

News Clips for the Channel Islands National Marine Sanctuary Advisory Council¹ November 2015 through January 2016

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1. Gary Griggs, Our Ocean Backyard: Harnessing offshore wind

Santa Cruz Sentinel
November 28, 2015

<http://www.santacruzsentinel.com/environment-and-nature/20151128/gary-griggs-our-ocean-backyard-harnessing-offshore-wind>

By Gary Griggs

Gov. Jerry Brown signed legislation in October requiring California to generate half of our electricity from renewable energy sources by 2030. This builds on the state's existing standard that requires 33 percent of our electricity to be produced from renewables by 2020, just five years from now.

Are we even close? We're well on our way, but there are challenges ahead. Today we produce about 28.4 percent of our electricity from a mix of renewables: hydroelectric makes up 29.4 percent, wind 24.5 percent, solar 18.8 percent, geothermal 15.4 percent, and biomass 11.7 percent.

California ranks first in the nation in its installed solar capacity. In 2013, we more than doubled our solar energy from the previous year. We also increased wind generation by 37 percent.

Unlike fossil fuels, which are finite resources with historically volatile prices, and that all produce greenhouse gases, renewables can provide a fixed price and inexhaustible sources of clean electricity.

So where is all of the required renewable energy going to come from? I think it is unlikely that there will be any new large hydroelectric dams built in California in the future. The best sites were used years ago, costs are enormous, and the environmental impacts would make any such projects very unlikely to be approved today.

Because of our active geologic setting, California produces 80 percent of all the geothermal energy in the U.S. and significant additional potential exists. Growth has leveled off in recent years, however, for several reasons: 1) a weak demand for new projects, 2) inadequate transmission infrastructure near resources, and 3) permitting delays.

¹ Articles shared specifically mention the sanctuary or sanctuary system, and/or are related to issues of known interest to the sanctuary advisory council. Any external opinions expressed within these articles do not reflect the views of sanctuary staff or NOAA, and sharing these stories does not indicate staff endorsement of views contained therein.

All is not lost, however. We still have two big and the most rapidly growing sources in wind and solar.

California is second in the U.S. behind Texas in generating electricity from wind, unfortunately way behind Texas. Wind in California produces the energy equivalent of powering 1.3 million homes today. Most of that comes from three windy mountain passes: Altamont Pass in Alameda County, Tehachapi Pass in Kern County, and San Geronio Pass in Riverside County.

A few weeks ago, Trident Winds filed a proposal for a wind farm offshore of the small central coast town of Morro Bay. Offshore areas have higher velocity winds and generally don't come with quite as many concerns as do onshore sites. Well, at least there aren't next-door neighbors.

The proposed project would include 100 large floating turbines, placed 15 miles offshore, each standing about 584 feet high. Offshore wind farms were first built on the seafloor off Denmark 25 years ago. Today there are more than 3,000 large turbines off the coasts of Scotland, England, Denmark and Germany, which produce power for about 7 million people.

The use of floating wind turbines is a new idea, although several have been built successfully. This eliminates the costs and any impacts of building large concrete pads on the seafloor and also allows construction further offshore in deeper water, where they are less visible. A month ago the Scottish government approved construction of a \$236 million floating wind farm 15 miles off the coast of northeast Scotland.

Planning, permitting, funding and construction of the proposed Morro Bay project is a long road, and there is already a huge potential roadblock in the way.

In 2014, a group of Native Americans submitted a nomination to NOAA for the Chumash Heritage National Marine Sanctuary. The proposed boundaries would extend from the Monterey Bay National Marine Sanctuary on the north to the Channel Islands National Marine Sanctuary on the south, which includes the proposed Morro Bay wind farm site.

There is considerable support for the proposed new sanctuary and NOAA has determined that the nomination has met the national significance criteria and management considerations. It is not a done deal, but it is moving forward.

The regulations affecting national marine sanctuaries are very clear, however, in not allowing any offshore wind farms. The road to 50 percent renewable energy in California is a difficult path. Every new wind or solar site will have impacts and opposition. Unfortunately, we have lost the ability to compromise in recent years, but this is going to be a future necessity.

