

Final Evaluation Findings

California Coastal Management Program

January 2009 to June 2018

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Summary of Findings

The Coastal Zone Management Act requires the National Oceanic and Atmospheric Administration (NOAA) to review the performance of states and territories with federally approved coastal management programs. This evaluation examined the operation and management of the California Coastal Management Program administered through three agencies—California Coastal Commission, San Francisco Bay Conservation and Development Commission, and California State Coastal Conservancy—for the period January 2009 to June 2018. The evaluation focused on three target areas for each target program. The Coastal Conservancy target areas are public access, coastal resilience and sea level rise, and habitat restoration. The Conservation and Development Commission target areas are public access, coastal resilience and sea level rise, and sediment management. The Coastal Commission target areas are public access, local coastal programs and coastal resilience, and coastal habitat. The findings are grouped into four major areas: program administration, coastal resilience, coastal habitat, and public access.

The findings in this evaluation document will be considered by NOAA in making future financial award decisions concerning the California Coastal Management Program. The evaluation came to these conclusions:

Program Administration Findings

Accomplishment: The three components of the California Coastal Program each developed a strategic plan and successfully implemented identified priorities while providing public transparency in the development and implementation of the plans.

Accomplishment: The California Coastal Commission has dramatically improved the timely resolution of public access violations, with few fines being issued, through its new administrative penalty authority for public access violations.

Accomplishment: The California Coastal Program is a leader, within the national Coastal Zone Management Program, in addressing environmental and social justice issues and bringing underserved communities into the decision-making process.

Recommendation: The NOAA Office for Coastal Management strongly encourages the California Coastal Commission to develop a new strategic plan, building on the success of the 2013-2018 strategic plan. The new strategic plan should prioritize the functions, programs, and processes that the commission administers and continue to improve transparency of the commission's priorities while balancing and addressing the staffing and financial resource constraints on the commission's existing workload.

Recommendation: The NOAA Office for Coastal Management encourages the California Coastal Program to continue its efforts to build and maintain a strong and diverse workforce, including pursuing additional staffing to address key needs, strengthening staff retention through pay scales

and position classifications, building on succession planning efforts and facilitating knowledge transfer, continuing to build knowledge on environmental justice, racial equity, and development of a diverse workforce.

Recommendation: The NOAA Office for Coastal Management recognizes the ongoing staffing challenges in the California Coastal Commission's enforcement program and the backlog of unresolved violation cases; it also recognizes the success of the commission's implementation of its new administrative civil penalty authority for public access violations to improve the timely resolution of these cases. The NOAA Office for Coastal Management encourages the California Coastal Commission to explore solutions to address the remaining enforcement violation cases in an equally effective manner.

Recommendation: The NOAA Office for Coastal Management encourages the California Coastal Commission to continue its efforts to write clear, specific, and measurable permit requirements and strengthen its monitoring and tracking of permit implementation. The commission should look to its report, *Towards Compliance Assurance: Developing a Program for Improving Compliance with the California Coastal Act (2008)*, for recommendations on improving compliance.

Recommendation: The NOAA Office for Coastal Management encourages the California Coastal Commission to continue pursuing opportunities to make permit information and data easily available to staff members, partners, and the public to improve the efficiency and effectiveness of permitting and the implementation of the coastal program.

Coastal Resilience Findings

Accomplishment: The California Coastal Commission's success in obtaining additional staffing and financial resources has significantly improved the commission's ability to work with local governments early in the planning process, resulting in a more streamlined process, and to provide funding to local governments to develop new local coastal programs and update existing programs to address sea level rise.

Accomplishment: The California Coastal Commission's development and adoption of *Sea Level Rise Policy Guidance: Interpretive Guidelines for Addressing Sea Level Rise in Local Coastal Programs and Coastal Development Permits* provides guidance to local communities on how to incorporate sea level rise in their planning and permitting. The guidance was developed through a transparent process with extensive opportunity for public input and extensive outreach after adoption, and the commission provided extensive training for staff on the new guidance.

Accomplishment: The California Coastal Commission and Caltrans' commitment to improve coordination and communication has led to increased permitting efficiency and effectiveness, including a reduction in the number of appeals, and improved projects that better address climate change impacts on transportation and coastal habitats and public access.

Accomplishment: The San Francisco Bay Conservation and Development Commission’s Adapting to Rising Tides (ART) Program is a highly successful program that has fostered and supported regional and local adaptation efforts, from finding funding to providing the tools and technical support necessary for success and serving as a model for other regions struggling with similar issues.

Accomplishment: The California State Coastal Conservancy’s Climate Ready Grant Program has supported projects ranging from planning for climate change to implementation of habitat restoration projects. The conservancy’s technical assistance and funding are highly valued by partners and stakeholders. The conservancy’s leadership has been key to passage of a regional funding measure for restoration of San Francisco Bay, support for local agencies to conduct vulnerability assessments, statewide assessment of coastal habitats vulnerable to sea level rise, and the work of State Parks to plan for sea level rise.

Accomplishment: The California State Coastal Conservancy, along with the National Marine Fisheries Service and California American Water, led the removal of San Clemente Dam, the largest dam removal project in California, which removed a public safety risk and allowed for ongoing sand replenishment on an eroding beach. Dam removal also provides the threatened South-Central California Coast steelhead with access to over 25 miles of essential spawning and rearing habitat.

Recommendation: The NOAA Office for Coastal Management encourages the California Coastal Commission to continue pursuing funding to support local coastal program updates, and ensuring that coastal communities have the technical assistance and planning resources and tools they need to update or develop their plans, address current and emerging issues and risks including sea level rise, and effectively implement their planning.

Recommendation: The NOAA Office for Coastal Management encourages the San Francisco Bay Conservation and Development Commission to continue to implement and build on the actions in the *Policies for a Rising Bay Final Report* and outcomes of the Rising Sea Level workshop series.

Recommendation: The NOAA Office for Coastal Management encourages the Coastal Conservancy to continue to pursue funding to support the Climate Ready program, which provides grants and technical assistance to local jurisdictions and nonprofits.

Coastal Habitat Findings

Accomplishment: The California Coastal Commission and State Coastal Conservancy, along with other partners, designed and implemented a project to restore Malibu Lagoon, which has improved coastal habitat and provides coastal access with unique and engaging interpretive features. The project includes extensive monitoring and is serving as a model for future projects.

Accomplishment: The San Francisco Bay Conservation and Development Commission has been the “glue” in ensuring the successful implementation of the Long-Term Management Strategy for

the Placement of Dredged Material, a collaborative partnership to improve sediment management and understanding of sediment in San Francisco Bay.

Accomplishment: The Coastal Conservancy has served as a leader on initiatives in the San Francisco Bay and in Southern California to protect and restore coastal wetlands and support living shorelines.

Recommendation: The NOAA Office for Coastal Management encourages the California Coastal Program to continue to build its expertise on the impacts of public access on coastal habitats and methods to mitigate impacts, and to continue to work with state partner agencies to design appropriate public access into habitat restoration projects in order to balance the two coastal priorities.

Recommendation: The NOAA Office for Coastal Management encourages the California Coastal Commission and California State Coastal Conservancy to support and expand their partnership and to leverage the research and training of the research reserves and other partners to advance scientific understanding and policy development on key habitat issues to build climate resilience, such as facilitating habitat migration corridors and living shorelines.

Recommendation: The NOAA Office for Coastal Management encourages the San Francisco Bay Conservation and Development Commission to explore opportunities to work with restoration project proponents and public access advocates early in the planning process.

Public Access Findings

Accomplishment: The California Coastal Commission, BCDC, and State Coastal Conservancy are striving to provide opportunities for everyone to enjoy the California Coast. The San Francisco Bay Water Trail provides new opportunities for low-cost boating access to the bay; new public access ways and miles of Coastal Trail and San Francisco Bay Trail expand public access; and through Coastal Commission and Coastal Conservancy support, more programs have brought underserved communities to the coast to learn about and experience coastal habitats.

Accomplishment: The California Coastal Program's dedication to providing coastal access ensures that Californians and visitors continue to enjoy and have access to the coast.

Recommendation: The NOAA Office for Coastal Management encourages the California State Coastal Conservancy to consider bringing together nonprofit partners to share lessons on providing public access to underserved communities.

Recommendation: The NOAA Office for Coastal Management encourages BCDC and the California State Coastal Conservancy to convene stakeholders to discuss needs and identify opportunities to address resource needs for maintenance of public access going forward.

This evaluation concludes that the California Coastal Management Program is successfully implementing and enforcing its federally approved coastal management program, adhering to

the terms of the federal financial assistance awards, and addressing coastal management needs identified in section 303(2)(A) through (K) of the Coastal Zone Management Act.

Program Review Procedures

The Coastal Zone Management Act requires that this review include a written evaluation with an assessment and detailed findings concerning the extent to which the state has implemented and enforced its federal approved coastal management program, addressed the coastal management needs identified in 303(2)(A) through (K) of the act, and adhered to the terms of any grant, loan, or cooperative agreement funded under the act.

The National Oceanic and Atmospheric Administration (NOAA) evaluated the California Coastal Management Program in fiscal years 2017 and 2018. The evaluation team consisted of Carrie Hall, evaluation team lead; Sarah van der Schalie, site liaison; Rebecca Smyth, west coast director; and Catherine McCall, director of the Center for Coastal Planning, Maryland Department of Natural Resources. The support of California Coastal Management Program staff members was crucial in conducting the evaluation, and this support is most gratefully acknowledged.

NOAA sent a notification of the scheduled evaluation to the executive director of the San Francisco Bay Conservation and Development Commission, executive officer of the California State Coastal Conservancy, and executive director of the California Coastal Commission. NOAA published a notice of "Intent to Evaluate" in the *Federal Register* on September 11, 2017, for the California Coastal Conservancy and San Francisco Bay Conservation and Development Commission and on May 15, 2018, for the California Coastal Commission. NOAA notified members of California's congressional delegation regarding the evaluation and two public meetings. The coastal management program posted a notice of each public meeting and opportunity to comment in the *San Francisco Chronicle* on September 6, 2017, and in the *Los Angeles Times* on April 27, 2018.

The evaluation considered all of the review criteria specified in Section 312 of the Coastal Zone Management Act and its implementing regulations in 15 C.F.R. Part 923 and focused on three target areas for each program. The evaluation process included a review of relevant documents and a survey of stakeholders, which helped identify three target areas for the evaluation for each entity. The **Coastal Conservancy** target areas are public access, coastal resilience and sea level rise, and habitat restoration. The **Bay Conservation and Development Commission** target areas are public access, coastal resilience and sea level rise, and sediment management. The **Coastal Commission** target areas are public access, local coastal programs and coastal resilience, and coastal habitat. Two site visits were conducted and the evaluation team held meetings with staff members and group discussions with stakeholders and program staff members about the target areas. In addition, public meetings were held on October 25, 2017 at 6:00 p.m. at the Oakland State Building, 2nd Floor, Conference Room 11, 1515 Clay Street, Oakland, California, and on June 11, 2018 at 7:00 p.m. at the Ocean Theater Auditorium, Aquarium of the Pacific, 100 Aquarium Way, Long Beach, California, to provide an opportunity for members of the public to express their opinions about the implementation of the coastal program. Stakeholders and members of the public were also given the opportunity to provide written comments. A summary of the written comments received and the NOAA Office for Coastal Management's responses are included in

Appendix A. NOAA then developed draft evaluation findings, which were provided to the three agencies for review, and the agencies' comments were considered in drafting the final evaluation findings.

Final evaluation findings for all coastal management programs highlight the program's accomplishments in the target areas and include recommendations, which are of two types.

Necessary Actions address programmatic requirements of the Coastal Zone Management Act or its implementing regulations at 15 C.F.R. Part 923 and of the state coastal management program approved by NOAA, and the terms of any grant or cooperative agreement funded under the Coastal Zone Management Act. Necessary actions must be carried out by the date specified. Failure to address necessary actions may result in a future finding of non-adherence and the invoking of interim sanctions, as specified in the Coastal Zone Management Act §312(c), 16 U.S.C. § 1458(c).

Recommendations are actions that the office believes would improve the program but which are not mandatory. The state is expected to have considered the recommendations by the time of the next evaluation or dates specified.

Evaluation Findings

Program Administration

Overview

The California Coastal Zone Management Program (California Coastal Program) consists of the California Coastal Commission, San Francisco Bay Conservation and Development Commission (BCDC), and California State Coastal Conservancy. The California Coastal Program has taken a leadership role in climate change, habitat restoration, conservation, sediment management, public access, and improved implementation of local coastal programs. This evaluation found that the three agencies making up the California Coastal Zone Management Program are working together effectively to address coastal management issues. Going forward, there are opportunities to work together even more closely to maximize the program's strengths on challenging issues from sea level rise to permit streamlining for habitat restoration projects.

Strategic Plans

The **Coastal Commission** developed a strategic plan for 2013-2018, which was unanimously approved by commission members in April 2013 after two public hearings. The plan identifies seven organizational and policy goals (strategic priorities), 35 objectives, and 163 actions, most of which have already been completed. Staff members report annually on their progress to the commission members, and reports are posted on the website. The completion and implementation of the strategic plan addressed a previous evaluation finding (2010) that called for the commission to develop a strategic plan "to prioritize the functions, programs, and processes that it administers in light of insufficient staff and financial resources to fully address its workload." The NOAA Office for Coastal Management commends the Coastal Commission for successfully developing and implementing its 2013-2018 strategic plan and strongly encourages building on this success. The Coastal Commission should develop a new strategic plan that prioritizes the functions, programs, and processes that the commission administers and continue to provide transparency about commission priorities while balancing and addressing the staffing and financial resource constraints on the commission's existing workload.

The **California State Coastal Conservancy** also successfully developed and implemented its 2013-2018 strategic plan with goals focused on public access, resource conservation, the San Francisco Bay Area Conservancy Program, and organizational goals, with progress towards meeting the quantitative performance metrics reported on annually to the Coastal Conservancy board and public. Staff interviewed more than 130 partner organizations and stakeholders to provide input into the plan, and public comments were solicited. Throughout 2017, the Coastal Conservancy produced the 2018-2022 Strategic Plan, gathering feedback from over 200 stakeholders. The 2018-2022 Strategic Plan has goals and objectives in each of the following areas: Explore the Coast, Protect and Restore the Coast, Climate Ready, Santa Ana River, San Francisco Bay Area, and Overarching, which includes Equity and Environmental Justice objectives.

