

BEACON Manager-Scientist Summit
November 28, 2023
Ventura, California

Summary Memo



March 2024

BEACON Manager-Scientist Summit-November 2023

The BEACON Manager-Scientist Summit was first initiated by BEACON in 2021 and has been held annually for the past three years. For the first two years the meeting was held as a remote teleconference meeting. The November 2023 Summit was held for the first time as a hybrid in person and remote meeting attracting nearly five dozen participants. BEACON Executive and Science Support Staff are assisted by the SAC Co-Chairs and the two Manager Liaisons in coordinating and organizing these annual meetings. The meetings focus on multiple goals, including providing periodic opportunities for formal and informal exchanges, review of progress on current policy and research initiatives, and consideration of revised and or new policy and research needs going forward.

1. Welcomes and Acknowledgements

Doug George called all of the participants to order for the start of the Summit by the ringing of a 'bell,' and a 'good morning.' Doug identified himself, and made short business announcements to the group, followed by short comments about the history of the BEACON science summit.

Doug introduced BEACON Board Member and Ventura City Councilmember **Doug Halter** for short remarks to Summit participants. Doug welcomed the summit participants to Ventura and to the BEACON 'summit.' He extended greetings from the BEACON Board and Chair of the Board of Directors. He emphasized the role of BEACON and its regional focus on climate change and Sea Level Rise adaptation. He wished the participants a productive and meaningful day of presentations and discussion, and an educational outing to the Surfers Point project in the afternoon.

Doug George reminded the group that the Summit was taking place on the un-ceded lands of the Chumash people. He identified members of the BEACON SAC, giving them a charge to listen and learn from the various managers and stakeholders participating in the summit and to think about how science and research efforts can support decision-making. He identified members of the planning committee, emphasizing that this is a collaborative effort, involving multiple partner agencies and many partner staff. Finally, he shared a quote from CS Holling in 1973 on resilience, pointing out the relevance of the thoughts now 50 years later to our current circumstance.

"A management approach based on resilience, on the other hand, would emphasize the need to keep options open, the need to view events in a regional rather than a local context, and the need to emphasize heterogeneity. Flowing from this would be not the presumption of sufficient knowledge, but the recognition of our ignorance; not the assumption that future events are expected, but that they will be unexpected. The resilience framework can accommodate this shift of perspective, for it does not require a precise capacity to predict the future, but only a qualitative capacity to devise systems that can absorb and accommodate future events in whatever unexpected form they may take."



Doug Halter, BEACON Board Member welcomes Summit Participants to Ventura and to the BEACON Manager-Scientist Summit

2. Review of Purposes and Goals of Summit

Doug George reminded the group of the meeting's multiple and complementary purposes and goals, including:

- Providing a periodic formal meeting between managers and scientists to discuss policy and research needs.
- Formal and informal opportunity for exchange.
- To review progress on current research agenda initiatives.
- Discuss Research Priorities going forward.

He asked two manager liaison representatives, **Melissa Hetrick** and **Aaron Engstrom**, representing the City of Santa Barbara and the County of Ventura, respectively, for introductory remarks.

Melissa Hetrick, Resilience Program Supervisor for the City of Santa Barbara, emphasized the 2021- current resilience actions of the City of SB with two main outstanding issues: 1. What is an acceptable level of risk for designing and implementing programs and projects; and 2. Do we have the information we need to understand threats to coastal resources and coastal communities? The January 2023 storms were timely for this effort as they pointed out what we do not know. They resulted in a very big enterprise of collecting information and a need to document effects and impacts, even while all the knowledge lives within people that may or may not be available currently or in the future.

Aaron Engstrom, Manager Long Range Planning for County of Ventura, emphasized resilience planning and adaptation planning activities locally like Surfers Point that include comprehensive neighborhood scale planning. He emphasized shoreline planning through

management like dune restoration, which can lead the way to policies beyond retreat, as well as highlight local ecosystems and access. He highlighted the need to work on sediment policy and links to climate change, incorporating equity and justice issues.



3. Implementing the BEACON Research Program: Regional Coastal Adaptation Monitoring Program (RCAMP) RCAMP

Doug George introduced the RCAMP as an example of implementation activity of the BEACON research agenda, which seeks to provide actionable science that can inform policy and programs.

Nick Garrity and **Amber Inggs**, representing the consultant team leader Environmental Science Associates (ESA), gave a presentation on the progress on preparing the RCAMP, covering several topics, emphasizing the importance of monitoring to planning for resilience and adaptation.

