long Term Master Plan/Adaptive Management Plan* to this letter. Please take a moment to review the page below, especially if you do not have time to review the entire 30 page document.

Lastly, there is no reason to let the current lack of identified funding act as an impediment to supporting *Retreat Now*. Funding has not yet been identified or pursued for either of the proposed options. Therefore, funding should be pursued with the *Retreat Now* vision in mind because it yields better results for the beach, public access, and the adjacent wetland habitat. If, after pursuing funding, there is not enough available to complete the entire project at once, then (and only then) the *Phased Adaptation* path can be considered as an alternative option. In our estimation, lack of available funding is the only sensible reason to complete this project in phases.

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- Require removal or relocation of structures away from sea level rise hazards if public health and safety risks exist, if essential services can no longer be maintained, if the structures are no longer on private property due to migration of the public trust boundary, or if the development requires new or augmented shoreline protective devices that would not otherwise be permitted (Goal 6-P.16)



Thank you for the opportunity to comment on this item. Surfrider is counting on the City Council to affirm that *Retreat Now* is the preferred, best option for the South Carlsbad Boulevard Climate Adaptation Project along the one-mile stretch from Island Way to Solamar Drive. We understand this project has a long way to go before completion, but ask that you direct city staff to keep their eyes on the prize. **We have an opportunity to move a threatened roadway out of harm's way before it's too late, while at the same time creating a climate-resilient public beach in place of one that is rapidly eroding.** It's a win-win for all parties, especially our children who deserve the same access to beaches that we enjoy today.

Sincerely,

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4.3.3.2 Trade-offs between Phased Adaptation and Retreat Now Options

The options of Phased Adaptation and Retreat Now each have unique advantages, disadvantages, and trade-offs that warrant evaluation. Table 1 summarizes these to aide in the decision-making process.

Table 1. Summary of Key Advantages, Disadvantages and Trade-offs between the Phased Adaptation and Retreat Now Options

Category	Phased Adaptation	Retreat Now
Permitting and Construction: <i>Can all elements of the design be implemented at once?</i>	<p>No. This option would occur in phases. Construction, disruption to traffic flows, and permitting would need to occur one or more times once a trigger is met.</p>	<p>Yes. This option would perform all actions at one time, not requiring any additional permitting or construction.</p>
Financial: <i>What are the differences in costs between the two options (qualitatively)?</i>	<p>This option may be less expensive in the short-term because it would repurpose the existing southbound roadbed into a mobility corridor. Thus, the project would not require the demolition of the bridge, rock revetment or roadway.</p> <p>This option may have more expensive construction costs over a 20-50 year period because it results in more planning and construction activities spread out over time. Factors to consider include mobilization/demobilization, pulling construction permits (e.g., traffic control, etc.), escalation of material and labor costs, increase in construction costs, and scarcity of future funding. By waiting until impacts are realized, addressing all future adaptation needs and costs could vary greatly, likely being much higher than addressing components all at once.</p> <p>Additionally, this option does not take full advantage of the current availability of state and federal grants to support projects of this type. The availability of these funding sources for future phases of the project is unknown.</p>	<p>Higher costs to construct because it includes the demolition costs of the bridge, rock revetment and roadway. This option would need to protect the existing EWA outfall, likely with rock reused from onsite materials (deconstructed revetment), which adds additional cost in the short-term.</p> <p>This option may be less expensive over a 20-50 year period because it would construct everything at once in today's dollars (i.e., reduced escalation).</p> <p>Additionally, this option could take advantage of ample state and federal funding that exists for coastal resilience projects today. This funding is forecasted to be available at least over the next 5 years, which could support implementation costs.</p>
Coastal Hazards & Public Safety: <i>Would the option provide public protection from existing and projected future coastal hazards?</i>	<p>Yes. This option would repurpose the roadway for recreational uses until it becomes unsafe to use for this purpose. The existing rock revetment would remain in place to protect the roadway from erosion. Triggers described within this plan identify when the space needs to be abandoned.</p>	<p>Yes. This option would relocate public infrastructure out of the Coastal Hazard Zone for the next 100 years. Recreational uses of the abandoned space would be protected through nature-based design techniques (e.g., cobble-sand dune system).</p>
Sandy Beach: <i>Will the alternative sustain a dry, sandy beach in the study area?</i>	<p>No. The existing beach is narrow. It is anticipated that with 1.7' of SLR, the existing narrow beach within the Las Encinas Creek study area will be completely eroded/inundated, assuming no other management actions occur.</p>	<p>Yes. This option is anticipated to result in a localized increase in beach area immediately through removal of the roadway. Preliminary modeling suggests this pocket beach may sustain through 6.6' of SLR as the beach and created dune are allowed to transgress landward.</p>
Access: <i>What are the differences in public access and use between the two options?</i>	<p>This option provides active transportation along the southbound roadway, closer to the coast and similar to current conditions. Until triggers are met and the space needs to be abandoned, access would feel safer and likely more welcoming given the elimination of vehicular traffic.</p> <p>Recreational opportunities along the beach would remain constrained due to increasingly narrow beach widths as sea levels rise.</p>	<p>Active transportation uses would be focused along the enhanced roadway, which would be located further from the coast and elevated, a changed user experience from present day.</p> <p>The removal of the southbound roadway would enhance existing, and create new, recreational opportunities from the additional beach space.</p>
Habitat Restoration: <i>How would these options benefit the restoration of Las Encinas Creek?</i>	<p>The southbound roadway area will be restored to coastal strand once the trigger is met. The area to be restored and viability of the habitat may be lower than if the habitat was built initially due to elevated water levels and more frequent wave attack.</p>	<p>This option restores the southbound roadway to coastal strand habitat immediately. The coastal strand habitat has more space and time to establish prior to increased water levels and wave attack, making it a more resilient system.</p>