BCDC's new chair (2012) and new executive director (2012) decided that BCDC required a new type of strategic plan and new process through which it would be developed. BCDC hired a facilitator, and the plan was developed through a series of public workshops in which both BCDC commissioners and alternates participated collaboratively with a wide variety of stakeholders, staff, and other members of the public outside of regular meetings. All participants in the workshops discussed and debated a wide variety of issues. The strategic plan was written by the participants and adopted by the BCDC. BCDC's 2013-2016 strategic plan laid out four goals: to lead efforts to help the Bay Area adapt to rising sea level; to expand the variety of public access and activate existing and future public access required through BCDC's regulatory process; to build a new technological platform and improve information technology systems; and to increase transparency and consistency in BCDC policy, planning, permitting, and enforcement proceedings. BCDC's 2017-2020 strategic plan goals are to enhance the Bay's unique contributions to the Bay Area and enable all its communities to flourish; to increase the Bay's natural and built communities' resilience to rising sea level; and to improve organizational health and performance.

Workforce

The **Coastal Commission** strengthened its workforce during the evaluation period. The state provided a three-year pilot budget augmentation of \$3 million for 25 staff positions that was made permanent in fiscal year 2016-17. The positions include two coastal program analysts in the state-wide planning unit who are dedicated to supporting the districts' work on addressing sea level rise and other climate impacts in local coastal programs and coastal permits, as well as additional technical staff to support staff analysis on the regulatory, planning, and enforcement work (i.e. ecologists, attorneys). The new staff positions have enabled the Coastal Commission to strengthen coordination and collaboration with local governments at the early stages of local coastal program development and assist them with incorporating climate change into the programs. In 2017-18, the Coastal Commission's budget included a temporary 3-year authorization for two additional enforcement positions to help resolve the backlog of public access cases. In addition, the commission has obtained funding for two new financial positions to assist with the workload as California moves to a new financial management system.

Numerous experienced and long-term staff members have retired since 2015. Of the Coastal Commission's approximately 155 staff members, approximately 60 (39 percent) are eligible to retire. During the 2008 economic recession, the commission lost its "middle" cohort of staff. Stakeholders noted their concern over the loss of experienced staff members and lack of bench strength. The commission has instituted measures to help address the loss of experienced staff members. For example, the commission is capturing organizational knowledge from experienced staff through desk manuals. Desk manuals can be challenging as the commission is constantly improving processes. For select positions, the commission has been able to allow time for two to three months of overlap with new staff members to enable transfer of knowledge, but salary constraints make this difficult. The commission is also trying to identify gaps and rotate people through positions or have them start working at a level below a key staff position to help create a deeper bench of knowledge. The commission is also looking at technology to assist with this loss

of institutional knowledge. The commission obtained and implemented the Coastal Data Management System, an information management system for planning and regulatory items that will provide desktop access to all records back to the 1970s and the ability to map resources. The Coastal Commission is also considering developing training on the vision of the program to quickly educate staff members on the mission and culture of the agency to help maintain the agency's culture.

California voters approved several large bond measures between 2000 and 2006, and the administrative portion of those nearly \$1 billion in bonds funded most of the **California State Coastal Conservancy's** operation. In 2012, as bond administrative funds were running low, the state legislature directed the conservancy to develop a long-term plan for funding the agency without new bond funds. That plan was completed in January of 2013, and it identified three strategies to achieve a sustainable operating budget: reduce operating costs; diversify support funds; and obtain general operating support. The conservancy has made significant progress on the first two strategies. The agency reduced its operating budget by about 25 percent by reducing the staff from 75 positions in 2009 to 61 positions in 2016 and trimming other expenses. The conservancy has also diversified the sources of funding for its operation including, since 2016, receiving \$300,000 in Coastal Zone Management Act funding annually, and increasing the amount awarded from outside grants for staffing costs. The conservancy has reorganized internally and a new grant manager position helps project staff members apply for, and manage, outside grant funds. The conservancy is continuing to work through the state budget process to seek general administrative support.

During the evaluation period, **BCDC's** staff size remained constant. BCDC had a number of experienced and long-term staff members retire or take other positions. Within 18 months, BCDC lost over 100 staff years of experience when five staff members either retired or accepted positions with better paying regional or local agencies. As BCDC staff members, historically, were very experienced and knowledgeable about agency practices, history, and roles, there was little need for training manuals or documenting of procedures or past decisions, because the few newcomers could just ask other staff. Now, because many staff members are new to the agency or in new roles, the absence of a detailed training protocol and documentation is challenging. While it now takes more time to research past agency practices and decisions, the staff has taken on the challenge by renewing internal staff training, increasing the digitization of key permits and associated records, and updating BCDC's BayRat GIS platform and expanding the role of GIS in BCDC decision-making.

In the past, the **Coastal Commission and BCDC** hired young staff members who spent much or all of their careers at the commissions. Today, the Coastal Commission and BCDC have difficulty retaining new staff. State salaries have not kept pace with the cost of living in many areas of California. Once staff members are trained, they leave for higher salaries at local consulting firms and local governments. The Coastal Commission and BCDC completed a "Final Total Compensation Report" per California Human Resources requirements, which found that on average for all surveyed classes, commission salaries are 33 percent below the labor market median base salary as of 2015. Using the findings, the Coastal Commission staff worked with the

California Department of Human Resources to address salary discrepancies. Unfortunately, the effort stalled because of staff changes at the Department of Human Resources. The state employee unions are pursuing locality pay statewide, which would improve the ability of the state to retain staff members in high-cost-of-living areas.

The NOAA Office for Coastal Management encourages all three agencies of the California Coastal Program in their efforts to build and maintain a strong and diverse workforce, such as

- Pursuing the opportunity to provide overlap at key positions with retiring staff members to facilitate knowledge transfer, especially in areas where staff expertise is particularly thin.
- Working to foster group learning and passing along the agency's culture and knowledge.
- Strengthening staff retention, for example, supporting efforts to base pay scales on the cost of living in an area and reclassify positions as appropriate.
- Building on existing succession planning efforts to address a future of increased staff turnover, including looking at the need to bring staff members on at various career points.
- Continuing to build knowledge and skills on environmental justice for effective program implementation and development of a diverse workforce.
- Pursuing additional staffing to address key needs.

Financial Management

All three coastal agencies have made significant progress implementing comprehensive, mandatory changes to the state's new financial tracking system, the Financial Information System for California (FI\$Cal). BCDC was in the first group of state agencies to move to FI\$Cal. The Coastal Commission and Conservancy switched over to the new system July 1, 2017, and it has been challenging for all three agencies to adjust to the new system. The Coastal Commission has been able to hire two staff members to assist with implementing new procedures and processes required by the system. The California Department of Finance also provided additional support and training to BCDC staff members to help address the challenges of implementing the new system.

Environmental and Social Justice

The coastal program is working to address environmental and social justice issues and increase staff capacity to do so. In 2016, Assembly Bill 2616 gave the **Coastal Commission** new authority to consider environmental justice when making permit decisions, and specified the appointment of a commissioner who lives in, and works with, underserved communities. The environmental justice commissioner has been working closely with the staff to develop an internal action plan as well as a public outreach efforts. An environmental justice team made up of staff members from every district office and department has been convened to move the plan forward. The entire team, along with the executive director and chief deputy, participated in a comprehensive environmental training session in August 2017, with experts from the California Environmental Protection Agency and the Office of Environmental Health Hazard Assessment. Staff from **all three agencies** have participated in racial equity training through the Government Alliance on

Race and Equity. In March 2019, after the evaluation period, the Coastal Commission unanimously passed a landmark environmental justice policy.

BCDC is also integrating environmental justice into its work and working on an environmental justice policy. One of the four overarching focus areas of the recent Policies for a Rising Bay Project is environmental justice and social equity. BCDC staff members have reached out to environmental justice advocates in the region and brought their voices into policy development discussions. BCDC and the Coastal Commission collaborated on outreach and community engagement during the development of their respective agency's environmental justice policies including hosting joint meetings and workshops in the San Francisco Bay Area.

The **Coastal Conservancy** is also working on an environmental justice policy. The Coastal Conservancy is leading the effort to implement Assembly Bill 250, passed in 2017, that calls for providing additional low-cost accommodations on the coast. The Coastal Conservancy works with many nonprofit groups to support bringing underserved communities to the coast to both enjoy and learn about coastal habitats. The California Coastal Program is a leader, within the National Coastal Zone Management Program, in addressing environmental and social justice issues and bringing underserved communities into the decision-making process. The Office for Coastal Management encourages the California Coastal Program in its efforts to increase staff knowledge of and skills for environmental and social justice and a diverse workforce, and to integrate these values into policies and strategic plans.

Permitting Enforcement – Coastal Commission

The Coastal Commission's enforcement group includes one person in each district and two state supervisors. Interns help staff the group and often are later hired to fill other positions in the office. The district staff resolves about 80 percent of cases at the district level. The most difficult cases get elevated to headquarters, which has the equivalent of 4 enforcement staff positions that work on administrative hearings and litigation support.

During the latter half of the evaluation period, the focus has been on enforcement of public access cases. In July 2014, Senate Bill 861 took effect, which allowed the commission to impose administrative civil penalties on persons who are in violation of the public access provisions of the California Coastal Act, in an amount not to exceed 75 percent of the amount of the maximum penalty authorized for each violation for judicial fines. The administrative civil penalty may be assessed for each day the violation persists, but for no more than five years.

The commission is monitoring and tracking the success of efforts to demonstrate the impact of the additional authority and funding. The commission identified a pilot group of violations to address based on type, severity, and geographic location and contacted violators informing them of their potential liability and inviting them to proactively work with the commission. By the end of 2015, 83 percent of property owners in this group had voluntarily resolved their violations cooperatively or were in the process of doing so. The average time required to resolve public access cases addressed under the administrative penalty provision dropped to 39 days. Previously, the average access case in San Diego and South Coast districts took 439 and 180 days,

respectively. As of August 2017, the commission was able to cooperatively resolve 77 (approximately 60 percent) of the identified public access cases without the need for penalties, and another 28 (22 percent) were in process. By comparison, in 2013, commission staff were able to resolve just 19 cases (both access and non-access). To further assist with addressing public access issues in an expeditious manner, the commission's budget in fiscal years 2017-19 included a temporary 3-year authorization of funding for two additional enforcement positions to help resolve the back-log of public access cases that fall under the administrative penalty provisions.

The commission is focused on using the new authority as a deterrent and is reaching out to the press corps and using social media to get the word out to deter future violations. At the time of the site visit, the commission had only found it necessary to issue orders in five cases, and four of these were consent orders resolving Section 30821 claims in an administrative settlement. The NOAA Office for Coastal Management commends the California Coastal Commission for using its new administrative penalty authority for public access violations to dramatically improve the timely resolution of violations. The commission has achieved this improvement in timely resolution with few fines being issued.

The enforcement program continues to face staffing challenges, with over 2,400 open, unresolved violation cases at the time of the evaluation, and more coming in each month. The administrative civil penalty provision for access violations has been a great help in resolving access cases, but the emphasis on these cases means fewer other cases can be pursued, such as those involving wetlands and other types of environmentally sensitive habitat. In 2008, the commission published a report by a Coastal Fellow, *Towards Compliance Assurance: Developing a Program for Improving Compliance with the California Coastal Act (2008)*, that provided four recommendations: (1) improve permit conditions; (2) monitor compliance; (3) strengthen monitoring and tracking; and (4) coordination. Coastal Commission staff members have been working to improve the conditions included in permits and have partially strengthened tracking through the new public access enforcement efforts. The commission does not have dedicated staff members charged with monitoring and following up on permits issued by the commission. The commission relies mainly on anecdotal information and observations by the public to identify permit violations. Enforcement staff have been able to conduct some trainings with local government code enforcement staff and police to raise understanding of requirements. This is an area of potential growth. Another opportunity to encourage compliance is to pursue options to legally require that violations be cleared before new permits are issued.

The NOAA Office for Coastal Management recognizes the ongoing staffing challenges in the California Coastal Commission's enforcement program and the backlog of unresolved violation cases; it also recognizes the success of the commission's implementation of its new administrative civil penalty authority for public access violations to improve the timely resolution of these cases. The office encourages the California Coastal Commission to explore legal solutions to address the remaining enforcement violation cases in an equally effective manner and to seek staffing sufficient to address additional violations in a timely and protective manner. The Coastal Commission is also encouraged to continue its efforts to write clear, specific, and measurable permit requirements and strengthen its monitoring. The commission should look to

its report, *Towards Compliance Assurance: Developing a Program for Improving Compliance with the California Coastal Act (2008)*, for recommendations for improving compliance. The Coastal Commission's tracking of performance has enabled it to document the success of its enhanced authority and additional staffing to address public access issues, and the office encourages the commission to continue to track performance, document successes, and identify areas for potential improvements.

Information Management

In fiscal year 2010, the coastal program successfully competed for an Information System Improvement grant to implement upgrades to outdated permit-tracking systems at both the **Coastal Commission** and **BCDC**. The Coastal Commission launched the Coastal Data Management System in May 2013. The system has enhanced the agency's ability to track workload data across the year, compare with past years, and identify trends and anomalies. The commission continues to add historic data and documents to refine system operations to meet the business needs of the agency and to provide systems training to new and existing staff. To date, records of commission actions going back to 1981 and approximately 45,000 documents have been added to the data management system. Staff have invested significant time to improve the quality and accuracy of historical data. The commission is working on developing a prototype public data portal to provide access to data via the commission's website, which will allow the public to search and retrieve key data and documents related to the commission's actions. BCDC has also been able to expand its BayRat GIS platform, expanding the role of GIS in BCDC decision-making.

The NOAA Office for Coastal Management encourages the California Coastal Commission to continue pursuing opportunities to make permit information and data easily available to staff members, partners, and the public to improve the efficiency and effectiveness of permitting and the implementation of the coastal program. The commission is encouraged to seek funding and consider other ways to accomplish this work instead of using commission staff members, including partnerships, contracts, and other avenues.

