



# Monterey Bay National Marine Sanctuary

## Sanctuary Office Report



Volume 17, Number 5

A REPORT FOR THE SANCTUARY ADVISORY COUNCIL MEMBERS

REPORTING PERIOD: AUGUST 5, 2020 – SEPTEMBER 25, 2020

### ABOUT THE SANCTUARY

Designated in 1992, Monterey Bay National Marine Sanctuary (MBNMS or Sanctuary) is a federally protected marine area offshore of California's central coast. Stretching from Marin to Cambria, MBNMS encompasses a shoreline of 276 miles and 6,094 square statute miles of ocean.

Supporting one of the world's most diverse marine ecosystems, it is home to numerous mammals, seabirds, fishes, invertebrates and plants in a remarkably productive coastal environment. MBNMS was established for the purpose of resource protection, research, education and public use of this national treasure.

### NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION (NOAA) AND OFFICE OF NATIONAL MARINE SANCTUARIES (ONMS) NEWS

#### Federal task force proposals set stage for new seafood trade strategy

A new federal task force has submitted recommendations that will be the basis for a strategy to help level the playing field for the U.S. seafood exporters and importers when doing business with other countries. Yesterday, as required by the Presidential Executive Order on Promoting American Seafood Competitiveness and Economic Growth, the Interagency Seafood Trade Task Force (co-chaired by the Department of Commerce and the office of the U.S. Trade Representative) submitted their recommendations to the office of the U.S. Trade Representative. The recommendations are intended to support fair market access for U.S. seafood products through trade policy and negotiations. The task force drew on their extensive work on this issue and took into account all of the submitted public comments. For more information:

[https://www.noaa.gov/news/federal-task-force-proposals-set-stage-for-](https://www.noaa.gov/news/federal-task-force-proposals-set-stage-for-new-seafood-trade-strategy)

[new-seafood-trade-strategy](https://www.noaa.gov/news/federal-task-force-proposals-set-stage-for-new-seafood-trade-strategy)

#### NOAA teaming up with Arizona firm to advance study of stratosphere

NOAA and World View Enterprises, an Arizona company that specializes in gathering data during long-duration, high-altitude balloon flights, are teaming up to take a uniquely detailed look at the composition of Earth's stratosphere. Under the agreement, World View's "Stratollite" balloons will carry a miniaturized NOAA instrument to measure atmospheric particles on a series of flights in 2021 that will last weeks and cover thousands of miles at altitudes above 55,000 feet. The flights will allow NOAA's Chemical Sciences Laboratory to explore the potential of using new autonomous platforms to acquire key scientific data in the stratosphere for extended periods over large geographic regions, said David Fahey, director of the Chemical Sciences Laboratory. World View is donating space for the instrument on its balloon platform to NOAA at no cost. For more information:

<https://research.noaa.gov/article/ArtMID/587/ArticleID/2659/NOAA-teaming-up-with-Arizona-firm-to-advance-study-of-stratosphere>

#### Analysis determines we are in Solar Cycle 25

The solar minimum between Solar Cycle 24 and 25 - the period when the sun is least active - happened in December 2019, when the 13-month smoothed sunspot number fell to 1.8, according to the Solar Cycle 25 Prediction Panel, co-chaired by NOAA and NASA. We are now in Solar Cycle 25 with peak sunspot activity expected in 2025, the panel said. Solar Cycle 24 was average in length, at 11 years, and had the 4th-smallest intensity since regular record keeping began with Solar Cycle 1 in 1755. It was also the weakest cycle in 100 years. Solar maximum occurred in April 2014 with sunspots peaking at 114 for the solar cycle, well below average, which is 179. Solar Cycle 24's progression was unusual. The Sun's Northern Hemisphere led the sunspot cycle, peaking over two years ahead of the Southern Hemisphere sunspot peak. This resulted in solar maximum having fewer sunspots than if the two hemispheres were in phase. For more information: <https://www.weather.gov/news/201509-solar-cycle>

## NATIONAL MARINE SANCTUARY NEWS

### **Explore Your National Marine Sanctuary System at Your FingertipsPark Passport app**

You can now explore our Nation’s underwater parks from your very own smartphone. The ParkPassport mobile app now includes NOAA’s national marine sanctuaries and ONMS co-managed marine national monuments.

