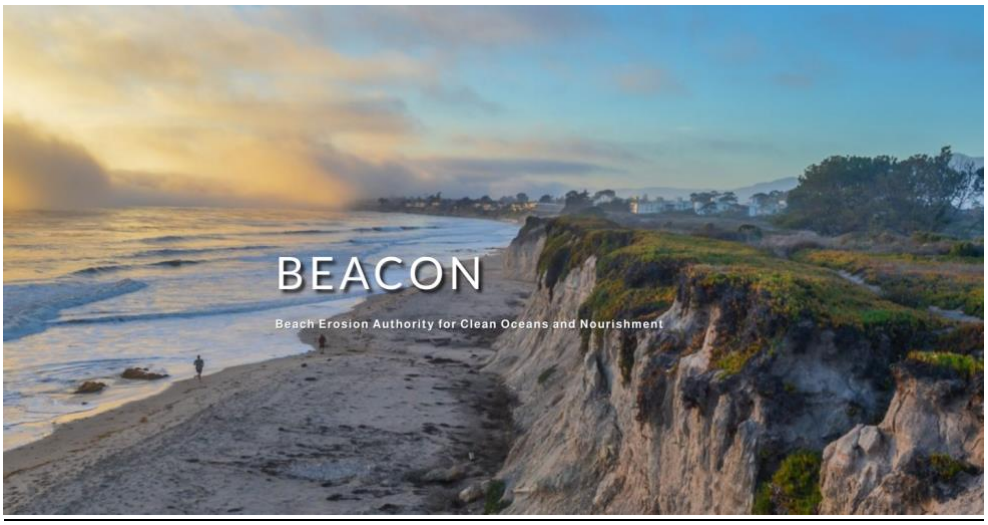



# BEACON

# WORKSHOP SUMMARY

JUNE 14, 2021

Bringing Managers and Scientists together to explore ways to better align science, policy and management for regional sediment and climate adaptation planning

**BEACON Manager-Scientist Workshop**

# SUMMARY

**June 14, 2021**

## Workshop Goals and Objectives

The goal of the workshop was to **identify needs and opportunities for better alignment of natural and social science research and coastal regional sediment management and adaptation.** BEACON wanted to know how it can best support its member agencies and management partners in developing science initiatives. BEACON will need to address projected changes in local and regional climate, weather, and sea level, and address those changes in ocean and coastal conditions in the region.

BEACON sought input and contributions through the workshop sessions identifying important management needs, how research data collection and analysis can support these management objectives, and how BEACON can partner to address and overcome various barriers to build on opportunities for improved science support.

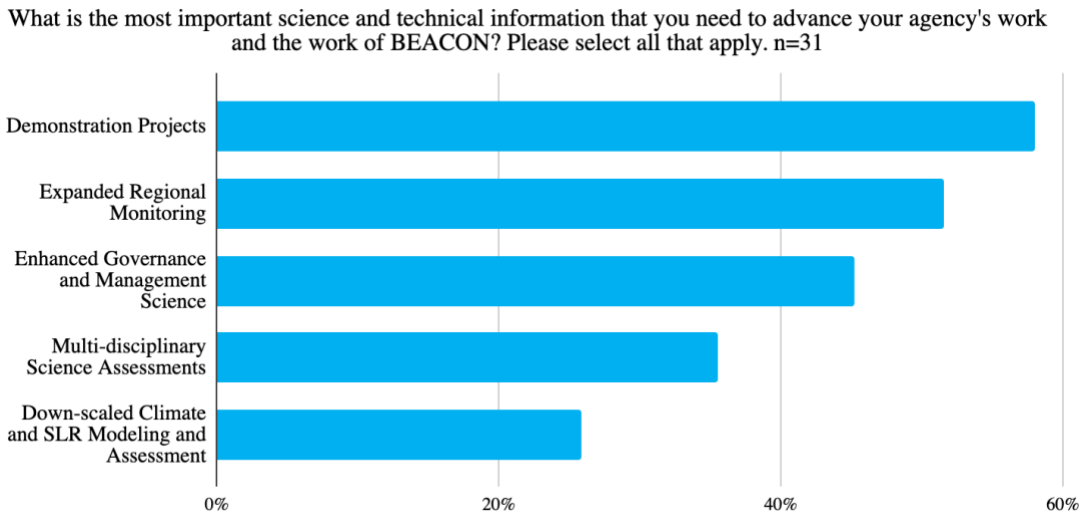
## Workshop Organization

The workshop was structured to focus on input and conversation and dialogue. The full agenda is available on page 9 and the workshop slides are available here. The workshop consisted of the following parts:

- A review of the results of the Spring 2021 managers' survey
- A short presentation focused on setting the tone of the need and objectives for the co-development of science and research
- A panel of local agency managers to share their perspectives and spark the workshop discussion regarding management needs, science activities, and the interplay between those at the local and regional level
- Small group discussions targeting opportunities and strategies to reduce barriers in obtaining and accessing coastal science.
- An introduction of BEACON's emerging Science Research Agenda and process moving forward to provide feedback and implement the Science Research Agenda

## Manager Survey Results

BEACON prepared a questionnaire seeking the best-informed perspectives of member agencies' staff regarding BEACON's ongoing needs and programs. The purpose of the questionnaire was to elicit perspectives from member agency staff (e.g., planning, public works, harbor management, and adaptation and resilience departments and programs) about what information, analysis, and project evaluation and implementation tools BEACON can develop and provide to better serve the coastal management needs of member agencies. An additional goal of the questionnaire was to set up BEACON to take advantage of and leverage opportunities for collaborative education and action to prepare for future coastal conditions. Additional survey results are viewable in the workshop slides.




**Are there regional scale issues that BEACON could help support?**

- Regional governance
- Regional monitoring of beaches
- Sediment- storage, transport, placement, distribution, and use policy
- Sharing and outreach on policy and science information
- Nature-based solutions demonstration projects

**Please provide any additional information or feedback.**

- Work with BEACON to integrate regional planning and management goals
- Share ideas for collaboration and opportunities for demonstration projects for coastal resilience
- Learn what BEACON can offer to assist with planning efforts in mitigation and long-range planning efforts.
- Greater collaborative opportunity with BEACON as more projects come under the climate change and sea level change lens
- Interagency coordination and alignment will be critical to move from reactive to proactive management

## Co-production of Science/Collaborative Science

The key concept of collaborative science is that management needs drive the science and science informs management explicitly[1]. The workshop served as an initial activity to better develop collaborative science in the BEACON region. Using previous efforts as case studies, targeted outcomes of integrating collaborative science with BEACON and its member agencies are:

[1]Lemos, M. C., Arnott, J. C., Ardoin, N. M., Baja, K., Bednarek, A. T., Dewulf, A., Fieseler, C., Goodrich, K. A., Jagannathan, K., Klenk, N., Mach, K. J., Meadow, A. M., Meyer, R., Moss, R., Nichols, L., Sjostrom, K. D., Stults, M., Turnhout, E., Vaughan, C., Wyborn, C. (2018). To co-produce or not to co-produce. *Nature Sustainability 2018 1:12*, *1*(12), 722–724. https://doi.org/10.1038/s41893-018-0191-0

- Increased ability of scientists to provide monitoring data to decision-makers
- Enhanced consideration of tradeoffs associated with management action or inaction
- Common and improved understanding of current state of knowledge
- Identification of information gaps and scoping of a Science Research Agenda
- Updated regional strategies and goals

**Manager Roundtable Panel**

The manager roundtable was an opportunity to jump start conversations around relevant science, research, and analysis needs for local professionals. Four representatives from member agencies were prompted with three questions to help set the tone for the workshop discussions. These shared perspectives from professional staff helped stimulate thinking by the workshop participants gearing up key topics for small group discussions.

Panelists:

- Maureen Spencer, *Interim Deputy Public Works Director,* Water Resources Division, County of Santa Barbara Public Works
- Suzy Watkins, *Deputy Director,* Ventura County Harbor Department
- Melissa Hetrick, *Project Planner,* Community Development Department, City of Santa Barbara
- Aaron Engstrom, *Senior Planner,* Long-Range Planning, Ventura County Resource Management Agency, Planning Division

The following three questions were addressed by each panelist:

1) What is the most important management need you have with regard to sediment management and climate and sea level rise adaptation?
2) What is the most important scientific and technical information you need to address this management need?
3) What are the most significant barriers preventing you from getting the information and data you need?

Panelists identified the following management needs, science support needs, and significant barriers.

*Important Management Needs*:

- Data aggregation and some applied monitoring with initial analysis that makes data accessible and usable for managers, including sediment monitoring with uniform standards.
- Permitting is extremely challenging. While flexibility and regulations are often contradictory terms, there needs to be some acknowledgement that availability, mobility, and need for coastal sediment is dynamic and does not necessarily align with permitting and regulatory timeframes.
    - Consensus for the need to move away from reactionary management to planning and being prepared to implement actions proactively.