Findings

Accomplishment: The three components of the California Coastal Program each developed a strategic plan and successfully implemented identified priorities while providing public transparency in the development and implementation of the plans.

Accomplishment: The California Coastal Commission has dramatically improved the timely resolution of public access violations through its new administrative penalty authority for public access violations.

Accomplishment: The California Coastal Program is a leader, within the national Coastal Zone Management Program, in addressing environmental and social justice issues and bringing underserved communities into the decision-making process.

Recommendation: The NOAA Office for Coastal Management strongly encourages the California Coastal Commission to develop a new strategic plan, building on the success of the 2013-2018 strategic plan. The new strategic plan should prioritize the functions, programs, and processes that the commission administers and continue to improve transparency of the commission's priorities while balancing and addressing the staffing and financial resource constraints on the commission's existing workload.

Recommendation: The NOAA Office for Coastal Management encourages the California Coastal Program to continue its efforts to build and maintain a strong and diverse workforce, including pursuing additional staffing to address key needs, strengthening staff retention through pay scales and position classifications, building on succession planning efforts and facilitating knowledge transfer, continuing to build knowledge on environmental justice, racial equity, and development of a diverse workforce.

Recommendation: The NOAA Office for Coastal Management recognizes the ongoing staffing challenges in the California Coastal Commission's enforcement program and the backlog of unresolved violation cases; it also recognizes the success of the commission's implementation of its new administrative civil penalty authority for public access violations to improve the timely resolution of these cases. The NOAA Office for Coastal Management encourages the California Coastal Commission to explore solutions to address the remaining enforcement violation cases in an equally effective manner.

Recommendation: The NOAA Office for Coastal Management encourages the California Coastal Commission to continue its efforts to write clear, specific, and measurable permit requirements and strengthen its monitoring and tracking of permit implementation. The commission should look to its report, *Towards Compliance Assurance: Developing a Program for Improving Compliance with the California Coastal Act* (2008), for recommendations on improving compliance.

Recommendation: The NOAA Office for Coastal Management encourages the California Coastal Commission to continue pursuing opportunities to make permit information and data easily available to staff members, partners, and the public to improve the efficiency and effectiveness of permitting and the implementation of the coastal program.

Coastal Resilience

Overview

The specific target area for each agency is local coastal programs and coastal resilience for the Coastal Commission and coastal resilience and sea level rise for both BCDC and the Coastal Conservancy.

The three agencies of the California Coastal Program, the Coastal Commission, BCDC, and Coastal Conservancy, have been state leaders in addressing the impacts of climate change and building

coastal resilience. The three agencies have supported multiple state-wide efforts to plan for and address climate change impacts such as participating in the development of the State of California Sea Level Rise Guidance, state climate assessments, the California Adaptation Planning Guide, and other efforts.

California Coastal Commission: Local Coastal Programs and Coastal Resilience

New and Updated Local Coastal Programs

The Coastal Commission has made great progress in obtaining additional funding for staff and grants to local governments to support the development and updates of local coastal programs and to enable communities to incorporate climate change impacts into their planning. The Coastal Commission is successfully addressing a 2010 evaluation finding which found that “Reductions in Coastal Commission staff have kept the remaining staff from proactively working with local governments on LCP [local coastal program] amendments. When staff does become involved late in the amendment process, it can create ill will, slow the process, and require reconsideration of earlier steps. It can also require a local government to hold additional public hearings.” The Coastal Commission’s ability to hire 25 new staff positions to support the development and implementation of local coastal programs has enabled the commission to be more proactive and partnership-driven in its relationships with local governments. Most of the local government evaluation participants noted that the Coastal Commission staff had become much more responsive, were engaging earlier in the planning process, and were able to provide technical expertise and guidance (especially engineering and geologic). Local government staff members who the evaluation team met with noted that the staff still had a high workload and that some questions took a while to be answered. The additional staff capacity has helped to significantly reduce the time required to process local coastal programs. The time from the day filed to hearing has gone down from 367 days in 2010 to 87 in 2017.

One of the commission’s highest priorities over the past three years has been to update and certify local coastal programs. Unfinished and out-of-date local coastal programs lead to conflict and delays in development approvals, and ultimately, less effective resource protection and less resilient communities. A few stakeholders emphasized that outdated local coastal programs could create issues and situations where local governments may issue coastal development permits that are not consistent or compliant with the Coastal Act, which could result in an additional need for enforcement action for a staff that already had a full workload. In addition, many local coastal programs lack critical policies to address sea level rise. During the evaluation period, the commission obtained \$5 million in state funding and over \$1 million in funds from the Ocean Protection Council Prop 84 funds for four rounds of local coastal program grants. Grant guidelines include a requirement for jurisdictions to assess sea level rise vulnerability and develop climate change adaptation policies and ordinances. The commission received requests for over \$12 million in funding and was able to award 44 local planning grants to 34 jurisdictions. Managing the grants and reviewing the local coastal programs has been a significant additional workload for the commission staff.

As of October 2017, these local coastal program grants have resulted in the completion of nearly 20 sea level rise vulnerability assessments and related studies, including adaptation plans, with an additional 10 more in progress. The Coastal Commission also made significant progress in certifying new local coastal programs, including the Cities of Newport Beach, Seaside, and Santa Monica Mountains, and completing comprehensive updates for other local coastal programs or long range development plans. In addition, draft local coastal programs were completed for 8 of 33 jurisdictions where there is no certified local program. In 2017, the Coastal Commission approved the County of San Diego's Land Use Plan, with minor suggested modifications. San Diego is the last uncertified county in California, and the land use plan is the first component of a fully certified local coastal program.

The Coastal Commission's success in obtaining additional staffing and financial resources has significantly improved the commission's ability to work with local governments early in the planning process, resulting in a more streamlined process and to provide funding to local governments to develop new local coastal programs and update existing programs to address sea level rise. The NOAA Office for Coastal Management encourages the California Coastal Commission to continue pursuing funding to support local coastal program updates, and work on ensuring that coastal communities have the technical assistance and planning resources and tools they need to update or develop their plans, address current issues such as sea level rise, and effectively implement their programs.

As local governments move forward with sea level rise planning and addressing other impacts of climate change, there is an opportunity to bring coastal planners together to share lessons learned and best practices. There are multiple organizations that might be able to provide assistance with supporting activities that facilitate sharing among coastal planners, such as the League of California Cities, California State Association of Counties, National Estuarine Research Reserve Coastal Training Programs, universities (particularly the two Sea Grant programs), Ocean Protection Council, and regional collaboratives. Examples of collaborations to support information sharing include the Climate and Resilience Community of Practice in the Gulf of Mexico and partnership between the Jacques Cousteau and New Jersey Coastal Management Program to assist local communities build their resilience. The Coastal Commission is encouraged to explore further opportunities to work with and utilize their partner's skills and resources, to promote sharing of information among coastal planners and delivery of science-based information to help communities address ongoing and emerging coastal issues.

Sea Level Rise Guidance

In August 2015, the Coastal Commission adopted the *Sea Level Rise Policy Guidance: Interpretive Guidelines for Addressing Sea Level Rise in Local Coastal Programs and Coastal Development Permits*. The guidance document provides an overview of the best available science on sea level rise for California and recommended methods for addressing sea level rise in Coastal Commission planning and regulatory actions. It is intended to serve as a multi-purpose resource for a variety of audiences and includes a high level of detail on many subjects. The guidance is advisory and not a regulatory document or legal standard of review for the actions that the commission or local governments may take under the Coastal Act.

The Coastal Commission's *Sea Level Rise Policy Guidance* was the result of a multi-year effort, supported by funding from two annual funding awards from the NOAA Office for Coastal Management, numerous public meetings, webinars, and Coastal Commission hearings, and it incorporated over 800 distinct comments from other state agencies, interested stakeholders, and the public. Since adoption, the Coastal Commission staff has conducted numerous outreach events, presentations, webinars, and in-person meetings and workshops to ensure that the sea level rise guidance can be used and applied in planning and regulatory work by Coastal Commission staff members, local governments, project applicants, and others. The Coastal Commission held a two-and-half-day all-staff training as well. The NOAA Office for Coastal Management commends the California Coastal Commission for the development and adoption of the *Sea Level Rise Policy Guidance: Interpretive Guidelines for Addressing Sea Level Rise in Local Coastal Programs and Coastal Development Permits*, including the transparent development process with multiple opportunities for comment, extensive outreach after adoption, and extensive training of staff.

The Coastal Commission is now working on developing residential adaptation policy guidance, a project funded in part through a competitive Project of Special Merit grant. The guidance will be a companion document to the Coastal Commission's 2015 *Sea Level Rise Policy Guidance*. The draft guidance provides specific direction on how to address sea level rise in local coastal programs for residential development in a manner that is consistent with the Coastal Act, including detailed policy language examples that local governments can customize for their communities. The draft guidance was first presented to the Coastal Commission in August 2017, and extensive public comment has been received. It is anticipated for adoption in late 2019. The Coastal Commission also developed a *State-wide Sea Level Rise Synthesis* report, Coastal County Snapshots, and four local coastal program case studies to provide more location-specific detail and examples of sea level rise planning efforts.

Caltrans Case Study

The Coastal Commission and the California Department of Transportation (Caltrans) worked together to improve coordination and communication. With assistance from Sacramento State's Center for Collaborative Policy, an assessment of the current situation was conducted. An Integrated Planning Team, comprising members of both agencies with expertise in coastal zone transportation planning and resource protection was formed to address the opportunities identified. The team further worked to identify ways that improved coordination early in the project planning process could alleviate common challenges to permitting Caltrans projects in the coastal zone. The team developed an Integrated Planning Framework tool to connect the various planning processes of both agencies as well as those local entities with coastal management jurisdiction and transportation planning responsibilities. The partners signed an agreement in December 2016 to express leadership-level support for this effort to improve collaboration. The new approach is being piloted with two focus areas: sea level rise and the California Coastal Trail. The agencies are also looking at opportunities ranging from training and regular meetings to increase understanding and planning early in the process. As a result of this effort, there has been a reduction in the number of appeals to the Coastal Commission of Caltrans Coastal Development

Permits issued by local governments because of the advance coordination to promote project consistency with applicable local coastal programs and the Coastal Act. The Coastal Commission and Caltrans commitment to improve coordination and communication has led to increased permitting efficiency and effectiveness, including this reduction in the number of appeals, and improved projects that better address climate change impacts on transportation and coastal habitat and public access.

Short-Term Rentals

The Coastal Commission is on the front lines of addressing emerging coastal issues. Concerns with short-term accommodation rentals and their regulation came up numerous times during the site visit and in public comments. Short-term rentals can provide affordable overnight accommodations near the coast, but they can also cause friction and impact neighborhoods and housing affordability.

The Coastal Commission synthesized several years of commission deliberation and action to provide critical policy guidance to local communities on the subject of short-term rentals to protect both public access and community character. The commission has sent a detailed letter to local planning directors throughout the coastal zone regarding the need to incorporate short-term rental ordinances into their local coastal program, or receive a coastal development permit for short-term rental ordinances for uncertified jurisdictions, and offering technical advice as well as examples of local ordinances that have been approved by the commission.

The Coastal Commission has also held several public workshops discussing challenges and opportunities for protecting and providing lower cost overnight accommodations along the coast. In collaboration with industry professionals, staff members provided draft recommendations to the commission, heard public testimony, and received feedback from commissioners. The dialogue has informed the agency's understanding of how to better provide for lower cost accommodations. The evaluation team heard from stakeholders that commission staff members and commissioners did not always agree on issues related to short-term rentals. The NOAA Office for Coastal Management encourages the Coastal Commission to provide opportunities for staff members and commissioners to further engage and learn about and understand this issue, such as hosting a commission workshop specifically on short-term rentals to further explore the issues and how those issues could be addressed.

San Francisco Bay Conservation and Development Commission: Coastal Resilience and Sea Level Rise

Overview

BCDC has been a pioneering leader in looking at the future impacts of climate change and adaptation. Stakeholders described BCDC as the “catalyst” in bringing attention to climate change in the Bay. In April 2009, BCDC released a staff report, “Living with a Rising Bay: Vulnerability and Adaptation in San Francisco Bay and on the Shoreline.” The report included images of areas that will be inundated by sea level rise in the future. The pictures were a successful tool in

communicating risks of sea level rise and were picked up by the press and started numerous conversations.

BCDC has continued to build on this success through convening stakeholders, supporting and guiding research, analyzing options, adopting new policies, and leading and supporting local and regional efforts to address climate change. BCDC has built a successful program, *Adapting to Rising Tides*, to provide tools and technical support for local communities and regional entities that want to build climate resilience. BCDC staff members were commended by stakeholders for their role as regional leaders, conveners, and connectors, and their efforts to bring the social justice community into climate resilience efforts. The San Francisco Bay area has many organizations engaged in climate resilience. The NOAA Office for Coastal Management encourages BCDC to continue to consider and define its role in climate resilience to most effectively utilize its expertise, partnerships, and connections.

Policies

In 2011, BCDC unanimously approved an amendment to the San Francisco Bay Plan to address climate change. The amendment updated the 22-year-old sea level rise findings and policies and added a section dealing more broadly with climate change and adapting to sea level rise. BCDC saw a need to look at its policies again and received a competitive Office for Coastal Management Project of Special Merit grant for the *Policies for a Rising Bay* project. In 2016, staff released the *Policies for a Rising Bay Final Report*, which identifies potential changes to the BCDC's law, policies, and practices to support and facilitate adaptation to sea level rise. The report identifies four overarching policy issues: Fill for Resilience and Adaptation – Habitat Restoration and Protection; Fill for Resilience and Adaptation – Innovative Shoreline Solutions; Environmental Justice and Social Equity; and Adaptive Management. BCDC engaged a steering committee of over 30 stakeholders representing public, private, and nongovernmental organizations, including several BCDC commissioners, to ensure a wide array of input. A policy analysis was conducted and hypothetical case studies were reviewed. Upon publication of the report, BCDC is moving forward on implementing report recommendations. BCDC has held a series of nine Rising Sea Level workshops further exploring ideas and building on the *Policies for a Rising Bay* project and the Bay Fill Working Group's examination of BCDC's fill policies that relate to sea level rise adaptation. A Financing the Future Working Group was created to look at opportunities to fund adaptation. The NOAA Office for Coastal Management encourages the San Francisco Bay Conservation and Development Commission to continue to implement and build on the actions in the *Policies for a Rising Bay Final Report* and outcomes of the Rising Sea Level workshop series.

