

**MBNMS Research Activity Panel
Meeting Summary
March 10, 2017**

Hosts: Olivia Cheriton – Physical Oceanography (U.S. Geological Survey)
Curt Storlazzi – Marine and Coastal Geology (U.S. Geological Survey)

Location: USGS Coastal and Marine Geology
Pacific Coastal & Marine Science Center
400 Natural Bridges Drive
Santa Cruz, CA 95060

Date: Friday, March 10th, 2017; 9:00 am to 12:00 pm

Members:

	Discipline	Primary/ Alternate	Name	Institution
X	Research Coordinator		DeVogelaere, Andrew	Monterey Bay National Marine Sanctuary
	Biological Oceanography	primary	Kudela, Raphael	University of California, Santa Cruz
	Biological Oceanography	alternate	Chavez, Francisco	Monterey Bay Aquarium Research Institute
X	Deep-Sea Environment	primary	Cailliet, Greg	Moss Landing Marine Laboratories (retired)
X	Deep-Sea Environment	alternate	Haddock, Steve †	Monterey Bay Aquarium Research Institute
X	Estuarine Environment	primary	Clark, Ross	Central Coast Wetlands Group
	Estuarine Environment	alternate	Wasson, Kerstin	Elkhorn Slough NERR and Foundation
	Fisheries	primary	Lindley, Steve	NOAA Fisheries Service
X	Fisheries	alternate	Owens, Brian	California Department of Fish and Wildlife
X	Marine & Coastal Geology	primary	Storlazzi, Curt	United States Geological Survey
	Marine & Coastal Geology	alternate	Paull, Charles	Monterey Bay Aquarium Research Institute
	Marine Conservation Biology	primary	Goldbogen, Jeremy	Hopkins Marine Station
	Marine Conservation Biology	alternate	Micheli, Fiorenza	Hopkins Marine Station
X	Nearshore Environment	primary	Nickols, Kerry	California State University Monterey Bay
X	Nearshore Environment	alternate	Carr, Mark	University of California, Santa Cruz
	Physical Oceanography	primary	Ramp, Steve	Soliton Ocean Services, Inc.
X	Physical Oceanography	alternate	Cheriton, Olivia	United States Geological Survey
	Shelf & Slope Environment	primary	Lindholm, James	California State University Monterey Bay
	Shelf & Slope Environment	alternate	Sogard, Susan	NOAA Fisheries Service
X	Social Sciences	primary	Pomeroy, Caroline	California Sea Grant Extension Program
	Social Sciences	alternate	Scorse, Jason	Middlebury Institute of International Studies
X	Water Quality	primary	Hunt, John *	University of California, Davis
X	Water Quality	alternate	Hoover, Bridget	Monterey Bay National Marine Sanctuary

*Sanctuary Advisory Council Member: Research (Primary)

†Sanctuary Advisory Council Member: Research (Alternate)

RAP Coordinator:

X	Burton, Erica	Monterey Bay National Marine Sanctuary
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GUESTS:

Gelfenbaum, Guy	US Geological Survey
Hardin, Dane	Applied Marine Sciences
Rosenburger, Kurt	US Geological Survey

CONSENT ITEMS

Introductions/Modifications to the Agenda (John Hunt)

HOST PRESENTATION AND DISCUSSION

Current USGS Pacific Coastal Marine Science Center Research Efforts in MBNMS (Curt Storlazzi)

- Welcome by USGS Center Director Guy Gelfenbaum
- Storlazzi provided overview of current USGS research projects in MBNMS
- Marine Geohazards of Monterey Bay region
 - Active faults on shelf and slope
 - Active faults and submarine landslides in Monterey canyon
 - Sediment transport in submarine canyons – Coordinated Canyon Experiment (CCE)
- California Seafloor and Coastal Mapping project
- Use of California Coastal records photos to measure coastal change using structure-from-motion photogrammetry
 - Profiles of dune erosion in Moss Landing
- Santa Cruz Littoral Cell Coastal Processes Study
 - Assess coastal impacts of 2015-2016 El Nino
- Controls on Ripple-Scour Depression (RSD) Dynamics and Evolution

SANCTUARY ADVISORY COUNCIL UPDATE

Summary of February 17th SAC Meeting at Moss Landing (Steve Haddock)

- Haddock provided summary of meeting topics, including:
 - Submerged golf ball surveys at Pebble Beach (marine debris)
 - Council member recruitment (seven seats)
 - Desalination projects (including CalAm draft EIS/EIR)
 - Management Plan Working Group presentations and recommendations (marine debris; motorized personal watercraft; overflight; ocean noise; whale disturbance)
- For additional information, see: <http://montereybay.noaa.gov/sac/sacma.html>

STAFF/SAC REQUESTS TO RAP

RAP Work Session to Comment on Proposed Monterey Peninsula Water Supply Project (CalAm): Draft EIR/EIS (Bridget Hoover)

