

Monterey Bay National Marine Sanctuary

Sanctuary Office Report

Volume 9, Number 5



A REPORT FOR THE SANCTUARY ADVISORY COUNCIL MEMBERS

REPORTING PERIOD: OCTOBER 29, 2012-DECEMBER 7, 2012

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, the 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

MBNMS co-hosts Climate Change Workshop in Monterey

Center for Ocean Solutions, MBNMS, AMBAG Energy Watch, West Coast Governors Alliance on Ocean Health, City of Monterey and the Central Coast Wetlands Group hosted a workshop on October 25th - "Progress Toward Preparing for the Future: Climate Change and the Monterey Bay Shoreline." This was a follow up to the December 2011 regional workshop and was requested by participants who were interested in reconvening to continue to learn, network and collaborate. Over 100 local agency participants received the latest scientific information on sea level rise from Dr. Gary Griggs who presented the NRC evaluation for SLR along the West Coast for 2030, 2050 and 2100. Click [here](#) for the study. Dr. David Revell presented the newly released sanctuary-led study on coastal erosion - "[Adapting Strategies for Addressing Coastal Erosion in Monterey Bay](#)." Dr. Susie Moser presented her focus group results on exploring coastal homeowners' understanding of climate change impacts. Click [here](#) for the report. The presentations were followed by updates on

actions around the Bay, which is presented by COS on this [webpage](#). Lastly, the groups broke into topical tables for networking discussions. Local media covered the event and ideas for continued collaborations were recorded via participant evaluations.

Approved NOAA apps for government-issued smart devices like iPhones.

<https://sites.google.com/a/noaa.gov/noaa-ums/mobile/ios-approved-apps>)

David Kennedy would like to highlight the great work being done across the line offices to provide NOS information to the public over mobile devices. According to Pew Research, 45% of Americans now own smartphones. Moreover, about 17% of all adult cell phone owners use it for most of their online browsing.

NOS headquarters developed the first line-office level mobile site in NOAA and NOS program offices are taking the lead in making information user-friendly on smartphones and tablets. National Geodetic Survey is making storm-response imagery available in a mobile format, for example from Hurricane Sandy. This allows emergency officials to more easily find images they need for response in the field and citizens impacted by the storm to have the latest information on neighborhoods. The Coral Reef Conservation Program's mobile site provides news and feature stories, coral facts, photos, and a mobile-optimized version of a glossary and acronyms from the NOAA Coral Reef Information System (CoRIS). While still in development, most of the National Centers for Coastal Ocean Science website is designed to fit any screen, from smartphone to tablet to jumbotron. They're one of the early adopters of 'responsive design,' which dynamically scales the site's content and eliminates the need for a stand-alone mobile app.

There are even more ocean- and coastal-related mobile sites and applications on the NOS website. Kudos to NOS programs for their creativity and forethought in making information available in these formats.

National Marine Sanctuary News



MONTEREY BAY NATIONAL MARINE SANCTUARY NEWS AND PROGRAM UPDATES



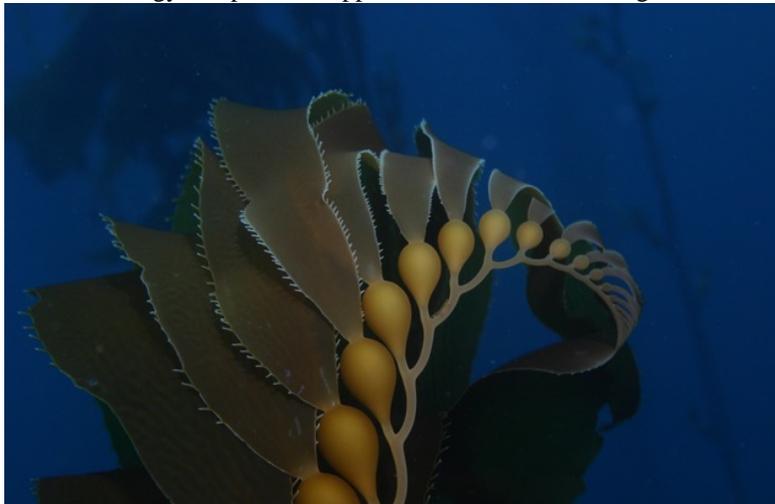
MANAGEMENT

SAC requests Superintendent send letter to Coastal Commission regarding PG&E Seismic Survey