Create an account, find local, regional, state and national parks, earn badges for parks visited (virtually and/or in-person) and activities completed. On the ParkPassport mobile app, you can dive into the National Marine Sanctuary System. In collaboration with the National Park Trust, Blue Star Families, and the National Marine Sanctuary Foundation, this is providing an easier way to explore the ocean and Great Lakes during this time when getting outside can be intimidating. NMSS site specific information became available a few days prior to GIYS weekend, and was promoted during each of the 24 GIYS virtual events and on social media by ONMS, NPT, Blue Star Families and the national Marine Sanctuary Foundation.

<https://sanctuaries.noaa.gov/news/aug20/park-passport-app.html>

### **SanctSound mooring deployed in Channel Islands National Marine Sanctuary while ensuring COVID-19 safety measures**

On August 3, 2020 the R/V *Shearwater* successfully deployed a sound monitoring mooring off Santa Barbara Island (CI-03) while adhering to COVID-19 safety protocols. CINMS maintains an array of five moorings to record the underwater soundscape, as part of the [SanctSound](#) monitoring network . Data from this array is analyzed by a multi-organization team of acousticians that characterize baseline soundscape metrics and variations over time and space. In addition to the sound recorder, at CI-03 a temperature recorder is attached to the mooring as well as a Vemco acoustic receiver that detects tagged fish in the region. Due to the health and safety challenges posed by COVID-19, this field operation was planned and completed with minimal personnel (Captain Marshall Stein, crewmember LTJG Nick DeProspero, and science personnel Jackie Buhl). Physical distancing, frequent handwashing, and mask wearing was maintained during the cruise and the vessel was sanitized pre, mid, post cruise. In addition, the use of a quick release ensured personnel could maintain physical distancing at all times while deploying the mooring. Weather was beautiful and calm with near lake-like conditions for the 130 mile transit to and from Santa Barbara Island. While prepping the mooring for deployment, the crew enjoyed watching a pod of Risso’s dolphins swimming leisurely around the vessel. How sanctuary species use sound, and how species and habitats may be affected by sound, is of increasing concern. Improving our understanding of regional “soundscapes” —which includes sound from physical processes (wind, waves), biological sources (whales, fish), as well as anthropogenic activities (shipping, fishing)—provides baseline data to assess variation over time and space. Together with our partners, CINMS is dedicated to better understanding underwater sound, under the guidance of [NOAA’s Ocean Noise Strategy Roadmap](#).

### **Hawaiian Islands Humpback Whale National Marine Sanctuary Continues to Investigate FADs (Fish Aggregating Devices) as Potential Large Whale Entanglement Threat**

As part of the Hawaiian Islands Humpback Whale National Marine Sanctuary’s efforts to better understand and mitigate the threat of entanglement to humpback whales, the sanctuary has been collecting and cataloging marine debris within sanctuary waters. One gear type that the sanctuary continues to receive reports on are FADs (Fish Aggregating Devices). Over the past few weeks, the sanctuary and its partners have received reports on, removed, and collected three additional FADs. FADs are re-purposed gear or debris that is placed in the ocean to create an ecosystem or habitat for small marine animals that might attract the larger, commercially sought fish species. Over the last decade the use of FADs has increased global as fish stocks decrease and the use of technology (e.g., transmitters to relocate the FADs) has promoted their use. In addition to cataloging the frequency of these FADs drifting in sanctuary and greater Hawaii’s waters, the sanctuary has partnered with NOAA Fisheries, Florida Fish and Wildlife Conservation Commission, and others to use the same transmitters as carcass and marine debris tags. The sanctuary will be part of a virtual workshop on the use of FAD transmitters towards recovering large rafts of marine debris or marking whale carcasses for further investigation. Entanglement threat is a major anthropogenic and dynamic threat to whales. To mitigate entanglement threat, we need to continue monitoring and understanding it as to better mitigate it in the long run. FAD transmitter recently recovered by sanctuary partner, Kaho’olawe Island Reserve Commission.