Nick and Amber identified the principal goal, and the many multiple complementary objectives. Importantly, the RCAMP plan will include regional monitoring 'pilot projects' to inform Sea Level Rise Adaptation decision-making and regional monitoring programs. Nick emphasized that there will be continuing opportunities to provide input on the RCAMP, on both plan development, and the identification of pilot projects to assess out regional monitoring initiatives.



4. Roundtable discussion on Integrated Planning and Permitting for Regional Sediment Management and Sea Level Rise (SLR) Adaptation

Doug George introduced **Marc Beyeler** to moderate a roundtable presentation and discussion on planning and permitting for sediment management and beach nourishment, and SLR adaptation.

Marc Beyeler introduced purposes of the roundtable and the three roundtable panelists: **Jamie King**, of the Resource Conservation District of the Santa Monica Mountains (RCDSMM); **Andrew Raaf**, of the Santa Barbara County Flood Control Department; and **Jeremy Smith**, from the California Coastal Commission. Two local case studies were presented, one by Jamie on the Topanga Lagoon Project in Santa Monica Bay, and another by Andrew on Santa Barbara County beach and nearshore sediment deposition, followed by comments by Jeremy from the California

Coastal Commission.

Marc indicated that the roundtable participants were asked to broadly address the topic and given four different questions to address, including:

1. What are the physical and ecological factors of importance to consider in beach nourishment projects, i.e., best restoration design and management practices
2. What needs to be accomplished before a regional permit framework can happen (what milestones and actions are necessary to get there)?
3. How to improve existing permitting coordination, looking to recent work in California as examples going forward.
4. How best to integrate local efforts into a regional sediment management framework.

Several important issues were covered in the roundtable presentations, and in the follow up questions and comments. Many discussions focused on the twin topics of opportunities for beneficial use of coastal sediments, and the multiple barriers and constraints to beach and nearshore deposition of sediments.



Jamie King presented a case study on the Topanga lagoon Restoration Project. She emphasized that Topanga Watershed is the second largest watershed in the Santa Monica mountains. The restoration project is a long-term, multi-decade, collaborative, multi-agency coastal wetland and lagoon restoration project. The restoration project addresses many coastal issues, including suitability of sediment for beach and nearshore marine deposition, sensitivity of shoreline habitats and species to either/both beach or nearshore deposition, need to plan for multiple benefits and values, including human use, all while addressing sea level rise, and climate and weather changes.

Andrew Raaf described the program operations for emergency deposition of sand on beaches and in the surf zone. Andrew emphasized both the need for emptying debris basins and dredging sediment out of Carpinteria Marsh to address flood management and marsh ecological health, and the opportunity to use the sediment at regional beaches, including Carpinteria City

Beach and Goleta County Beach. Andrew emphasized the need to design appropriate monitoring and management requirements, with potentially more customized approaches for each receiver beach. Refining monitoring requirements over time based on results may result in more useful information at more efficient costs.

Jeremy Smith reviewed the legislative goals and requirements of the Coastal Act and policies and noted that both support the goal that qualifying sediment materials should be going to the beach to re-nourish the littoral cell, while at the same time protecting and minimizing negative impacts to coastal resources. Sediment management and beach restoration projects which support SLR adaptation encompassing multiple benefits are supported by the CCC Executive Director and Commission staff. He highlighted that several notable projects have been approved by the Commission recently, including various SCOUPs, and federal Army Corps projects. He concluded, agreeing that permitting processes could be improved, and cited both the Topanga Lagoon project and the Santa Barbara County Flood Control project as examples of increased coordination. He was hopeful that site-specific monitoring could address uncertainty and gaps, leveraging long term regional data sets.

Questions and Comments

Discussion involved the participants and presenters about the following:

- Considering increased and expanded use of cobble, to examine its performance, benefits and limitations on use in different environments.
- Considering -de-constructing infrastructure, allowing nature to work, implement new restoration ideas and then monitor for effectiveness.
- Considering establishment of offshore reefs to help nearshore beaches.
- Designated coastal sediment deposition areas for storm events.
- CCC 80/20 rules, not regulatory rules. USEPA does consider dumping over 50% fines over limit of ocean dumping and must go to regulated EPA designated site.
- Wash State Nearshore EPA Monitoring Program may be a good model to examine.
- Funding for monitoring during emergencies as case examples of what is happening, increase modeling for emergency events.
- Need to look upstream and ground truth the models.

