

**Natural Resource Impacts
Golden Gate National Recreation Area GMP/EIS
Marin County**

IMPACT TOPIC	Current Conditions and Management	Alternative 1: Connecting People with the Parks – NPS Preferred	Alternative 2: Preserving and Enjoying Coastal Ecosystems	Alternative 3: Focusing on National Treasures
<p>Geologic Resources and Soils (including coastal resources and processes)</p>	<p>Summary Conclusion for EIS</p>	<p>The impacts to geologic resources and soils from the continued presence and maintenance of existing facilities and structures under alternative 1 would be the same as under the no-action alternative – resulting in long-term, minor, adverse, localized impacts. New recreational development (including new visitor facilities and amenities at Stinson Beach, along Highway 1, and at Forts Barry and Cronkhite and Kirby Cove; a scenic overlook at Slide Ranch and improvements to overlooks along Conzelman, McCullough, and Bunker Roads; new or expanded trailheads at Golden Gate Dairy, Tennessee Valley, and Marin City Ridge/Gerbode Valley) would have long-term, minor to moderate, adverse, localized impacts on geologic resources and soils due to the permanent loss of soil function and integrity resulting from new development and increased erosion from facility construction and maintenance.</p> <p>Visitor access and use would continue to cause adverse impacts to geologic resources and soils due to the effects of compaction and erosion. The adverse effects of visitor use under this alternative could be slightly greater than under the no-action alternative because visitor use would be increased and more distributed - the impacts to geologic resources and soils from visitor use under alternative 1 would be long-term, minor, adverse, and localized.</p> <p>Coastal geologic resources and processes would continue to be affected by the presence of facilities and structures located in geologically sensitive areas, such as at Slide Ranch, Golden Gate Dairy, and Rodeo Lagoon - the impact would be long-term, moderate, adverse, and localized.</p>		

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		<p>Beneficial effects on geologic resources and soils would occur from the removal of facilities and restoration of disturbed sites such as at the Capehart housing area and in Tennessee Valley; rehabilitation of soil integrity through creek and wetland restoration at Eastkoot Creek, Capehart Creek, and Lower Redwood Creek – about eight acres would be improved and restored to natural conditions. The impact of these activities would be long-term, minor to moderate, beneficial, and localized. Short-term, minor, adverse impacts (such as increased erosion or compaction in adjacent areas) would occur during construction activities.</p> <p>In general, expanded park programming and enhanced opportunities for participatory science and stewardship would have a beneficial effect on geologic resources and soils due to increased public understanding and support for resource protection and management – the impact would be long-term, minor, beneficial, and county-wide.</p> <p>Overall, the impact to geologic resources and soils from alternative 1 would be long-term, minor, adverse, and localized. Adverse impacts would occur from the continued presence and maintenance of existing facilities, new recreational development, and expanded visitor use. Beneficial impacts would occur from the removal of facilities and restoration of disturbed sites, creek restoration activities, and improved resource understanding and public support.</p>		

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	Dunes at Stinson Beach are impacted by parking lot.	<p>Creek restoration at Easkoot Creek at Stinson Beach (about 2 acres) would protect soils and eliminate erosion and impacts to coastal sedimentation budget</p> <p>Removal of TV facilities and dams would improve habitat conditions, coastal processes</p> <p>Some Capehart housing is removed and restored (about 6 acres)</p> <p>Some new facilities would be developed, but within the ROW, minor adverse impacts</p> <p>Coastal geologic processes are inhibited due to the presence of Slide Ranch.</p>	<p>Creek restoration at Easkoot Creek at Stinson Beach (about 2 acres) would protect soils and eliminate erosion and impacts to coastal sedimentation budget</p> <p>Removal of TV facilities and dams would improve habitat conditions, coastal processes</p> <p>Downgrading/converting of roads to trails would reduce erosion</p> <p>Capehart housing area is completely removed and restored (about 20 acres, riparian and upland habitats)</p> <p>Downgrading/converting of roads to trails would provide long-term beneficial impacts</p> <p>Partnerships with Caltrans to protect coastal ecosystems and abandonment of Highway 1 would provide benefits to geologic resources</p> <p>Coastal geologic processes are improved due to the relocation of Slide Ranch.</p> <p>NPS works with County to realign road to minimize impacts to Redwood Creek.</p>	<p>Creek restoration at Easkoot Creek at Stinson Beach (about 2 acres) would protect soils and eliminate erosion and impacts to coastal sedimentation budget</p> <p>Removal of TV facilities and dams would improve habitat conditions, coastal processes</p> <p>Capehart housing area is replaced by other new facilities (negligible)</p> <p>Some new facilities would be developed, but within the ROW, minor adverse impacts</p> <p>Coastal geologic processes are inhibited due to the presence of Slide Ranch.</p>
Water-related Resources (including stream character, water)	Summary Conclusion for EIS			
	Continue Banducci creek/floodplain restoration (about 500 linear feet)	Continue Banducci creek/floodplain restoration (about 500 linear feet)	Continue Banducci creek/floodplain restoration (about 500 linear feet)	Continue Banducci creek/floodplain restoration (about 500 linear feet)

