

# GULF OF THE FARALLONES

2007 ACCOMPLISHMENTS



*Pelicans are among the many species of seabird found in the Farallones sanctuary. Photo: Mary Jane Schramm*



*Tomales Bay is an area of great ecological significance. Photo: NOAA*



*LiMPETS student volunteers monitor a shoreline. Photo: Amy Dean*

## **Beach Watch Contributes Important Climate Change Data**

Beach Watch, the flagship volunteer program for the National Marine Sanctuary Program, provided data in May 2007 for the NOAA Media Workshop on Climate Change and Global Warming in San Francisco. For 15 years, volunteers have carried out coastal surveys along 150 miles of north-central California coastline, amassing a baseline of data on species of marine algae and invertebrates for assessing ecosystem health and detecting environmental changes, including impacts from oil spills and changes in sea temperatures. This congressionally recognized and internationally emulated program could provide resource managers with early evidence of climate change.

## **Bolinas Lagoon and Tomales Bay Get Added Protection**

Sanctuary staff took the lead in programs to protect two of its Wetlands of International Importance sites, Bolinas Lagoon and Tomales Bay. Both are rare tidal marshlands supporting biologically important habitats, including seagrass beds critical to several fish and shellfish species. These are important migratory stopover and wintering sites for more than 50 bird species, with over 21,000 birds in Tomales Bay alone. The sanctuary sought public input on how to better manage vessel use in Tomales Bay to protect public health, improve water quality, protect the important habitats and wildlife, and ensure safe and enjoyable water recreation. Issues include protecting eelgrass beds from vessel moorings and anchors, introduced or invasive species, and environmental problems stemming from sewage and other discharges.

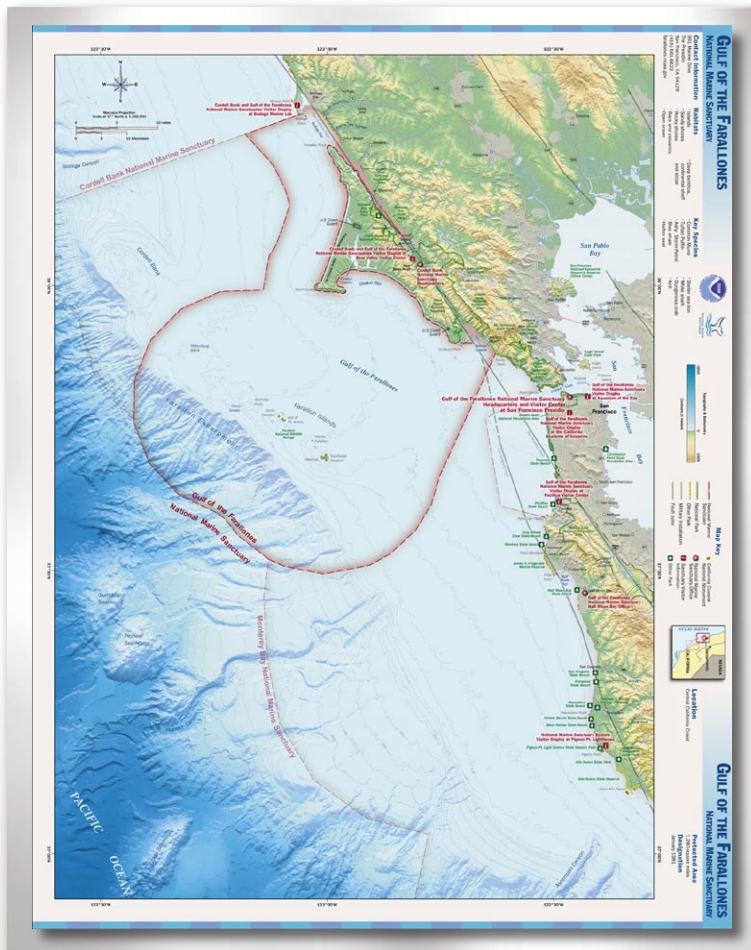
In Bolinas Lagoon, the sanctuary is developing a community-supported restoration plan to address human impacts. This 1,100-acre tidal estuary has changed due to past seismic events and human activities such as logging, agriculture, grazing, creek channelization and road building. This has led to increased silting, decreased tidal flow and shifts in lagoon habitats. The Farallones sanctuary is collaborating with the Marin County Open Space District, the Army Corps of Engineers and other partners to develop a plan to ensure the continued health of the lagoon as a thriving marine ecosystem.