- There is a need to shift from monitoring to fulfill permit requirements, to monitoring to understand effectiveness of projects at achieving local and regional goals.

*Important Science Research and Data to Support Management Needs*:

- In-depth discussions of control and reference sites for determining potential impacts given the diversity of coastal areas in the region as well as history of human alterations.
  - Specific gaps in addressing habitat and ecological resilience to natural variability and potential project impacts.
- Summary of other data and projects with successful beach nourishment outcomes.
  - Needed focus on fine sediment distribution and water quality impairments. Comparison of baseline conditions coming through natural fluvial systems (including significant rain and flood events) to beach nourishment activities to determine relative frequency and magnitude of impacts.
- Scientists participating and attending meetings with regulatory agencies can help provide consensus of knowledge base, support to municipal staff, and help generate a collaborative path forward.

*Barriers to Achieving Success*:

- Municipal staff do not have the time or resources to specifically dedicate to monitoring, modeling, and addressing coastal sediment management at the various temporal and spatial scales.
- Often renewing permits for existing activities or long-standing projects requires additional information or new data collection that can be burdensome, costly, and seen as irrelevant to solving pertinent issues or questions of efficacy.
  - To assess real impacts, often where impacts are felt is not exactly where the project is placed. Coordinated, standardized, and shared regional monitoring could potentially satisfy individual project permits and provide information to inform other efforts. With each project doing individual monitoring, there are different parameters, timelines, and parameters assessed. The current permit driven monitoring framework is not leading to management decisions.

**Small Group Discussion**

Six small discussion groups were organized to follow the roundtable panel. The small groups were asked to address two questions:

- What are the most significant barriers preventing you from getting the information and data you need? Can you suggest any opportunities/strategies/actions to overcoming barriers (e.g., knowledge/science and access to knowledge/science)?
- Have you ever felt limited in your management duties/job function by scientific knowledge or access to it? What did the lack of scientific knowledge or limited access to scientific information/data prevent you from doing?

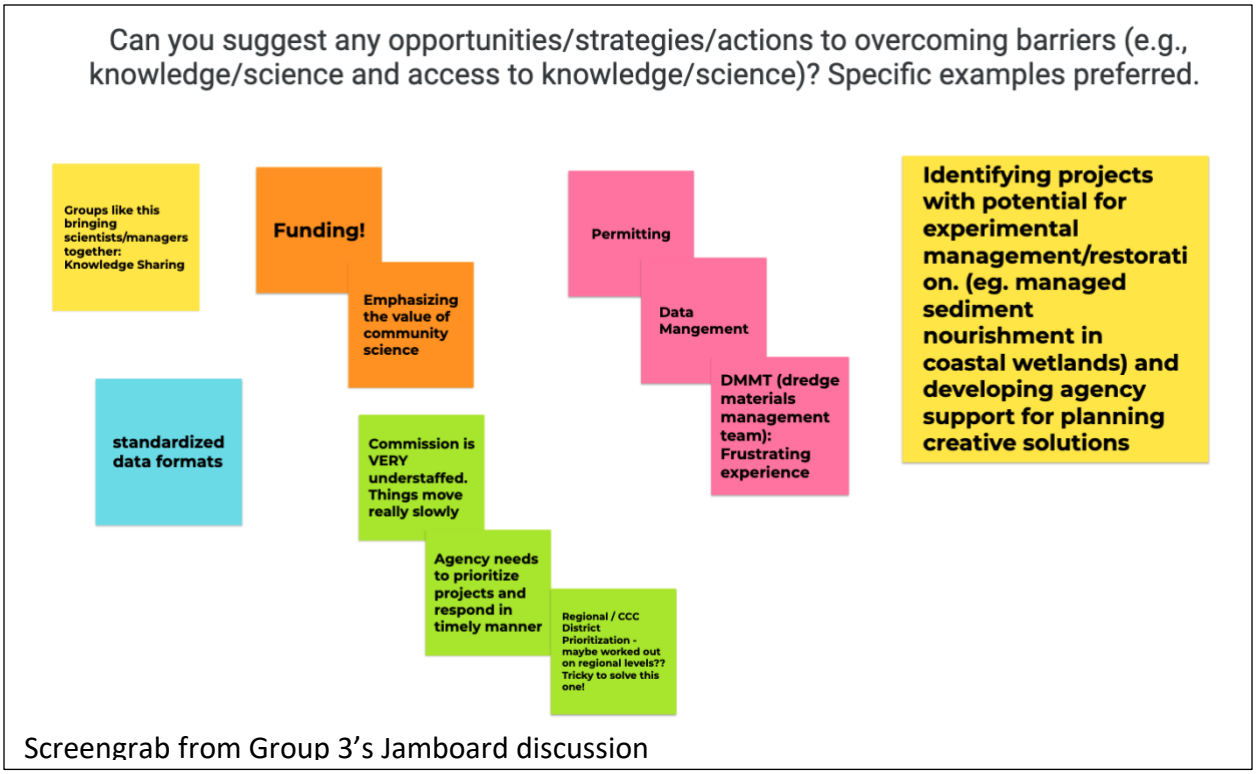
Major themes from small group discussions:

Monitoring and Sharing Data:

- Project monitoring vs regional monitoring. Data collection is primarily project-specific but data gaps, including context, is regional. Project monitoring does not seem "satisfying" because of the burden, combined with the perceived lack of context and guidance / use. Regional monitoring could assist with baseline conditions, assess / distill data collected, guidance for project monitoring (e.g., protocols, etc.), guidance for project performance and future project design (i.e., pilot projects), and data availability and education to inform public, management, and regulators.
- For intertidal and beach resilience and restoration activities there are ample data needs for ecological, sediment, fluvial, and physical parameters. How do we get this data? How do we share it with each other? Need some organization focused on housing data for sediment or kelp forests. Prescriptive data gathering for projects before they move forward.
- There is a need for coordinated baseline data. These systems have been impacted for decades and have a modified baseline. There has been less focus on watershed dynamics related to sediment movement of all grain sizes. There is an especially large lack of data on social science data, beach visitors. How can public perception, visitation, influence management?
- While great information available, much of it is not easily accessible or comparable. Standardized data formats across all projects, developing repositories, and sharing data would be helpful in prioritizing the accessibility and comparability of data.
    - There is a need to help convert data to usable information.
    - Shared data could help investigations into thresholds and tipping points.
- Overlapping jurisdictions often do not share data or know what each other has. Different departments have their own data but aren't aware of what everyone else has. Awareness of what's out there would be more efficient.

Outreach, Engagement, and Education:

- More effort can be focused on the integration of communities to feel more a part of plans and projects.
- Understanding regional sediment differences and incorporating that information into public knowledge can improve shared consensus and work towards regional goals.
- How does a manager know what best available science is and how to use it to make decisions?

