

# The Beacon

## Piedras Blancas Light Station Outstanding Natural Area

Vol. 8 Issue 3

July-September 2015

### Why is the Piedras Blancas lighthouse on the National Register?

Good question! Why would a lighthouse that is missing the three uppermost levels be on the National Register of Historic Places? The answer lies within the 1990 National Register of Historic Places Registration Form.

*"Normally, there would be strong reservations about placing a truncated lighthouse for consideration to the National Register. In this case, however, the architectural character of the remaining portion is so distinguished, and the historical association of the lighthouse so strong, that a National Register nomination is entirely appropriate."*

*The lighthouse structure is a 70 foot tall tower constructed primarily of white-painted brick. At the top is a circular concrete metal-railed platform. The conical shaft is pierced by four recessed windows. Each window is surrounded by a semi-circular hooded brick arch with stone trim. The base of the structure is a one story brick octagon with a gabled, Victorian Gothic brick portico projecting from the north side of the building. The depth of the walls at the base of the structure are several feet thick. An interior wooden, four panel double door is located at the inner wall. An exterior, wooden two panel double door is located at the outer wall. The exterior door is surrounded by a glass semi-circular transom; the exterior door by a Gothic arch metal plate displaying the 1874 construction date in bold relief Roman numerals. A continuous decorative band of stone and corbeled bricks surrounds the top of the structure base. The structure rests on a small knoll. Access is gained by a single-run flight of cement stairs terminating at the entrance portico. The stairway's railings are unadorned iron tubes, but the newel posts are decorative cast iron.*

*The integrity of the structure is incomplete. The original 1st order Fresnel lens is on display in the nearby town of Cambria. Everything else in the structure appears to be original and in very good condition. Outstanding features include the elaborate Gothic stone and brick work (with Romanesque elements), the original massive paneled doors, and the interior circular cast iron stairway. Piedras Blancas was the most ornately Gothic lighthouse to be built in California."*

On September 1991, the lighthouse, fog signal building, and oil house were certified by the National Park Service as being entered in the National Register. Around 2010, the former fuel and storage building (now gift shop) was added to the Register.



*Above: The Piedras Blancas lighthouse proudly stands on a rocky knoll in silent testimony to the significance of lighthouses as aids to navigation and to the hard work of light keepers everywhere. The visibility of the lighthouse from Highway One, and the scenic location, make it one of the most photographed lighthouses in California.*



A joint publication of the Piedras Blancas Light Station Association and the Bureau of Land Management. The Piedras Blancas Light Station Association is a non-profit partner for the Bureau of Land Management. It provides support for the restoration, conservation, interpretation, and stewardship of the unique natural, historical, and cultural resources at the Piedras Blancas Light Station. © Copyright 2015



# Terminology

Words are important. They conjure up images and shape how we look at the world. At Piedras Blancas Light Station we try to use terminology that is historically accurate. Some names have changed over the years but we try to use the original name or phase. Let's have some fun looking at lighthouse terminology. Below, lighthouse terminology is indicated in ***bold italics***.

The person in charge of the light station from 1875-1939 was called the ***Keeper*** or ***Principal Keeper***. A substitute or temporary keeper was called an ***Acting Keeper***. After the U.S Coast Guard assumed management of lighthouses, the person in charge was referred to as the ***Officer-in-Charge***.

When the first order lens was lit just before sunset, it was ***exhibited***. At sunrise, the light was ***extinguished***.

