



Point Reyes National Seashore 2002 Year In Review

A Natural Sanctuary,
A Human Haven



© Katie Booth



“It is no longer a question of whether or not we should set aside some more of the yet remaining native California landscape as ‘breathing space’. If we do not, we will leave our children a legacy of concrete treadmills leading nowhere except to other congested places like those they will be trying to get away from.”

-Former Congressman Clem Miller, author of legislation establishing Point Reyes National Seashore



A Message from the Superintendent

Dear Friends of Point Reyes,

This past September, we celebrated the 40th Anniversary of the establishment of this great National Seashore. Conceived as a park as early as the 1930s, the Point Reyes peninsula became part of the National Park system on September 13, 1962. For all of us, this past year was a time to reflect on and remember the dedication of the countless individuals who fought for the preservation of its 80 miles of coastline and precious cultural resources.

As we look back to 40 years ago, we are also reminded that January 6th 2003 marks the 400th anniversary of Sebastian Vizcaino voyage which took him past the Point Reyes Headlands and naming them *Punta de Los Reyes*, or Point of the Kings.

As you read on, many of the past year's highlights are illustrated in this document. The park served over 2.4 million visitors this year and continues to be one of the top thirty most visited parks in the nation. You'll discover the significant strides park staff has made in resource protection, science, visitor services, and facility maintenance. The park staff are some of the most dedicated public servants in the national park system.



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We hope you will continue to discover the wonders of this magnificent piece of California. Join us in working to save this coastal sanctuary for the next forty years, and beyond.

Sincerely,



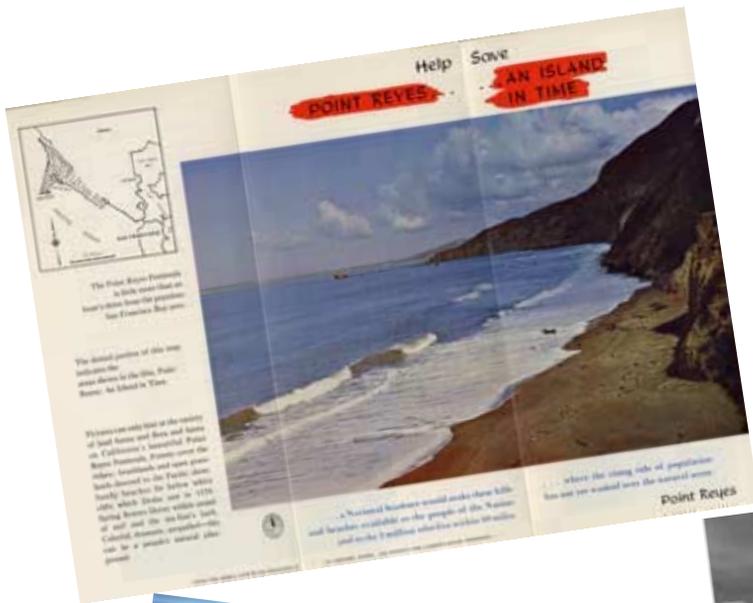
Don L. Neubacher
Superintendent



Drakes Bay and President John F. Kennedy signing the legislation to establish Point Reyes National Seashore on September 13, 1962



Celebrating 40 Years of Preservation



Abundant Resources



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80 miles of coastline
over 71,000 acres
32,000 acres of Congressionally designated wildereness
estuaries, beaches, coastal grasslands, salt marshes, and coniferous
forests



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over 480 species of birds
over 850 species of flowering plants
27 threatened and endangered species
65 species of mammals
28 species of reptiles and amphibians



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297 designated historic structures
498,000 museum objects
over 120 archeological sites