Gary Griggs is director of the Institute of Marine Sciences and Long Marine Laboratory at UC Santa Cruz. He can be reached at griggs@ucsc.edu. For past Ocean Backyard columns, visit <http://seymourcenter.ucsc.edu/about-us/news/our-ocean-backyard-archive/>.

2. NOAA Fisheries issues first law enforcement report

Mount Desert Islander

December 30, 2015

<http://www.mdislander.com/waterfront/noaa-fisheries-issues-first-law-enforcement-report>

By Stephen Rappaport

ELLSWORTH — Almost six years ago, a Department of Commerce Inspector General's inquiry into NOAA Fisheries law enforcement found “systemic, nationwide issues adversely affecting NOAA’s ability to effectively carry out its mission of regulating the fishing industry...particularly in the Northeast Region.”

The Inspector General said, “We find it difficult to argue with those who view the process as arbitrary and in need of reform.”

Earlier this month, the NOAA Fisheries Office of Law Enforcement (OLE) issued its first ever annual report on its staffing, budget and nationwide enforcement of federal fisheries and related marine resource protection laws. The report represents a huge step forward for an office whose operations, first disclosed by Inspector General Todd Zinser in 2009 and 2010, led to congressional calls for its then director to resign.

At the time, the inspector general said that fisheries law enforcement, particularly in the Northeast, relied far too much on criminal prosecution and asset forfeitures for violations of complex laws that were often the result of innocent mistakes or misunderstandings.

Zinser also found that assets forfeited by fishermen were frequently used to pay for the purchase of vehicles and boats for the enforcement office and for travel apparently unrelated to official business.

There were also allegations that the then head of OLE shredded documents related to Zinser's investigation. He was ultimately reassigned to another post in NOAA Fisheries.

OLE's jurisdiction includes some 3.36 million square miles of open ocean, more than 95,000 miles of U.S. coastline, 14 National Marine Sanctuaries and four Marine National Monuments and high seas and international trade relating to U.S. treaties and international law.

To cover this extensive territory, OLE agents and officers are spread among five divisional offices and 53 field offices throughout the nation. One of those field offices is located in Ellsworth. Another is in Portland, which, according to NOAA is one of the top 10 international seafood landing ports, by weight and value, in the nation.

Additionally, OLE partners with local enforcement agencies and other federal organizations to maximize efficiency. In Maine, OLE works with the Marine Patrol through a Memorandum of Agreement with the Department of Marine Resources.

Between 2010 and 2015, the staff of the OLE has been cut from 234 employees to 189 — a drop of just over 19 percent. The number of special agents and enforcement officers has fallen from 165 to 127.

According to the report, the decline has been budget-driven.

For fiscal year 2015, OLE had a budget of \$65 million, of which \$36.7 million went toward funding enforcement and surveillance, including salaries and benefits for enforcement officers and special agents. Another \$18.2 million went toward funding cooperative enforcement with outside agencies such as DMR. Of that, \$5.7 million was split among seven agencies in the Northeast. Alaska, the state with the nation's largest fisheries, received some \$2.8 million to fund enforcement activities.

The OLE has also been active on the international front. Working with other NOAA offices, the Department of Homeland Security and the Department of Justice, OLE has increased efforts to combat illegal, unregulated and unreported fishing around the globe. The office has also led workshops in Mexico, Honduras, Ghana and Indonesia aimed at improving international enforcement of fisheries laws.

Closer to home, OLE has 42 full-time employees in its Northeast Division headquartered in Gloucester, Mass. In fiscal 2015, which ended Sept. 30, the Northeast Division dealt with 813 incidents, ranging from a complaints to investigations. The majority of the incidents were related either to the Magnuson-Stevens Act — the principal federal fisheries regulation law — and the Atlantic Coastal Fish Cooperative Management Act. Federal enforcement officers are involved in an ongoing investigation of the illegal harvesting and interstate transportation of elvers into Maine.

The OLE was also involved in the prosecution of the former operations manager the Spruce Head Fishermen's Co-op for tax evasion and for violation of the Lacey Act. The case arose from his participation in shipping nearly \$1.8 million worth of the co-op's lobster in interstate commerce and keeping the proceeds.