Adapting to Rising Tides

In 2010, BCDC partnered with the San Francisco chapter of the American Institute of Architects to host a Rising Tides competition that invited groups to submit entries to address adaptation in the bay area. Over 135 entries were judged by local and international experts. Rising Tides was honored with a Special Achievement Award by the American Institute of Architects.

BCDC was then selected to be one of eight inaugural Climate Resilient Communities by ICLEI, an international association of local governments. ICLEI provided technical support and tools to the selected communities. The Adapting to Rising Tides (ART) program, with financial support from NOAA, came out of this initiative. ART is an approach to adaptation planning that integrates sustainability and a transparent decision-making process to foster robust collaborations that lead to action on adaptation.

The Alameda County ART project began in 2011. Working with numerous agencies and organizations, the program assessed the county's vulnerability to sea level rise and storm events. The project led to processes to integrate adaptation into planning and decision-making. As part of the project, the Metropolitan Transportation Commission, BCDC, Caltrans, and San Francisco Bay Area Rapid Transit District partnered to conduct an initial transportation vulnerability assessment and subsequent focus-area planning. The project was funded in part by the Federal Highway Administration and was one of seven national Federal Highway Administration pilot projects for integrating extreme weather and climate risk into asset management.

The project led to additional adaption and planning efforts, including the Hayward shoreline and Oakland-Alameda Resilience studies, the Bay Area Transportation Climate resilience focus area planning efforts, the Capital Corridor Passenger Rail vulnerability assessment, and East Bay Regional Park District planning effort. In 2017, the ART program and Bay Area Regional Collaborative received a grant from Caltrans, and, with additional funding from the Bay Area Toll Authority, are conducting a project to conduct a regional adaptation planning process aimed at increasing the resilience of the region's transportation and community assets. The project includes stakeholders from socioeconomically vulnerable communities. Through numerous ART program projects, BCDC completed 17 adaptation guidance documents, greatly exceeding its five-year evaluation metric target to develop two sea-level rise adaptation guidance documents from 2012-2017.

The ART program has also led research projects. In May 2013, BCDC published the report, *Innovative Wetland Adaptation Techniques in Lower Corte Madera Creek Watershed*. BCDC led the effort and worked with the San Francisco Bay Estuary Partnership and others to examine the resilience of San Francisco Bay tidal marshes and intertidal mudflats to accelerating sea level rise, and to consider how the wave attenuation and other ecosystem benefits they provide can be preserved. Project results have been applied in the update to the Bayland Ecosystem Habitat Goals, the Adapting to Rising Tides Hayward Shoreline Resilience Study, and other partner efforts around the bay.

The ART program now has seven staff members that continue to lead and support multi-sector, cross-jurisdictional projects that build local and regional capacity to plan for and implement adaptation responses. The ART program provides the ART Portfolio, a comprehensive set of online resources, and access to staff members to assist planners in using the resources. Stakeholders praised the technical assistance, the methods, the data, the mapping, and the intellectual capital, and several discussed how they had been able to leverage ART projects to obtain additional support and funding. Stakeholders also noted that they needed continuing

support from BCDC in accessing other state agencies. The San Francisco Bay Conservation and Development Commission’s ART program is a highly successful program that has fostered and supported regional and local adaptation efforts, from finding funding to providing the tools and technical support necessary for success. The NOAA Office for Coastal Management encourages the San Francisco Bay Conservation and Development Commission to continue its support of the development and implementation of the ART program.

Resilient by Design

BCDC and the State Coastal Conservancy were instrumental in bringing Resilient by Design, funded by a Rockefeller grant, to San Francisco Bay, and the ART program has helped Resilient by Design implement the year-long collaborative design challenge. The challenge brought together nine teams of local residents, public officials, and local, national, and international experts to develop innovative community-based solutions to strengthen their region’s resilience to hazards. Over 120 agencies and 140 stakeholders from community, business, and educational organizations were represented in the project working groups. A summit was held in 2018, showcasing nine innovative design concepts developed by the teams. As part of the project, a finance guide was developed, and partners continue to search for and develop opportunities to fund implementation of the projects.

The project also included a Y-PLAN Resilient by Design Youth Resilience Challenge. Over 800 elementary and high school students around the region participated, working with experts and local stakeholders to co-design innovative and implementable solutions, emphasizing the interconnectedness of land, water, infrastructure, and the quality of life—with local specificity and ownership. The design teams served as role models and as inspiration for future college and career readiness.

California State Coastal Conservancy: Coastal Resilience and Sea Level Rise

Overview

The Coastal Conservancy adopted a comprehensive Climate Change Policy in 2009 that was updated in 2011. The policy describes the strategies and actions that the conservancy will use to address climate change and states the conservancy’s intention to collaborate with other agencies and entities to develop, support, and implement climate change adaptation plans, strategies, and projects. It further describes the conservancy’s interest in funding certain types of climate change research and pilot or demonstration projects for innovative adaptation approaches that support the conservancy’s work. In 2012, Senate Bill 1066 gave the conservancy explicit legal authority to undertake projects and award grants to public agencies and nonprofit organizations for activities to address potential and existing climate change impacts on resources within the conservancy’s jurisdiction.

The Coastal Conservancy supports the state, coastal communities, and regional efforts to address climate change. The conservancy provides financial and technical assistance to partners for conducting vulnerability assessments and adaptation planning and the development of tools and

studies needed to help understand and plan for climate change. The conservancy is helping to plan, design, and implement living shorelines and monitoring the results to inform future efforts. The conservancy is also working to protect natural and working lands that sequester carbon, and supporting urban greening, inner-city projects that are creating shady retreats for residents, conserving rainwater, capturing stormwater pollution, and reducing air temperatures. Select examples are discussed in the findings.

The Coastal Conservancy's technical assistance and funding for climate work is highly valued by partners. The agency was described by partners and stakeholders working on climate issues as a "fantastic partner," "most important and best partner at every level," "top notch expertise," and "incredible resource." Partners cited the conservancy's efforts as helping them more strategically implement their resources. Partners particularly appreciated the conservancy's leadership, and its role in bringing people together to start conversations and address issues, and are looking to the conservancy to continue this role of addressing challenging climate change issues. Partners noted that the conservancy's leadership on climate change was key to the passage of Measure AA in the Bay Area in 2016. The measure provides funding through a wetland restoration parcel tax and was the first ballot measure to include all nine counties. A representative of San Mateo County noted that the conservancy was able to fund a short-term position to provide a staff person to address climate change and funded the development of a vulnerability assessment. The county saw the value of this position and the work and has since created a Climate Change and Adaptation program staffed by four employees.

Climate Ready Grant Program

In 2013, the Coastal Conservancy launched the Climate Ready Program, a competitive grant program for local projects addressing climate change. In the first round of funding, the conservancy received 76 proposals requesting over \$13.3 million in funds, showing a large demand for funding. The conservancy was able to fund 20 projects addressing a range of climate adaptation issues, including vulnerability assessments, living shorelines, green infrastructure, and sea level rise adaptation. For the second round of funding in 2015, 11 implementation projects were funded, and through a third round of funding in 2015, 11 habitat restoration projects that address climate adaptation were funded. In 2016, because of a lack of funds, the conservancy did not hold another funding competition but instead focused staff resources on lessons learned from the first series of projects. The lessons learned were shared through a webinar series. In 2017, the conservancy was creative in extending the program and solicited applications for technical assistance that would be provided by conservancy staff members, since grant funds were still not available. Coastal Conservancy staff members were able to provide technical assistance to three vulnerable communities for designing and holding climate impact and climate adaptation planning workshops and for transportation planning that advanced ecological restoration and conservation goals.

The Coastal Conservancy provided funding to the Marin County Community Development Agency to develop a countywide, multi-jurisdictional sea level rise vulnerability assessment covering Marin's bay shoreline and engaging elected officials, management staff, and the public in the process of developing action plans. Marin County is already dealing with regular flooding

associated with high tides and storms. To better understand the effect of rising seas on its community, Marin County worked with the conservancy and other partners to develop the Marin Bay Waterfront Adaptation Vulnerability evaluation. The evaluation looked at the extent of impacted assets and assessed the sensitivity and adaptability of select assets. A stakeholder from the county noted that the conservancy funding was critical to the project. The Marin Community Foundation and conservancy are now supporting a series of innovative projects to develop and test nature-based solutions to protect shorelines and adapt to sea level rise.

The Climate Ready Grant Program has provided funding to organizations for a number of other projects:

- Sonoma Land Trust for technical assistance to lead the State Route 37-Baylands Group. The group promotes the development of a State Route 37 design that will improve climate resilience by advancing the ecological restoration and conservation goals for the San Pablo Baylands while achieving transportation objectives.
- The Nature Conservancy to plan, design, and facilitate permitting of management strategies that reduce flood risk, recharge groundwater, improve riparian habitat, and increase the resilience of agricultural operations along the Salinas River.
- Orange County Coastkeeper to plan and implement an innovative living shoreline project to restore and monitor oysters and eelgrass.
- City of Arcata to design a fringe salt marsh living shoreline, protect city facilities vulnerable to sea level rise, quantify the carbon sequestration potential of the fringe salt marsh and existing restored wetlands, and investigate the utility of “rolling easements” on private lands located adjacent to city-owned resource lands that are available for wetland migration.
- Bay Area Ridge Trail Council to explore, test, and document best practices to leverage the potential of trails and transit to reduce greenhouse gases by evaluating trail and transit connections in the southern San Francisco Bay Area.

The NOAA Office for Coastal Management commends the California State Coastal Conservancy for the implementation of the Climate Ready Grant Program and for continuing the program without direct funding through creative support, webinars sharing lessons learned, and “grants” of technical assistance. The office encourages the Coastal Conservancy to continue to pursue funding to support the Climate Ready program, which provides grants and technical assistance to local jurisdictions and nonprofits.

Integrating Adaptation into Emergency Response Planning

The Coastal Conservancy has been working with the NOAA Office for Coastal Management and the Federal Emergency Management Agency to integrate sea level rise planning and adaptation into hazard mitigation planning. This project is ongoing and involves many partners, including the Coastal Commission, BCDC, U.S. Geological Survey, and University of Southern California Sea Grant. The partnership has developed materials explaining the relationship between local coastal plans, hazard mitigation plans, and sea level rise adaptation plans. The partnership is working to coordinate state and federal investments in sea level rise mapping and modeling.

Statewide Sea Level Rise Assessments

At the time of the site visit, the Coastal Conservancy was conducting two related statewide sea level rise vulnerability assessments. The first project was a partnership with the Nature Conservancy to assess the vulnerability and adaptive capacity of coastal habitats statewide and identify opportunities to increase landscape resilience and provide policy recommendations. The second study was being conducted in partnership with California State Parks to look at the exposure of existing state park facilities to sea level rise. California State Parks owns and manages about one quarter of the coastline of California with many facilities adjacent to the coast. State Parks is working on internal guidance about adaptation to sea level rise, developing GIS data that park staff can use to assess exposure before making decisions about future investments or plans for specific park units.

Dam Removal

The Coastal Conservancy, NOAA's National Marine Fisheries Service, and California American Water were the central team overseeing implementation of the San Clemente Dam removal project. The San Clemente Dam Removal and Carmel River Reroute Project is the largest dam removal project in California. The project removed a 106-foot high dam and included restoration of the Carmel River Watershed. The dam's removal addressed a public safety risk of potential dam collapse; provided access to over 25 miles of essential spawning and rearing habitat of the threatened South-Central California Coast steelhead; and restored the river natural sediment flow helping to replenish sand on Carmel Beach and reducing beach erosion that is destabilizing homes, roads, and infrastructure. The conservancy led the effort to raise \$34 million of state, federal, and private funds needed to complete the project. California American Water contributed \$49 million. The NOAA Office for Coastal Management commends the California State Coastal Conservancy for its leadership role in the removal of San Clemente Dam, the largest dam removal project in California.

Findings

Accomplishment: The California Coastal Commission's success in obtaining additional staffing and financial resources has significantly improved the commission's ability to work with local governments early in the planning process, resulting in a more streamlined process, and to provide funding to local governments to develop new local coastal programs and update existing programs to address sea level rise.

Accomplishment: The California Coastal Commission's development and adoption of *Sea Level Rise Policy Guidance: Interpretive Guidelines for Addressing Sea Level Rise in Local Coastal Programs and Coastal Development Permits* provides guidance to local communities on how to incorporate sea level rise in their planning and permitting. The guidance was developed through a transparent process with extensive opportunity for public input and extensive outreach after adoption, and the commission provided extensive training for staff on the new guidance.

Accomplishment: The California Coastal Commission and Caltrans' commitment to improve coordination and communication has led to increased permitting efficiency and effectiveness,

including a reduction in the number of appeals, and improved projects that better address climate change impacts on transportation and coastal habitats and public access.

Accomplishment: The San Francisco Bay Conservation and Development Commission’s Adapting to Rising Tides (ART) Program is a highly successful program that has fostered and supported regional and local adaptation efforts, from finding funding to providing the tools and technical support necessary for success and serving as a model for other regions struggling with similar issues.

Accomplishment: The California State Coastal Conservancy’s Climate Ready Grant Program has supported projects ranging from planning for climate change to implementation of habitat restoration projects. The conservancy’s technical assistance and funding are highly valued by partners and stakeholders. The conservancy’s leadership has been key to passage of a regional funding measure for restoration of San Francisco Bay, support for local agencies to conduct vulnerability assessments, statewide assessment of coastal habitats vulnerable to sea level rise, and the work of State Parks to plan for sea level rise.

Accomplishment: The California State Coastal Conservancy, along with the National Marine Fisheries Service and California American Water, led the removal of San Clemente Dam, the largest dam removal project in California, which removed a public safety risk and allowed for ongoing sand replenishment on an eroding beach. Dam removal also provides the threatened South-Central California Coast steelhead with access to over 25 miles of essential spawning and rearing habitat.

