

**Santa Cruz Living Shorelines, Nature-based Solutions, and Sand Management Feasibility Study – Refined Evaluation Criteria**

The evaluation criteria have been refined based on the feedback from Focus Group 2 and the community input gathered during the 10/21 Community Conversation. The evaluation criteria are being used to assess draft concepts at each selected site in the study area. Concepts that score best across all primary criteria will proceed to 30% design for each site.

Primary Criteria	Evaluation Criteria	Guiding Questions	Scoring Definition	Mode of Evaluation
Coastal Management and Resources	Flood	How would the strategy affect flooding conditions during a similar storm to the January 2023 event?	Flooding conditions would be worse; flooding conditions would be similar; flooding conditions would be improved	Coastal engineering analyses. Quantitative
	Erosion	How does the strategy address erosion?	May speed up erosion; no effect on erosion; protects against erosion	Coastal engineering analyses. Quantitative
	Sand Management	What are the broader effects on sand management associated with this strategy?	Negative effects; no effects; positive effects	Coastal engineering analyses. Quantitative
Ecosystems and Habitats	Terrestrial Resilience	How does the strategy affect terrestrial ecosystem resilience?	Ecosystem resilience lost; ecosystem resilience maintained; ecosystem resilience improved	Professional judgement. Qualitative.
	Terrestrial Abundance	How does the strategy affect native terrestrial species abundance?	Decrease; no effects; increase in abundance	Professional judgement. Qualitative.
	Terrestrial Diversity	How does the strategy affect terrestrial species diversity?	Biological and species diversity lost; biological and species diversity maintained; biological and species diversity improved	Professional judgement. Qualitative.
	Terrestrial Substrate Complexity	How does the strategy affect terrestrial substrate complexity?	Substrate less complex; no effects; more complex	Professional judgement. Qualitative.
	Marine Resilience	How does the strategy affect marine ecosystem resilience?	Ecosystem resilience lost; ecosystem resilience maintained; ecosystem resilience improved	Professional judgement. Qualitative.
	Marine Abundance	How does the strategy affect native marine species abundance?	Decrease; no effects; increase in abundance	Professional judgement. Qualitative.
	Marine Diversity	How does the strategy affect marine species diversity?	Biological and species diversity lost; biological and species diversity maintained; biological and species diversity improved	Professional judgement. Qualitative.
	Marine Substrate Complexity	How does the strategy affect marine substrate complexity?	Substrate less complex; no effects; more complex	Professional judgement. Qualitative.
Access and Recreation	Mixed Use Trails	How does the strategy affect public access via mixed use trails?	Access will get worse; no change; access improved including for those with disabilities, the elderly and youth	Coordination with city staff. Qualitative.
	Pedestrian	How does the strategy affect public access via pedestrian paths?	Access will get worse; no change; access improved including for those with disabilities, the elderly and youth	Coordination with city staff. Qualitative.
	Beaches	How does the strategy affect beaches for visitor and community use?	Beach width likely to decrease; beach width is maintained; beach width may increase	Professional judgement. Semi-quantitative.
	Surf	How does the strategy affect surf conditions? Consider all seasons.	Surf conditions worsened; no impact; surf conditions improved	Professional judgement. Qualitative.
	Marine Harvest	How does the strategy uphold access for the recreational marine harvest community?	Access for marine harvesters decreased; no impact; access for marine harvesters improved	Coordination with city staff. Qualitative.
Technical	Material Sourcing	How would material sourcing change relative to the existing approach?	Sourced from farther away; similar sourcing distance; sourced from closer proximity	Professional judgement. Qualitative.
	Adaptability	How adaptable would this strategy be relative to the existing approach?	Less adaptable than existing; same as existing; more adaptable than existing	Professional judgement. Qualitative.
Costs	Capital Costs	How would estimated capital costs vary from present-day existing conditions?	Higher in future conditions; the same in future conditions; better in future conditions	Professional judgement based on reference sites. Semi-quantitative.
	Operations and Maintenance Costs	What are the estimated operations and maintenance costs required with this strategy?	Higher in future conditions; the same in future conditions; better in future conditions	Professional judgement based on reference sites. Semi-quantitative.
	Availability of Funding	How would funding availability change compared to present-day existing conditions?	Less available; the same; more available	Consultant research. Coordination with city staff.
Policy	Policy Alignment	Does the strategy align with all current policies?	Aligns with none; some; all policies	Professional judgement. Qualitative.
	Regulation and Permitting	What is the level of certainty around permitting?	Certain no; uncertain; certain yes	Professional judgement. Qualitative.
Equity*	Tribal Priorities	How does strategy support tribal priorities?	Goes against priorities; does not support priorities; supports priorities	Tribal consultation. Qualitative.

\*Please note that protection for underserved communities became a key criterion for site selection in this project. Equity is also being considered in the criteria under Access and Recreation.