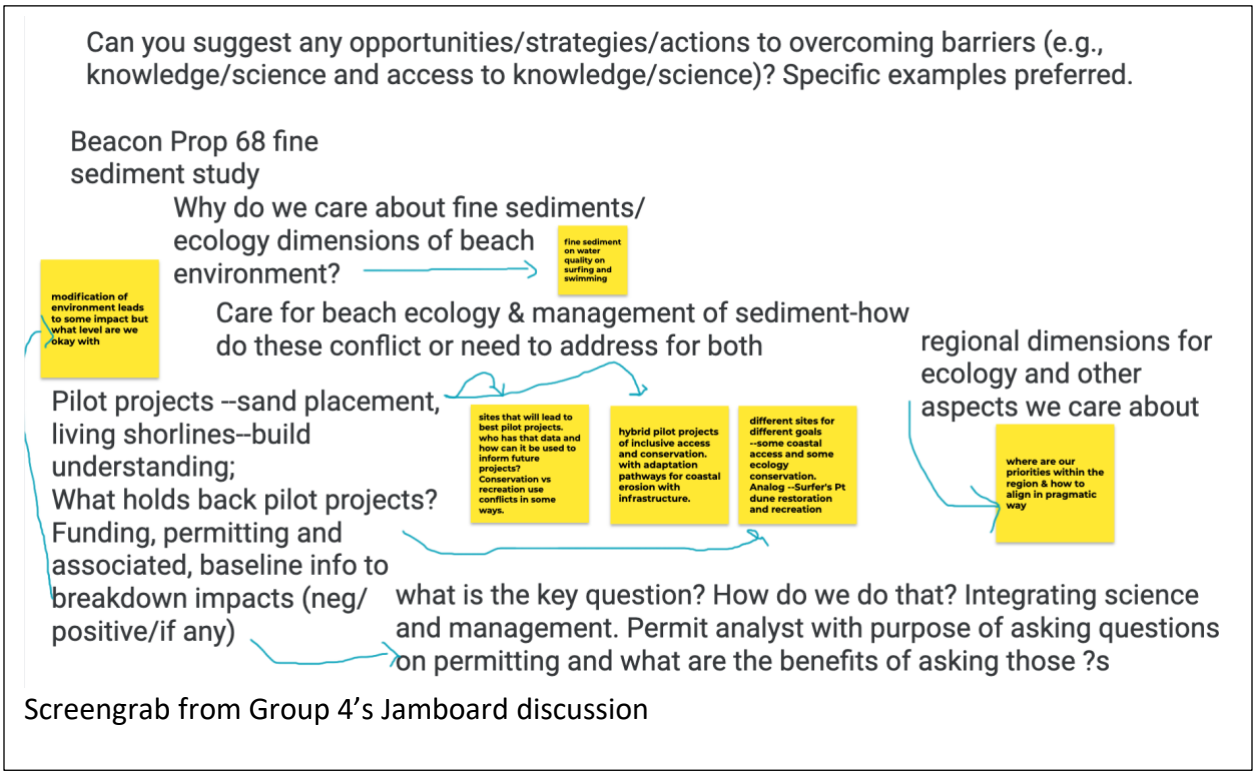



Screengrab from Group 3's Jamboard discussion


Screengrab from Group 2's Jamboard discussion

Implementation and Management:

- Dunes, coastal features, and beach types: how do narrow vs wide beaches alter management decisions?
- Need to identify sites with highest potential for pilot projects and experimental management/restoration (e.g., sediment nourishment in coastal wetlands) and developing agency support for planning creative solutions. Who has that data and how can it be used to inform future projects?
    - Different sites may be selected for different goals—some coastal access and some ecology conservation, while keeping in mind adaptation pathways for coastal erosion with infrastructure.
- Need to integrate across the goals. Are we asking relevant questions? (I.e., beach ecology and fine sediments) There is tension between local needs for info and uncertainty. Are we reinventing the wheel at the local level? Need to gather information for decisions that support all municipalities so working at the regional level makes sense. Some contrast: so much uncertainty on how to manage dynamic systems leaves rooms for different perspectives. We have a lot of science and know how things work generally, but there seems to be a lack of connectivity between efforts.



Screengrab from Group 4's Jamboard discussion

**Next Steps**

BEACON staff identified several next steps following the workshop, including circulating a Workshop Summary (this document), posting a copy of the draft Science Research Agenda to the BEACON website, and soliciting comments and suggestions from workshop participants, stakeholders, and members of the public on the draft Science Research Agenda. Included in the draft Science Research Agenda is a two-year implementation plan to achieve the goals set forth. The BEACON Science Advisory Committee (SAC) will review all of the input submitted and at a meeting in September 2021 consider adopting a revised Science Research Agenda document updated based on the input received and additional discussion by the SAC members. Finally, the SAC would present the BEACON Science Research Agenda to the BEACON Board at its November 2021 Board meeting. In the coming year the BEACON SAC will be holding one or more meetings, including a proposed annual Science-Managers Summit starting in 2022.

**BEACON Manager-Scientist Workshop Summary**

Prepared by Marc Beyeler, BEACON and Nick Sadrpour, California Sea Grant;

In collaboration with the BEACON Science Advisory Committee members, and Co-Chairs.
SAC Co-Chair Dr. Doug George, CSBPA
SAC Co-Chair Dr. Kiki Patsch, CSUCI

Special thanks to workshop planners, facilitators, and notetakers:
Dr. Kristen Goodrich (SAC member)
Dr. Phil King (SAC member)
Lelsey Ewing (SAC member)
Bob Battalio (SAC member)
Francesca Cohn
Carly Shabo
Corryn Knapp
Jennifer Fields
Margarita McInnis
Michaela Miller
Laura Engeman

Thank you to the manager roundtable panelists:
Maureen Spencer
Suzy Watkins
Melissa Hetrick
Aaron Engstrom

**Workshop Agenda**

BEACON
Beach Erosion Authority for Clean Oceans and Nourishment

BEACON Science Program Managers and Scientists Workshop
June 14, 2021 9:00 am-11:30 am
zoom