At the October 18 SAC meeting in Cambria, approximately 60 members of the public provided comments on the PG&E seismic surveys for the Diablo Canyon nuclear power plant, all voicing opposition to the surveys. The Council advised the Superintendent to send a letter to the Coastal Commission conveying the Council's concerns regarding the surveys. The Advisory Council's concerns are two-fold: a. the potential harmful effects of high-decibel sound on marine organisms in sanctuary waters and those that would enter sanctuary waters from the active survey area; and b. concern about inadequate time to understand baseline conditions prior to the survey for appropriate monitoring. The letter was sent on October 29th. The Coastal Commission met on this item in mid-November and voted to not approve the permit application.

Measuring the Health of the Ocean

Monterey Bay National Marine Sanctuary Superintendent Paul Michel joined a panel of experts attending the National Center for Ecological Analysis and Synthesis' meeting on the Ocean Health Index. This is the first comprehensive global measurement of ocean health that includes people as part of the ocean ecosystem. It scientifically compares and combines all dimensions of ocean health – biological, physical, economic and social, in order to generate an objective and accurate snapshot of the health of the ocean controlled by every coastal country. Currently, the Ocean Health Index is on global scale with every coastal country scored with an index value, this meeting was to review methodology and potential application of the index to regional scales.



RESEARCH AND MONITORING

MBNMS staff recognized by Department of the Interior's 'Partners in Conservation Award'

The Multi-Agency Rocky Intertidal Network (MARINE) was recognized by the US DOI for fostering a unique and extensive partnership among federal, state and tribal governments, local agencies, universities and private groups dedicated to the study and management of rocky intertidal shoreline habitats. MARINE, a model partnership in existence for over a decade, is a long-term monitoring program and provides a high-quality, scientific foundation for decision making and adaptive management. MARINE is the largest monitoring project of its kind, involving 38 sponsors, contributors and collaborators that biannually monitor rocky intertidal species at over 140 sites on the east and west coasts. MARINE is funded entirely by the contributions of its members, who jointly publish data in peer-reviewed literature, provide information to resource managers and actively support public education about tidepools. MARINE uses the data from rocky intertidal communities to determine the health of this critically threatened and fragile habitat, providing key information to the public and policy-makers. Dr. Steve Lonhart is a member of the MARINE science panel and was recognized for his role in MARINE as a MBNMS representative.

SIMoN staff continues monthly invasive species study in Monterey Harbor

On October 25 and November 26, SIMoN staff (Chad King and Steve Lonhart) continued to collect photo quadrat data from a series of cement pier pilings in Monterey Harbor. These pilings are infested with multiple invasive species, including the invasive bryozoan *Watersipora subtorquata*. This monthly time series of digital images from fixed locations provides insight on the community dynamics of both invasive and native species, as both algae and invertebrates compete for limited space. Turnover and changes in percent cover, particularly for invasive and cryptogenic species, have been surprisingly fast, operating at scales of days to weeks.

Deep-sea anglerfish gets continued media interest

In September, MBNMS and collaborators published a paper on the color and behavior of the deep-sea anglerfish, *Chaunacops coloratus*. The related YouTube video has been viewed by over 65,000 people (http://www.youtube.com/watch?v=Cl_MbvSUvTk). Recently the research was covered by the "San Jose State University News" and, interestingly, there has been great interest from the media in Vietnam (e.g., <http://www.lapduan.com.vn/Tin-tuc-du-an/kham-pha-loai-ca-biet-di-cung-cong-ty-moi-truong.html>; <http://khoahocthuysan.org/index.php/vi/news/Nghien-cuu-quoc-te/Phat-hien-loai-ca-di-bo-132/>; <http://moitruongthaonguyenxanh.wordpress.com/2012/09/>).