## **Farallones Outreach Initiative Reaches Record Numbers**

The Farallones sanctuary reached out to a record-high 18,400 people in 2007 through its Ocean Fest, visitor center, lecture and excursion series, and through community events like the Marin County Fair and the San Francisco Ocean Film Festival. At the Marin County Fair, over 8,500 people — nearly 14 percent of total attendance — interacted with staff and volunteers at the sanctuaries exhibit, making it the most successful single outreach event in the sanctuary's history. Joining forces with The Marine Mammal Center and the National Park Service, sanctuary staff worked with event designers to craft a special "Aquatic Adventures" exhibit and spotlight the area's wildlife. Visitors were drawn to life-

<http://farallones.noaa.gov>





*Sanctuary maps available at [sanctuaries.noaa.gov](http://sanctuaries.noaa.gov)*

nonprofit Farallones Marine Sanctuary Association in partnership with the West Coast marine sanctuaries. LiMPETS is an environmental monitoring and education program for students, educators and volunteer groups. The Web site, <http://limpetsmonitoring.org>, provides a forum for the approximately 3,500 LiMPETS teachers and students near the three California sanctuaries to exchange information. Through research-based shoreline monitoring, students gain experience using tools and methods employed by field scientists. The site enables them to enter and analyze their data and provides a wealth of educational resources, including species background information and interactive site maps.

### Beach Watch Technology Upgrades Streamline Data Entry

Beach Watch, the Farallones sanctuary's long-term coastal monitoring program, was upgraded to support online data entry enabling surveyors to post their data directly to the database. The new system makes information on wildlife mortality, evidence of oil spills and other data available in near-real time. This capability will permit sanctuary scientists and resource managers to receive early warning of emergencies and other incidents and facilitate faster, more effective responses. The sanctuary also continued a four-year collaboration with the Climate Database Modernization Program of the National Climatic Data Center, a project to digitize over 300,000 data images to archives, which now can be accessed via the NOAA photo library at [www.photolib.noaa.gov](http://www.photolib.noaa.gov).

size replicas of the region's marine fauna, including a killer whale, a white shark and elephant seal bulls. Interactive games engaged visitors in learning about the sanctuaries and their resources.

### Diving Into National Marine Sanctuaries

In April 2007, the sanctuary installed a walkthrough exhibit titled "Dive Into Your National Marine Sanctuaries" at San Francisco's Aquarium of the Bay, which receives over 500,000 visitors annually. The exhibit uses underwater video footage, 3-D models and colorful displays to introduce visitors to the wonders of the marine environment without getting their feet wet. Hands-on activities reveal information about natural history, habitat, conservation status and other interesting facts about giant blue whales, white sharks, seabirds and Dungeness crabs. The exhibits explain the relationship between California's upstream watershed, the bay, and the ocean waters of NOAA's Gulf of the Farallones, Monterey Bay and Cordell Bank national marine sanctuaries. But they also deliver a "downstream" watershed message of relevance not only to visitors from the Bay Area, but from around the world, offering practical suggestions on ocean stewardship in everyone's daily lives, no matter where they live.

### Monitoring Program Gets New Web Site

In May 2007, staff launched a new Web site for the Long-term Monitoring Program and Experiential Training for Students (LiMPETS), developed by the

*To learn more about these and other accomplishments, visit [sanctuaries.noaa.gov](http://sanctuaries.noaa.gov)*