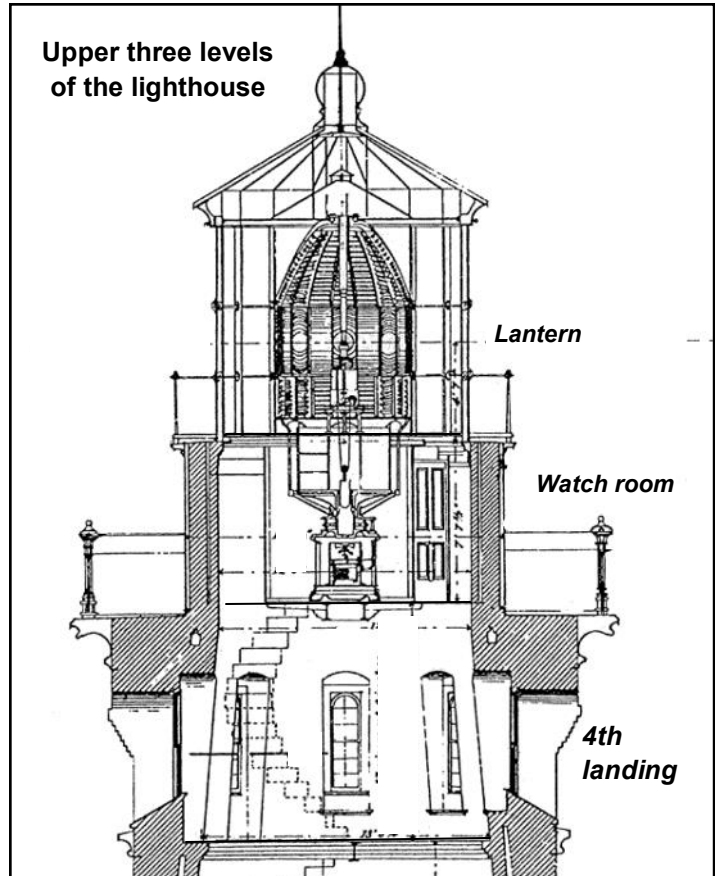
Test your knowledge of lighthouse related words. Fill in the blanks using these words: ***clockwork, lantern, first, watch, lard, daymark, watch room, and Fresnel***.

1. When a keeper was on duty, he was on \_\_\_\_\_.
2. The first type of fuel oil used in the Piedras Blancas first order lens was \_\_\_\_\_ oil.
3. The mechanism that powered the rotation of the first order lens was based on the same mechanism used in grandfather clocks and was called the \_\_\_\_\_ mechanism.
4. The French physicist who invented the lenses that redirected light into a beam was Augustin \_\_\_\_\_.
5. The appearance of each lighthouse is different from neighboring lighthouses. The physical appearance of each lighthouse is called the \_\_\_\_\_.
6. The light was located in which level? \_\_\_\_\_.
7. The clockwork mechanism was located in which level? \_\_\_\_\_.
8. Piedras Blancas had a \_\_\_\_\_ order lens.

Answers: 1. watch; 2. lard; 3. clockwork; 4. Fresnel; 5. daymark; 6. lantern; 7. watch room; 8. first

# Does the Piedras Blancas lighthouse currently have a "top"?

Yes, according to the current U.S. Coast Guard Light List, the Piedras Blancas lighthouse is conically shaped and has a flat top. Originally the lighthouse was 100 feet tall to the top of the ventilator ball. In 1949, the upper 3 levels were removed due to earthquake damage. The remaining ***truncated*** lighthouse is 70 feet tall. The names of the 3 levels that were removed are the ***4th landing***, the ***watch room***, and the ***lantern***. These are the names that appear on the original lighthouse architectural plans.



# Who built the Piedras Blancas lighthouse?

Construction of the Piedras Blancas Lighthouse began in April, 1874 and the light was first ***exhibited*** on February 15, 1875. It was built by the U.S. Lighthouse Establishment, which fell under jurisdiction of the United States Treasury Department. A nine member Lighthouse Board governed decisions relating to lighthouses at that time. The nine members included 2 naval officers, 1 Corp of Topographical Engineers, 2 army engineers, 1 Superintendent of Coast Survey, 2 civilian scientists, and the Secretary of the Treasury as ex-officio president.

The district engineer, an army officer named Williamson, supervised construction. The master mason on site was Mr. S.J. Ashley. The work party itself was made up of 25-30 mechanics and laborers.

On April 16, 1874, the master mason and his party started for the station with necessary material to commence preliminary work. A successful landing was effected on the morning of April 17th and by night of the same day all materials, tools, and provisions were landed. The work done in April consisted of removing rock from the tower site. A 21 foot well was dug and quarters built for the workers, plus a mess hall and kitchen were constructed. The bluff was excavated to allow a platform for a wharf with a derrick. Excavation of the rock, which served as the base for the lighthouse, was completed in July and they began laying bricks.