Recommendation: The NOAA Office for Coastal Management encourages the California Coastal Commission to continue pursuing funding to support local coastal program updates, and ensuring that coastal communities have the technical assistance and planning resources and tools they need to update or develop their plans, address current and emerging issues and risks including sea level rise, and effectively implement their planning.

Recommendation: The NOAA Office for Coastal Management encourages the San Francisco Bay Conservation and Development Commission to continue to implement and build on the actions in the *Policies for a Rising Bay Final Report* and outcomes of the Rising Sea Level workshop series.

Recommendation: The NOAA Office for Coastal Management encourages the Coastal Conservancy to continue to pursue funding to support the Climate Ready program, which provides grants and technical assistance to local jurisdictions and nonprofits.

Coastal Habitat

Overview

The specific target area for each agency is coastal habitat for the Coastal Commission, sediment management for BCDC, and habitat restoration for the Coastal Conservancy.

Balance of Coastal Habitat and Public Access

The Coastal Zone Management Act, 16 U.S.C. §1452, establishes a policy that coastal zone management program should provide for “the protection of natural resources, including wetlands, floodplains, estuaries, beaches, dunes, barrier islands, coral reefs, and fish and wildlife and their habitat, within the coastal zone” and “public access to the coasts for recreation purposes,” along with other policy priorities. The evaluation team received comments and heard from stakeholders concerned that in some areas public access in natural areas was having too much of a negative impact on habitats. The coastal program strives to balance coastal habitat protection with providing public access. To help ensure that the impact of public access on natural areas is minimized to the extent practicable, the NOAA Office for Coastal Management encourages the California Coastal Program to continue to build its expertise on public access impacts and methods in order to mitigate impacts, and to work closely with state and federal agencies to design appropriate public access into habitat restoration projects to balance the two coastal priorities.

The evaluation team heard from a number of stakeholders regarding their concerns with the slow pace and challenges of permitting habitat restoration projects, particularly with the need to restore coastal wetlands to allow them to thrive and migrate as sea level rises. The NOAA Office for Coastal Management supports efforts by the California Coastal Program to convene relevant permitting agencies and identify opportunities to streamline the permitting process for habitat restoration projects. This section discusses a conservancy-led effort to streamline permitting for a project in San Mateo County and a new San Francisco Bay effort that will bring federal, state, and regional permitting agencies together to look at opportunities for streamlining permitting for habitat restoration projects. The “Target Area 1” section discusses an effort of the Coastal Commission and Caltrans to better coordinate early in the planning process to help ensure that projects are designed from the start to meet Coastal Commission requirements.

The protection of coastal habitats and species continues to be challenging. Development pressure along the coast continues. Climate change impacts, such as drought, more frequent and larger fires, and more intense storms, are occurring, and coastal habitat is being squeezed between sea level rise and coastal development. Since 2009, there has been an increasing demand for coastal armoring such as revetments, groins, and sea walls and a rise in permit applications for beach replenishment projects along the coast. The Coastal Commission is also addressing the impacts of artificial lighting on coastal habitat. With a changing climate and sea level rise, there is a need to advance scientific understanding and policy development on key issues to build climate resilience. The NOAA Office for Coastal Management encourages the Coastal Commission and Coastal Conservancy to support and expand their partnership and to leverage the research and training of the national estuarine research reserves and other partners to advance scientific understanding and policy development on key issues. For example, these partnerships could develop a knowledge base on habitat migration corridors, look at opportunities to proactively restore habitat for migration corridors, and consider how policies regarding habitat migration might need to evolve. The partnerships could also further scientific understanding and policy

development on the potential of living shorelines and other natural infrastructure solutions to address coastal erosion, flooding, and sea level rise.

California Coastal Commission: Coastal Habitat

Overview

The California Coastal Commission addresses coastal habitat through its permitting process and planning activities. The California Coastal Act of 1976 requires that environmentally sensitive habitat areas be protected, specifying that only uses dependent on those resources shall be allowed within these areas. In addition, the law requires the biological productivity of wetlands and estuaries be maintained, and where feasible restored. The commission's three ecologists review coastal development permit applications, local coastal program amendments, federal consistency decisions, project environmental impact statements or reports, and biological assessments for presence of, and potential impacts upon, environmentally sensitive coastal habitats and species. They provide recommendations on overarching policies as well as on specific issues on a case-by-case basis.

Permitting

The Coastal Commission has considered hundreds of coastal development permit applications, appeals, cease and desist orders, and long-range development plan notices of impending development that included requirements for habitat preservation, protection, buffering, monitoring, and mitigation. Larger projects can require extensive involvement of commission staff members, including these examples:

Malibu Lagoon – The Malibu Lagoon was filled in 1920s for ballfields, and in 1979 efforts were made to restore the lagoon. Unfortunately, after the initial restoration, channels began to fill. Malibu Lagoon had water circulation issues, which led to eutrophication and fish kills. A second restoration project was proposed. The proposal was controversial, and many community meetings were held and a study done. The Coastal Conservancy, Audubon, and other partners worked with the commission to ensure a project design that could be permitted. The commission approved the project with numerous conditions, and the restoration was completed. Partners involved in the project described commission staff members as great to work with and helpful, but also as holding them to high standards. The lagoon restoration incorporates a public trail around the edge and interesting interpretive features. To reduce impacts on marsh populations, an old trail and bridge to the middle of the lagoon was removed. The project includes implementation of a long-term monitoring plan, and monitoring shows much higher levels of macroinvertebrates and diversity, and birds have increased. The results of the monitoring can also be used to inform future restorations. The coastal program may wish to pursue having the project site as a sentinel site. The project is now being used as a model for the University of California–Santa Barbara Devareaux Slough model, and Ormond Beach is also looking at the design.

CEMEX – At its July 2017 hearing, the Coastal Commission approved a consent agreement directing CEMEX to, among other things, cease sand extraction following a cessation plan, from the last beach sand mine in the United States. The 400-acre site in the city of Marina, which has one of the highest erosion rates in the state, has been in use since the early 1900s, despite growing concerns about beach loss and the need to protect communities from sea level rise. The agreement will end operations on December 31, 2020, with interim operating conditions to protect coastal resources while extraction activities are phased out. After more than a year of working closely with the State Lands Commission and CEMEX, the agreement provides for a transfer of the site at a reduced price to a nonprofit or governmental agency approved by the commission, and a deed restriction to protect it in perpetuity and guarantee public access. The Coastal Conservancy has funded a study to look at potential future use of the site for public recreation and economic activity.

Caltrans – The Coastal Commission and Caltrans’ improved project development and review process have resulted in major transportation projects that address coastal habitat, public access, and coastal hazards from the beginning to the end of the project, including these examples:

- *San Elijo Lagoon* – In 2016, the commission approved a major restoration plan for the 960-acre San Elijo Lagoon in San Diego County. The project will be funded by Caltrans as part of its mitigation obligations for impacts caused by the expansion of the Interstate 5 corridor. The project will restore tidal flushing to remote regions of the lagoon, reduce hypoxic conditions, create a saltwater and brackish-water marsh, mudflat, and open water habitats, as well as remove legacy sewage disposal sediments. The project has been designed to incorporate sea level rise. Clean sediments removed from the lagoon will be deposited on the adjacent Cardiff Beach for beach nourishment. The conservancy partially funded preliminary engineering for the project and remains an engaged stakeholder in the project.
- *Cardiff State Beach Living Shoreline Project* – In 2017, the commission approved the City of Encinitas’ application for the Cardiff State Beach living shoreline project to construct a dune system along back beach areas to provide a natural form of shoreline protection and a sea level rise adaptation measure for Highway 101, rather than additional rock or seawall. The construction of the project was led by the Coastal Conservancy and City of Encinitas and completed in May 2019. The project is one of the first projects to apply a soft solution to California’s serious coastal erosion problem. The project is a pilot that will enable the commission and others to better understand the engineering and effectiveness of natural shoreline protection systems in California.

The Coastal Commission’s ability and commitment to work with partners early in the design and development of large habitat restoration projects result in a more efficient and effective permitting process.

Open Space Easements and Deed Restrictions

The Coastal Commission requires that permits protect coastal habitat and may require an open space easement or deed restriction when approving a permit. The open space easements must

then be accepted by another party and deed restrictions recorded with the county. The commission set an evaluation metric target of 50 open space easements or deed restrictions as a special condition of coastal development permits be secured in permanent protection over five years (2012-2017). The Coastal Commission more than doubled this target with 110 open space easements or deed restrictions secured in permanent protection.

Shoreline Protection

The Coastal Commission received a competitive Project of Special Merit grant in 2012 to better assess the impacts of coastal armoring on biological and ecological resources and improve the commission's method for determining an appropriate mitigation value for approved coastal armoring permits. The project built upon ongoing efforts by the commission to fully mitigate the adverse impacts of shoreline armoring to beach recreation and access where those impacts are not feasibly avoided. Commission staff members worked with beach ecologists and economic valuation academics to document and evaluate beach resources and explore beach valuation methods that might better account for the impacts of permitted shoreline armoring on biological resources. Because of the current state of the science on valuing resources, there was not enough information to support commission adoption of a new way of valuing resources for the purposes of determining mitigation values for shoreline armoring project impacts. The results could inform future efforts.

The commission is moving forward to better understand the dynamics of the coast and how green infrastructure can provide protection from coastal hazards while having less negative impacts than shoreline armoring. As the results of the first projects such as Cardiff Beach living shoreline project are studied, they will inform guidance about how such features should be designed, where they might be most appropriate, and how they interface with other issues like habitat, sand management, and public access. As the commission works towards a strategy for implementing green infrastructure for shore erosion, the Office for Coastal Management encourages the Coastal Commission to look at other states that have strategies that may be helpful for a variety of energy environments, such as North Carolina, Maryland, Virginia, and dune restoration in Florida.

San Francisco Bay Conservation and Development Commission: Sediment Management

Overview

BCDC's law and policies provide for protection and enhancement of Bay habitat. Projects proposing fill or work in the Bay or the Suisun Marsh are required to provide mitigation for the adverse impacts of the project, often through restoration of diked areas to become Bay wetlands. Additionally, BCDC has specific policies regarding tidal marshes and tidal flats; subtidal areas, managed wetlands; and fish, other aquatic organisms and wildlife that provide for the protection and enhancement of coastal habitat. BCDC works closely with other agencies, such as the Coastal Conservancy, California Department of Fish and Wildlife, U.S. Fish and Wildlife Service, and other interested parties to promote conservation and restoration of Bay habitat.

Permitting

BCDC has permitted a number of restoration projects during the evaluation period. Many of the projects are supported with Coastal Conservancy funding and technical assistance. For example, BCDC authorized the U.S. Fish and Wildlife Service to restore 1,549 acres of tidal wetlands at Cullinan Ranch in the San Pablo Bay National Wildlife Refuge. Cullinan Ranch was once part of an extensive network of tidal marshes in the North Bay. It was diked in the late 1800s for farming until the U.S. Fish and Wildlife Service acquired the property in 1991 and incorporated it into the national wildlife refuge. Subsequent restoration was delayed because of the need to protect Highway 37 from flooding associated with tidal reintroduction. Project elements include protecting existing infrastructure, and breaching and lowering levees to allow sedimentation processes to restore tidal marsh. Restoration will improve ecological health, habitat connectivity, and water quality of the lower Napa River and San Pablo Bay.

BCDC requires monitoring of wetland projects to ensure that they are not causing adverse impacts and to help provide lessons learned. One common issue is that restoration project proponents often have limited funds to construct their projects and state that they cannot afford long-term monitoring.

Concerns were also raised by San Francisco Bay area stakeholders regarding the fact that restoration projects were often fully designed before stakeholders were required to address coastal access. The potential for permitting agencies and public access advocates to engage earlier in the planning process would be beneficial. The NOAA Office for Coastal Management encourages BCDC to explore opportunities to work with restoration project proponents early in the planning process, and to encourage restoration project proponents to work with public access advocates who can bring expertise in designing public access that minimizes impacts to coastal habitats.

BCDC is pursuing opportunities to improve and streamline its permitting process. For example, BCDC brought together permitting agencies, including NOAA, to address the narrow time window for restoration work resulting in a biological opinion that provides options for dredging outside the current three-month window if 100 percent of the sediment is for beneficial reuse.

In June 2018, the San Francisco Bay Restoration Authority voted to provide funds for at least five years to support a new Bay Restoration Regulatory Integration Team to “improve the permitting process for multi-benefit wetland restoration projects and associated flood management and public access projects in San Francisco Bay.” A team of agency representatives would review project information for consideration together and process permit applications in the most efficient possible manner. A Bay Restoration Policy and Management Team would resolve policy issues and provide direction for any elevated project decisions. The teams will include federal, state, and regional regulatory agencies.

Long-Term Management Strategy

Any dredging and disposal activity in San Francisco Bay, marshes, and some creeks requires a permit from BCDC. BCDC works with its federal, state, and local partners in the Long Term Management Strategy for the Placement of Dredged Material in the San Francisco Bay Region to manage dredging and disposal activities in the Bay Area. Formed in 1990, the program is a partnership involving the regulatory agencies, resource agencies, and stakeholders working together to maximize beneficial reuse of dredged material and minimize disposal in the Bay and at the Deep Ocean Disposal Site. The sponsoring agencies include the U.S. Environmental Protection Agency, U.S. Army Corps of Engineers, State Water Board, San Francisco Bay Regional Water Quality Control Board, and BCDC. Stakeholders that the evaluation team met with praised BCDC's role in implementing the program and described BCDC as "the glue" that keeps the Long Term Management Strategy together.

In 2013, a 12-Year Review of the Long-Term Management Strategy for the Placement of Dredged Material in the San Francisco Bay Region was completed. The review found that the Long Term Management Strategy program evaluation measures were substantially met during the first 12 years of program implementation. The review found that the program had led to the beneficial reuse of 44 percent of sediment dredged in the program's first twelve years (exceeding the target of 40 percent), and the Long Term Management Strategy in-Bay disposal limits were not exceeded and the agencies were continually improving the permitting process.

