



**NATIONAL
CONSERVATION
LANDS**

California
2021: Annual Manager's Report

Piedras Blancas Light Station

Outstanding Natural Area, unit of the CA Coastal National Monument





Accomplishments

The Piedras Blancas Light Station Outstanding Natural Area accomplished numerous goals this year despite challenges presented during the ongoing pandemic. While closed to public access for a portion of the year, staff and contractors were able to continue trail maintenance and improvements, paint the entry way of the lighthouse, and create additional interpretive materials. The Coast Guard buildings, constructed in 1960, and currently used as administrative offices, had complete roof replacements.

Piedras Blancas helped promote socially-distanced recreation and learning opportunities through public tours and various educational programs. Tours were reinitiated in February 2021 with modifications to protect the health of BLM employees, volunteers, and visitors. Volunteer docents were able to return to the Light Station to assist with tours and other projects. BLM staff experimented with variations of tours and responded to public feedback for future ongoing improvements to public events.

Tour fees, once paid through a combination of in-person fee collection and reservations, transitioned to exclusive payment via the Recreation.gov website. This allowed for better tour management, improved data collection, and “touchless” payment for visitors and staff. Tour visitation increased in 2021 due to increased public interest in finding family-friendly outdoor recreation opportunities. Between February and September 2021, 4,078 people joined the light station tours.

Educational programs suspended in 2020 were reinitiated in 2021. Piedras Blancas hosted classes for the UC Davis Extension program, California Naturalists. The Piedras Blancas 4th Grade Outreach Program with classroom presentations and field trips restarted, and work with Leffingwell High School, a local continuation school, was able to continue. Sierra Club volunteers were able to return to the light station to remove invasive plants and work on trail maintenance as part of a decades-long relationship with the BLM at Piedras Blancas.

In January 2021, research at the light station was expanded to include a USGS acoustic survey for bats, and in the spring, BLM conducted the first small animal survey as a precursor to a longer term proposed predator/prey study. The annual NOAA/National Marine Fisheries Gray Whale cow/calf survey returned to the light station for the 27th year after cancelling the 2020 season due to the ongoing pandemic.



Challenges

The federal property of the ONA is managed as an ecological and cultural preserve as well as an active research station. Striking a balance between protecting the cultural and natural resources, public desire for increased recreation opportunities, and ongoing research projects at the light station can be challenging. The BLM typically hosts various special events throughout the year. Events are as diverse as an annual “Meet the Scientists” event co-hosted by NOAA to share the many research projects occurring at the light station, photography events, hike-in days, plein air painting events, etc. Due to public health concerns and Federal and State mandates, those events were limited or cancelled in 2021.

The volunteer pool for Piedras Blancas dwindled amid concerns related to COVID-19. Recruiting and retaining new volunteers has always been a challenge due to the remote location of the light station and the pandemic-related public health and safety further diminished opportunities for successful volunteer recruitment and training in FY21.

The original first-order Fresnel lens that once warned sailors of the treacherous rocks along our coast has been on display in Cambria, CA, the small town approximately 20 miles south of the light station, since the 1940’s under an Agreement between the Coast Guard and a local service group, the Cambria Lions’ Club. The Agreement allowing the Lions’ Club to care for and display the original Piedras Blancas Fresnel lens expired in 2021. The structure protecting the lens is in a state of disrepair and needs to be addressed in the near future. However, there is no clear path forward because the lens is the property of the US Coast Guard, and neither the structure the lens is housed in nor the land it sits on is federal. The US Coast Guard, BLM, and the public are collaborating on solutions to protect the lens and provide for its long-term care and management.



Visitors

Visitation to Piedras Blancas Light Station is limited to structured public access. BLM staff and volunteer docents lead public tours 3-5 days per week depending on the season. Summer “hike in” days, special events, and educational outreach programs are additional programs provided by BLM staff and volunteers at Piedras Blancas ONA. BLM staff and volunteers have remained flexible and modified tours to accommodate all State and Federal COVID-19 health protocols and were key to continuing to offer visitation at Piedras Blancas. Public tours resumed in February of 2021 with limitations on the number of visitors to promote social distancing, and nearly every available tour day was entirely reserved. 4,078 visitors enjoyed the new hybrid tour format offered.

The Piedras Blancas 4th Grade Outreach Program resumed in September of 2021 after being cancelled in 2020. The twenty-two 4th graders of Cayucos Elementary School were the first to participate in the program in 2021.