We know little about the workers who made up the construction crew. The only name we have is that of Calvin Sweet. The great grandson of Calvin Sweet, Jim Sweet, contacted us in 2009 and from him we learned:

*"We just found in our search for our family history that our Great Grandparents were at San Simeon in 1874 to help build the Lighthouse. They came from Monterey where they farmed on the family land of Joaquin de la Torre, the Great Great Grandfather. Calvin and Maria (Maria de la Angles de la Torre) Sweet came with at least 2 children to live at San Simeon while Calvin worked at the light. station Not sure if there is any way to verify his employment during the building but we keep looking. Where they lived during the building of the Point Piedras Blancas Lighthouse is not known.*

*Later, he added: I now believe they had 3 young boys there, the youngest being my Grandfather, Jim Sweet. Where they lived or just what Calvin did is not known yet but Calvin was a Master Carpenter also trained to build boats. Maria and Calvin are buried at Betteravia near Santa Maria."*

If anyone has information about who the other members of the mechanics/laborers work party were, please contact us at [PBLSLibrary@gmail.com](mailto:PBLSLibrary@gmail.com) or call 805-924-1807

# Piedras Blancas Gray Whale Calf Survey

## First Application of Drone Technologies to Gray Whale Science

by Wayne Perryman, David Weller and John Durban, Southwest Fisheries Science Center

This was an interesting year for the gray whale research team. Counts of northbound mothers and calves started early but then tapered off and we thought that we would have an “average year” totaling around 300 calves. Then the pace suddenly picked up in early May and now the count has blown past average and we are looking at a count in the low 400s. We have only counted more than 400 calves in 5 years out of the 22 consecutive surveys in this time series. The highest count for the whole period was in 1997 when we saw 501 calves.

Gray whales are referred to as “capital breeders.” That term identifies them as part of a group of mammals, like northern elephant seals and most large cetaceans, that rely on stored fat to support the mother and the growing calf through lactation, the most energetically expensive part of reproduction. The survey team has reported that the northbound mothers with calves appear to be healthy and the calves looked nice and fat. However, from the perspective of the watch station, we really can’t get more than a subjective appraisal of the condition of these whales. That is why we began this season deploying a small custom-built hexacopter to collect vertical aerial photographs as the whales passed the Piedras Blancas Light Station.

We realize that the use of these small unmanned aerial systems or “drones”, can cause negative reaction in some people. However, this specially designed, small and quiet hexacopter is able to fly at 125ft up and collected spectacular image without causing disturbance to the whales or the other wildlife.

Our primary goal with this exceptional time series of counts, and now measurements from images, is to link data on health and reproduction of gray whales to both short- (weather) and long-term (climate) changes in their environment. The count data have gone a long way in explaining how changes in the timing of the melt of seasonal ice can impact reproductive success. With body measurements obtained from hexacopter images, we can establish a baseline of nutritive condition (fatness) of northbound gray whales. From the counts we know that reproductive output varies significantly between years, but now with the images we can start to get clues about whether environmental variables impact who calves in a specific year (e.g. big old females, small young females) and whether these impacts are reflected in calf growth rates. Whale size and shape data from the photographs may also provide us with an early warning signal for unusual mortality events.

In previous years, we tried to collect size and shape data for mothers and calves from conventional aircraft with scientists onboard. These aircraft proved to be too expensive and too difficult to maneuver over small groups of whales to be effective. Now with the hexacopter system we have a platform that is less expensive, more effective, causes no disturbance to wildlife, and is a heck of a lot safer for the scientists than flying in circles in a light aircraft.

We couldn’t have pulled off this first application of unmanned aerial system technology to gray whale research without the support of Bureau of Land Management staff. We look forward to seeing you all next year for a successful repeat.



*Left: A mountain of paperwork was generated in order to receive permission to use this hexacopter for research purposes at Piedras Blancas. The use of drones over National Marine Sanctuary waters is prohibited without special permit.*



*Above: Biologists from the Southwest Fisheries Service scan the waters south of Piedras Blancas during April and May for approaching gray whale mothers and calves.*



*Above: John Durban and Holly Fearnbach expertly bring the unmanned aerial craft in for a landing. Actually, Holly catches the drone in midair. This team has put in many hours using drones for research.*



*Above: One of the dozens of high quality aerial images taken this year of gray whale mothers and calves passing Piedras Blancas. Photo courtesy NOAA/ Southwest Fisheries Science Center. .*



## BLM update

### Ryan Cooper Selected as Piedras Blancas Light Station Park Manager

**Announcement from Gabe Garcia, BLM Bakersfield Field Manager:**  
*Please join us in congratulating Ryan Cooper on his selection as the next Piedras Blancas Light Station Manager. Ryan has been acting in this position since November and will officially take over permanently in June. Ryan has a unique set of skills that he brings to this job, highlighted by his work with volunteers, historical interpretation, and recreation planning on the Carrizo Plain National Monument. Ryan was a high school shop teacher and brings practical experience from the construction industry. All these skills will be a huge asset in filling this demanding position.*



**Hello everyone from the office of the manager.** I can say that now because I have officially been selected as the next manager of the Piedras Blancas Light Station. With this selection comes much responsibility and I take that very seriously. The Light Station belongs to the people of the United States and I want to make sure that all of our families can enjoy this gem for generations to come.