## MONTEREY BAY NATIONAL MARINE SANCTUARY NEWS AND PROGRAM UPDATES



### MANAGEMENT

#### **Monterey Bay National Marine Sanctuary Holds Virtual Advisory Council Meeting**

On August 21, MBNMS held a virtual Advisory Council (AC) meeting. The majority of the meeting was spent discussing and providing comments to MBNMS staff on the Management Plan Review. The AC also reviewed, edited and voted on a comment letter regarding an offshore wind energy project in response to a request from a working group exploring spatial solutions for potential offshore wind development. Paul Michel will present the Management Plan Review to GFNMS Advisory Council on August 24. This will be another opportunity for public comment to be provided. The next MBNMS AC meeting will be held virtually on October 16. Sanctuary Advisory Councils are community-based advisory bodies consisting of representatives from various user groups, government agencies and the public at large. The role of the council is to provide advice to the sanctuary superintendent on the designation and/or operation of a national marine sanctuary.

### RESEARCH AND MONITORING

#### **Guide to translocating coral fragments for deep-sea restoration published in *Marine Sanctuaries Conservation Series***

Monterey Bay National Marine Sanctuary (MBNMS) and Monterey Bay Aquarium Research Institute scientists recently compared different methods to restore deep-sea coral by transplanting live coral fragments and measuring their survival rates (Boch et al. 2019, *Frontiers in Marine Science*). The experiment was conducted in MBNMS on Sur Ridge, 60 kilometers (37 miles) offshore and 800 to 1,300 meters (2,624 to 4,265 feet) below the ocean's surface. This is the first time researchers have attempted to develop and test restoration methods for multiple deep-sea coral species in the Pacific Ocean. The new guide provides a detailed step-by-step guide for fabricating coral translocation modules and for processing coral fragments from multiple taxa for deep-sea coral translocation. New survivorship data are provided as well, from new observations of translocated corals since the original publication, along with new insights from additional efforts focused on coral husbandry at Monterey Bay Aquarium. The guide for translocating coral fragments is now published in the *Sanctuaries Conservation Series*; available at: <https://sanctuaries.noaa.gov/science/conservation/translocating-coral-fragments-for-deep-sea-restoration.html>.

As outlined in the MBNMS Management Plan, staff shall conduct deep-water coral age determination and restoration studies in concert with Sur Ridge research activities; and publish sanctuary science.

### RESOURCE PROTECTION

#### **Boat Grounding on Salinas River State Beach**

On Saturday, August 8<sup>th</sup> about 11:00 AM, a 17' Bayliner beached due to engine problems just north of the mouth of the Salinas River. There were three people onboard that were not injured. NOAA Enforcement Officer and MBNMS responded to the scene and met with the owner and State Parks Officials. Water and sand were filling the vessel as the tide came in so it was not possible to refloat the vessel and tow it back to sea. There was a reported 10 gallons of fuel onboard; no sheen was visible but it could be smelled. The owner hired a tow company and working with State Parks, successfully removed the vessel intact by 9:30 PM the same evening. It is important to ensure any vessel that grounds on sanctuary beaches is removed as soon as possible due to the high-energy environment that easily breaks apart a boat in a matter of a tide cycle. All boats are made of and contain numerous types of harmful material including hydrocarbons, metals, fiberglass, and plastics which come in all shapes and sizes. If not properly managed, this debris could impact the beach and its inhabitants for miles.