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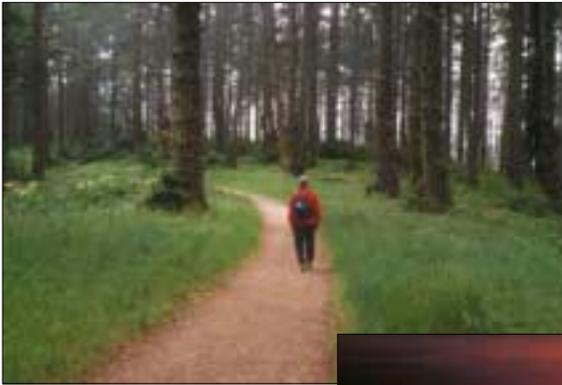
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4 backcountry campgrounds
over 100 public and administrative structures
147 miles of trails
17 water systems
100 miles of roads
2 environmental education centers



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Sunset on Drakes Bay, fir forest, lady bugs, elephant seals, blue-eyed grass, porcelain sherd from the 16th Century, Bear Valley Visitor Center, Bear Valley Trail and Clem Miller Environmental Education Center



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Point Reyes: A Special Place

One of America's greatest coastlines, Point Reyes National Seashore comprises over 71,000 acres, including 32,000 acres of wilderness area. Estuaries, windswept beaches, coastal grasslands, salt marshes, and coniferous forests create a haven of 80 miles of unspoiled and undeveloped coastline. Located just an hour's drive from an urban area populated by eight million people, the park receives over 2.5 million visitors annually. Abundant recreational opportunities include 147 miles of hiking trails, backcountry campgrounds, and numerous beaches.

Geologically, Point Reyes National Seashore is a land in motion. The great San Andreas Fault separates the Point Reyes Peninsula from the rest of the North American continent. Granite bedrock found here matches the bedrock in the Southern Sierra Nevada range. This indicates the peninsula has moved over 300 miles northwest over a period of 100 million years.

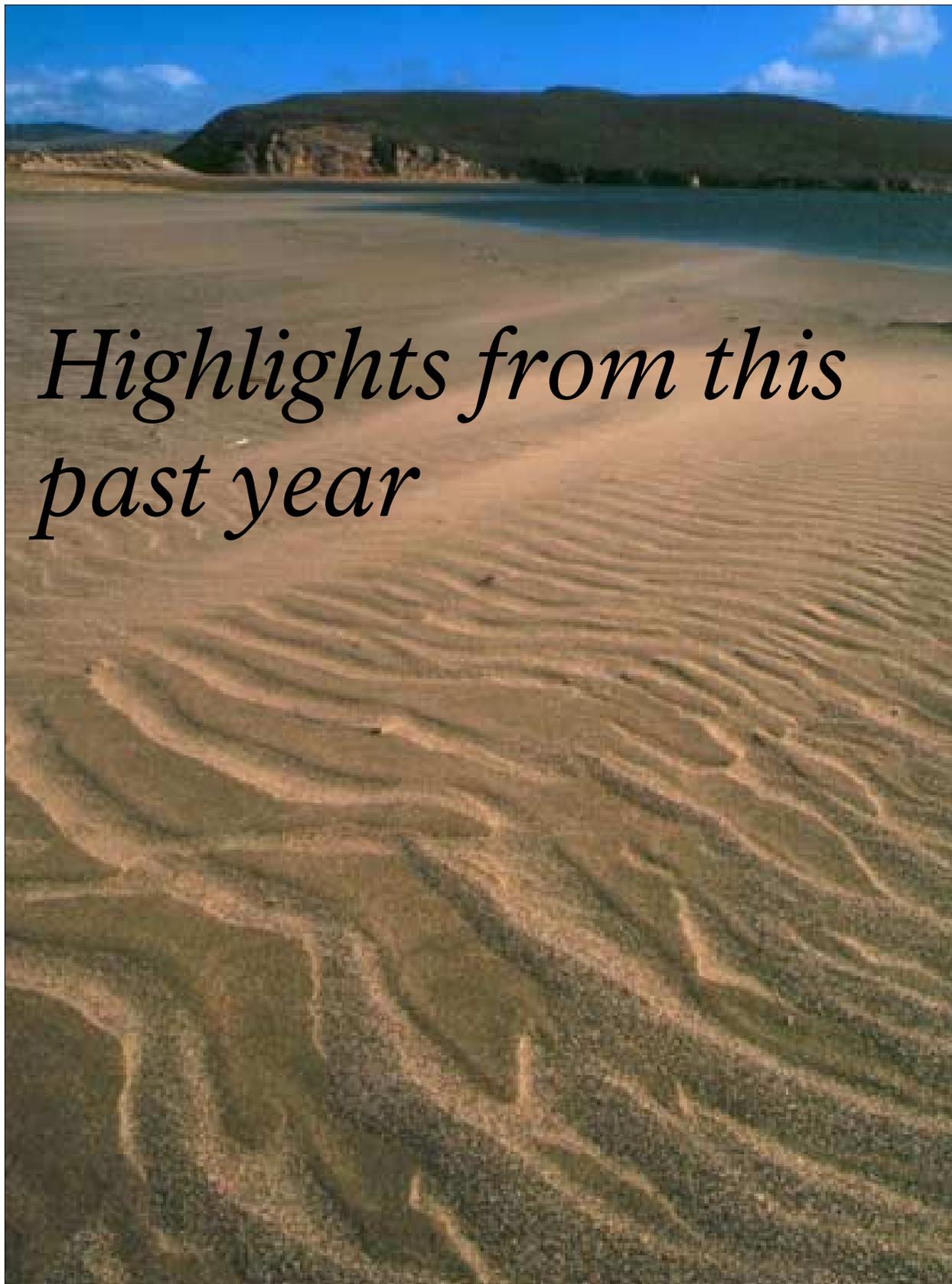
As wildland habitat is lost elsewhere in California, the relevance of the Point Reyes Peninsula as a protected area with a notably rich biological diversity increases. Over 45% of North American avian species and nearly 18% of California's plant species are found here due to the variety of habitat and uniqueness of the geology. Twenty-seven threatened and endangered species exist within the Seashore. Last year, the *American Bird Conservancy* named Point Reyes as one of the 100 Globally Important Bird Areas and *Population Action International* describes this portion of the central California as one of the 25 most biologically rich but threatened areas in the world.