Anyone who visited the Light Station 10 years ago would be amazed at the restoration that has been completed. With the help of our volunteers and the Piedras Blancas Light Station Association, I plan to continue restoration and hope that in the next 10 years the Light Station will have many new changes.

I envision the fog signal building restoration will be complete, the 1876 Victorian dwelling and the 1906 cottage will be reconstructed, and the upper three levels of the lighthouse will be replicated. Those are lofty aspirations, but if we do not aim high we will never move forward. I look forward to this challenge and can't wait to meet all of you.



## PBLSA update

by David Cooper, Chair

At its May meeting the PBLSA Board offered warm congratulations to Ryan Cooper for his appointment as permanent Park Manager of the Piedras Blancas Light Station. We pledged our continued support in assisting him and the Bureau of Land Management in fulfilling our shared mission of restoring, preserving, and interpreting the cultural and natural resources of the light station and the Piedras Blancas Outstanding Natural Area.

We have come to know, respect, and admire Ryan during his term as interim Park Manager. With a steady hand, he successfully navigated us through a difficult period.

Ryan has hit the ground running. He is revving up some important projects that have been idling at the curb—notably, completion of the Fog Signal Building restoration and construction of the historic light station entrance gate. Under Ryan's leadership, we look forward with eagerness and anticipation to a bright future, an era that builds on the solid foundations of our past and renews our mission with new ideas, fresh vision, and constructive change.

## Mercantile Musings

by Holly Gant

The gift shop is a popular stop on tours. Our volunteers strive to keep it stocked with interesting items that will help you remember your visit to the light station. Many products are branded with the lighthouse image. Our best sellers include t-shirts, mugs, and shot glasses with the PBLS logo, as well as beautiful postcards depicting the light station in the early 1900s.

We recently began using Apple's iPad and Square register for all purchases. Our volunteers have enjoyed learning the easy-to-use system. The best part is that it has slashed the service fees we were paying for credit card processing. All proceeds from gift shop sales go toward restoration of the light station so every penny we can keep at the light station makes a difference.

Did you know we have an online gift shop? It is a convenient way to buy a special gift for a lighthouse lover or purchase an engraved brick. You can also become a member of the Piedras Blancas Light Station Association online or renew your membership at [www.piedrasblancas.org](http://www.piedrasblancas.org).



*At right: A custom carved wooden ornament of the lighthouse is a new item in the gift shop..*

## Join us on the path to restoration!

Your purchase of a personalized, engraved brick, to be placed in the path around the lighthouse will help restore the light station.

Go to [www.piedrasblancas.org](http://www.piedrasblancas.org) to order online or call 805-927-3719.



Piedras Blancas Light Station Association board members welcome your comments or questions. 805-927-3719 or [membership.pblsa@gmail.com](mailto:membership.pblsa@gmail.com)  
Board meetings are held at the Rabobank in Cambria, at 6:00 PM on the fourth Wednesday of every month..  
The public is welcome.

## Spotlight on volunteers



Above, left to right: Welcome to the 2015 volunteer tour trainees, Alice Newell, Zale Schuster, Gary O'Neill, Gordon Heinrichs, and Daniel Gant. Not pictured are Sharon Flaherty, Roger Teetzel, and Lisa Tanzman.



Above: Volunteer Zale Schuster recently repaired the quarter scale lens model. Zale was the right person at the right time. He is a retired engineer who worked at Vandenberg using weights and cables. Thank you Zale!



Above: Ruben Villalobos installing an updated list of keepers in the historic district kiosk. Ruben has been volunteering at Piedras Blancas Light Station for 13 years and is an invaluable handyman.

## How are we doing?

We would like to hear from those of you who have taken tours of the Piedras Blancas Light Station. Our Interpretive Plan lists several objectives. Are we meeting these objectives?