3. Remains of lost 1800s whaling fleet discovered off Alaska's Arctic coast

NOAA Office of National Marine Sanctuaries Press Release
January 6, 2016

<http://sanctuaries.noaa.gov/news/press/2016/lost-whaling-fleet-found.html>

NOAA archaeologists have discovered the battered hulls of two 1800s whaling ships nearly 144 years after they and 31 others sank off the Arctic coast of Alaska in one of the planet's most unexplored ocean regions.

The shipwrecks, and parts of other ships, that were found are most likely the remains of 33 ships trapped by pack ice close to the Alaskan Arctic shore in September 1871. The whaling captains had counted on a wind shift from the east to drive the ice out to sea as it had always done in years past.

The ships were destroyed in a matter of weeks, leaving more than 1,200 whalers stranded at the top of the world until they could be rescued by seven ships of the fleet standing by about 80 miles to the south in open water off Icy Cape. No one died in the incident but it is cited as one of the major causes of the demise of commercial whaling in the United States.

With less ice in the Arctic as a result of climate change, archaeologists now have more access to potential shipwreck sites than ever before. In September, a team of archaeologists from the Maritime Heritage Program in NOAA's Office of National Marine Sanctuaries scoured a 30-mile stretch of coastline in the nearshore waters of the Chukchi Sea, near Wainwright, Alaska. Previous searches for the ships had found traces of gear salvaged from the wrecks by the local Inupiat people, as well as scattered timbers stranded high on the isolated beaches that stretch from Wainwright to Point Franklin.

Using state-of-the-art sonar and sensing technology, the NOAA team was able to plot the "magnetic signature" of the two wrecks, including the outline of their flattened hulls. The wreck site also revealed anchors, fasteners, ballast and brick-lined pots used to render whale blubber into oil.

"Earlier research by a number of scholars suggested that some of the ships that were crushed and sunk might still be on the seabed," said Brad Barr, NOAA archaeologist and project co-director. "But until now, no one had found definitive proof of any of the lost fleet beneath the water. This exploration provides an opportunity to write the last chapter of this important story of American maritime heritage and also bear witness to some of the impacts of a warming climate on the region's environmental and cultural landscape, including diminishing sea ice and melting permafrost."

James Delgado, maritime heritage director for NOAA's Office of National Marine Sanctuaries, said he believes the wrecks were pressed against a submerged sand bar that rests about 100 yards from shore. Working from first-hand accounts of the loss of the fleet, he said the ice opened the hulls to the sea and tore away the upper portions of the ships, scattering their timbers on the beach, while the lower hulls, weighted down with ballast, and in some cases still anchored, stayed in place against the sand bar.

"Usually, the Arctic does not destroy ships if there is a natural obstacle like a sand bar, large rocks or a sheltered cove to partially divert the force of tons of ice," Delgado said.

On Sept. 12, 1871, the captains of the 33 whaling ships caught in the ice convened aboard the *Champion* to consider their options for saving the 1,219 officers, crew, and in some cases, families, from their fate. Although, their situation was dire, there was some small glimmer of hope for rescue by seven nearby ships.

However, to save such a large party, the rescuing whale ships had to jettison their precious cargoes of whale oil, bone and their expensive whaling gear to make room for the survivors. The rescue ships were able to sail safely out of the Arctic and back to Honolulu, where hundreds of native Hawaiian whalers aboard the stranded vessels lived, while others sailed on to San Francisco, New Bedford and other cities.

The search for the abandoned whaling fleet was funded by NOAA's Office of Exploration and Research, in collaboration with the NOAA Office of Coast Survey and the Alaska Region of the Bureau of Ocean Energy Management. Additional support and expertise was provided by technology partners Edgetech and Hypack. To see sonar images, historical photos and other materials, visit <http://oceanexplorer.noaa.gov/explorations/15lostwhalingfleets/>.

NOAA's mission is to understand and predict changes in the Earth's environment, from the depths of the ocean to the surface of the sun, and to conserve and manage our coastal and marine resources. Join us on Facebook, Twitter, Instagram and our other social media channels.