Point Reyes contains examples of the world's major ecosystem types. For this reason it was internationally recognized in 1988 by the United Nations Educational, Scientific, and Cultural Organization (UNESCO) Man and the Biosphere program and named the Central California Coast Biosphere Reserve.

The cultural history of Point Reyes extends back some 5,000 years ago to the Coast Miwok Indians who were the first human inhabitants of the peninsula. Over 120 known village sites exist within the park and their tradition lives on through annual festivals. According to many experts, Sir Francis Drake landed here in 1579, the first European to do so. In response to the many shipwrecks on the treacherous coastal waters, key lighthouse and lifesaving stations were established by the United States Government in the late 1800s and early 1900s. In the early 1800s, Mexican land grantees established ranchos. These were followed by a wave of American agricultural operations which continue to this day in the Seashore's pastoral zone.



Wilderness coastline at low tide



*Highlights from this
past year*

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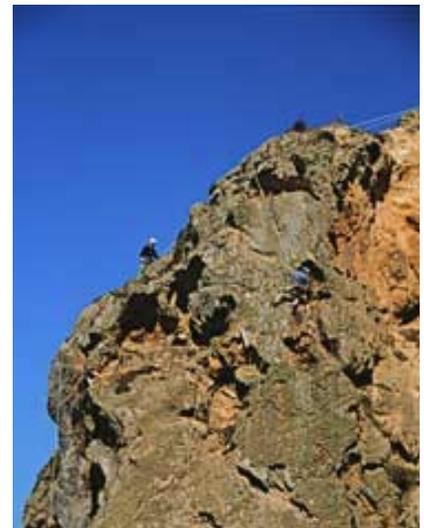
Coastal Dune Restoration and Lighthouse Iceplant Removal

In 2002, vegetation management continued work on the coastal dune restoration project at Abbotts Lagoon and initiated iceplant removal at the headlands. At Abbotts Lagoon, contracted work crews manually removed European beachgrass (*Ammophila arenaria*) to restore habitat for eleven federally listed species, including the threatened Western snowy plover and the endangered plants Tidestrom's lupine (*Lupinus tidestromii*) and beach layia (*Layia carnosa*). Beachgrass has now been removed from 1.5 kilometers of shore along the great beach and the lagoon. Native plant species, including the endangered beach layia, have already begun spreading into restoration sites.