5. Linking Regional and Statewide Initiatives

Marc Beyeler and **Laura Engeman** spoke about Nature-based climate adaptation strategies, lessons learned, and opportunities, emphasizing sharing knowledge/expanding our knowledge base of coastal resources, linking From Project Level Monitoring to Regional Monitoring Programs. **Marc** reported on the project level monitoring at Surfers Point, one of the oldest living shoreline and managed retreat projects in California. **Laura**, an Extension Specialist at CA Sea Grant/Scripps spoke about the goals and purposes of the California Dune Science Network, a collaborative statewide network led by CA Sea Grant to document dune project results and share results focused on lessons learned and best practices. She emphasized a growing movement to advanced monitoring in beach change like lidar and

satellite, citizen science, and advanced community engagement, highlighting that we need collaborative community efforts like the Dune Network, utilizing multiple tools in order to complete dune and sand monitoring.

6. Reviewing Regional Research, Monitoring, and Data Needs

Doug George instructed the participants in the concluding morning session reviewing regional research and data needs. Facilitators: **Doug George, Kiki Patsch, Karina Johnston, and Melissa Hetrick** ran small breakout groups for a 30-minute group discussion; they then reported back to the entire group and participated in a 20-minute large group discussion

Prompts:

1. What are important unaddressed Social and Environmental Justice issues for our region?
2. Do we know/How do we know what science initiatives are needed to address current information needs and inform regional policy development?
3. Are there/What are important regional coastal water quality information needs that can/should be addressed in the BEACON Research Program?
4. What regional adaptation strategies, actions, and tactics could benefit by increased and or expanded research in an updated Research Program?
5. How do we build regional monitoring capabilities?

Small Group Discussion Summary:

1. What are important unaddressed Social and Environmental Justice issues for our region?

For this topic, multiple groups emphasized the importance of enhancing tribal connections and fostering increased engagement with tribal representatives in discussions. Additionally, these groups recognized the imperative for heightened communication and outreach, particularly directed towards underrepresented communities. This necessitates the exploration of more innovative engagement strategies, including the identification of more inclusive meeting venues and approaches. Multiple groups also pinpointed paid parking as a critical concern. This issue poses a barrier for numerous coastal visitors and could be addressed through initiatives such as the distribution of coastal permits. Other proposals include elevating BEACON's involvement with underrepresented communities through organizational partnerships and representation within the SAC along with increased engagement with local, state, and federal agencies to streamline environmental justice issues.

2. Do we know/How do we know what science initiatives are needed to address current information needs and inform regional policy development?

Several groups highlighted the necessity of establishing a baseline profile for monitoring sites to effectively address monitoring requirements and facilitate storm impact reporting and emergency permit sediment disposal. This entails not only documenting the natural variability of sites but also capturing natural processes, thereby promoting the assessment of habitat

transgression and evolution over time. Other ideas included identifying overlap within projects across the region, both on a local and regional scale, and working on an outlined plan that drives data needs.

3. Are there/What are important regional coastal water quality information needs that can/should be addressed in the BEACON Research Program?

In terms of water quality parameters, multiple groups identified the need for including bacteria in monitoring and turbidity. Microplastics were also highlighted as important additional water quality parameters. There was a collective emphasis on highlighting the importance of a regional understanding of connectivity within sediment, and a regional understanding of pollution sources and communities at risk. One group proposed more consideration of opportunities that allow sediment to redistribute naturally with estuarine systems rather than offshore deposition, and additional monitoring facilitated by BEACON during the off season.

4. What regional adaptation strategies, actions, and tactics could benefit by increased and or expanded research in an updated Research Program?

In an updated Research Program, multiple groups said they would expand initiatives to identify the public safety element and have more publicly accessible safety information and outreach. There were also multiple mentions of developing state guidelines to conduct evaluations of managed retreat and increased socio-economic data collection. Maximizing natural sediment movement and the need for reference sites and baselines when identifying coastal impacts were also recorded as useful updates to the Research Program, along with BEACON ideas for monitoring post-emergency, managed retreat, and offshore reefs.