1. Increase public knowledge and appreciation for the BLM and their programs including the California Coastal National Monument.
2. Increase public knowledge of the history of the Piedras Blancas Light Station.
3. Increase public knowledge of wildlife viewing etiquette and principles of resource stewardship.
4. Monitor visitor capacity to protect prehistoric and natural resources.

After your tour did you come away with an understanding of what the Bureau of Land Management is hoping to accomplish at the light station?

Did we increase your knowledge of the Piedras Blancas Light Station? Our goal is not to provide a lot of general lighthouse background knowledge, but to focus on Piedras Blancas.

Did you leave feeling that it is important to view wildlife respectfully? How do you feel the BLM is doing in terms of creating an understanding of the importance of stewardship?

Should Piedras Blancas Light Station be protected?

**Send your comments to [PiedrasBlancastours@gmail.com](mailto:PiedrasBlancastours@gmail.com).**

**Thank you!**

## National Lighthouse Day celebration

On Saturday, August 8th, Piedras Blancas Light Station will celebrate National Lighthouse Day with a special living history tour. Enactors in period attire will portray life at the light station in the 1890s. The fee for this tour will be the regular fee of \$10 for adults and \$5 for ages 6-17. Meet at the former Piedras Blancas Motel between 9:30-9:45 a.m.

National Lighthouse Day was declared on August 7, 1989 by the U.S. Congress in recognition of the 200th anniversary of the signing of the Lighthouse Act by President George Washington. The Lighthouse Act of 1789 placed the responsibility for building and maintaining our nation's lighthouses under federal control. Write your congressperson if you would like to see National Lighthouse Day become a formal holiday.

### **For information on Piedras Blancas Light Station**

[www.piedrasblancas.org](http://www.piedrasblancas.org)

or [www.piedrasblancas.gov](http://www.piedrasblancas.gov)

## Lighthouse neighbors

### **Point Sur Lightstation**

November through March tours are offered at 10:00 am on Saturdays and Sundays and at 1:00 pm on Wednesdays. During the summer there are additional days and times. For a complete listing of tours, go to [www.pointsur.org](http://www.pointsur.org) or call 831-625-4419.

### **Point Pinos Lighthouse**

Located in Pacific Grove, open Thursday through Monday, 1:00-4:00. [www.ci.pg.ca.us/lighthouse](http://www.ci.pg.ca.us/lighthouse).

### **Point San Luis Lighthouse**

For a complete listing of tours and access, go to [www.sanluislighthouse.org](http://www.sanluislighthouse.org) or call 805-540-5771 to reserve a ride on the trolley.

# Piedras Blancas Light Station Tours

Tours are offered year round on Tuesdays, Thursdays, and Saturdays. From June 15 through August 31, tours are offered 6 days a week, Mondays through Saturdays. There are no tours on federal holidays. Tours last about 2 hours and include the historic Piedras Blancas lighthouse and support buildings and a half mile interpretive trail that provides spectacular ocean views and opportunities to view wildlife. Meet at the former Piedras Blancas Motel located 1.5 miles north of the light station at 9:45 a.m.

***Please do not wait at the gate to the light station!***

For information email [PiedrasBlancasTours@gmail.com](mailto:PiedrasBlancasTours@gmail.com)  
or call 805-927-7361.

Groups of ten or more please  
make advance arrangements.

\$10 for adults, \$5 ages 6-17,  
no fee for children 5 and under.

Dress warmly and wear  
comfortable walking shoes.  
No pets!

Tours may be cancelled on the  
day of the tour due to  
inclement weather.



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All memberships include the quarterly newsletter and knowledge you are helping with restoration and maintenance of the Piedras Blancas Light Station.

- \_\_\_ \$50 Friend of the Lighthouse  
(1 complimentary tour )
- \_\_\_ \$100 Acting Keeper  
(2 complimentary tours )
- \_\_\_ \$250 Assistant Keeper  
(4 complimentary tours)
- \_\_\_ \$500 Principal Keeper  
(engraved brick)
- \_\_\_ \$1000 Superintendent of Lights  
(engraved brick & private tour for up to 6)

*Help restore and  
preserve  
Piedras Blancas  
Light Station  
by joining  
PBLA!*

Name:

Address:

City:

State:

Zip:

Phone:

Email:

Please make check payable to PBLA.  
You may also join online at [www.piedrasblancas.org](http://www.piedrasblancas.org).

***Thank you for your support!***

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