At the headlands, invasive iceplant (*Carpobrotus edulis*) threatens the survival of a unique association of plants that are responsible for the well-known spring wildflower displays at the site. Contracted climbing crews using ropes removed iceplant from cliffside habitat near the lighthouse, while contracted work crews and volunteers worked on more gentle slopes throughout the headlands. This fall, iceplant was removed from over fifteen acres of coastal bluff habitat. The project is projected to continue for two more seasons, and we anticipate removal of all iceplant accessible to ground crews between the visitor parking lot and the lighthouse.



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before



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after

Franciscan wallflower at Abbotts Lagoon and contract work crews removing iceplant along cliffs at Lighthouse

Using Park Resources to Teach, Inspire, Motivate and Reconnect

Last year, more than 4,500 students used Point Reyes as an outdoor extension of their classroom. Six ranger-led programs and seven self-guided curriculum guides are available. Each place-based learning opportunity is designed to teach, inspire, motivate and reconnect students with their studies and the environment.

Students can study geology as they stand on top of the San Andreas Fault or a myriad ecological principles in the park's 32,000 acres of wilderness. Their historical studies come to life as they step inside the replica Coast Miwok roundhouse or gain a sense of early isolation by descending down to the fog-enshrouded lighthouse. Students can also witness the benefits of preserving and managing the Point Reyes Peninsula as a National Park. In addition to studying the amazing comeback of the tule elk and the northern elephant seals, students are encouraged to participate in an exotic invasive plant removal, a beach cleanup or other stewardship activities.



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Park rangers assisted nearly 700,000 visitors through our three visitor centers and reached over 85,000 through our ranger-led programs last year.

Additionally, over 4,500 students benefited from our curriculum-based education programs and over 660,000 visitors visited our website.

Expanding our efforts through the wildlife docent programs over 75 volunteers dedicated themselves to educating park visitors on wildlife and critical resource issues. Through the elephant seal and tule elk seasons, over 7,000 visitors were inspired through educational efforts from these stewards. Their motivation and passion reached into the hearts of those they contacted.

In 2002, the Interpretation and Resource Education staff was awarded three national awards in the Interpretive Media Competition sponsored by the *National Association for Interpretation*. The Division placed third in the Event and Program Schedule category, the Interpretive Program Curriculum category, and the Website category.



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Preserving the Past

This year the Museum Management Program staff completed the task of moving the park's museum collections and library to the Red Barn, a new curatorial complex at park headquarters in Bear Valley. A portion of the historic barn, originally built in the 1870's, was readapted to create a research library and reference room, collection processing lab and staff offices. A spacious secure storage area houses over half a million museum artifacts and archives in new cabinets and shelving, mounted on a state-of-the-art movable storage system. The AmeriCorps team, assisted the staff in the relocation of the collections to the new facility. The complex provides improved access to artifacts and information resources by park staff, academic researchers, scientists, and the public. This year the museum staff filled over 150 reference and research requests, double the number of the previous year.

Through a matching grant from the Point Reyes National Seashore Association the Museum's Oral History Project began this year. A survey of fourteen West Marin County museums, libraries, and special collections resulted in the first comprehensive picture of the accomplishments and goals of widely scattered oral history efforts in the county. A comprehensive list of interview names and subjects was compiled and shared with all the institutions, creating better access to a unique resource. The effort to interview elders continued with visits to the Historic Lifeboat Station, Bear Valley Ranch, and the AT&T site to capture memories on digital audio and videotape.

An exhibit, *Balancing Preservation & Use: The Creation Story of Point Reyes National Seashore 1935-1972*, was mounted by the park archivist as part of the Seashore's 40th anniversary celebration. Documents, photographs, maps and objects from the collections were used to illustrate the efforts of citizen groups and legislators to protect the pastoral landscape, seashore and wilderness for the benefit and enjoyment of future generations.