4. NOAA releases expansion proposal for Monitor National Marine Sanctuary

NOAA Office of National Marine Sanctuaries Press Release

January 8, 2016

<http://sanctuaries.noaa.gov/news/press/2016/monitor-proposed-boundary-expansion.html>

Following several years of scientific and archaeological assessment and public input, NOAA today announced plans to consider possible expansion of Monitor National Marine Sanctuary, off the North Carolina coast. The proposed expansion would protect a collection of historically significant shipwrecks including vessels sunk during World War II's Battle of the Atlantic.

The public is invited to submit comments to the agency on the proposed expansion through March 18. Following the comment period, NOAA may develop a draft environmental impact statement, draft management plan and potential regulations, which will then be available for public review. After reviewing those comments, NOAA would then make a final decision on the proposed expansion. The proposed expansion plans can be found in the Federal Register.

The water's off North Carolina's Outer Banks contain the single greatest concentration of World War I and World War II shipwrecks in American waters and includes sunken vessels from U.S. and British naval fleets, merchant ships and German U-boats. Many of the wrecks lie in waters as shallow as 130 feet and serve as popular recreational dive sites.

"For more than 40 years, Monitor National Marine Sanctuary has honored the USS Monitor and the memory and service of her officers and crew," said David Alberg, Monitor sanctuary superintendent. "The proposed expansion is the result of a collaborative public process and provides an opportunity for us to honor another generation of mariners who rose to the country's defense when war erupted off America's shores. Our goal is to protect these ships, these hallowed grave sites, and preserve the special stories they can tell about our maritime and cultural heritage."

Designated in 1975 as the nation's first national marine sanctuary, Monitor National Marine Sanctuary protects the wreck site of the Civil War Union ironclad, USS Monitor, which revolutionized naval warfare with its experimental design and rotating turret. The Monitor is best known for its battle with the Confederate armored ship Virginia in Hampton Roads, Va., on March 9, 1862. The engagement ended in a draw, but marked the first time ironclad ships clashed in naval warfare and signaled the end of the era of wooden war ships. The famed Civil War ironclad sank during a storm 16 miles off Cape Hatteras, North Carolina in 1862.

During a review of the sanctuary's management plan in 2008, NOAA received comments from the public raising the issue of possible expansion. In 2009, the sanctuary's citizen advisory council voted unanimously to establish a working group to examine the implications of possible expansion.

In June 2014, the working group presented four possible expansion options for public consideration. The models represent several approaches to expansion but are not confined to specific boundaries. A description of each option, including boundaries and the resources the area contains, can be found at <http://monitor.noaa.gov/management/expansion.html>.

NOAA will host public meetings to answer questions and gather public input at the following locations:

February 9, 6:00 – 9:00 p.m.
North Carolina Museum of History
5 East Edenton Street
Raleigh, NC 27601
919-807-7900

February 10, 6:00 – 9:00 p.m.
North Carolina Maritime Museum
315 Front Street
Beaufort, NC 28516
252-728-7317

February 11, 6:00 – 9:00 p.m.
Graveyard of the Atlantic Museum
59200 Museum Dr.
Hatteras, NC 27943
252-986-2995

February 16, 6:00 – 9:00 p.m.
United States Navy Memorial
Main Auditorium
701 Pennsylvania Ave., NW
Washington, DC 20004
202-380-0710

February 17, 6:00 – 9:00 p.m.
Jennette's Pier
Oceanview Hall
7223 S. Virginia Dare Trail
Nags Head, NC 27959
252-255-1501

Comments on the proposal may also be submitted through March 18 via:

- Federal eRulemaking Portal: <http://www.regulations.gov>. Submit electronic comments via the Federal eRulemaking Portal with Docket Number NOAA-NOS-2015-0165.
- Mail: David Alberg, Sanctuary Superintendent; Monitor National Marine Sanctuary; 100 Museum Drive; Newport News, VA 23602

NOAA's mission is to understand and predict changes in the Earth's environment, from the depths of the ocean to the surface of the sun, and to conserve and manage our coastal and marine resources. Join us on Facebook, Twitter, Instagram and our other social media channels.