BCDC has worked throughout the evaluation period to improve understanding of sediment transport in the Bay. In 2011, BCDC received a Coastal Impact Assistance Plan grant and initiated a literature review and collected and catalogued relevant data and research papers. In 2014, BCDC hosted a Sand Mining Science Panel. Attendees identified gaps in knowledge and data and areas for additional research to better understand physical processes in the Bay, including the need for a research strategy to prioritize management questions that could be used by scientists in their selection of sediment-related research topics. BCDC, with assistance from the San Francisco Sentinel Site Cooperative, hosted the 2015 Science of Sediment workshop to generate a list of regional priority sediment questions. The findings were published in 2016, "The Science of Sediment: Identifying Bay Sediment Science Priorities Workshop Summary Report." An evaluation participant noted that "BCDC asks the questions that need to be answered by the research community. They excel at identifying the questions."

U.S. Geological Survey and Regional Monitoring Program for Water Quality in San Francisco Bay used the results of the workshop to help inform the focus of a study, "Sediment Supply to San Francisco Bay, Water Years 1995 through 2016: Data, Trends, and Monitoring Recommendations to Support Decisions about Water Quality, Tidal Wetlands, and Resilience to Sea Level Rise (2018)." The results of this report will be used in the Healthy Watershed – Resilient Baylands project funded by the U.S. Environmental Protection Agency, which will refine the recommendations for sediment monitoring and include recommendations for shoreline resilience monitoring to better inform marsh restoration decision-making. This effort led to Flood Control 2.0. There continues to be a need for improving sediment management and identifying best

management practices that are technically feasible and affordable. The NOAA Office for Coastal Management encourages the BCDC to continue to convene stakeholders and identify new opportunities for improving sediment management and identifying best management practices that are technically feasible and affordable. BCDC has been the “glue” in ensuring the successful implementation of the Long-Term Management Strategy for the Placement of Dredged Material, a collaborative partnership to improve sediment management and understanding of sediment in San Francisco Bay.

Flood Control 2.0

In the Bay Area, the potential for new or prolonged flooding as sea level rises will not be confined to the shoreline. Sea level rise will also affect every tidal creek and flood control channel that drains into the Bay, causing water levels in these channels to rise and the tide to push further (“migrate”) upstream. Since these channels are intended to discharge rainfall runoff to prevent flooding of adjacent areas, this increasing zone of tidal influence will challenge flood management assets to function as intended. To provide information to help flood control agencies and restoration practitioners, BCDC, the San Francisco Estuary Institute, San Francisco Estuary Partnership, and San Francisco Bay Joint Venture implemented a multi-year U.S. Environmental Protection Act funded project, Flood Control 2.0

BCDC developed a guidance document, *Tidal Creeks and Flood Control Channels: Guidance for Assessing the Impacts of Sea Level Rise on This Flooding*, to assist Bay Area regional planners, flood managers, and local governments in understanding the vulnerabilities that flood control channels face from sea level rise and the responses that can be taken to improve the resilience of areas at risk of flooding. The project built on the ART program’s vulnerability assessment process and San Francisco Estuary Institute’s protocol for locating the current head of tide and predicting where this zone of tidal influence may migrate as sea level rises. In addition, to better help dredgers and restoration practitioners identify opportunities for beneficial reuse, BCDC worked with partners to develop the SediMatch program, an online tool to match available sediment from dredging efforts with restoration projects. The evaluation team heard positive feedback from both the dredging and restoration community about the SediMatch program.

Bayland Ecosystem Habitat Goals

BCDC participated in a three-year effort to update the Bayland Ecosystem Habitat Goals, serving as a member of the steering committee and on two technical working groups. The update identifies key scientific findings that support recommended actions to sustain diverse and healthy communities of wild plants and animals in the Baylands in the face of climate change and other future changes. The effort leveraged BCDC staff knowledge and project outcomes—for example, from the Corte Madera Creek Watershed project.

California State Coastal Conservancy: Habitat Restoration and Conservation

Overview

The California State Coastal Conservancy addresses coastal habitat through land acquisition, coastal habitat restoration, improving coastal resilience (discussed in the “Target Area 1” section), and environmental education (discussed in the “Target Area 3” section). The conservancy is seen as a leader and valued partner by the other organizations it works with. The conservancy serves in a variety of roles to best facilitate the completion of projects. The conservancy convenes partners and stakeholders to address emerging issues and create new initiatives, leads or assists with implementing initiatives, manages grant funding to support restoration efforts, and provides valued technical assistance. Partners that the evaluation team met with discussed the importance of the conservancy’s success in identifying additional sources of funding and the importance of the conservancy being able to fund project planning, because many funding entities will only fund construction. One partner stated that they could not accomplish their current pace of restoration without the Coastal Conservancy.

The conservancy has been engaged in many successful projects and partnerships over the evaluation period, a few of which are discussed in this section. The NOAA Office for Coastal Management commends the Coastal Conservancy for its leadership of initiatives in the San Francisco Bay and in Southern California to protect and restore coastal wetlands and support living shorelines. While the conservancy is highly successful, there are ongoing challenges, particularly with the large need for tidal wetland and other coastal habitat restoration in light of sea level rise and climate change impacts and the balance of public access and impacts to coastal habitat.

Integrated Watershed Restoration Program and Permit Streamlining

The conservancy, along with Santa Cruz County Resource Conservation District, California Department of Fish and Wildlife, Coastal Watershed Council, and the City and County of Santa Cruz, established the Integrated Watershed Restoration Program in 2003 to improve the effectiveness of watershed restoration efforts. The effort now also includes the San Mateo and Monterey Counties Resource Conservation Districts, National Marine Fisheries Service, and local agencies. The conservancy’s \$6.5 million investment from 2003 to 2013 has leveraged \$14.5 million to implement more than 150 restoration projects.

As part of a recent Santa Cruz pilot project, the conservancy took the lead in looking at opportunities to streamline permitting. The conservancy led the project partners and permitting agencies in the development of permits for a program, a suite of projects, instead of permitting each individual project. The multi-year program permits are held by the resource conservation district. A partner praised the conservancy’s technical assistance and partnership as “terrific.” Conservancy partners that the evaluation team met with saw a continuing role for the coastal conservancy in working with the Coastal Commission, BCDC, and NOAA to move forward in streamlining permitting for future restoration projects. Partners discussed the need to move forward more quickly with restoration projects because of sea level rise and other climate change

impacts. They also highlighted the need for regional effectiveness monitoring, including a standards toolbox and regional priorities to understand the long-term success of projects using new restoration techniques and in light of climate change. Partners saw the conservancy as well positioned to address these needs as both a convener and practitioner.

San Francisco Bay Clean Water, Pollution Prevention, and Habitat Restoration Program

In 2016, voters in the nine-county San Francisco Bay region overwhelmingly passed the San Francisco Bay Clean Water, Pollution Prevention, and Habitat Restoration Program measure, known as Measure AA, a \$12 a year parcel tax raising approximately \$25 million annually for 20 years to fund shoreline projects to protect and restore San Francisco Bay. The development of the measure was led by the San Francisco Bay Restoration Authority, created in 2008 by the California legislature. The regional agency is charged with raising and allocating local resources for the restoration, enhancement, protection, and enjoyment of wetlands and wildlife habitat in San Francisco Bay and along its shoreline, and for associated flood management and public access infrastructure. The conservancy provides staff support to the Restoration Authority and its projects and was integral to developing Measure AA, helping to define disadvantaged communities, convening permittees and permitters to address permitting difficulties, and developing metrics for tracking and sharing successes.

Southern California Wetland Recovery Project

The conservancy leads initiatives such as the Southern California Wetland Recovery Project, a partnership that includes public agencies, nonprofits, scientists, and local communities working cooperatively to acquire and restore rivers, streams, and wetlands in coastal Southern California. Using a non-regulatory approach and an ecosystem-based perspective, partners work together to identify wetland acquisition and restoration priorities and prepare plans, pool funding for undertaking priority projects, and oversee post-project maintenance and monitoring.

National Estuarine Research Reserve Partnerships

The conservancy partners with the Tijuana River National Estuarine Research Reserve on a number of projects, including a Science Collaborative grant, NOAA's Ecological Effects of Sea Level Rise Programs, and U.S. Environmental Protection Agency grants. The conservancy partnered with the Tijuana River Research Reserve on the Temporal Investigations of Marsh Ecosystems (TIME), a model investigative partnership enabling a better understanding of what coastal estuaries looked like in the past and how they might look in the future. The planning for the first phase of the Tijuana Estuary Tidal Restoration Program II for an approximately 480-acre salt marsh restoration at Border Field State Park is complete, and planning for the reclamation of the Nelson Sloan Quarry is underway. Both projects will contribute to ongoing research related to coastal wetlands and help address key needs identified by the Southern California Wetlands Recovery Project and Tijuana River Valley Recovery Team.

The conservancy is also a valuable partner to Elkhorn Slough. A staff member from Elkhorn Slough described how the reserve had leveraged funding from the conservancy for a restoration

planning project to obtain \$13 million for land acquisition and construction costs to implement the project. The conservancy staff was also praised for providing big picture guidance.

The conservancy has been involved in three major projects to reduce tidal scour in the slough and provide public and wildlife access, and has partnered with the reserve for many years to protect the estuary through conservation of watershed lands and implementation of improved management practices to reduce flows of sediments and nutrients into the lagoon.

The Baylands and Climate Change: What We Can Do

In January 2016, the conservancy released *The Baylands and Climate Change: What We Can Do*. The update to the 1999 *Baylands Ecosystem Habitat Goals Report* involved a collaborative of 21 management agencies working with a multi-disciplinary team of over 100 scientists. The report synthesizes the latest science and advances the understanding of climate change and sediment supply. It incorporates projected changes through 2100 to generate new recommendations for achieving healthy bayland ecosystems. The Bayland goals update is a roadmap for decision-makers, communities, and land managers to guide wetland restoration and watershed management for decades to come. The report concludes that restoration in the near term can save over 80 percent of our existing wetlands over the next 100 years, and if this restoration does not occur soon, we may not be able to preserve these important resources.

Findings

Accomplishment: The San Francisco Bay Conservation and Development Commission has been the “glue” in ensuring the successful implementation of the Long-Term Management Strategy for the Placement of Dredged Material, a collaborative partnership to improve sediment management and understanding of sediment in San Francisco Bay.

Accomplishment: The California Coastal Commission and State Coastal Conservancy, along with other partners, designed and implemented a project to restore Malibu Lagoon, which has improved coastal habitat and provides coastal access with unique and engaging interpretive features. The project includes extensive monitoring and is serving as a model for future projects.

Accomplishment: The Coastal Conservancy has served as a leader on initiatives in the San Francisco Bay and in Southern California to protect and restore coastal wetlands and support living shorelines.

Recommendation: The NOAA Office for Coastal Management encourages the California Coastal Program to continue to build its expertise on the impacts of public access on coastal habitats and methods to mitigate impacts, and to continue to work with state partner agencies to design appropriate public access into habitat restoration projects in order to balance the two coastal priorities.

Recommendation: The NOAA Office for Coastal Management encourages the California Coastal Commission and California State Coastal Conservancy to support and expand their partnership

and to leverage the research and training of the research reserves and other partners to advance scientific understanding and policy development on key habitat issues to build climate resilience, such as facilitating habitat migration corridors and living shorelines.

Recommendation: The NOAA Office for Coastal Management encourages the San Francisco Bay Conservation and Development Commission to explore opportunities to work with restoration project proponents and public access advocates early in the planning process.

Public Access

California Coastal Program: Public Access

Overview

The specific target area for each of the three agencies is public access.

The three components of the California Coastal Program play a significant role in the protection and provision of public access to the Pacific Coast and San Francisco Bay, and their efforts complement each other.

- BCDC provides and protects public access along the San Francisco Bay shoreline through a permitting process that requires every project receiving a BCDC permit to provide maximum feasible public access consistent with the project permit and through initiatives, projects, and partnerships focused on improving public access.
- The Coastal Commission protects, maintains and enhances public access along the California coast through a permitting process that requires all projects be consistent with the Coastal Act's public access policies. In addition, the Coastal Commission manages a grant program that provides small grants for coastal education and in support of education-based public access activities.
- The Coastal Conservancy supports public access along the California coastline and in the nine-county San Francisco Bay region by providing technical assistance and funding for planning, siting, design, and development of public access ways, land acquisition, accepting donations and dedications of land and easements, and providing funding to support coastal education and access. The conservancy works in close coordination with the Coastal Commission and BCDC to improve public access. The Conservancy provides ongoing support and funding for the completion of the Coastal Trail, San Francisco Bay Trail, and San Francisco Bay Water Trail.

Trail Guides

The California Coastal Program continues to improve the availability of public access information.

- BCDC and the Association of Bay Area Governments developed the Bay Shoreline Access web guide (baytrail.abag.ca.gov), a publically available interactive map of shoreline recreational opportunities. The map is searchable by various activities from bird watching to dog walking and fishing. The web guide also has a mobile-friendly website.

- The San Francisco Bay Trail, part of the Association of Bay Area Governments, received two Explore the Coast grants from the Coastal Conservancy to develop smartphone audio tours, focusing on human and natural history to enhance user experiences along portions of the Bay Trail.
- The printed “San Francisco Bay Shoreline Guide,” second edition, was published in 2012 by the Coastal Conservancy with assistance from the San Francisco Bay Trail.
- The Coastal Conservancy developed the San Francisco Bay Water Trail web guide (sfbaywatertrail.org), a publically available guide to safe locations for launching and landing non-motorized boats and beachable sail craft sites.
- The Coastal Commission published the seventh edition of the “California Coastal Access Guide” in September 2014; the first edition of “Beaches and Parks from San Francisco to Monterey” in 2012; and the first edition of “Beaches and Parks in Southern California: Counties Included: Los Angeles, Orange, San Diego” in 2019.
- In late 2018, the Coastal Commission, as part of a 2013 coastal act violations settlement with a tech billionaire, released the YourCoast App, which helps people easily find California beaches, trails, and parking.
- BCDC and the Coastal Commission developed consistent public access signage during the previous evaluation period for their jurisdictions. The signage continues to be in use, and stakeholders noted that the consistent signage is very effective in communicating where there is public access

San Francisco Bay Water Trail

In 2005, the Water Trail Act established the San Francisco Bay Area Water Trail and directed BCDC to lead a collaborative public-planning process to define policies, criteria, and guidelines for appropriate trail location, design, operation, and maintenance. If public access is not feasible, in-lieu fees are used in the area to support public access. During the evaluation period, the water trail plan was adopted and incorporated into the Bay Plan, and the Coastal Conservancy now leads the implementation in collaboration with the Association of Bay Area Governments, Metropolitan Transportation Commission, BCDC, and Cal Boating. The Coastal Conservancy completed an environmental impact report for the trail and provided a \$2 million block grant for implementing the trail.