## **Second Boat in Two Weeks Grounds on a Monterey Bay Beach**

On August 15, MBNMS received a report of a sinking vessel near the entrance to Moss Landing Harbor. The next morning the 16' pleasure craft had washed ashore on Moss Landing State Beach. The area was in an extreme heat wave leading to over a thousand visitors on the beach that day. Too many for CA State Parks to allow for the removal of the vessel. Two days later, the vessel had broken up and the responsible party was able to remove the pieces of boat from the beach.

While this incident did not involve a significant pollution threat, less than 5 gallons of fuel on board, the USCG, CDFW/OSPR, CA State Parks and MBNMS coordinated the response. These emergency response events are unique each time and require constant vigilance in developing relationships and communicating expectations with our resource agency partners.

## **Stopping the Derelict Boat Revolving Door**

On August 26, the Santa Cruz Port District destroyed several derelict boats as part of a broader regional strategy to reduce environmental damage to MBNMS from groundings and sinkings.

Each year, MBNMS responds to over a dozen vessel incidents - grounded, sunk, and drifting boats. Many of the boats are in exceedingly poor condition, uninsured, and poorly managed. They are derelict boats that are marginally seaworthy, and when taken into the sanctuary by inexperienced or poorly equipped operators, frequently sink or run aground. The owners, having purchased their boats at auction for \$50 - \$100 have no investment in them, no assets, no knowledge of true costs or legal requirements, and no incentive or ability to clean up the resulting pollution.

MBNMS has encouraged harbor officials over the years to take derelict vessels out of circulation, rather than selling them for meager returns (after gaining title) to satisfy liens against the vessels for unpaid slip fees, fines, etc. Harbor authorities in Monterey Bay have recognized the burden these vessels pose and now use internal and grant funds when possible to destroy and dispose of them to end the pattern of repeated transfer, inadequate management, and persistent environmental threat within both harbors and the sanctuary.

Uninsured vessel casualties cause environmental damage throughout the sanctuary and costs taxpayers tens to hundreds of thousands of dollars per year. Many such casualties are predictable and avoidable. Cooperative efforts between MBNMS and harbor authorities to remove derelict boats from circulation and end repeated shuffling between harbors can help reduce emergency events and chronic damage to sanctuary habitat and living resources.

## **U.S. Attorney Charges Man for Shooting Elephant Seal on Sanctuary Shoreline**

On August 25, the U.S. Department of Justice issued a [news release](#) announcing that a Santa Maria man has been charged with fatally shooting an elephant seal on the shoreline of MBNMS.

Ten months prior, on Sunday, September 29, 2019, a private citizen found a dead sea lion at the south end of a popular elephant seal viewing beach in San Simeon. The juvenile seal had a confirmed bullet wound.

The discovery was reported to MBNMS staff who promptly referred it to NOAA's Office of Law Enforcement (OLE). NOAA Special Agent Jeremy Munkelt investigated the case, but there were no leads at the time for identifying the person responsible for the shooting. Agent Munkelt subsequently gained approval to post a monetary reward for information leading to prosecution of the responsible party, and his persistence and creativity were key to advancing the case to the charging phase.

Public participation in the sanctuary's resource protection mission is vital to mission success, providing timely and valuable insights into activities across the 6,000+ square-mile site. MBNMS works closely with OLE to address resource violations, providing notification and information support for investigations. Marine mammal take investigations sometimes require months of work and patience to bear fruit, and it's important for the public to know their vigilance makes a difference.

### **West Coast Sanctuaries Partner with FAA on Pilot Outreach**

This summer, Monterey Bay and Greater Farallones staff kicked off a fruitful pilot outreach partnership with the FAA. Staff guided the FAA's crafting of an outreach email to ~26,000 California pilots emphasizing the need to fly high over [NOAA regulated overflight zones](#) in West Coast marine sanctuaries. Staff worked with ONMS to revise dated HQ overflight web pages.

