

North-central California Coast and Ocean Climate-Smart Adaptation Project

Gulf of the Farallones National Marine Sanctuary (GNMS) is developing **California's first comprehensive, prioritized adaptation implementation plan for the coast and ocean**, which can serve as a model within California and along coastlines globally. The GNMS Advisory Council will engage in a stakeholder process with the Bay Area Ecosystems Climate Change Consortium and partner research and decision-making institutions to create a plan that enables coastal resource managers to manage and prepare for the impacts of climate change in North-central California coastal and ocean systems.

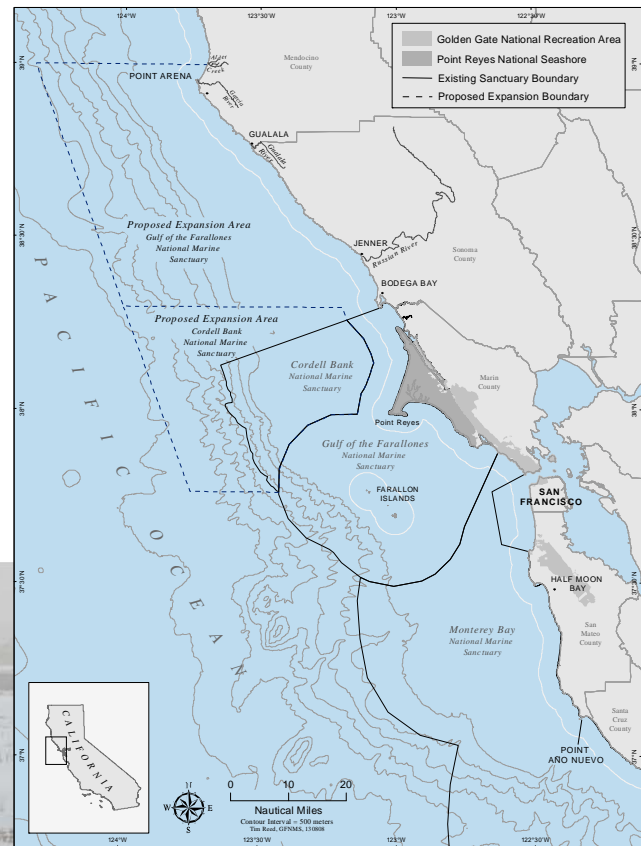


Why now?

Temperate marine managers are missing the boat on developing climate-smart plans. Adaptation planning techniques and processes are well developed but are not being applied in this region. This project will, for the first time, apply vulnerability assessment and scenario planning methods to a temperate marine region.

Why here?

This area is a globally significant, extraordinarily diverse, productive marine and coastal ecosystem that is home to abundant wildlife, valuable fisheries, two national marine sanctuaries and two national parks. It is a treasured resource of the San Francisco Bay Area's seven million residents that rely on this unique marine ecosystem for their livelihoods and recreation. It provides breeding and feeding grounds for at least 25 endangered or threatened species, including blue, fin, sperm, and humpback whales and one of the southernmost U.S. populations of threatened Steller sea lions. This area is especially important to approximately 350,000 wintering shorebirds, seabirds, and waterbirds, and many fish species including sturgeon, halibut, endangered Coho Salmon, and the commercially important Pacific Herring that rely on creeks and extensive eelgrass beds to spawn.



Beneficiaries of Climate-Smart Planning

- Coastal communities
- Coastal recreation: beaches, coastal access, wildlife viewing
- Natural resource management & conservation: endangered & threatened species, high priority habitat, ecosystem services



Outcomes

- 1) Vulnerability assessments for focal resources for the coast and ocean region from Año Nuevo, San Mateo County to Alder Creek, Mendocino County
- 2) Climate change profile and scenarios from climatic & non-climatic drivers
- 3) Prioritized list of adaptation actions
- 4) Adaptation Implementation Plan for the coast and ocean region from Año Nuevo, San Mateo County to the Marin/Sonoma County line
- 5) Project design for 2-4 pilot Green Resilient Shorelines (GRS) adaptation projects within distinct geographic areas such as Bolinas Lagoon.



Project Partners

Farallones Marine Sanctuary Association
Gulf of the Farallones National Marine Sanctuary
Golden Gate National Recreation Area
Point Reyes National Seashore
National Park Service Pacific West Region
California Landscape Conservation Cooperative
Point Blue Conservation Science
EcoAdapt

Project Budget	\$230,518
Funds committed	\$ 33,488
Funds needed	\$197,030

Additional in kind contributions
supporting the project \$185,600



Project Components

- 1) Establish and convene Planning Committee (October 2013)
- 2) Conduct Stakeholder Vulnerability Assessment Workshops (January 2014 & April 2014)
- 3) Establish and Convene Climate Smart Adaptation Working Group (June 2014)
- 4) Create Climate Scenarios (August 2014)
- 5) Adaptation Action Recommendations (February 2015)
- 6) Adaptation Implementation Plan (August 2015)
- 7) Finalize design of Green Resilient Shoreline adaptation projects (December 2015)



To learn more or support the project, contact:
Kelley Higgason
Gulf of the Farallones National Marine Sanctuary
991 Marine Dr., The Presidio, San Francisco, CA 94129
415-970-5252
kelley.higgason@noaa.gov