The water trail is a network of launch and landing sites for non-motorized small boat users to enjoy the historic scenic, cultural, and environmental richness of San Francisco Bay. The water trail provides increased opportunities for low-cost access to bay waters. As of October 2017, 39 of the 100-plus anticipated sites were complete.

Partners appreciated BCDC’s support of the water trail and its role identifying potential suitable sites. The water trail coordinator with the Association of Bay Area Governments also works closely with BCDC’s Design Review Board to ensure access is compliant with the American Disabilities Act (ADA) and designed to maximize use.

San Francisco Bay Trail

Since its creation, BCDC has been tasked with requiring maximum feasible public access within the Bay's 100-foot shoreline band. In 1987, state legislation also established the San Francisco Bay Trail, a planned 500 mile trail through 47 cities and 9 counties. From 2010 to September 2016, approximately 30 miles of additional public access was provided along the Bay shoreline through BCDC's efforts. The conservancy was able to provide direct funding and technical assistance for 60 miles of the Bay Trail, and over 350 miles are now complete. The conservancy also conducted a focused planning study for 130 miles of the system to get projects ready for construction. Partners noted that there were opportunities to continue to increase education, such as through birding, along the Bay Trail.

BCDC and the Coastal Conservancy work with The San Francisco Bay Trail Association of the Association of Bay Area Governments, which manages The San Francisco Bay Trail Project. The trail is also supported by groups such as the Trails for Richmond Action Committee (TRAC), a highly effective all-volunteer Bay Trail booster. The City of Richmond uses in-lieu permit fees to support increasing public access along the Bay, and TRAC has successfully applied for additional grant funding to leverage these fees for more public access and 35 of the 42 miles of the Bay Trail in the City of Richmond are now complete.

Coastal Trail

The California Coastal Trail is a network of public trails for walkers, bikers, equestrians, wheelchair riders, and others along the 1,200 mile California coastline, and is over 50 percent complete. The Coastal Conservancy is leading the development of the trail and provides funding to public agencies and private nonprofits to acquire land and construct new segments of the trail. The Coastal Commission, through its permit process, helps ensure the selection of a continuous and coordinated trail alignment, which protects natural resources in a manner consistent with the Coastal Act.

Numerous projects supporting the Coastal Trail have been completed during the evaluation period. For example, the Coastal Commission approved a project in 2014 to relocate a three-mile stretch of State Route 1 in San Luis Obispo County approximately 500 feet inland. The new route is projected to be safe from erosion hazards into the next century. Coastal Commission staff members worked with Caltrans, the Coastal Conservancy, and many state and county partners on the project, which provides 3.5 miles of Coastal Trail and improves coastal habitat by bridging stream crossings and restoring dozens of acres of coastal prairie and wetlands. The project is an example of the Coastal Commission and CalTrans working together to consider public access from the initial project planning. The project also expands an existing state park that includes Piedras Blancas, a 25-acre parcel acquired by the Coastal Conservancy and other partners with funding in part from NOAA's Coastal and Estuarine Land Conservation Program.

Visual Access

The Coastal Commission continues to work to ensure the public has visual access to the coast through its permitting process. For example, the commission works closely with CalTrans when

redoing large infrastructure such as bridges along the coast to ensure that design and construction meet the commission's visual policies.

Offers-to-Dedicate Coastal Access

The Coastal Commission addresses public access through its permitting program and may require dedication of public access easements when issuing a permit. These public access easements must then be accepted and managed by other organizations. The Coastal Commission is successfully working with the Coastal Conservancy and other partners such as the Mountains Recreation and Conservation Authority and Mendocino Land Trust to ensure that offers-to-dedicate are accepted by third parties and opened to the public. The Coastal Commission set a five-year evaluation metric target for acceptance of 50 public access easements and exceeded this with 89 access easements accepted by partners who will manage the easements for public access. The evaluation team was able to visit Malibu and see several new access ways that were opened after decades of litigation. The Malibu Road East public access way was constructed with \$1 million in funds from the Violation Remediation Account and Coastal Conservancy and includes an ADA parking space and ADA viewing platform. The site connects over a mile of coast during lower tides. The Carbon Beach West public access way with an ADA-accessible ramp and Carbon Beach East public access way were also opened during the evaluation period.

Enforcement

BCDC has an effective enforcement program that works with landowners and property managers to ensure that public access requirements are met. Partners stressed the importance of BCDC's enforcement role and that they were a great resource for any enforcement issues.

The Coastal Commission's enforcement program is discussed in the "Program Administration" section.

Land Acquisition and Easements

The Coastal Conservancy continues to successfully provide public access through land acquisitions and easements. For example, the Coastal Conservancy provided bridge funding to assist the Wildlands Conservancy, Sonoma Land Trust, and Sonoma County Agricultural Preservation and Open Space District with protecting 6,000 acres at Jenner Headlands with funding in part from the NOAA Coastal and Estuarine Land Conservation Program. The conservancy took fee title and integrated public access into the site, including providing funding for a 32 car parking lot. The conservancy has also served as mediator between public lands agencies and nearby landowners to address concerns over public access on public property and successfully mediate agreements that work for all parties.

Public Access for All

The Coastal Conservancy strives to connect its work to an ethnically and economically diverse population. The vast majority of California's population lives within 40 miles of the coast, and making residents aware of the connection between coastal issues, coastal watersheds, and inland areas is vital to its work. The conservancy's urban greening projects, creating links between

inland communities and the coast, and Explore the Coast grant program are important parts of this effort.

In 2014, through Senate Bill 1390, the California state legislature created the Santa Ana River Conservancy Program within the Coastal Conservancy. The program is an ongoing urban greening project in a lower income area spanning three counties with a total population of more than seven million. The conservancy is bringing together more than 100 agencies and providing funding for local governments to put together plans to improve 100 miles of the Santa Ana River, which provides flood protection and drinking water. The plans will address the resource and recreational goals of the region, including open space, trails, wildlife habitat, agricultural land protection, water quality protection, educational use, and public access.

The conservancy's Explore the Coast Grant Program provides grants of up to \$50,000 for a wide range of programs that bring people to California's spectacular coast to explore, experience, and learn. The program's priorities include providing a coastal experience for people that may face challenges getting to or enjoying the coast; opportunities for people to visit the coast for the first time; a valuable recreational, environmental, cultural, or historical learning experience; and increased stewardship of coastal resources. From 2013 to 2018, the conservancy awarded over \$5 million through 176 grants to organizations to provide access to the coast. In addition to providing funding, Coastal Conservancy staff members are valued for their technical expertise and ability to make connections.

The evaluation team learned about the impact of Explore the Coast grants from several organizations: Environmental Traveling Companions, Ocean Discovery Institute, Bay Area Outreach and Recreation Program, and Santa Cruz Harbor Science Center. These organizations cited the importance of the grants in enabling them to increase programing and reach their target audiences. The organizations were able to use the funds to provide opportunities for people with disabilities, children with parents in prison, people without homes, and low-income children to experience and learn about the coast. For example, the Ocean Discovery Institute has used funding to engage students as citizen scientists. Students collected and analyzed data and engaged in developing a master plan for a natural area in their community that was then implemented. The natural area is now being used by the community, whereas previously it was the site of illegal drug activity.

Stakeholders that focus on providing public access to underserved communities noted that they operate on a shoestring budget and don't have the time and resources to reach out across the broader community of access providers. They were very interested in having the conservancy bring public access providers together to learn from each other and share lessons on cultural relevance. The NOAA Office for Coastal Management encourages the California State Coastal Conservancy to consider bringing together nonprofit partners to share lessons on providing public access to underserved communities.

The Coastal Commission considers equity in public access through its permitting process. When permitting the Mavericks Surf Contest for 2017-18, the commission required the addition of a

heat for women. The commission also advised the organizers to further integrate female contestants and planners in future contests, which will be reviewed by the commission through subsequent permits.

The Coastal Commission's Whale Tail grants program and donations to Protect our Coast and Oceans Tax Check Off support programs that teach California's children and the general public to value and take action to improve the health of the coast. Many of these grants support providing underserved and inland schoolchildren and families with opportunities to visit and learn about the coast.

The Coastal Act mandates equal access to the coast, which includes the right to be able to find affordable overnight accommodations. The Coastal Commission uses a number of methods to support low-cost accommodations. The commission looks at coastal development permit applications and local coastal programs to determine impacts on low-cost visitor accommodations and identifies appropriate mitigation to address any loss.

In 2017, the legislature passed Assembly Bill 250, which requires the Coastal Conservancy to develop a Lower Cost Coastal Accommodations Program and allows for the Coastal Commission to redirect older unspent in-lieu fees to support low-cost access. Since 1989, 24,000 economy hotel rooms along the coast have been lost, accounting for nearly 70 percent of all rooms that have closed. The Coastal Commission secured \$4 million in in-lieu fee funds to provide funding for the development of tent cabins and a camp for foster youth at Puerco Canyon through a partnership with the Mountains Recreation and Conservation Authority.

In June 2018, Californians approved a new parks bond act, "California Drought, Water, Parks, Climate, Coastal Protection, and Outdoor Access for All Act of 2018," providing \$30 million for lower-cost recreational facilities, as well as \$226 million for the Coastal Conservancy for the protection of coastal lands, rivers, and watersheds. The funding is anticipated to facilitate implementation of Assembly Bill 250 in coming years. The California Coastal Commission, BCDC, and State Coastal Conservancy are striving to provide opportunities for everyone to enjoy the California Coast. The San Francisco Bay Water Trail provides new opportunities for low-cost boating access to the bay; new public access ways and new trails expand public access; and through Coastal Commission and Coastal Conservancy support, more programs have brought underserved communities to the coast to learn about, and experience, coastal habitats. The California Coastal Program's dedication to providing coastal access ensures that Californians and visitors continue to enjoy and have access to the coast.

Growing Challenges

In the future, sea level rise will pose an increasing challenge to maintaining current public access, as many areas will be some of the first to flood. Visual access may be reduced or lost as protective levees, floodwalls, or other structures are put in place to protect shoreline development. The California Coastal Program is taking action to begin to address these issues. For example, at Dotson Marsh in Richmond, the Bay Trail has been designed to be above sea level, while another segment was not paved, and when the area becomes submerged the agreement

for public access will end. Although the Coastal Commission, BCDC, and Coastal Conservancy recognize the issues and are considering climate change and sea level rise in their decision-making, new innovative ideas and practices will be needed going forward.

Stakeholders also noted that funding and support for maintenance of public access is a big issue and ongoing challenge across the state. In San Francisco Bay, stakeholders particularly identified an opportunity for BCDC and the Coastal Conservancy to bring together stakeholders in the region for a collective discussion on opportunities to better address maintenance and funding, and identify potential resources going forward. The NOAA Office for Coastal Management encourages BCDC and the California State Coastal Conservancy to convene stakeholders to discuss needs and identify opportunities to address resource needs for maintenance of public access going forward.

Findings

Accomplishment: The California Coastal Commission, BCDC, and State Coastal Conservancy are striving to provide opportunities for everyone to enjoy the California Coast. The San Francisco Bay Water Trail provides new opportunities for low-cost boating access to the bay; new public access ways and miles of trail expand public access; and through Coastal Commission and Coastal Conservancy support, more programs have brought underserved communities to the coast to learn about and experience coastal habitats.

Accomplishment: The California Coastal Program's dedication to providing coastal access ensures that Californians and visitors continue to enjoy and have access to the coast.

Recommendation: The NOAA Office for Coastal Management encourages the California State Coastal Conservancy to consider bringing together nonprofit partners to share lessons on providing public access to underserved communities.

Recommendation: The NOAA Office for Coastal Management encourages BCDC and the California State Coastal Conservancy to convene stakeholders to discuss needs and identify opportunities to address resource needs for maintenance of public access going forward.

Evaluation Metrics

Beginning in 2012, state coastal management programs began tracking their success in addressing three evaluation metrics specific to their programs. The evaluation metrics include a five-year target and provide a quantitative reference for each program about how well it is meeting the goals and objectives it has identified as important to the program. The San Francisco Bay Conservation and Development Commission and California Coastal Commission both developed and reported on their evaluation metrics. The Coastal Conservancy did not develop evaluation metrics because it was not receiving federal funding prior to 2016.

California Coastal Commission

Metric 1: Public Access

Goal: Improve shoreline access opportunities to the public

Objective: By 2017, increase public access through permanent acceptance of public access easements by third parties.

Strategy: One of the main regulatory tools that the Coastal Commission uses to offset the impacts of development on public access to and along the shoreline is to require that a legal document be recorded that provides for public access across that property as a condition of the coastal development permit. This legal document is most often in the form of an offer to dedicate for a vertical or lateral public access easement. In order for public access to be secured, the commission must locate an accepting agency to take responsibility for the easement and open specific sites. There are many public access offers to dedicate that have been required by coastal development permits that are not yet accepted; thus, public access is not yet permanently protected. As such, to achieve this metric, the Coastal Commission, working with others, will identify an appropriate government or nonprofit entity to accept the public access offers to dedicate and work with them to complete acceptance of the offer to dedicate, including providing said entity with recorded documents, maps, and other information regarding the offer to dedicate. Formal acceptance requires a resolution be adopted by the accepting entity's governing body. Formal acceptance papers are then submitted to the Coastal Commission for review, approval, and recordation.

Performance Measure: The number of access easements required by coastal development permits that are accepted by a third party to ensure public access is permanently provided.

Target: 50 access easements required by coastal development permits that are accepted by a third party to ensure permanent public access is provided over next 5 years.