- Hoover provided project overview, including:
 - Proposed project description and Environmentally Preferred project:
 - Alternatives analyzed
 - MBNMS role
 - Environmental impacts
 - Brine Plume Modeling

- Proposed project
 - Seawater intake system
 - Source water pipeline
 - 9.6 mgd desal plant
 - Brine discharge through existing outfall
 - Desalinated water pipelines
 - Expanded ASR system
 - CV pump station and satellite pipelines
- Hoover briefly summarized alternatives, and discussed Alternative 5a (Reduced-size project at CEMEX)
 - Same as proposed project, but fewer slant wells (7)
 - New 6.3 mgd desal plant
 - All other components same as proposed project, plus 3,500 afy of GWR supply
- MBNMS role
 - Potentially four MBNMS approvals required for CalAm project:
 - Authorization of Coastal Development Permit
 - Authorization of Central Coast RWQCB NPDES permit
 - Proposed Special Use Permit for continued presence of pipeline conveying seawater to a desalination facility
 - Proposed Special Use Permit for use of MBNMS sediments to filter seawater for desalination
 - MBNMS is Federal NEPA lead
 - Section 7 Consultations with NMFS and USFWS
- Impact designations include:
 - No Impact (NI)
 - Less than Significant impact (LS)
 - Less than Significant impact with Mitigation (LSM)
 - Significant and Unavoidable impact even with implementation of Mitigation (SU)
 - Primarily construction; drilling and development
 - Terrestrial impacts (plants)
 - Greenhouse gas emissions
 - Indirect growth inducement
- Hoover provided overview of Brine Discharge, including:
 - Brine discharge modeling
 - MRWPCA discharge brine
 - MRWPCA discharge other
 - Mitigation
- Hoover provided overview of Environmentally Preferred Alternative (Chapter 5.5 discusses Marine Biology)
- Document out for review (deadline extended to March 29)
 - Comments can be submitted online, by email, or by mail
- For more information, see: <http://montereybay.noaa.gov/new/welcome.html#mpwsp>
- RAP members discussed topic, asked questions, and decided to officially respond as group (RAP)
- **ACTION**: RAP members comments due to Hunt by 3/20/17

RIKETTTS AWARD UPDATE

Summary of February 10th Ed Ricketts Memorial Award and Lecture (Andrew DeVogelaere)

- DeVogelaere provided summary of lecture event
- Fiorenza Micheli (Professor, Hopkins Marine Station; RAP member) was presented the Ricketts Award at Sanctuary Exploration Center, February 10th
- Micheli provided excellent lecture entitled, “Under pressure: Vulnerability and resilience of coastal systems of the California Current”
- Former Ricketts recipients were in attendance
- For more information, see: <http://montereybay.noaa.gov/research/ricketts.html>

QUICK UPDATES ON NEW HIRES AT INSTITUTIONS, AND FACILITY UPDATES

- Storlazzi: federal hiring freeze may cause problems (5-7 positions, new terms)
- Carr: several job searches underway, will announce results later
- Owens: interviewed a few, results later; public outreach meetings (April, webinar) for artificial reefs (push from rec fishing community), primary goal to get existing baseline data of existing reefs
- Haddock: giant deep-sea octopus observed couple months ago (last observation 25 yrs ago), may exist on jellyfish

Future Agenda Items (running list):

- Water Quality:
 - Follow-up to Hunt's WQ presentation (9/12/14), where does all the data go? Successful uses, shared capability, proper use of data (per Scorse); Roy Mendelson would be good speaker (per Lindley)
 - Elkhorn Slough Report Card:
http://www.elkhornslough.org/research/waterquality_reportcard.htm
- RAP Membership:
 - Revisit RAP member policies including representation: discipline vs institution; available at: http://montereybay.noaa.gov/sac/rap/history/rap_policies.html
- SAC Charter revision
- Speaker series on science (Oceans Live; *Your Sanctuary* TV)
- Coastal Rivermouth Lagoon inventory for state and central coast (Central Coast Wetlands Group/Ross Clark)
- RAP feedback for SAC (per Hunt)
- Recent boom in whale watching; more info needed on fish/whale correlation; prey/fishing/whale interactions; science; Speaker: Peggy Stapp or Scott Benson? (per Scorse)
- Seal bombs deployed off CA; Ask Scott Kathey (per Scorse)
- MBNMS Budget and staffing, and trends (short topic; per Storlazzi)
- Long-term Monitoring
 - Monitoring activities that ~~staff~~ and RAP members involved in (DeVogelaere/Hunt)
 - RAP member/scientists calculate what they contribute to MBNMS (per Hunt)
 - Update on LT Monitoring meeting with Superintendent and SAC chair

2017 RAP Meeting Schedule and Locations

Date	Host	Location
January 13	Micheli	Hopkins Marine Station
March 10	Cheriton	US Geological Survey
May 12	Wasson	Elkhorn Slough NERR
July 14	Haddock	Monterey Bay Aquarium Research Institute
September 8	Owens	California Department of Fish and Wildlife
November 3	Pomeroy	UCSC or central location