The Seabird Protection Network and FAA Safety Team followed up the email outreach effort with a virtual presentation on August 13th that reached over 400 pilots - "Ten Secret Sights on the California Coast and How to Fly Them Like A Pro". It featured a retired NOAA corps pilot, and highlighted marine wildlife, sanctuaries, and wildlife protection regulations. Register to view the archived presentation here:

[https://www.faasafety.gov/SPANS/event\\_details.aspx?eid=101192](https://www.faasafety.gov/SPANS/event_details.aspx?eid=101192)

This was the first of two online presentations, and will be followed by additional outreach at the beginning of the 2021 seabird breeding season. Partnering with the FAA creates a strong platform for building awareness of sanctuaries and their regulations within the aviation community. Recent efforts increase compliance with NOAA Regulated Overflight Zones, and strengthen a working relationship with a key agency and trusted source of information for pilots.

### **Oil Spill in Monterey Bay - False Positive**

During the week of August 23, as wildfires raged to the north, east, and south of Monterey Bay, emergency responders received reports of oil on north bay beaches. From a distance, the swaths of black material had the familiar look of oil washed ashore with tides and waves. But upon close inspection, the black ribbons were actually ash and consolidated bits of burnt wood and chaff that had settled on the ocean surface and washed ashore. Potential environmental impact of this fire residue is uncertain and a topic of ongoing discussion within the research community. Emergent events such as discovery of wildfire residue on beaches or new invasive species often require adaptive management by sanctuary staff and shifting of resources amid already pressing workloads. They also emphasize the importance of community partnerships.

## **EDUCATION, VOLUNTEER AND OUTREACH PROGRAMS**

### **Monterey Bay National Marine Sanctuary's 2020's Dive in: Get Into Your Sanctuary (GIYS)**

For this year's MBNMS GIYS, sanctuary staff produced a pre-recorded video about SCUBA diving, kayaking and surfing in the sanctuary. To accomplish the final virtual program, speakers were recruited, scripts written, messages identified and video produced and edited and recorded in a GoToWebinar. After 3 days of recording the program and 5 video edits, a program about MBNMS and recreation was delivered on ONMS Facebook Watch Party on Saturday, August 1, 3pm PST. MBNMS Superintendent Paul Michel was the host, MBNMS Research Scientist and SCUBA diver Steve Lonhart, Monterey Bay Kayaks Guide and naturalist Vince Schweitzer and Pro-surfer Keanna Miller narrated video footage of themselves in their respective activities, under and on the sanctuary's waters. Messages and stories about MBNMS, biodiversity, kelp, unique critters, corals, responsible wildlife viewing and what it is like to surf a wave. Another goal was to engage our local community and individuals joint social media campaign leading up to the GIYS programming. The goal of GIYS this year was to showcase MBNMS and a variety of recreational activities and to bring these activities into the homes of people during this COVID-19 pandemic. By highlighting these activities and the wonder of the sanctuary, a visitor is more likely to come and visit and will better understand how to responsibly enjoy and protect our sanctuaries.

### **MBNMS Launched Joint "MBNMS Volunteer Enrichment Series"**

On August 5th, MBNMS Volunteer coordinators co-hosted the first "MBNMS Volunteer Enrichment" presentation. The presentation was focused on Rogue Interpretation: Starting the Conversation. Although our

volunteers are not currently “officially” working, they can still practice their interpretive techniques in their daily lives with friends and family. The presentation was primarily led by Chelsea Prindle, with assistance and special topics from Lisa Emanuelson and Acy Wood. This was the first enrichment of the season, with two planned per month through December. With all programming now virtual, it provides a unique opportunity to offer enrichment presentations to all MBNMS volunteers (and other ONMS and Partner volunteers) at once. Since our volunteers are not currently active with their regular job duties, offering enrichment presentations to keep people informed and connected is more important than ever.