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quality, watershed processes, wetlands, and floodplains)	Eastkoot Creek at Stinson Beach is impacted by parking lot, and water quality issues related to leach field and (possible community source issues)	<p>Restoration/expansion of creek corridors (Eastkoot Creek) would benefit riparian system, improve stream character, water quality, expand floodplains, etc.</p> <p>Removal of TV facilities and dams/artificial ponds would improve water quality and integrity</p>	<p>Creek restoration at Easkoot Creek at Stinson Beach (about 2 acres) by redesigning north parking lot; south lot is removed for wetland restoration that contributes to Bolinas Lagoon outcomes</p> <p>Removal of TV facilities and dams would improve water quality and integrity</p> <p>Downgrading/converting of roads to trails would provide long-term beneficial impacts to water quality due to limiting sediment sources and erosion</p>	<p>Restoration/expansion of creek corridors (Eastkoot Creek) would benefit riparian system, improve stream character, water quality, expand floodplains, etc.</p> <p>Removal of TV facilities and dams would improve water quality and integrity</p>
Air Quality/ Carbon Footprint	Summary Conclusion for EIS			
Vegetation and Wildlife	Summary Conclusion for EIS			

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California red-legged frog, San Francisco garter snake, mission blue butterfly, tidewater goby, CA brown pelican, coho salmon, steelhead)	<p>FHWA</p> <p>Tentative NEPA conclusion: long-term, minor beneficial impacts</p> <p>Tentative ESA determination: no effect; may affect, not likely to adversely affect; may affect, likely to adversely affect;</p>	<p>Sensitive zones at Bird Island and Point Bonita Cove to protect birds and pinipeds (no motorized boating)</p> <p>Creek restoration at Eastkoot Creek in Marin would reduce exotic veg and provide improved habitat, especially for anadromous fishes that used to be connected to ocean</p> <p>Removal of TV facilities and dams would improve habitat conditions</p>	<p>Sensitive zones at Bird Island and Point Bonita Cove to protect birds and pinipeds (no motorized boating)</p> <p>Removal of TV facilities and dams would improve habitat conditions</p> <p>Downgrading/converting of roads to trails would provide long-term beneficial impacts on habitat with short-term adverse impacts due to displacement, etc.</p> <p>MBB habitat is preserved in Marin Headlands from Rodeo Valley to Golden Gate with highly managed visitor access and designated trails only</p>	<p>Removal of TV facilities and dams would improve habitat conditions</p>
Marine Resources (including vegetation and wildlife)	Summary Conclusion for EIS	<p>Rodeo Lagoon managed to preserve and restore coastal habitat for T&E, with managed visitor access and designated trails only</p> <p>Sensitive zones at Bird Island and Point Bonita Cove to protect birds and pinipeds (no motorized boating)</p>	<p>Rodeo Lagoon managed to preserve and restore coastal habitat for T&E, with managed visitor access and designated trails only</p> <p>Sensitive zones at Bird Island and Point Bonita Cove to protect birds and pinipeds (no motorized boating)</p>	