

ATTACHMENT 8
Project Alternatives Matrix

Project Element	<u>EIR Project</u> Managed Retreat	<u>Alternative 1</u> Natural Shoreline Management	<u>Alternative 2</u> Temporary Revetment Retention & Pilot Projects	<u>Alternative 3</u> Westward Managed Retreat	<u>Alternative 4</u> Remove Revetment	<u>Alternative 5</u> Retain Revetment
Existing 1,200 ft. Unpermitted Western Rock Revetment	Remove	Remove	Retain for 20 years, then remove	Retain for 20 years or until exposed, then relocate landward	Remove	Retain
Existing Permitted / Historical Revetment	Retain	Retain	Retain	Remove portion fronting Parking Lot 1	Retain	Retain
Parking Lot Removal	Remove Lots 6 and 7 (107 spaces)	Remove Lot 7 (55 spaces)	None	Remove Lot 1 (135 spaces)	None	None
Utility Relocation	Yes	Yes	No	No	No	No
Bike Path Relocation	Yes	Yes	No	No	No	No
Sewer Vault Protection	Geotextile Dune/Cobble Berm	Geotextile Dune/Cobble Berm	Geotextile Dune/Cobble Berm	Rock Revetment	None	None
Alternative Shoreline Protection Method(s)	None	2,050 ft. of Geotextile Dune/Cobble Berm	Pilot Testing – Vegetative erosion control; Geotextile Dune/Cobble Berm; Pressure Equalizing Modules	2,050 ft. of Rock revetment located up to 43 ft. landward of existing revetment and buried under existing lawn	None	None
Other Project Elements	None	Reflected Wave Energy Dissipater at western headland	Expansion of selected protection measure along 2,050 ft. of shoreline after 20 years	Removal of 900 ft. of rock revetment protecting Parking Lot 1; 225 ft. of new rock revetment to protect restroom/snack bar and Parking Lot 2	None	None
Known Project Cost (excluding utility relocation borne by utilities)	\$4.21 million	\$8.37 million	Test Phase - \$7.4 million Final Phase - \$3.5-\$8.2 million (depends on which measure selected)	\$22.8 million	\$1.96 million	\$0
Repair Costs (compared to current)	Higher	Higher	Slightly Higher	Same	Much Higher	Same
Beach Nourishment (notwithstanding SBCFDC activities)	None	Periodic under BEACON	100,000 cyds	None	None	None
Parking Replacement	N/A	N/A	N/A	Restriping – 70 spaces New Spaces – 30-45	N/A	N/A

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Exposure of Lawn Area/Facilities to Erosion and Storm Damage	Yes – future loss/damage to up to 2.6 acres of lawn	Reduced but not eliminated	Minimal during test phase, reduced but not eliminated upon final phase	No – largely protected	Yes – future loss/damage to up to 2.6 acres of lawn	Minimized except where gaps
Protection of Sandy Beach and Natural Beach Width Fluctuation	Yes	Yes (Moderated by presence of geotextile dune/cobble berm. Potential exposure of cobbles during winter storms.)	Yes (Potentially moderated by protection measure selected. Initial beach nourishment would enhance beach width in short-term.)	No (Fixed at landward location of revetment.)	Yes	No (Fixed at location of revetment.)