**MBNMS Staff completed Summer Camp Virtual Education Series for Santa Cruz Youth.**

On From June-July Sanctuary Exploration Center staff led seven “virtual field trip” programs for kids age 8-11 participating in the City of Santa Cruz Virtual Summer Camp program. Program topics included: Watersheds, Plankton, Deep Sea, Kelp Forests and Sounds in the Sanctuary. The program was overall a success will be used as a pilot for Fall virtual programming with K-12th grade classes. Since schools closed back in March, thousands of students in Monterey Bay missed out on valuable environmental education experiences. By modifying field programs to be offered virtually, students are able to be exposed to this content in a new way. By piloting these programs over the summer, we are building a set of virtual programs that may be offered next school year.

**MBNMS hosted ONMS Webinar Series Presentation titled: *Into the Deep: Literally, Virtually, and Fictionally* with Dr. James Lindholm.**

As part of the National Marine Sanctuaries Webinar Series, 600 students, scientists, volunteers and members of the general public from around the country registered for the presentation: *Into the Deep: Literally, Virtually, and Fictionally* with Dr. James Lindholm, Director of the Institute for Applied Marine Ecology at CSU Monterey Bay. 314 people attended the live presentation to hear Dr. Lindholm discussed some of his research approaches in MBNMS, VR techniques his lab is using to both study and communicate science, and a series of fiction books he has recently published. This webinar series is a way to connect with educators, students and other interested people to provide them with educational and scientific expertise, as well as resources and training to support ocean and climate literacy. 80% of attendees who completed the follow-up survey agreed that the content of the webinar made them understand that national marine sanctuaries and marine national monuments help protect the ocean and Great Lakes. 93% of attendees are "very likely" and "likely" to attend a future presentation in the National Marine Sanctuaries Webinar Series with 91% likely to recommend this webinar series to others. With all programming now virtual, it provides a unique opportunity to offer enrichment presentations to the public and reach a much broader audience. This webinar series is a way to connect with educators, students and other interested people to provide them with educational and scientific expertise, as well as resources and training to support ocean and climate literacy.



## NEWS COVERAGE

### [Harbor porpoises and seal bombs](https://phys.org/news/2020-08-harbor-porpoises.html)

<https://phys.org/news/2020-08-harbor-porpoises.html>

Phys.org – August 5, 2020

### [Suspect charged in shooting death of Central Coast elephant seal](https://www.montereyherald.com/2020/08/26/suspect-charged-in-shooting-death-of-central-coast-elephant-seal/)

<https://www.montereyherald.com/2020/08/26/suspect-charged-in-shooting-death-of-central-coast-elephant-seal/>

Monterey Herald – August 26, 2020

### [How To Spend An Amazing Weekend in Beautiful Monterey](https://www.travelawaits.com/2553384/how-to-spend-a-weekend-in-monterey/)

<https://www.travelawaits.com/2553384/how-to-spend-a-weekend-in-monterey/>

Travel Awaits – August 31, 2020

### [Home & Garden Digest](https://www.santacruzsentinel.com/2020/09/10/home-garden-digest-27/)

<https://www.santacruzsentinel.com/2020/09/10/home-garden-digest-27/>

Santa Cruz Sentinel – September 10, 2020

### [Cal Am Withdraws Coastal Commission Permit Application](https://www.businesswire.com/news/home/20200916005998/en/Cal-Am-Withdraws-Coastal-Commission-Permit-Application)

<https://www.businesswire.com/news/home/20200916005998/en/Cal-Am-Withdraws-Coastal-Commission-Permit-Application>

Business Wire – September 16, 2020

**Web Site** (<https://montereybay.noaa.gov/>)

★★ **Check out these MBNMS Advisory Council webpage links!** ★★

**Advisory Council Meeting Agendas & Minutes**

<https://montereybay.noaa.gov/sac/sacma.html>

**Advisory Council Actions and Results**

<https://montereybay.noaa.gov/sac/sacact.html>

**Advisory Council User Group Newsletters (seats and working groups/sub-committees)**

<https://montereybay.noaa.gov/sac/advisory-nwsltr.html>

*Please take a few moments to peruse the site. Your feedback is greatly appreciated.*