Beach COMBERS at the California Seabird Monitoring & Coordination Meeting, and expanding

Beach COMBERS is a citizen science program where volunteers walk beach segments on a monthly basis, and enumerate all the dead organisms they find. This provides an effective assessment of current wildlife health as well as useful long-term trends (<http://sanctuaries.noaa.gov/science/conservation/beachcomber.html>). Beach COMBERS results were presented at the California Seabird Monitoring and Coordination Meeting on October 22. This program was started by MBNMS with Moss Landing Marine Labs, and has since branched out to many other partners. The US Fish and Wildlife Service is adopting the program for areas of southern California, and their first training will be on November 10 in Ventura.

SIMoN staff successfully completes dives for 2012 BSNC project using the R/V *Fulmar*

From October 28-30, SIMoN staff successfully surveyed 7 sites for the Big Sur Nearshore Characterization (BSNC) project using the R/V *Fulmar*. A total of 41 dives were completed by 6 divers from the MBNMS, GFNMS, Hopkins Marine Station and UC Santa Cruz. The 3-day trip allowed divers to survey areas along the 70-mile stretch of coastline actively managed for landslides by CalTrans. Dive sites included locations near Esalen, Lopez Point, Alder Creek, and Big Creek. This project builds upon marine resources surveys initially conducted from 2003 to 2005 as part of the Coast Highway Management Plan (CHMP) for Highway 1 in Big Sur. One more, three day BSNC trip is planned for late November, as well as a separate 3-day trip in mid-November for purposes of surveying the subtidal habitat around the Alder Creek Slide near Gorda, CA.

From November 19-21, SIMoN staff successfully surveyed 4 new sites for the Big Sur Nearshore Characterization (BSNC) project using the R/V FULMAR, ending the 2012 BSNC diving season. Since the compressor was down, over 30 tanks were loaded on the FULMAR and diving operations were somewhat limited. Site selection during the 3-day trip was limited by large swell (7 ft and building to 11 ft), although visibility was excellent and temperatures were high (57-59 F). Divers surveyed areas near Wreck Beach just south of Point Sur, and sites adjacent to the McWay landslide. In addition to two MBNMS science divers, the science party included GFNMS contractor Carliane Johnson and two researchers from the California Academy of Sciences. This project builds upon marine resources surveys initially conducted from 2003 to 2005 as part of the Coast Highway Management Plan (CHMP) for Highway 1 in Big Sur.



Image caption: Various pictures from the BSNC cruise (Oct 28-30, 2012). Upper left: a research diver enters the water from the R/V *Fulmar*. Upper right: A research diver records fish species on an underwater slate. Lower left: The colorful invertebrate diversity often encountered in kelp forests along the Big Sur coast. Lower right: A large school of rockfish near Big Creek, CA.



Risk of negative effects of human uses and natural perturbations assessed for habitats in MBNMS

Monterey Bay National Marine Sanctuary (MBNMS) served as a pilot location for a risk assessment lead by the science team for the California Current Integrated Ecosystem Assessment (CCIEA). The risk assessment focused on the potential for a reduction in the quantity or quality of marine habitats due to human activities and natural perturbations. Two risk assessment techniques were used: a data-driven assessment and an expert-based assessment. For the expert-based technique, the MBNMS's Research Activities Panel (RAP) was surveyed to elicit their expert opinion regarding the risk posed to habitats within MBNMS due to specific human activities (e.g., coastal pollution, bottom tending fishing gear) and environmental changes (e.g., ocean acidification). This habitat risk assessment served as a proxy approach to understanding risk to ecological integrity, under the assumption that habitats act as umbrellas for communities of species and a variety of ecosystem processes. A complete description of this analysis will be available soon through the CCIEA website.

SIMoN staff invited to speak to Dive Club of Silicon Valley

On the evening of November 7th, Sanctuary Integrated Monitoring Network (SIMoN) staff was invited to speak to the Dive Club of Silicon Valley. Dr. Steve Lonhart was asked by club members to give a talk on competitive interactions in central California kelp forests. Hosted at the NetApp compound in Sunnyvale, the meeting included 28 members that almost exclusively dive in the Monterey Bay National Marine Sanctuary.