Partnerships

Piedras Blancas Light Station Outstanding Natural Area partners with a variety of agencies and NGOs.

- **California State Parks** - co-manages land within and adjacent to the ONA under an MOU that incorporates approximately 450 acres of State Park lands into the management of the ONA. The MOU facilitates landscape management decisions for both agencies with regards to invasive plant management and land rehabilitation, trail maintenance, and sharing resources as needed.
- **The Piedras Blancas Light Station Association** - works with BLM under a Cooperative Agreement to facilitate educational outreach, interpretation, restoration and replication of historic buildings, and other programs at the light station.
- **The Marine Protected Area Collaborative** - provides technical information and interpretive materials to help with public outreach.
- **Emergency Services Communications** - Piedras Blancas is host to a radio communications tower managed by the County of San Luis Obispo that supports emergency services communication for California Highway Patrol, U.S. Forest Service, Cal Fire, CA State Parks, and others.
- **Friends of the Elephant Seal** – cross-trains Piedras Blancas volunteers about elephant seal natural history and biology and distributes information about the light station to the public.
- **Lions Club of Cambria** - help to care for the Piedras Blancas Fresnel lens and promote tours of the light station.
- **Monterey Bay National Marine Sanctuary and NOAA** - participate in joint interpretive programs with BLM, cross-trains volunteers, distribute information about the light station, and assist in creating and providing interpretive materials about the Sanctuary to BLM.





Science

Piedras Blancas Outstanding Natural Area is historically an important area for scientific research. The following research projects were conducted during 2021:

- **National Oceanic and Atmospheric Administration (NOAA) North Eastern Pacific Gray Whale Annual Calf/Cow Population Census** – Research biologists from NOAA and National Marine Fisheries survey the gray whale population by studying birth rate and survivability as well as health of mothers and newborn calves at Piedras Blancas. BLM contributes to logistics and interpretation of this study.
- **Partnership for Interdisciplinary Studies of Coastal Oceans (PISCO) Coastal Environment Study**- Research biologists from University of California at Santa Cruz and Santa Barbara conduct long-term research at Piedras Blancas tide pools to determine the health of the intertidal coastal environment in relation to pollution and human activity. The tide pools and coastal environment at Piedras Blancas have been studied for over 10 years. Research is ongoing and will continue in the future. BLM contributes to logistics of the study.
- **United States Geological Survey (USGS) Seismic/Plate Tectonic Studies**- USGS personnel place equipment and collect data on seismic movement at Piedras Blancas to trace and predict earthquake occurrence and magnitude. Research is

ongoing. BLM contributes to logistics of the study.

- **United States Geological Survey (USGS) Acoustic Pelagic Bird Study** – USGS personnel place an acoustic recorder on the large rock immediately off shore of Piedras Blancas to study pelagic birds, in particular a storm petrel that feeds at night and can be difficult to study visually. BLM contributes to logistics and interpretation of this survey.
- **United States Geological Survey (USGS) Acoustic Pelagic Bat Study** – USGS biologist placed an acoustic monitor for bats on the bluff edge at Piedras Blancas. Little is known about bat populations west of the Rocky Mountains. The survey will give biologists more information about local bat populations on the Pacific Coast. BLM contributes to logistics of the survey.
- **California Polytechnic State University, San Luis Obispo (Cal Poly) Elephant Seal Study** – Cal Poly researchers conduct population surveys of the Piedras Blancas elephant seal rookery. Newborn seals are weighed, measured, and tagged to measure health and track the seals as they mature. BLM assists in logistics of the survey.
- **Bureau of Land Management (BLM) Small Mammal Survey** – BLM biologists surveyed the 20 acres of the light station to gain insight into the species diversity and population sizes of small mammals. The survey was proposed as the first step towards a longer term predator/prey study.
- **Bureau of Land Management (BLM) *Dudleya sp.* Survey** – BLM botanist surveyed and mapped the small native succulent plant at the light station to get baseline data in response to recent *Dudleya sp.* thefts along the Pacific coast and new California state laws regarding these plants.
- **Audubon Brown Pelican Survey** – Volunteers with the Audubon Society conduct an annual count of brown pelicans at Piedras Blancas to assist in population monitoring of the once Endangered birds.
- **Black Oyster Catcher Survey** – Volunteers conduct surveys of nests and successful hatchings as part of a 10-year United States Fish and Wildlife study of the black oyster catcher population. These birds occupy an ecological niche along the rocky coastline, feeding and nesting in areas predicted to be severely impacted by rising sea levels.

