



National Seashore News

Protecting our Ocean Heritage

The Dire State of Our Oceans

The oceans are in deep trouble. According to recent research studies and two Commission reports, the oceans are in dire shape. One recent study predicts the collapse of the global ocean's fisheries and significant loss of biodiversity by 2048. Other basic facts regarding the ocean include:

- Coastal development and associated sprawl destroy and endanger coastal wetlands and estuaries that serve as fish nurseries. More than 20,000 acres of these sensitive habitats disappear each year.
- Thirty percent of the ocean's fish stocks are overexploited.
- Invasive species are establishing themselves in our coastal waters, crowding out natives. San Francisco Bay has 175 introduced species alone.
- More than 60% of our coastal rivers and bays are moderately to severely degraded by nutrient runoff. The excess nutrients spur unnatural plankton growth that results in low oxygen and toxins that kill marine life.
- A number of commercial fish species are being driven toward extinction. In fact, in many of these commercial fisheries, 90% of the large fish have been removed.
- Only 0.01 percent of the world's oceans are closed to fishing.

New Actions are Underway

The current state of our oceans has led to State of California legislation, the Marine Life Protection Act (MLPA) 1999, to create a network of Marine Protected Areas (MPAs) on the California Coast. Due to concern over the declining health of our oceans many different groups supported the Act including: fishermen, divers, scientists, conservation agencies, educators, and citizens. MPAs are designed to conserve marine and estuarine systems including their plants and animals, and habitat. In MPAs it is unlawful to injure, damage, take, or possess any of these features.

Planning for the Future

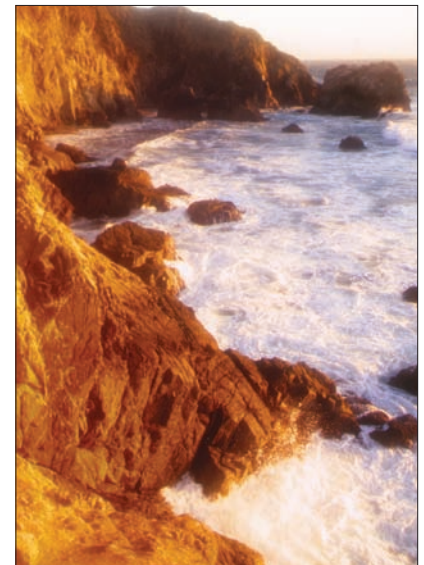
The MLPA Initiative hopes to coordinate management, conservation, and enhancement of California's ocean resources to ensure its benefit to current and future generations. California's MLPA Initiative has broken up the coast into different surveying stages. The first stage incorporated areas between Pigeon Point (San Mateo County) and Point Conception (Santa Barbara County). The second phase is currently evaluating MPA proposals for the north central coast which includes Point Reyes National Seashore and Golden Gate National Recreation Area, and many California State Parks. The range of the study area (see map on back page) runs from Alder Creek in Mendocino County down to Pigeon Point in San Mateo County. Final decisions on proposals will be made over the course of the next 18 months.

What is Gained by Establishing MPAs?

Many of the goals of the initiative will not only benefit the health of the ocean but its users as well. While protecting and increasing biodiversity in the oceans the initiative will sustain populations of economic value, as well as increasing depleted populations. In addition to increasing the health of the ocean, the initiative will increase areas for study and recreational use. These areas will also provide a valuable setting for scientific studies. California's MLPA Initiative will be a model for other states as a way to perpetuate our natural resources.

Most importantly, marine reserves and protected areas safeguard habitat and protect the rich web of life in the sea that we all depend on. Research studies in many areas have shown that biodiversity inside marine protected areas can be 50 percent higher than in heavily used areas. MPAs have been shown to reduce seafloor disturbance, enhance kelp forests, protect estuarine systems, and enhance fish populations.

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Coastal Watershed Enhancement

The Project

Assessment of fish distribution, habitat assessment, and restoration has been conducted in Point Reyes National Seashore and Golden Gate National Recreation Area through the Coho Salmon and Steelhead Trout Restoration Project (CSRTP) since 1996.

The new project will restore five coastal watersheds within the park's wilderness area. This package involves the removal of seven culverts, 56,000 cubic yards of fill, removal of the man-made Muddy Hollow Pond, and the conversion of three miles of road to a trail. Work involves the replacement of stream crossings with less intrusive bridges or natural bottom arched culverts, removal of fill material from marsh and riparian areas, slope and grade restoration on abandoned roads, and trail outcropping.