SIMoN staff presents overview of sanctuary to CSU Channel Islands policy students

On November 8th, SIMoN staff gave a 45-min overview of the Monterey Bay National Marine Sanctuary to 20 students from the Department of Environmental Science & Resource Management at California State University Channel Islands (CSUCI). Students were traveling up the coast of central California and stopping at several research and management agencies between Santa Barbara and Moss Landing. Staff provided students with an overview of MBNMS and several of the interesting intersections between policy, research, and resource management. Students were particularly interested in career paths in marine sciences and policy and how the public is involved in management issues. Several outreach tools were touted, including SeaPhoto and Your Sanctuary.

California Ocean Science Trust and the Monitoring Enterprise host third kelp forest assessment workshop

On December 6 and 7, Sanctuary Integrated Monitoring Network (SIMoN) staff was invited to participate in a workshop at the National Center for Ecological Analysis and Synthesis (NCEAS) in Santa Barbara, CA. The MPA Monitoring Enterprise is a program of the California Ocean Science Trust that is leading the design and implementation of monitoring of California's statewide network of MPAs. These MPAs, established under the Marine Life Protection Act (MLPA), were designed to meet broad ecosystem-level goals, including

to “protect ecosystem structure, function and integrity.” Evaluating progress towards the goals of the MLPA requires assessing ecosystem condition, or health, and reporting on such assessments in a way that is useful to resource managers and policy makers. Expert judgment, in which a group of scientists are asked to interpret scientific data and generate ecosystem condition reports, is a tool increasingly used to develop such assessments. With support from the Packard Foundation, kelp forest experts from throughout California were brought together to develop a kelp forest health assessment process and reporting tool.

RESOURCE PROTECTION

Volunteers sign up for First Flush. On October 20th REI Marina hosted Get Involved an event focused on providing information on local volunteer opportunities. This event promoted all types of volunteer positions including First Flush monitoring to planting natives to aquarium volunteer opportunities. A total of 20 volunteers signed up and came to a First Flush training.

Monterey Bay Flushes! First Flush 2012 occurred in the very early hours of Monday October 22nd when a small rain storm made landfall in coastal San Mateo County. Volunteers were mobilized by the San Mateo County RCD and were able to collect samples and field measurements at 9 sites in Moss Beach, Montara, El Granada and Princeton. On that same day the storm came ashore further south and created a convective shower along the Monterey Peninsula. Monterey area volunteers were mobilized at 10:30 am and were able to sample all 10 of the Monterey area sites. The Santa Cruz area did not receive as much precipitation so those sites will be monitored during the next big storm. In addition, several more rain events will be monitored throughout the winter months with the help of volunteers. Both end of pipe and receiving water will be monitored before and during 3 more storms in Areas of Special Biological Significance.

Grounded Panga #3 Removed from MBNMS

On October 19, a Mexican panga was discovered aground on the beach approximately 3/4 mile north of Point Piedras Blancas. There were no known injuries or fatalities. This is the third known panga grounding in the MBNMS within the past six months. Pangas are open, high-freeboard vessels used to transport drugs and people illegally into the United States from Mexico. The vessel was found inverted with multiple partially-filled gasoline containers strewn across the beach. The San Luis Obispo County Sheriff's Department secured the scene and removed the vessel and debris from the shoreline. The abandonment of pangas on MBNMS shorelines is a new development.

Grounded vessel near Zmudowski State Beach

On October 20, an 18-foot recreational vessel went aground intact near Zmudowski State Beach in central Monterey Bay. There were no injuries or fatalities. The vessel was promptly removed from the shoreline by State Parks and recovered by its owner. Interagency communication is key to effective removal of vessel casualties occurring within and adjacent to the sanctuary.

Grounded 45-foot fishing vessel at Pillar Point

On October 13, a 45-foot fishing vessel ran aground at the foot of a high coastal bluff at Pillar Point. There were no injuries or fatalities. The vessel was uninsured. MBNMS provided administrative support to GFNMS response efforts since the grounding occurred within the northern management area of the MBNMS. The vessel has since broken up on a rocky shoreline, and the owner is taking action to remove the resulting debris, engine, etc. NOAA OLE is investigating the incident.