GOAL: **Identify needs and opportunities for better alignment of natural and social science research and coastal regional sediment management and adaptation**

| Time | Agenda Item |
|---|---|
| 8:45-9:00 | **Coffee Room** |
| 9:00-9:10 | **Welcome**<br>*Marc Beyeler, BEACON* |
| 9:10-9:20 | **Results of Managers Survey**<br>*Marc Beyeler, BEACON*<br>*Nick Sadrpour, California Sea Grant* |
| 9:20-9:30 | **Co-development of Science**<br>*Doug George, CSBPA*<br>*Kristen Goodrich, TRNERR* |
| 9:30-10:10 | **Managers Roundtable**:<br>*Melissa Hetrick, City of Santa Barbara*<br>*Maureen Spencer, County of Santa Barbara Public Works Erin Maker, City of Carpinteria*<br>*Suzy Watkins, Ventura County Harbor Department*<br>*Aaron Engstrom, Ventura County Resource Management Agency, Planning Division* |
| 10:10-10:55 | **Managers' Science Needs: Small group discussions** |
| 10:55-11:05 | **Break** |
| 11:05-11:30 | **Next Steps**<br>*Doug George, CSBPA Kiki Patsch, CSUCI Marc Beyeler, BEACON*<br>*Nick Sadrpour, California Sea Grant* |
| 11:30 | **Adjourn** |

List of Registered Participants

| First Name | Last Name | Organization |
|---|---|---|
| Brian | Adair | City of Santa Barbara |
| Paul | Alessio | UC Santa Barbara |
| Heather | Allen | County of Ventura |
| Bob | Battalio | ESA - Environmental Science Associates |
| Marc | Beyler | BEACON |
| Nick | Bissonnette | UC Santa Barbara- Bren School |
| Francesca | Cohn | UC Berkeley |
| Rachel | Couch | Central Coast Climate Collaborative / ARCCA |
| Marie-Pierre | Delisle | UC Los Angeles |
| Peter | Dixon | The Nature Conservancy |
| Jenni | Dugan | UC Santa Barbara |
| Jonna | Engel | California Coastal Commission |
| Laura | Engeman | California Sea Grant |
| Aaron | Engstrom | County of Ventura |
| Esther | Essoudry | California Coastal Commission |
| Lesley | Ewing | California Coastal Commission |
| Jenn | Fields | State Coastal Conservancy |
| Meagan | Flier | California Coastal Commission |
| Doug | George | California Shore and Beach Preservation Association |
| Kristen | Goodrich | Tijuana River National Estuarine Research Reserve |
| Phyllis | Grifman | USC Sea Grant |
| Melodie | Grubbs | USC Sea Grant |
| Melissa | Hetrick | City of Santa Barbara |
| Dan | Hoover | U.S. Geological Survey |
| Aaron | Howard | CoAST SB |
| Christopher | Huitt | California State Lands Commission |
| Amber | Inggs | ESA - Environmental Science Associates |
| Paul | Jenkin | Surfrider Foundation |
| Phil | King | San Francisco State University |
| Corryn | Knapp | San Francisco State University |
| Laurie | Koteen | California Coastal Commission |
| Aaron | Kreisberg | UC Santa Barbara- Bren School |
| Charles | Lester | UC Santa Barbara, Ocean and Coastal Policy Center |
| Erin | Maker | City of Carpinteria |
| Margarita | McInnis | California State Lands Commission |
| Michaela | Miller | - |
| Todd | Mitchell | Ventura Port District |
| Conor | Ofsthun | Moffatt & Nichol |

| | | |
|---|---|---|
| Kiki | Patsch | CSU Channel Islands |
| Andrew | Raaf | Santa Barbara County Flood Control District |
| Dan | Reineman | CSU Channel Islands |
| David | Revell | Integral Consulting and Revell Coastal |
| Laura | Riege | The Nature Conservancy |
| Madelyn | Roycroft | California Sea Grant |
| Mojdeh Joy | Sadeghpour | UC Santa Barbara- Bren School |
| Nick | Sadrpour | California Sea Grant |
| Mark | Sandoval | Channel Islands Harbor - Ventura County |
| Mark | Sandoval | Ventura County |
| Carly | Shabo | California Sea Grant |
| Jeremy | Smith | California Coastal Commission |
| Quin | Smith | UC Santa Barbara- Bren School |
| Maureen | Spencer | Santa Barbara County Water Resources Division |
| Joseph | Street | California Coastal Commission |
| Jill | Van Wie | County of Santa Barbara Community Services Department |
| Valerie | Vartanian | Naval Base Ventura County |
| Sean | Vitousek | U.S. Geological Survey |
| Jonathan | Warrick | U.S. Geological Survey |
| Suzy | Watkins | Ventura County Harbor Department |
| Garrett | Wong | County of Santa Barbara |