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Increasing Science and Education Through the Pacific Coast Learning Center

There have been over fourteen interns hired through the Pacific Coast Learning Center this year. Each of these interns are attracted to work at the Seashore from a variety of sources including universities and local high schools. Most of these interns receive a small stipend, but over 260 hours consisted of direct volunteer efforts. The Learning Center will continue to recruit interns in an effort to meet our research needs and provide concrete learning experiences for students of all levels in a National Park setting.

In all cases, the following efforts were leveraged toward preserving Pacific coast ecosystems:

Two graduate students from San Francisco State University are building a biological and physical GIS database of Tomales Bay to aid in sampling design and habitat analyses.

A recent graduate from a social science masters program at Colorado State developed credible assessment tools to measure our effectiveness in education programs.

Eleven “Biological Science Aid Interns” recruited from local high schools and colleges assisted the efforts of the Learning Center by working alongside resource management while gaining valuable career experiences at Point Reyes, Golden Gate National Recreation Area, and Pinnacles National Monument.



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“It was very exciting to find a new Plover nest later in the season than the Plover people had previously thought possible. It is so inspiring to be around as new discoveries are being made about endangered species that may help with their success.”

Bridget Tracy, high school intern

“For a while, I have wanted to be an aquatic biologist and I learned so much about the seashore and its inhabitants, as well as what it will be like to go into the field in the future and joining the park service. My view of what I want to do with my future is so much clearer.”

Katie Booth, high school intern



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California Exotic Plant Management Team

Based at Point Reyes, the California Exotic Plant Management Team completed its first year of projects. Funded through the Natural Resources Challenge, the team provides a highly trained, mobile strike force to assist parks in controlling exotic plants. An annual work plan was developed by the 12 California partner parks in the very first month of the fiscal year. The Team Liaison was hired in January, began work February, and hired the majority of the team by the end of April. Field work began immediately, with 12 back-to-back park assignments over the course of five months at Cabrillo National Monument, Devils Postpile National Monument, Golden Gate National Recreation Area, John Muir National Historic Site, Lassen Volcanic National Park, Muir Woods National Monument, Santa Monica Mountains National Recreation Area, Sequoia and Kings Canyon National Parks, Whiskeytown National Recreation Area, and Yosemite National Park.

The strategy of the California Team has been to focus on outlying invasive populations, rather than densely populated, more established infestations. The objective of this approach is to halt the spread of exotics in relatively rare or pristine areas; thereby preventing large-scale invasions before they



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become unmanageable. As anticipated with this proactive initial attack approach, site access was arduous and the scope of the outlying infestations was relatively small in size or finely dispersed across the landscape. Over the course of five months, the team removed approximately 2 million square feet of exotic species and surveyed a total of 963 acres. Some of the particularly prolific of the 25 species that were removed include woolly mullein, foxglove and bull thistle. This season alone 37,949 woolly mullein, 32,904

foxglove and 26,660 bull thistle were extracted from the landscape. The extensive field surveys revealed previously unknown populations. For example, woolly mullein - previously not known to occur in the relatively pristine Devils Postpile National Monument - was documented and the potentially explosive seed population of 59 plants was completely removed.



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t to b: removing eucalyptus at Cabrillo National Monument, eradicating pampas grass at Cabrillo and working in precarious riparian areas at Devils Postpile National Monument



Tomales Bay Biodiversity Inventory

The Pacific Coast Learning Center and Point Reyes National Seashore Association are coordinating a Tomales Bay Biodiversity Inventory (TBBI). Modeled after a highly successful Biodiversity Inventory at Great Smoky Mountains National Park, the TBBI will systematically document all the species of life occurring in the bay, including invasive species. With initial funding from the Marin Community Foundation and the Mead Foundation, specialists on intertidal invertebrates, fishes, algae, birds, and mammals are beginning surveys. Future studies will investigate plankton and subtidal invertebrates, and produce a detailed map of the bay's habitats. Several educational initiatives will also introduce students to biodiversity, scientific methods, and marine ecology. Results will help both the Seashore and the Tomales Bay Watershed Council to preserve and protect the bay.



