



NOAA's Monterey Bay National Marine Sanctuary

Resource Protection Program Update

Karen Grimmer Resource Protection Coordinator May 19, 2023



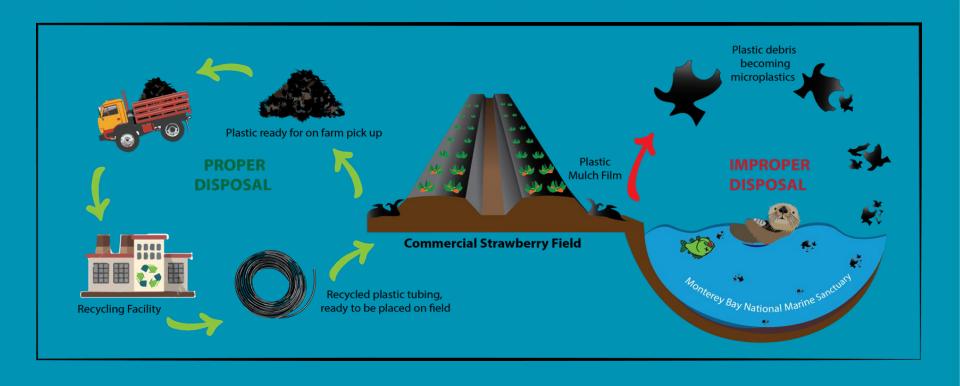
Resource Protection Program

- Conducts collaborative multi-stakeholder management efforts to identify and reduce impacts on sanctuary resources like water quality, marine debris or wildlife protection
- Issues permits for regulated activities with mitigations to minimize impacts on sanctuary resources
- Responds to emergency events such as spills and vessel groundings
- Enforces laws
 and regulations in coordination
 with NOAA Office of
 Law Enforcement
- 4 WQ staff, 1 permit staff member
 1 field ops staff member





Marine Debris Prevention Plasticulture



Plasticulture End-Of-Life Solutions



Free Ag Plastic Recycling **Drip Tape and Hoop House**

Approved growers may drop off separated and clean drip tape and hoop house ag plastic for recycling for free at ReGen Monterey.

Program Acceptance Requirements

- . Only hoop house film and drip tape can be dropped off
- . Any quantity of qualifying agricultural plastic may be dropped off at no cost
- · Material must be separated and not mixed with other plastics
- · Please do not include tires, other plastics, trash, paper, glass, or mixed metals
- . Ensure ag plastic is as clean as possible by collecting it in dry weather, shaking off as much dirt as possible, and removing any other trash contaminants
- · Heavy zinc ties used to attach the drip tape at the ends are okay
- Unseparated plastics will not be recycled and their tipping fee will be charged at problem waste fee of \$102 per

ReGen Monterey has the right to refuse recycling of excessively contaminated plastic and is willing to work with stakeholders to help prevent contamination. Thank you for implementing strategies that help prevent ag plastic from entering our local Monterey Bay National Marine Sanctuary.

To participate in recycling agricultural plastic, contact Flipping Iron, Inc.

Flipping Iron, Inc. 661-426-1126 info@flippingironinc.com







Commercially Scalable End-Of-Life Solutions for Agriculture Field Plastic Films Used in Watersheds Draining to National Marine Sanctuaries

California Sea Grant: \$2.7 million

Funding Source: Marine Debris Challenge Competition

California Sea Grant will collaborate with a talented cross-sector team from agriculture, engineering, recycling and marine conservation to develop technologies and best management practices that will maximize the removal of polyethylene mulch film from agricultural fields and make it an attractive feedstock for manufacturing new plastics. The project involve historically excluded communities in California in creating innovative solutions to address plastic pollution and marine debris resulting in a collaborative effort to transform growing techniques and processes that work with industry to prevent marine debris from entering the Monterey Bay National Marine Sanctuary, Channel Islands National Marine Sanctuary, and the proposed Chumash Heritage National Marine Sanctuary.























23rd Annual Snapshot Day

- 95 volunteers participated this year across four counties, including San Mateo in the northern management area of MBNMS
- ♦ 86 sites were monitored for nutrients, E. coli, and field parameters
- In-person hub was hosted for Monterey County volunteers at REI, Superintendent Lisa Wooninck gave the send off speech





First Flush and 21 Year Trend Report

- 21 year trend report from First Flush data has shown that 2000 2021, runoff water quality has generally improved over the past 21 years, particularly during wet weather events
- Concentrations of nitrate, copper, lead, and zinc have decreased significantly, and no analyte concentrations have increased significantly
- Dry Run-First Flush efforts are still underway to collect data for these trend reports and assess stormwater quality