New MBNMS led study released

Threats to coastal structures and communities from coastal erosion, as well as the environmental impacts associated with coastal armoring, have been of growing concern to many. A recent study found that erosion rates along the southern Monterey Bay shoreline between Moss Landing and Wharf II in Monterey are the highest in the State of California. Although this shoreline is not heavily developed, eight oceanfront facilities are at a high risk from erosion over the next fifty years. A recent sanctuary-led study, Evaluation of Erosion Mitigation Alternatives for Southern Monterey Bay, developed a number of recommendations for future mitigation measures in this region. The report cites that ceasing sand mining in Marina is the most important mitigation strategy and impact to coastal erosion in Southern Monterey Bay. The study was featured in the Monterey County Weekly and is posted on the MBNMS webpage under What's New.

MBNMS Tracking Desalination Project Proposals within Monterey Bay

MBNMS staff have been meeting with desal project proponents, consultants, and regulatory agencies and tracking the various processes moving towards implementation of a desalination plant to supply drinking water to the Monterey Peninsula and resolve a cease and desist order to halt water extraction from the Carmel River. On November 1, staff met with California American Water, their consultants, USFWS, CA Coastal Commission, CDFG, and PRBO to discuss the latest proposal for a test slant well near Marina, CA. The slant wells will project under the sanctuary seafloor and will require some form of federal review. MBNMS staff will continue to

monitor the developments and will work with regulatory agencies to determine the best process for permitting and environmental review.

AWQA Submits Collaborative Grant to Improve Water Quality Assistance for Growers

On October 31 the Monterey Bay Sanctuary Foundation submitted a grant proposal to the Western Sustainable Agriculture Research & Education professional development program. The proposal was on behalf of 12 partner organizations of the Agriculture Water Quality Alliance. The two-year project aims to build tools and technical capacity to support regional assistance to farmers on irrigation and nutrient management (INM). Improved INM can reduce off-farm movement of nutrients to surface waters or leaching to groundwater, priority resource concerns in watersheds that flow to the Monterey Bay National Marine Sanctuary.

MBNMS requests stakeholder input on Sanctuary Ecologically Significant Areas

Over the past few months, staff has developed a process to identify and establish ecologically significant areas within offshore federal waters. These Sanctuary Ecologically Significant Areas (SESAs) will help target future research and monitoring, education and management efforts to specific locations that contain diverse, biogenic benthic habitats that may be vulnerable to seafloor disturbance. Presentations have been made to the Research Activity Panel and the Conservation Working Group and packets including an overview, research activity table, and a GIS data table have been sent electronically with a request for feedback on any missing data or comments about the selected criteria and process. In addition, staff are conducting meetings with fishermen in order to add local knowledge and their input on the areas and discuss overlapping goals with the EFH 5-year groundfish review.

Investigating use of vessel traffic lanes in MBNMS

Working with Naval Postgraduate School (NPS) in Monterey, MBNMS staff are exploring ways to better understand the compliance of vessels staying within the International Maritime Organization (IMO) recommended tracks that were established in 2000. Efforts are focused on tankers that transit 50nm or more offshore and cargo ships that transit 15 or 25nm offshore depending on if they are carrying hazardous cargo or not. NPS has collected Automated Information System (AIS) ship traffic data for a number of years and will be analyzing September 2009-2012 data to develop maps of cargo ship and tanker traffic densities per month.

New Protection Against Sewage Spills on the San Mateo Coast

On November 16th, WQPP staff attended a dedication celebration held by the Sewer Authority Mid-Coastside (SAM) for a “state of the art” wet weather flow retention basin in Half Moon Bay, CA. The SAM facility has experienced numerous sewage overflows in the last 10 years and this new retention structure will allow for an additional 200,000 gallons of storage enabling employees to better manage the wet weather flows whereby reducing the risk of untreated sewage entering the MBNMS. Elected officials, Water District Board members, NGOs, Resource Agency personnel and the public were on hand to show support of this effort.