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DOI Environmental Achievement Award



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The Pacific Coast Learning Center Team received one of the “2002 Department of the Interior Environmental Achievement Awards” for exceptional contributions in the area of education and outreach. The team consisted of Dr. Sarah Allen (Science), Dr. Ben Becker (PCLC), Gordon White (Cultural Resources), Christie Anastasia (PCLC Education), Richard Jackson (Facility Management), and John Dell’Osso (Interpretation and Education).

Fire and Fuels Management

This year, 11 small, complex prescribed burns to reduce fuel loads were safely and successfully conducted, treating over 300 acres of park lands. Another 200 acres were treated mechanically by mowing, brush removal and tree removal. In addition, \$653,000 was allocated to FIRESafe MARIN to support community-based fire prevention projects in the park's wildland-urban interface. These treatments were aimed at hazardous fuels reduction in areas near structures.

During the year, Fire Management staff responded to 7 wildfires in the park. The Palomarin fire started by fireworks, and the Limantour Road fire started by a mower both required air support to ensure they were quickly controlled.

The fuels and engine crews assisted Mesa Verde National Park, Canyonlands National Park, Utah/BLM, Klamath National Forest, Yosemite National Park, Mendocino National Forest and Lassen Volcanic National Park, and Marin County Fire Department with fire suppression on a variety of incidents. They also assisted Marin Municipal Water District and East Bay Regional Parks District with prescribed fire projects.

Likewise, during FY02, Point Reyes received assistance with prescribed burns from Golden Gate National Recreation Area, Marin County Fire Department, Bolinas Fire Protection District, Inverness VFD, Stinson Beach VFD, Yosemite National Park, Whiskeytown NRA, NPS Northern Great Plains Area, Bureau of Land Management and US Fish & Wildlife Service.



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Several public meetings were conducted to discuss fire management plan alternatives, and community-based hazardous fuels reduction projects. A brush drop off site, was provided to encourage community defensible space

efforts. A fire safety supplement was developed with partners for the local newspaper. A special Junior Firefighter program was offered in celebration of the 40th Anniversary of the park. Public communications during prescribed burns were expanded through personal contacts, email, posters, and radio.



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Prescribed burn and briefing and junior firefighter presentation

Point Reyes National Seashore Selected as a Center for Environmental Innovation

Sustainability has been an integral part of America's national parks since the National Park Service (NPS) was established. With rising interest in creating a future where sustainability is a part of all park activities and with the opportunity to become a world leader in educating the public on sustainable practices, the NPS is embarking on a systematic effort to establish places where sustainability can be showcased.

Point Reyes National Seashore has been selected as a Center for Environmental Innovation. These centers are defined as park areas where research, development, visitor education and appreciation of sustainable practices occur. Out of 385 national park units across the country, 20 were selected by the NPS Headquarters in Washington D.C. to showcase sustainable technologies. With this designation, the park will be developing additional sustainable practices to share with the visiting public.

A major component of the park's program was implemented this past year as four new compact solar generating power systems have been installed at the Seashore. New systems have been installed at the Clem Miller Environmental Education Center, Pacific Coast Learning Center, North District Operations Center, and the Bear Valley Visitor Center. The four new systems are now generating energy to reduce the park's outside energy needs, reduce air pollution and contribute to solutions to eliminate future energy crisis. In October, 2002, the Bear Valley Visitor Center used 0 kilowatt hours while being open 7 days per week!



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On average, the four solar photovoltaic systems each deliver about 5.4 kilowatts per hour in power. In comparison, an average house uses approximately 2.0 kilowatts per hour. With these new systems, the park hopes to save \$9,000 - \$10,000 annually in electric costs.