Climate Impacts

Drought, increased tsunami warnings, predicted long-term sea level rise, increased wildfires and longer and increasingly unpredictable wildfire seasons are all indicative of climate change affecting the coast. Sea level rise has the potential to fundamentally challenge some species, particularly the black oyster catcher, a bird occupying a narrow niche of onshore rocks. Wildfires have affected air quality and have forced an alertness in case of immediate threat to the light station and the public. Road closures on Highway

1 due to wildfires and subsequent mudslides during rains have affected local tourism and the ability of visitors to reach the light station. Drought is the most immediate impact observed at Piedras Blancas. The local plant populations have experienced some drought stress but continue to persist. Long-term vegetation changes are expected if drought conditions continue.



Climate Resiliency

Restoration of the light station has included ongoing land rehabilitation since BLM assumed management in 2001. BLM staff, volunteers, interns, and groups with Sierra Club, Cuesta College, AmeriCorps and others have all worked on invasive plants removal, minimization of informal trails that fragment habitat, and improvement of conditions for native plants. Seeds of native plants are collected every year to create a small seed bank. The seed bank is then used to reseed areas of disturbance caused by projects or informal trails.



Social and Environmental Justice

BLM provides educational and experiential opportunities to reach a variety of audiences. San Luis Obispo County experiences wide income disparity. Schools are deeply affected by these income differences. BLM works with schools at all levels, but has made a concerted effort to reach out to lower income schools and include them in Piedras Blancas ONA educational outreach programs. The Piedras Blancas Light Station Association (PBLSA) pays for transportation to BLM's free school outreach programs to alleviate pressure on schools' field trip budgets. Many of the students are underserved youth and often first generation Americans. Some of them have never been to the coast despite living only 20 miles away. The focus of the programs is lighthouse history and ecology, emphasizing public lands as a place for everyone.

Events

BLM typically hosts events throughout the year. These events include an annual "Meet the Scientists" event co-sponsored by the NOAA whale research team, where representatives from most of the research projects hosted at Piedras Blancas have an

opportunity to make short presentations to our volunteers, partners, and community members. Other events include sunset photography events in the fall, when west coast sunsets are typically the most colorful, whale watching tours in March when the peak numbers of gray whales are migrating past, *plein air* paint outs, fundraising events with partner organizations, hike in/open house days, and more. In 2021, in an effort to protect the health and safety of staff, volunteers, and the public, BLM staff focused all energy on modifying public tours and school field trips to make them as safe as possible and cancelled all other events.

Events planned for FY 2022 include the Eroica Vintage Bicycle Ride and several volunteer enrichment events. The first volunteer event will be a presentation by NOAA whale researchers about their work and the second a demonstration of a new interpretation program designed in partnership with the Sierra Foothill Conservancy and tribes from around the Sierra Foothills to showcase indigenous plant uses. The summer Hike In/Open House events will also resume in FY 2022. “Sips for the Sea”, a wine tasting fundraiser for the restoration of the lighthouse, and a sunset photography event, are both planned for September/October 2022.

Words from the staff

2021 was a hopeful and creative year for Piedras Blancas. Though COVID-19 deeply affected our operations and volunteer pool, it also allowed time to reflect and re-evaluate our public tours, other outreach programs and events, and interpretive materials. Improvements were made to our existing education and outreach materials. Alternatives to our tours were explored to protect the health and safety of our staff, volunteers, and visitors. BLM staff and volunteers joined partners with the Marine Protected Area Collaborative to use an underwater drone and consider creating underwater content for interpretation. New and greater interpretive improvements are on the horizon.

We were able to evaluate our changing volunteer needs and training materials, and brainstorm new recruitment methods and volunteer enrichment programs. The small staff of Piedras Blancas means there is only so much that can be accomplished in a day and being closed to the public for an extended period allowed time and energy to be focused on maintenance of historic buildings and care of the interpretive trail.

The pause in “normal” operations also provided time to consider options for bringing on additional part time staff like contract workers and/or seasonal park rangers and work with upper management to find solutions to limited staffing.

Looking forward, BLM staff at Piedras Blancas Light Station Outstanding Natural Area hope to continue working with our volunteers and partners to create and improve sustainable visitation opportunities, to continue to best support scientific research, and to continue to preserve the heritage and integrity of the light station.



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