Urban Watch and Microbial Source Tracking

- Urban Watch program is continuing efforts in Salinas to monitor streams and storm drain outfalls to monitor for nutrients, total suspended solids, and bacteria
- During the dry weather summer months to assess dry weather flows and pollutants and potentially identify illicit discharges
- Microbial source tracking to monitor for E. coli, enterococcus, and human-specific bacteria during wet weather events in Salinas





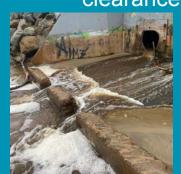
Other Water Quality Projects

 Continuing work with cities like Pacific Grove, Carmel-by-the-Sea, and Salinas to assist with monitoring for permitting purposes and special projects

 Surfactant monitoring and comparison between urban and natural settings with Monterey Regional Stormwater Management Program and County of Santa Cruz Env Lab

 Additional reclamation ditch monitoring in Salinas to identify sources of bacteria

NOAA Marine Debris Program funded a program report, which is in clearance





2023 Grant Awards

- Two grants awarded to MBNMS from Bipartisan Infrastructure Law and NOAA's Climate-Ready Coasts initiative:
 - \$2.7M Commercially Scalable End-Of-Life Solutions for Ag Field Plastic Films Used in Watersheds Draining to MBNMS
 - \$2.9M Large Marine Debris Removal Grant to National Marine Sanctuary Foundation for removal in MBNMS



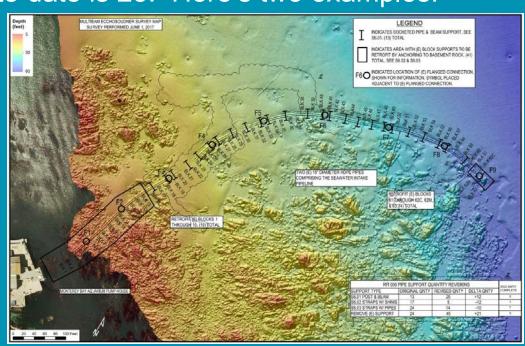




FY23 Permits

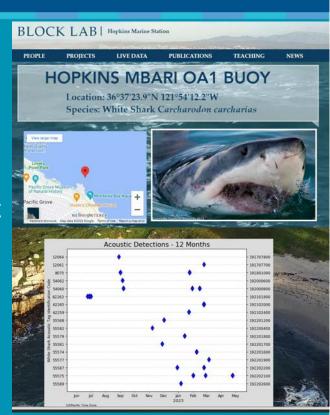
Total Permits issued in FY23 to date is 23. Here's two examples:

- MBNMS is processing an amendment for Monterey Bay Aquarium's intake pipeline support retrofit project.
- NEPA documentation: Environmental Assessment and Record of Environmental Consideration



FY 23 Permits

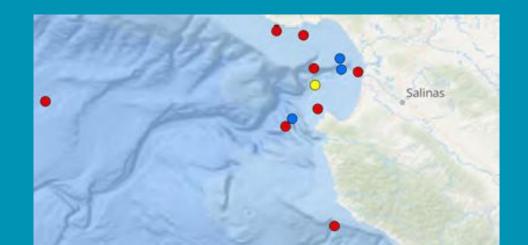
- New White Shark tagging permits issued to Dr. Barb Block w/Stanford and Dr. Sal Jorgensen w/CSUMB
- MBNMS interest in understanding regional connectivity, juvenile shark's habitat use, and white shark population status
- Permittees submit updates on all tagging activities at the end of each field day in a Google form to facilitate sharing of these activities with other white shark researchers in the area to mitigate cumulative impacts
- Permittees also provide annual reports, expedition logs, and presentations



Whale Entanglements: 2022 West Coast Summary

- 30 entangled whales off the coasts of Washington, Oregon, and California, or off the coast of other countries and states but entangled in U.S. west coast commercial fishing gear
- 12 of the 30 were confirmed in the Central Coast region

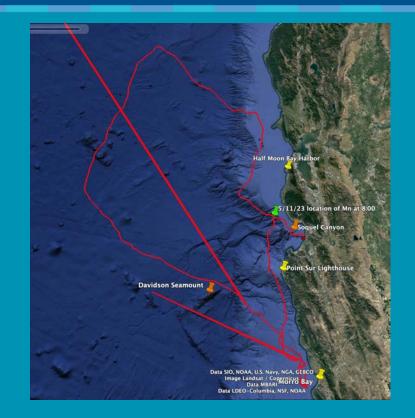




2023 Whale Entanglements

- Four entangled humpbacks in Monterey Bay since April 16, 2023
- One in spot prawn gear, and three in unidentified gear