NOAA Employees Working Together to Improve Water Quality

On November 15th, MBNMS Resource Protection staff met with NMFS Protected Resources Division staff to discuss water quality issues in watersheds along the Central CA Coast and how better to coordinate efforts to achieve common goals. MBNMS staff described efforts related to improving water quality primarily focusing on the Agriculture Water Quality Alliance (AWQA), improved stormwater quality working with local municipalities, and Integrated Regional Water Management programs/funding. NMFS staff described recovery planning for salmonids which included habitat restoration, increasing flow, and reducing trash/pollutants from coastal streams. The conversation became focused on joint efforts in the Pajaro River watershed and expanding outreach opportunities, potential funding for trash removal, and continued dialog on the topics of desalination and funding opportunities.

Efforts Underway to Value Ecosystem Services in MBNMS Watersheds

WQPP staff and partners are involved in several efforts to put a monetary value on conservation practices and resources. Final negotiations are underway with an Ecological Economist to develop a process for economic analysis and feasibility of projects being funded by the Ca Dept. of Water Resources for Monterey County. A second effort is occurring in Santa Cruz, Santa Clara and Sonoma counties with Earth Economics to expand the assessment of conservation actions to include a broader perspective on economic and community benefits. The goal is for ecosystem function to be quantified in both ecological and economic terms, including at the watershed scale, and that conservation may provide greater cost savings and/or expanded return on investment than more traditional infrastructure capital outlays.

Integrated Regional Water Management Plan (IRWMP) adopted by MBNMS

After three years in development, the Greater Monterey County IRWMP is in its final form and being adopted by regional partners. This plan is a joint non-regulatory effort of 19 very diverse organizations involved in water related management including water supply, water quality, environmental protection, and flood control. It emphasizes disadvantaged communities and climate change considerations. MBNMS staff were deeply involved in the coordination of this effort, oversight of the grant funding, and development of the plan performance and data management chapters. This 300+ page document is an approach that is being strongly promoted by State water managers and legislators as a way to increase regional self-sufficiency, encouraging local water resource managers to take a proactive leadership role in solving water management problems on a local level through collaborative regional planning.

Students will develop aggregated benthic human uses GIS data to help inform Sanctuary Ecologically Significant Areas process

Over the past few months, MBNMS staff have developed a process to identify and establish ecologically significant areas within offshore federal waters. These Sanctuary Ecologically Significant Areas (SESAs) will help target future research and monitoring, education and management efforts to specific locations containing diverse, biogenic benthic habitats that may be vulnerable to seafloor disturbance. Staff are working with students from CSUMB to aggregate human uses GIS layers from the MPA Center's Human Uses Atlas focusing on uses impacting the benthos. The aggregated layers will be used to inform the SESA process.

2013 Hollings Intern Selected for MBNMS WQ program

On Monday November 26, 2012 interviews were conducted with applicants from the Earnest E. Hollings Internship program for the summer of 2013. A number of interns applied and through the interview process one was chosen and has accepted. This civil engineering student from Univ. of North Carolina at Chapel Hill will be working for 9 weeks during the summer of 2013 with the Water Quality Protection Program on monitoring, data entry and analysis, volunteer coordination, and a project tailored to her own interests. Past Hollings Interns have been extremely valuable to our programs completing projects focused on environmental effects of detergents in urban runoff and flow monitoring/modeling.

Partnership Meeting with Coastal Watershed Council.

On Thursday November 29, 2012, WQPP staff met with Coastal Watershed Council (CWC) staff, a local non-profit, to re-invigorate their long time partnership in citizen monitoring programs. The Citizen Watershed Monitoring Network has been in existence for 12 years and is chiefly the result of the MBNMS and CWC partnership. Topics discussed included more regular meetings of the Network Steering Committee, evaluation of its membership, ideas for future projects, relationship building and funding opportunities. Periodic "check ins" like this sustain and enrich the Network leaders to continue joint efforts aimed at improving water quality flowing into the MBNMS.