Stream Crossings Within the Drakes Estero Watershed

Culvert replacement is intended to enhance aquatic habitat and fish passage within these perennial freshwater streams supporting threatened steelhead trout. The proposal includes improvement to road crossings on Mt. Vision Road at East Schooner Creek, Estero Road at East Schooner Creek, North Home Ranch Creek, Home Ranch Creek, and access to the Laguna Trailhead and Coast Trail crossings of Laguna Creek. The proposed work would restore road crossings with structures capable of improving aquatic habitat, fish passage, and flow capacity while reducing long-term operation and maintenance of these facilities.



The Drakes Estero watershed.
© Robert Campbell Photography/Chamois Moon.

Visitor Impacts and Benefits

Benefits to visitors include increasing the value of their park as habitat for Coho Salmon. Currently only 50% of potential habitat in the park is in use due to physical impediments. The known population of the federally listed (threatened) coho salmon in the Central Coast Ecologically Significant Unit has dwindled to less than 5,000 spawners, 10% of which migrate through Point Reyes. Restoring habitat will give visitors the chance to help save this endangered species.

The project will lead to numerous short periods of trail closures in the park this summer. Check at the Bear Valley Visitor Center or the Seashore's website for daily updates on current trail conditions. (www.nps.gov/pore).

Sustainable Practices in Our Parks

Innovations Underway

The Department of Energy approached the Department of the Interior with an idea to use the national parks as demonstration areas to showcase renewable and conservation energy technology to the public. The interagency initiative that emerged is called the "Green Energy Parks Program," and has enabled hundreds of parks to undertake projects. This has significantly reduced the amount of energy consumed, and has increased knowledge of green technologies.

A Sustainable Future

Make sustainable practices a first thought not an afterthought. Point Reyes strives to improve existing sustainable efforts by becoming an environmental leader—procuring green products, purchasing post consumer products, and providing environmental education to visitors and park partners. Point Reyes builds on and celebrates the park's successes, and encourages park partners to embrace sustainability and share the park's passion.



Use of alternative fuel vehicles like this all-electric Toyota Rav4, is one of several sustainable practices being used by the Seashore.

Repairs to Historic Home Ranch

Home Ranch Repairs Scheduled

The Home Ranch is the most significant ranch in the park. It was the first ranch constructed by the Shafter brothers as they built their dairy empire beginning in 1857. Using the ranch as a base of operations they went on to develop 31 dairies by 1872. The ranch empire covered most of the lands now encompassed by the Seashore, from Bolinas in the south up to the Pierce Ranch and west to the lighthouse. Since 1929 the ranch has been lived in and maintained by three generations of the Murphy family. Since 2005 the Home Ranch grazing permits have been held by the McDonald family for grazing beef cattle. The Home Ranch is part of the Point Reyes Ranches Historic District, which has been determined eligible for listing on the National Register of Historic Places.



Main house at the historic Home Ranch complex.

This summer rehabilitation work will begin on several ranch structures, including the main barn (constructed ca. 1880); the dairy (1865); the horse barn (1858); and the Lee Murphy residence (1945). The Point Reyes Preservation Crew will do much of the work, which requires skill in timber framing and other old construction methods. This highly skilled

team works on historic structures throughout the Seashore and in other National Parks throughout the country. Work will be completed by September 2008.

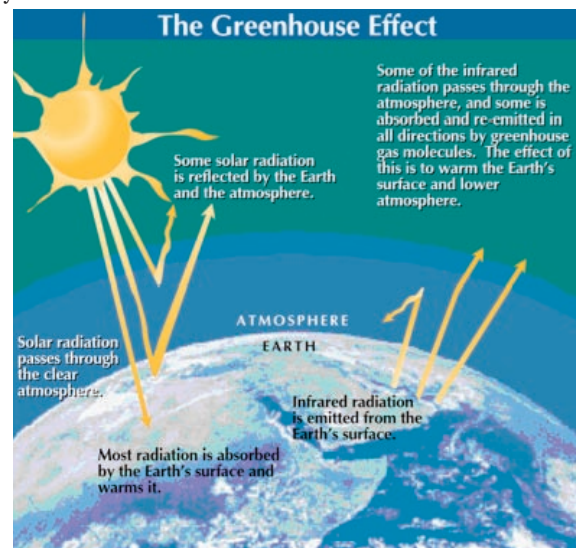
The Preservation Crew approaches its work on historic structures with care and skill. They have a mandate to retain as much historic material as possible and replicate historic construction materials and methods to the greatest extent possible. As a result, they go to great lengths to repair rather than replace building features. The crew works with contractors and ranchers, making the most of individual skills. It is an efficient approach for complicated old buildings that maintains their historic integrity and character.