Whale Ship Strikes

2023 Vessel Speed Reduction Program

- In February 2023, the MBNMS AC recommended the sanctuary team participate in a year-round voluntary vessel speed reduction program in collaboration with CINMS, CBNMS, and GFNMS
- The NOAA Voluntary Vessel Speed Reduction Program became effective on May 1, 2023 in all of MBNMS waters!
- The Blue Whales & Blue Skies incentive program has also expanded to MBNMS
- Next steps:
 - Meet w/air quality agency partners
 - continued outreach to industry on VSR
 - continued engagement with retail brands as part of the Brand Ambassador initiative
 - mid-season and end of season AIS data and vessel speed monitoring
 - communication to vessel operators on cooperation and program award levels in early 2024

FY23 Emergency Response to date

Vessel Incidents - 8 total

- 3 Incidents which resulted in catastrophic grounding or sinking in the sanctuary:
 - Del Monte S/V, Santa Cruz S/V, Moss Landing F/V)
- 3 near miss incidents
 - F/V flipped but righted safely towed to harbor
 - Navy surplus vessel grounded but safely towed out
 - TAKAO GALAXY oil tanker loss of propulsion yet safe return to SF harbor
- 2 other incidents:
 - Container ship out of tracks (contacted USCG Sector SF)
 - F/V sunk at dock in Moss Landing Harbor

Spills - 13 total

- 10 sewage/industrial wastewater spills (most due to winter storm flooding in Pajaro, Watsonville,and others)
- 1 petroleum sheen reported by a kayaker
- 1 large vessel bilge dump (from satellite, could be anomaly)
- 1 large stretch of oil (from satellite, could be anomaly)





Wildlife Disturbance Issues



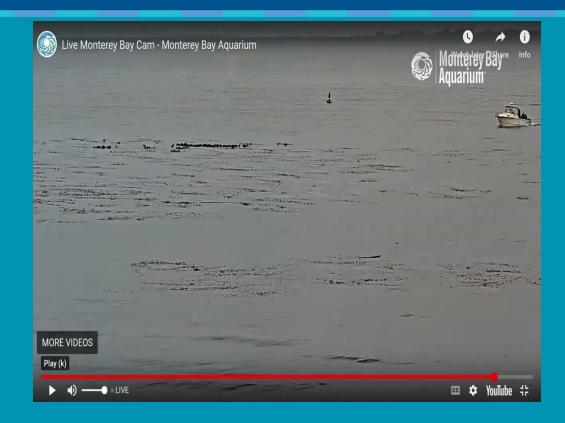






Disturbance Incident

Rafting otters start diving and moving away from vessel



Resource Protection Outreach Tool







Sea Otter Viewing Etiquette and Protection

A "raft" is a group of sea otters

resting together, and they often

occur in kelp, but not always.

Although raft sizes can vary throughout the day, some

200 otters in the largest

Sea otters generally have

a few miles, with no large

Sea otters may move in

protected areas during

seasonal migrations.

aggregations.

estimates have had more than

relatively small home ranges of

response to weather, age, and

sex, and often gather in more



Large Sea Otter Rafts in Monterey, California

Background

reason for recent unusually large Since January 2023, particularly rafts is unknown. Other factors large rafts of sea offers have beyond weather could also be been resting together in the contributing. kelp between Monterey Harbor and Point Cabrillo.

Please Give Sea Otters Space

prolonged storms. The exact

It is important to give these animals space to rest and save energy. especially during the winter season Disturbance can be harmful!

The raffing offers are especially sensitive to approaches from boaters, divers, and kayakers.

If you are on the water, please keep your distance and follow all federal laws so as not to harass or disturb the otters whether in a raft

Please visit www.seaottersavvy.org for more tips on viewing guidelines. To report disturbances, call MBNMS at (831) 236-6797.

m looking at you. 🔘 🔾

Tips for Kayakers, Divers, and Boaters to avoid disturbances

- . Divers should avoid surfacing under or near a sea offer raft from
- . Kayakers and boaters should remain a minimum of 10 boat lengths (scaled up by craft size) away from rafting sea otters.
- . Passing by parallel is less threatening to sea otters and other
- . If at any distance, a sea ofter has raised its head and is looking at you, you are too close and should move further away to avoid
- . Be aware of the location of sea otters before you dive, boat or kayak into an area.

















Sea Otter Outreach

Partnered with kayak shops, divers, Monterey Bay Aquarium and Sea Otter Savvy to reduce boater and diving disturbances to large sea otter rafts

Resource Protection

Office of National Marine Sanctuaries National Oceanic and Atmospheric Administration



Effects of Land-Based Anthropogenic Noise on Reproductive Success in Harbor Seals (*Phoca vitulina*) in Monterey Bay National Marine Sanctuary





Harbor Seal Report on Noise

- Focused on land-based noise disturbance on harbor seals in Pacific Grove, CA
- Noise sources includes humans, animals, vehicles and construction activities

New MPWC (Jet Ski) Signage

New signs for each harbor

Pillar Point Santa Cruz Moss Landing Monterey



Enforcement Coordination













For more information contact: Karen Grimmer

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https://montereybay.noaa.gov/