MBNMS Staff Respond to Illegal Discharge into Stormdrain

On December 5th, WQPP staff responded to a report from Pacific Grove/Monterey Fire dispatch about bubbles discharging from the Lover's Point outfall. A large mountain of white bubbles was present in the receiving water. We asked the City to divert the flow to the wastewater treatment plant which they did and the flow stopped within 30 minutes. Monterey City Environmental Health Department closed the beach with signage but took no further actions. Sanctuary staff tracked the suds upstream with the Pacific Grove public works department. They found the source at the Gateway Center, an alternative residential home, approximately 1.5 miles from the beach. Sometime that morning two employees were washing out a barrel that contained a biodegradable hair and body wash. They thought since it was biodegradable, it would be ok to put down the outside drain. This was the second event in the last week that the fire department requested sanctuary staff on scene for an event.

Sampling for Livestock and Lands Program Wraps Up

December 5th marked the last water quality sampling day for the year-long project called Livestock and Lands in Carmel Valley. Monitoring was conducted by WQPP staff and volunteers monthly on the Carmel River. They measured bacteria and nutrients to detect changes in concentrations due to installation of Best Management Practices (BMPs) for livestock facilities and/or ranches in the Carmel River watershed. Sampling for a similar Livestock and Lands program was also conducted in San Mateo County. This project was a partnership with the Coastal Watershed Council, Ecology Action and the San Mateo and Monterey County RCDs.

Meetings on SESAs and EFH with Trawl Fleet and NGOs

As part of identifying and establishing Sanctuary Ecologically Significant Areas (SESAs) and developing a collaborative proposal for the five-year review of Pacific Coast Groundfish Essential Fish Habitat, staff have conducted several meetings with stakeholders to take their input including the local trawl fleet, TNC, Ocean Conservancy and Oceana. We are also continuing to take input on SESAs from the RAP and CWG, and have a presentation scheduled for the SAC on December 13.

Conservation Working Group Meeting at ESNERR

The CWG met on Nov 29 at the Elkhorn Slough NERR and had a compelling presentation from NMFS scientist Scott Benson on the declining population of California leatherback sea turtles. Their numbers have been steadily decreasing at a 6% annually which translates to less than 100 animals migrating from Indonesia to Monterey Bay in 2012. The CWG identified a sub committee to work on outlining some ideas for the sanctuary to develop partnerships on this issue. Other items discussed included the forage species SAC letter and resolution, an update on the Sanctuary Ecologically Significant Areas project, and the December SAC meeting schedule.

Big Sur Winter Emergency Preparation Meeting

On December 7, staff met with Caltrans, Monterey County and the CA Coastal Commission to discuss winter plans for Hwy One emergency road closures due to landslide activity. The main purpose was to review areas prone to large scale landslides and there were 3-4 main areas of concern identified based on road destabilization and erosion issues. MB staff will review these areas and discuss some options for disposal based on location and other factors. Alternative land disposal sites now include the Naval Station at Pt. Sur and El Sur Ranch. Other meeting topics included emergency notification protocols, and progress on the PISCO/MBNMS Alder Creek monitoring survey.



EDUCATION AND OUTREACH PROGRAMS

15 Docents participate in monthly enrichment series at the Sanctuary Exploration Center

Robert Scoles and Ron Eby conducted a presentation on Wednesday October 24th in the Fly Thru Theatre at the Sanctuary Exploration Center. The presentation was on sea otters in an estuarine environment (Elkhorn Slough) discussing both the North Harbor male raft, the Seal Bend female raft, their haul out patterns, use of the pickleweed and a newly discovered trophic relationship between otters and the eel grass. This was the first lecture in the enrichment series that will occur on the fourth Wednesday evening of every month. Monterey Bay National Marine Sanctuary Exploration Center tops 35,000 visitors.

Opening July 23rd 2012, the Sanctuary Exploration Center has been operating now for four full months. During that time 35,497 visitors have come to explore the Center. The center has hosted 17 self-guided tours for 627 individuals and has hosted 9 special events and meetings for 430 more people. Starting January 2013, docent lead tours of the facility will be offered and reservations are currently being taking for these programs.