Point Reyes Gets a Breath of Fresh Air

The Seashore received six electric TH!NK neighbor vehicles from the Ford Motor Company. These zero-emission vehicles will reduce the need to use gasoline-powered vehicles for short trips within the park. The vehicles are utilized by the maintenance staff for moving supplies, the telecommunications staff for phone and computer servicing, and interpretive staff for short trips. This will help reduce the Seashore's use of fossil fuels, decreasing carbon dioxide emissions and helping to keep our air clean. This donation was coordinated through the National Park Foundation.



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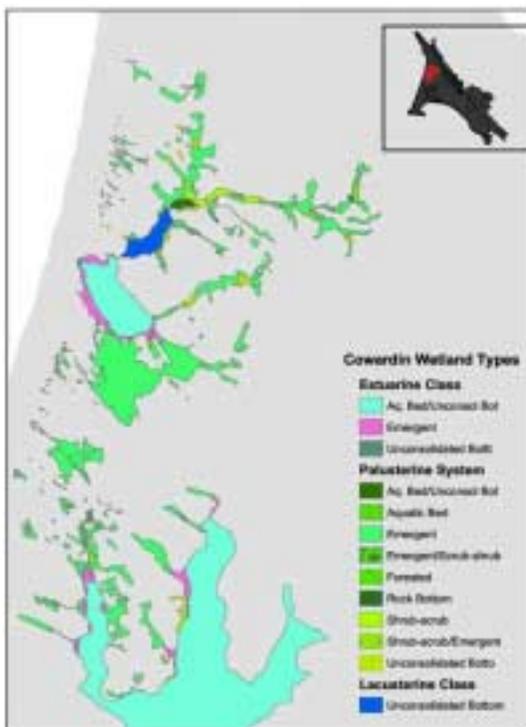
Wetlands Inventory and Mapping Project

Point Reyes National Seashore protects a diverse mosaic of wetland habitat types, including salt, brackish, and freshwater marshes, riparian fringe wetlands, wet meadows, and seasonal ponds. It is extremely rare to find such an assemblage of undeveloped wetlands along the California coast. The Seashore's wetlands support several threatened and endangered species, and improve water quality in the streams, and esteros, and Tomales Bay. In addition, these wetlands are a major stopover and wintering ground for shorebirds on the Pacific Flyway.

In 2000, the National Park Service's Water Resources Division provided funding to initiate an enhanced wetlands mapping and inventory project. The objective for the first phase of the project was to produce a comprehensive geographic information system (GIS) database and map of all wetlands based on a combination of U.S. Fish and Wildlife Service's National Wetlands Inventory (NWI) data and the park's vegetation map. This objective was met through a field assessment that located, classified, and inventoried wetlands that were missed by the NWI mapping effort in 1987, resulting in a generalized wetlands map that covers the park.



© Rich Stallcup



The second phase of the project was started in 2001. A detailed, high-resolution map of the wetlands in the 4,000-acre Abbotts Lagoon watershed was created. Field crews GPS mapped, classified, and conducted a detailed botanical inventory of all wetland sites within the watershed. Funding from the San Francisco Bay Area Network Inventory and Monitoring Program in 2002 has allowed for the continuation of the project. The project area was expanded to include several of the ranches, the newly acquired AT&T property and several watersheds on Golden Gate National Recreation Area lands. Field crews mapped and inventoried over 500 wetlands, totaling over 1,000 acres. A highlight of the field efforts was the discovery of a new population of the federally endangered Sonoma *Alopecurus* (*Alopecurus aequalis* var. *sonomensis*). We plan to continue this work and begin mapping the Tomales Bay Watershed in 2003.

The Wetland Inventory and Mapping Project enhances protection and restoration of wetlands in the Seashore and is therefore an essential step in preserving wetland values and functions. The information provides reference data for assessment, protection, and restoration of wetlands in the

Seashore, and may be used to model the effects of predicted climate change and sea level rise on wetlands. Data generated from wetland identification and classification allows resource managers to document occurrences of federally listed species and identify potential and existing threats to wetlands such as effluent sources, alteration of hydrology, and grazing impacts.