Global Climate Change

For over 200 years, the burning of fossil fuels, such as coal and oil, and deforestation have increased the concentrations of heat-trapping “greenhouse gases” significantly in our atmosphere. These gases prevent heat from escaping to space, somewhat like the glass panels of a greenhouse.

Greenhouse gases are necessary to life as we know it, because they keep the planet’s surface warmer than it otherwise would be. But as the concentrations of the gases increase in the atmosphere, the Earth’s temperature is climbing above past levels. According to NOAA and NASA data, the Earth’s average surface temperature has increased by about 1.2 to 1.4°F since 1900. The

warmest global average temperatures on record have all occurred within the past 15 years, with the warmest two years being 1998 and 2005. Most of the warming in recent decades is because of human activities. Other aspects of the climate are also changing such as rainfall patterns, snow and ice cover, sea level, and coastal upwelling.



What happens with greenhouse gases?



National Park Service
U.S. Department of the Interior

Point Reyes National Seashore manages over 90,000 acres of coastal resources. Created in 1962, the park contains phenomenal natural and cultural resources and serves over two million visitors annually. The park’s resources are part of the Central California Biosphere Reserve and one of the top 25 most biologically rich, but threatened areas of the world.

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www.nps.gov/pore

The National Park Service cares for the special places saved by the American people so that all may experience our heritage.



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U.S. Department of the Interior

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Point Reyes Station, California 94956

Protecting our Ocean Heritage (continued from pg. 1)

The National Park Ocean Stewardship Strategy



Americans expect their National Park System to contain unimpaired resources and to exhibit values that represent the nation’s heritage in superlative natural, historical, and recreational areas. More than 40 ocean parks, however, currently fail to meet these expectations. The ocean has changed. People can no longer see or catch the fish they could just in the past decade in parks. National parks afford little or no special protection to nature in the ocean, which surprises and upsets many citizens. To address this issue, ocean park superintendents and other park professionals invited people from other agencies and organizations to draft an “Ocean Park Strategy.” They identified several major issues, including overfishing and invasive species. They also recommended ways to address them with a shared vision and goals, and through cooperative actions. The Ocean Park Strategy is located at <http://www.nature.nps.gov/water/marine.cfm>.

Expand your Knowledge

For more information, use the following internet sites

- <http://www.dfg.ca.gov/mrd/mlpa>
- <http://www.thankyouocean.org>
- <http://www.caloceans.org/calocceans.org>

Ocean Issues for the National Park System

This newsletter is published several times each year to ensure the greater community has up-to-date information about park projects and events. Point Reyes National Seashore is one of 390 units of the National Park System.

Point Reyes National Seashore
A Natural Sanctuary, A Human Haven

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- The National Park Service has significant ocean responsibilities: 35 million acres of coastal habitats, 72 ocean parks, >3 million acres of submerged lands and waters, and >5,100 miles of coastline.
- Many ocean park fisheries have collapsed diminishing park fishing opportunities.
- Some ocean species in parks are endangered, and others are declining rapidly.
- Ecological cascades in ocean parks caused by fishing, pollution, and damaged watersheds impair ecosystems and reduce recreational opportunities.
- Climate change and sea level rise may significantly alter coastal processes and nearshore ecosystem function at ocean parks.
- Invasive alien species further stress coastal ecosystems.
- Place-based conservation offers the best hope for restoration of intact, resilient ocean ecosystems, yet the nation lacks ocean wilderness or a sea ethic to support it.
- Public interest in ocean conservation is increasing and the National Park Service has more potential partners in ocean conservation than ever before.

Ocean Facts

- 90% of the world’s fish and seafood have been depleted in the past century.
- 38% of the depleted fish species have declined by more than 90 percent.
- 7% of the species of fish studied by researchers have become extinct.