Pre-proposals for FY13 NOAA Preserve America Award approved

Working with NOAA CSC, UC Santa Cruz, and NWS office in Monterey, a pre-proposal titled - Lessons From The Past: Planning for the Future with the High Impact Weather of the Past, was accepted. The project seeks to research historical high impact weather events in the Monterey Bay area through historical archives, newspaper collections, and weather records and quantify the impacts of these events. The events will be posted online in a user-friendly format for local emergency managers, planners, and agency staff to use as a resources. This collaboration was the result of a discussion at the October climate adaptation workshop in Monterey. Additionally, proposals for an updated video about the sunken tanker vessel Montebello, and an exhibit upgrade for the joint MBNMS/GFNMS exhibits at Pigeon Point Light Station have been giving the approval to move forward.

MERITO Academy serves 475 Monterey Bay Area students in fall 2012

The MERITO Academy continues to serve historically disadvantaged communities in the Monterey Bay area. 2MERITO staff gave watershed presentations in October and November at seven schools in Monterey and Santa Cruz counties serving 475 students. These presentations serve as an introduction to watersheds, watershed conservation and Monterey Bay National Marine Sanctuary. Presentations were completed with help from a Monterey Institute of International Studies Intern who will continue to assist the program through June 2013. Starting December 2012, MERITO Academy students will participate in place-based education through field trips and class projects.

Sanctuary Exploration Center Hosts the National Sanctuary Advisory Council Chair's meeting

December 4-6, Sanctuary Advisory Chairs and staff from sanctuary sites and headquarters met at the Monterey Bay NMS' new Exploration Center facility. Making connections with the recreation, business and tourism industry was the theme. Participants were given a guided tour of the Exploration Center designed to highlight the power of messaging. A brief lecture on the art of interpretation

was then given, concluding with a three step project to develop themes to help each Chair deliver a 30 second message concerning their individual Sanctuary. Midweek, the participants participated in an event sponsored by the Santa Cruz Chamber of Commerce and the National Marine Sanctuary Foundation, further emphasizing the power of partnerships with business.

Release of New Sanctuary Exploration Center Education & Outreach Plan

Due to a \$50K grant awarded in 2011 from the S.D., Bechtel Jr Foundation, staff just completed and released the Final Education and Outreach Plan for the Sanctuary Exploration Center in Santa Cruz. There were certain requirements in the proposal that included developing not only a framework for school and teacher programs, but also for SEC community programs, the visitor interpretive programs, the docent training program, and a marketing and communications plan. SEED (Science & Environmental Education Development) facilitated the development process for this strategic plan and as part of the process interviewed 27 community partners to take their input and recommendations. The plan is posted on the MBNMS website at:

http://montereybay.noaa.gov/vc/sec/pdf/121205sec_edu-out.pdf.

WEB SITE (<http://montereybay.noaa.gov/>)

Recent Updates

Visit the web pages listed below to see recently updated sections of the MBNMS web site.

- MBNMS Sanctuary Exploration Center Outreach and Education plan
http://montereybay.noaa.gov/vc/sec/pdf/121205sec_edu-out.pdf
- MBNMS Sanctuary Advisory Council Recruitment
<http://montereybay.noaa.gov/sac/2013/recruit13v1/121022covlet.html>

Follow the MBNMS on Facebook and Twitter!

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.

FUN, OCEAN RELATED WEB SITES

NOAA Online Media Library

<http://sanctuaries.noaa.gov/photos>

Encyclopedia of the Sanctuaries

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

Oceans Live

<http://www.oceanslive.org/portal/>

SANCTUARY INTEGRATED MONITORING NETWORK (SIMON)

www.sanctuariesimon.org

Office of National Marine Sanctuaries

<http://www.sanctuaries.nos.noaa.gov/>

NOAA Ocean Explorer

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

National Data Buoy Center

<http://www.ndbc.noaa.gov/rmd.shtml>

National Ocean Service

<http://www.nos.noaa.gov/>

National Oceanic & Atmospheric Administration

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

Thank You Ocean

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

Your Sanctuary

<http://www.ampmedia.org/yoursanctuary>

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: <http://www.montereybay.noaa.gov>.

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

The Office of National Marine Sanctuaries

The 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: <http://www.sanctuaries.nos.noaa.gov/>

Get involved and stay informed!

To learn how to get involved in the Sanctuary visit:
<http://montereybay.noaa.gov/educate/internship.html>

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

MBNMS Staff

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