5. How do we build regional monitoring capabilities?

To further increase monitor capabilities, data gaps need to be addressed. Potential data gaps in various areas were highlighted. This includes the variability of fine sediments in nearshore environments, biological impacts, connectivity between ecosystems, and rocky intertidal habitats. BEACON could help inform some of these data gaps and tie to the regional monitoring program. Multiple groups indicated regional monitoring capabilities would benefit from better leveraging of existing efforts including additional work with Universities, State, Federal, & local agencies. Groups also saw a benefit from expanding uses of aerial monitoring technology like drone, satellite and lidar.

Table 1. Summary of Small Group Discussions

1. What are important unaddressed Social and Environmental Justice issues for our region?	2. Do we know/How do we know what science initiatives are needed to address current information needs and inform regional policy development?	3. Are there/What are important regional coastal water quality information needs that can/should be addressed in the BEACON Research Program?	4. What regional adaptation strategies, actions, and tactics could benefit by increased and or expanded research in an updated Research Program?	5. How do we build regional monitoring capabilities?
<ul style="list-style-type: none"> -BEACON can have a higher level of engagement (partnership with organizations, representation on SAC) -Engagement with other agencies to streamline process -Increased tribal connections needed -More communications and outreach needed, projects should be presented to the community + they have a voice in the process -Paid parking at coast barrier to visitors 	<ul style="list-style-type: none"> -Look at overlap of projects across region -Need an outlined plan that drives data needs -Need to know baseline profile for areas in order to monitor -Understand natural variability of a site-try to mimic 	<ul style="list-style-type: none"> -Understand regionally the connectivity of sediment -Better understand where pollution is coming from and who is at risk -More monitoring by BEACON including off season -Include bacteria in monitoring/turbidity -Consider opportunities that allow sediment to redistribute naturally with estuarine systems rather than offshore deposition 	<ul style="list-style-type: none"> -State guidelines to conduct evaluations ve managed retreat -More communications of public safety information -How to identify impacts to existing conditions without a baseline-need reference sites -Maximizing natural sediment movement Beach nourishment and more help on offshore reefs -BEACON ideas for monitoring post-emergency 	<ul style="list-style-type: none"> -Better leveraging of existing efforts-work with Universities, State, Federal, & local agencies -Benefit from expansion of data (drone, satellite, Lidar ect.) -Address data gaps: Fines and variability of fine sediments in nearshore environments, rocky intertidal habitats, what is acceptable variability? -Beacon could help inform some of these data gaps and tie to the regional monitoring program

7. Afternoon Field Visit: Surfers Point Project

Summit participants shared a box lunch and field site visit to the Surfers Point Living Shoreline and Managed Retreat Project adjacent to the Ventura River Mouth, fronting the Ventura County Fairgrounds along the main Ventura shoreline. Four group expert facilitators, supported by technical expert staff, provided descriptions of the 12-year old successful coastal project. The group leaders all participated in various elements of project conception, planning and design, engineering, implementation, stewardship, and monitoring. Importantly, long-term monitoring program results were reviewed with the small groups.

The project encompasses multiple goals, including coastal restoration, living shoreline design elements, a program of managed retreat, and acting as a demonstration project of SLR adaptation. Important project level information was exchanged in the small groups and many key areas of project development, design, implementation, and stewardship were discussed. Importantly, members of the small groups discussed the need to replicate project elements, scale up similar projects, and document and exchange lessons learned at the regional level.

Overview Instructions: **Marc Beyeler**; Presenters/Group Leaders/Facilitators: **Paul Jenkin, Bob Battalio, Dave Hubbard, Kiki Patsch, Cody Stults, Peter Shayedi, Louis White, and Amber Inggs**





8. Summit Follow-up & Next Steps

The summit was a major opportunity to identify optics, topics, issues and activities to be considered as BEACON staff and SAC prepare an update to its Science Research Agenda. This summit Summary is an important record of the presentations, discussion, input, and formal exchange during the full day summit program. The many discussion points, comments, and suggestions provided by summit presenters and participants will serve as important input to the 2024 Update.

A draft Update will be prepared in the coming few months with opportunity for review and comment by SAC members, agency managers and staff, and interested stakeholders before being presented for approval at the Spring 2024 SAC Meeting. The Update will include a revised two-year implementation plan for 2024-2026 identifying programmatic activities proposed to be undertaken and/or completed, including any new proposed initiatives.

BEACON welcomes further comments and suggestions at any time regarding its science research activities. You are encouraged to contact BEACON staff- Marc Beyeler at beyeler@beacon.ca.gov. or Jenna Wisniewski at Wisniewski@beacon.ca.gov.