*Comments and suggestions can be sent to [andrew.white@noaa.gov](mailto:andrew.white@noaa.gov).*

**Follow MBNMS on [Facebook](https://www.facebook.com/MBNMS)** (<https://www.facebook.com/MBNMS>) and **[Twitter](https://twitter.com/mbnms)** (<https://twitter.com/mbnms>)

## **FUN, OCEAN RELATED WEB SITES**

**NOS Ocean Facts: Ocean Life**

<https://oceanservice.noaa.gov/factspage.php?siteName=oceanfacts&cat=Ocean%20Life>

**Caitlin Seaview Survey**

<http://www.caitlinseaviewsurvey.com>

**SIMON**

<https://www.sanctuariesimon.org>

**Seasons in the Sea**

<http://www.seasonsintthesea.com>

**Thank You Ocean**

<http://www.thankyouocean.org/>

**Oceans Live**

<http://oceanslive.gso.uri.edu/>

**NOAA Ocean Explorer**

<http://oceanexplorer.noaa.gov/>

**Encyclopedia of the Sanctuaries**

<http://www.ocean.com/Library/Encyclopedia/>



## **MBNMS STAFF**

**Paul Michel** – Superintendent  
**Dawn Hayes** – Deputy Superintendent

### Research

**Andrew DeVogelaere** – Research Coordinator  
**Jennifer Brown** – SIMoN Ecosystem Scientist  
**Erica Burton** – Research Specialist  
**Chad King** – SIMoN Data Analyst  
**Steve Lonhart** – SIMoN Senior Scientist

### Education

**Amity Wood** – Education and Outreach Coordinator  
**Acy Wood** – Volunteer Coordinator (SEC)  
**Nick Ingram** – Exhibits/Facility Specialist (SEC)  
**Emily Pierce** – Program Assistant (SEC)  
**Chelsea Prindle** – SEC Manager  
**Michele Roest** – Program Coordinator & Community Liaison  
**Lisa Uttal** – Education Specialist

### Resource Protection

**Karen Grimmer** – Resource Protection Coordinator  
**Sophie De Beukelaer** – GIS Analyst & Research Permit Coordinator  
**Lisa Emanuelson** – Citizen Watershed Monitoring Network Coordinator  
**Bridget Hoover** – Water Quality Protection Program Director  
**Scott Kathey** – Regulatory/Emergency Response Coordinator (on detail to GRNMS)  
**Pamela Krone** – Agriculture Water Quality Coordinator

### Program Operations

**Raymond Chisolm** – Program Specialist  
**Nichole Rodriguez** – Advisory Council Coordinator  
**Andrew White** – Network Manager and Webmaster



## **Learn More About Your Sanctuary**

The Sanctuary Office Report is produced bi-monthly by Monterey Bay National Marine Sanctuary staff in conjunction with Sanctuary Advisory Council meetings. To learn more about the Sanctuary please visit our web site at: <https://www.montereybay.noaa.gov>.

To learn more about the Sanctuary Advisory Council please visit:  
<https://montereybay.noaa.gov/sac/advisory.html>

## **The Office of National Marine Sanctuaries**

Monterey Bay National Marine Sanctuary is one of 14 marine protected areas in the National Marine Sanctuary System encompassing more than 150,000 square miles of marine and Great Lakes waters from Washington State to the Florida Keys, and from Lake Huron to American Samoa. The system includes 13 national marine sanctuaries and the Papahānaumokuākea Marine National Monument. Visit the ONMS web site at:  
<https://www.sanctuaries.nos.noaa.gov/>

## **Get involved and stay informed!**

To learn how to get involved in the Sanctuary visit:  
<https://montereybay.noaa.gov/getinvolved/welcome.html>

Sign up for the MBNMS listserv to receive email notices about upcoming Sanctuary events, and public meetings of the Sanctuary Advisory Council and Working Groups:  
<https://montereybay.noaa.gov/intro/elists.html>

## **- Contact Information -**

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