Seashore Association's Continued Support for Preservation

The Seashore Association, a non-profit organization working in partnership with the Seashore on scientific and educational projects, has just completed its most productive year ever. The 2002 fiscal year saw the culmination of several large projects that have been underway for a number of years. Construction of both a new classroom facility for school groups and a state-of-the-art museum collection facility were just two of the many successful projects completed.

Overall, the Seashore Association proudly sponsored 18 different preservation and enhancement projects in the park worth more than \$401,000. The Seashore Association provided an additional \$397,000 worth of environmental education programs to schoolchildren and adults to deepen their understanding of the natural world and inspire them to become the future stewards of Point Reyes.

Here are the specific projects that the Seashore Association focused on in 2002:

Protecting the Diverse Wildlife & Ecosystems

- Plants and animals that received special attention to ensure their long-term survival included: spotted owls, tule elk, coho salmon, snowy plovers, Tidestrom's lupine and other rare plants.
- In partnership with a broad range of community partners, we began initiating a project to research the biodiversity in Tomales Bay.



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Habitat Restoration

- Work continued at Horseshoe Pond to restore this natural estuary.

Visitor Services

- A new classroom in the historic Red Barn was completed.
- Trail improvements throughout the park were implemented.
- Free educational guides on gray whales and the park's diverse habitats were published.

Historic Preservation

- Completion of a state-of-the-art collection facility in the newly renovated Red Barn.

Environmental Education Programs

- 2,350 school group participants attended 3-5 day programs at the Clem Miller Environmental Education Center.
- 260 children from diverse and low-income backgrounds received scholarships to attend programs at the Environmental Education Center. This is a 65% increase over the previous year and means we're now able to offer 15% of the children coming to the Education Center scholarships.
- 2,017 people participated in Field Seminars and deepened their understanding of and connection to both Point Reyes and the natural world.



PRNSA

The rare Tidestrom's lupine and Field Seminar participant

Financial Resources

Financial resources available to achieve the park's FY 2002 annual goals included a base operating budget of approximately \$4,800,000. Achieving our FY 2002 annual goal performance targets was critically dependent on our base funding and on additional project funds, volunteer assistance, partnerships and donations. Therefore, in order to plan the year's goals, to organize the year's work to accomplish them, and to communicate, and document them, all funding and staffing sources, and major alternative sources of support and work, are included in developing our Annual Performance Plan.

Highlights of the park's operating base budget, which funds specific goals in the annual performance plan, include:

\$1,200,000 for resource preservation and management. These funds provide programs to protect the park's resources, conduct scientific research and monitoring, control exotic plants, enhance native species, maintain historic buildings, and restore areas when feasible.

\$1,550,000 to address visitor services. Visitor services includes providing law enforcement and resource protection, operating three visitor center services, providing educational programs, and conducting interpretive programs.

\$1,600,000 for facility operations and maintenance. These funds are used to maintain the park's infrastructure and operate park facilities such as water treatment plants and sewage systems. Funding is used to maintain the park's 147 miles of trails and 100 miles of roads.

\$450,000 for park administration. These funds are used to fund the basic administration services for the park.

With the annual visitation of the park at 2.5 million visitors, the park is able to serve each visitor at an operating cost of approximately \$1.92 per visitor.

In addition to the above operational funding, the park receives fee revenues and special national park funding for specific maintenance and other projects. For example, the park received \$1.6 million in this one-time funding this year for cyclic maintenance on historic structures and other natural resources projects. As part of the San Francisco Bay Network, the National Seashore received approximately \$300,000 for natural resource challenge inventory and monitoring funds. Also, the park received about \$625,000 in fee revenues for maintenance projects and operation of the whale shuttle system and campground reservation system. In addition, the park received approximately \$1,500,000 in FirePro and Wildland Interface funding for hazardous fuel reduction and fire prevention activities.



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saved by the American
people so that all may
experience our heritage*



UNITED STATES DEPARTMENT OF THE INTERIOR

NATIONAL PARK SERVICE

POINT REYES NATIONAL SEASHORE

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photo caption