Results:

First Year:	35
Second Year:	13
Third Year:	6
Fourth Year:	31
Fifth Year:	4

Cumulative: 89 access easements accepted by a third party ensuring permanent public access

Discussion: The Coastal Commission focused on ensuring that public access easements or deed restrictions were secured in permanent protection before they expired and was able to come close to doubling its target. The Coastal Commission's relationships with partners and additional staff throughout the evaluation period helped ensure that staff had time to secure permanent protection for the public access easements required by coastal development permits.

Metric 2: Resources Protection

Goal: Improve protection of coastal and ocean resources

Objective 1: Protect environmentally sensitive habitat areas (ESHA) and scenic resources against significant disruption from coastal development through the use of offer to dedicate open space easements or deed restrictions as special conditions of coastal development permits.

Strategy: Similar to the Strategy for the Public Access above, the Coastal Commission requires offers to dedicate for open space easements or open space deed restrictions as special conditions of a coastal development permit to ensure protection of Environmentally Sensitive Habitat Areas and other coastal resources. There are many open space offers to dedicate that have been required by coastal development permits that are not yet accepted; thus, the open space is not yet permanently protected. To achieve this metric, the Coastal Commission will identify an appropriate local government or nonprofit and work with them to complete acceptance of the Open Space offer to dedicate, including providing said entity with recorded documents, maps, and other information regarding the offer to dedicate. The Coastal Commission staff will facilitate the acceptance process by preparing a certificate of acceptance and taking the certificate to the appropriate County Recorder’s Office when necessary.

Performance Measure: The number of open space easements or deed restrictions required as special condition of coastal development permits secured in permanent protection.

Target: 50 open space easements or deed restrictions required as a special condition of coastal development permits secured in permanent protection over the next 5 years.

Results:

First Year: 15
Second Year: 26
Third Year: 15
Fourth Year: 25
Fifth Year: 29

Cumulative: 110 open space easements of deed restrictions secured in permanent protection

Discussion: The Coastal Commission focused on ensuring that open space easements or deed restrictions were secured in permanent protection and was able to more than double its target. The Coastal Commission’s relationships with partners and additional staff throughout the evaluation period helped ensure that staff had time to secure permanent protection for the open space easements or deed restrictions.

Metric 3: Adaption

Goal: Integrate climate change policies into local coastal programs (LCPs)

Objective 2: Update LCP Hazard Policies to address sea level rise, coastal erosion, and other coastal hazards related to climate change.

Strategy: Coastal Commission staff will provide technical guidance, example policies, and case study examples of existing local coastal programs that address coastal hazards related to climate change to assist local governments in updating their local coastal programs. Coastal Commission staff members will then review local coastal program amendments submitted by local governments that propose updates to hazard policies and will work with those local governments to include updated policies that address hazards posed by climate change and sea level rise if they are not initially included. The strategy for addressing the goal and objective is further described in the *2011-2015 309 Assessment and Strategy – Strategy 3* (page 137).

Performance Measure: Percentage of local coastal program amendments proposing hazard policy updates that include updated policies to address hazards posed by climate change and sea level rise at the time the local coastal program amendment is proposed in a staff recommendation to the Coastal Commission.

Target: 100% of local coastal program amendments proposing hazard policy updates include updated policies to address hazards posed by climate change and sea level rise at the time the local coastal program amendment is proposed in a staff recommendation to the Coastal Commission.

Results:

First Year: 1 of 2 = 50%
 Second Year: 4 of 4 = 100%
 Third Year: 3 of 3 = 100%
 Fourth Year: 1 of 1 = 100%
 Fifth Year: 2 of 2 = 100%

Cumulative: 11 of 12 = 92% of local coastal program amendments proposing hazard policy updates included updated policies to address hazards posed by climate change and sea level rise at the time the amendment was proposed in a staff recommendation.

Discussion: The Coastal Commission came very close to meeting its target to ensure that hazard policy updates also include updated policies to address hazards posed by climate change and sea level rise. The one local coastal program amendment that did not occur in the first year of tracking and this was because the local coastal program amendment that was submitted was very limited in scope for changes to the hazard set-back policies and Commission staff recognized that the local jurisdiction was working on a more comprehensive hazard policy LCP update that would be submitted at a later date. In years 2-5 the coastal program met its target of 100 percent.

San Francisco Bay Conservation and Development Commission

Metric 1

Goal: San Francisco Bay area communities develop strategies for adaptation to sea level rise

Objective: By 2017, BCDC will produce sea-level rise adaptation guidance documents and host workshops on incorporating sea level rise into decision-making to assist local governments in adapting to sea level rise.

Strategy: BCDC has taken a lead in developing an adaptation assistance program (AAP) to provide information and resources to Bay Area local and regional governments to assist them in planning for and adapting to the impacts of a changing climate. These outreach efforts primarily focus on addressing the needs of land use planning, public works, park and open space districts, flood control districts, and wastewater authorities, as well as resource-based managers. The long-term goal of the AAP is to help San Francisco Bay Area communities achieve coordinated and regionwide adaptation to climate change impacts. As part of this overall effort, BCDC will be developing adaptation guidance documents and hosting workshops for local governments to assist them in incorporating sea level rise into decision-making.

Performance Measure: Number of sea-level rise adaptation guidance documents produced by BCDC over the 5-year period.

Target: Two sea-level rise adaptation guidance documents produced by BCDC over the 5-year period.

Cumulative Results: 17 adaptation guidance documents

Discussion: Through the development of its Adapting to Rising Tides program, BCDC has developed and is providing extensive adaptation guidance to support local government adaptation efforts. The documents are hosted on the Adapting to Rising Tides website. In addition, BCDC completed the Policies for a Rising Bay project. The creation of the Adapting to Rising Tides program has enabled BCDC to greatly exceed its target.

Metric 2: Resources Protection

Goal: Policies in special area plans and San Francisco Bay Area Seaport Plan are current reflecting recent trends, issues, and information

Objective 1: Revise and update Special Area Plans and other plans to reflect current status and trends, address emerging issues, and reflect best-available information.

Strategy: In addition to the Bay Plan, BCDC's policies include six special elements: five special area plans and the San Francisco Bay Area Seaport Plan (Seaport Plan). One of the special area plans, the Suisun Marsh Plan, has sub-components called local protection programs (LPP). These plans and sub-components need to be updated periodically to reflect changing knowledge and state and local concerns. For example, the Seaport Plan, which guides regionwide decision-making regarding development of marine terminals within port priority use areas, was last updated in 2003. Since that time, there have been significant changes in the marine cargo shipping industry, as well as an increased urgency in the need to plan for sea level rise. In light of these and other changes, BCDC will be updating several plans and sub-components to reflect

current knowledge and needs. BCDC will submit the updated plans and sub-components to the commission for approval.

Performance Measure: Number of updated plans or sub-components submitted to commission over the 5-year period.

Target: Three updated plans or sub-components submitted to the commission over the 5-year period.

Cumulative Results: 0

Discussion: BCDC did not update plans or sub-components during the 5-year timeframe. BCDC did have a request from the Port of San Francisco to update the San Francisco Waterfront Special Area Plan and Seaport Plan but as BCDC determined the amendments do not raise policy issues, the port included the amendments in state legislation. Currently, BCDC staff are continuing to participate in a San Francisco Port convened workgroup and this effort may lead to possible amendments to the San Francisco Waterfront Special Area Plan.

Metric 3: Adaption

Goal: Improve understanding of Bay sediment transport processes and the potential impacts of recent changes in sediment supply, and identify needed management and policy changes

Objective: Educate resource managers whose actions directly affect Bay sediment transport processes about the paradigm shift in sediment supply to the Bay, and develop a common understanding of the need for management changes to respond to that shift.

Strategy: The commission works with federal, state, and local partners in the Long Term Management Strategy for the Placement of Dredged Material in the San Francisco Bay Region (LTMS) to manage dredging and promote beneficial uses of dredged sediment. However, because of the significant decrease in sediment supply to the Bay from the Delta, new measures are needed to ensure adequate sediment in the system to support existing shoreline and habitat stability, as well as recreational opportunities. Increasing sea levels and storm surge only exasperate the current situation, and will cause increasing vulnerability over time, compounding the sediment supply issues facing the Bay. In order to address this significant shift in management issues, BCDC has initiated an effort to develop a regional sediment management plan for the Bay that will take into consideration sediment management activities from the tributaries to the outer coast. This new and expanding initiative involves integrating sediment management efforts of flood control, navigation, aggregate mining, habitat restoration, and watersheds.

The commission will work with federal, state, and local partners to develop a program to investigate sediment-related changes to the system, assess potential impacts, determine key measures needed to respond, and implement changes to management activities. The regional sediment management program will consist of two distinct but collaborative paths, one focusing on scientific and technical research and the other on management strategies. The geographic

study area extends from the delta (at the confluence of the Sacramento and San Joaquin Rivers) to the outer coast of San Francisco Bay, including local tributaries. The delta, local tributaries, and the outer coast are important considerations in any Bay sediment management strategy as sediment is supplied, exchanged, and deposited in these areas. Commission staff will rely on the experience and expertise of the agencies and stakeholders that manage or work in Bay watersheds and the nearshore coast in making recommendations for any management activities or policies for these areas. Recognizing that sediment is a limited resource in the San Francisco Bay watershed, agencies and stakeholders will collaborate to coordinate beneficial use and management of all sources of sediment to meet existing and future sediment needs, including habitat creation and protection from coastal hazards in the face of accelerating sea level rise.

Performance Measure: Number of guidance documents identifying management practices and policy options that address changing sediment conditions produced over the 5-year period

Target: Two guidance documents identifying management practices and policy options that address changing sediment conditions produced over the 5-year period.

Cumulative Results: 2 guidance documents identifying management practices and policy options that address changing sediment conditions.

Discussion: The commission met its target with the publication of the *Central San Francisco Bay Regional Sediment Management Plan* (2016) and *Improving the Current Regulatory and Flood Protection System* (2016).

Conclusion

For the reasons stated herein, I find that the State of California is adhering to the programmatic requirements of the Coastal Zone Management Act and its implementing regulations in the operation of its approved California Coastal Management Program.

These evaluation findings contain 13 recommendations that must be considered before the next regularly scheduled program evaluation but which are not mandatory at this time. Recommendations that must be repeated in subsequent evaluations may be elevated to necessary actions.

This is a programmatic evaluation of the California Coastal Management Program, which may have implications regarding the state's financial assistance awards. However, it does not make any judgment about or replace any financial audits.

Kimberly Texeira for Jeff Payne
Jeffrey L. Payne, Ph.D.
Director, NOAA Office for Coastal Management

September 11, 2019
Date

Appendix A: Response to Written Comments

George C. Heatherington, President Environmental Center of San Diego

Mr. Heatherington states the California Coastal Commission is foundational to environmental preservation and enhancement and is influential nationally and globally. He notes that the California Coastal Program serves the public through research, regulation and enforcement of the Coastal Act.

He encourages NOAA to be informed by recent and long-term experience in offshore drilling and recognize the dangers to environment and safety. He states that Executive Order 13795 *Implementing an America-First Offshore Energy Strategy* must be strictly held to regulation which ensures that coastal waters and habitat are responsibly passed to future generations. He strongly recommends the proposed Advanced Notice of Proposed Rulemaking include increased funding for the California Coastal Commission.

NOAA Office for Coastal Management Response: The office thanks Mr. Heatherington for his comments on the value of the California Coastal Commissions' efforts. Mr. Heatherington's comments regarding offshore drilling and Executive Order 13795 are beyond the scope of this evaluation.

Dr. David S. Kossack San Andreas Land Conservancy

Mr. Kossack expressed concerns with the commissioners' implementation of the Coastal Zone Management Act. He states that the California Coastal Commission and State Coastal Conservancy have drifted from protecting the coast and are now focused on developing California rather than protecting coastal areas. He stated that in Prop 20 "public access" was to insure existing public access was not privatized. He expressed concern that the focus on public access is compromising coastal habitat, particularly Environmentally Sensitive Habitat Areas (ESHA) which then allows ESHAs to be more easily developed. He expressed concern that the Coastal Conservancy has too often promoted high intensity visitor access and crisscrossed ESHAs with parking lots, trails, and interpretive centers. He also expressed concern that the conservancy supported projects that change the rural coastal sense of place. He cites as an example, \$200,000 spent by the Coastal Conservancy to develop a Cement Plant Reuse Plan in Davenport, California.

He calls for NOAA to be more involved in state efforts to protect and restore coastal and ocean habitats and the ecological processes, particularly assisting the coastal program with implementing California's Public Resource Code 35515(a), "Provide[ing] a set of guiding principles for all state agencies to follow, consistent with existing law, in protecting the state's coastal and ocean resources.

Mr. Kossack recommends that the Ocean Protection Council should be part of the NOAA review. He expressed concerns with council decisions regarding where to focus its efforts.

Mr. Kossack called on the coastal program and Ocean Protection Council to develop an assessment of direct and cumulative impacts of public access on ESHA and coastal processes since 1972 and to identify breakpoints that trigger restrictions to access, public and private, including season, day and/or time, for the protection and restoration of ESHAs and the natural coastal processes. He stated there is a need to recognize that “no access”, public and/or private, for the protection and restoration of coastal ecosystems is of critical importance in providing ‘access in perpetuity’ to public trust resources.

He expressed concern that Coastal Commission Deputy Director Reports show changes in land use designations without public comment or analysis of growth inducing and cumulative impacts. He recommends that the CCC and BCDC audit the Deputy Director reports and Consent Calendar items for each District and look at growth inducing and cumulative impacts as well as project fragmentation.

He states it is clear from NOAA’s last CCC/SCC report that CCC confuses protecting ESHAs with project mitigation and that reducing ESHAs to fragments of mitigation is not protecting coastal ecosystems. He calls for an audit for habitat protection before NOAA provides any additional funding to any of these commissions.

Mr. Kossack expressed concerns that the Coastal Commission fails to delineate and/or enforce wetlands within the Coastal Zone as part of an ESHA.

Mr. Kossack expressed concerns that Coastal Commissioners made decisions based on the person before them, not the facts of the case.

He expressed concern that Coastal Commission enforcement is incapable of protecting ESHAs. Mr. Kossack also expressed concerns with the difficulties in getting Coastal Commission enforcement to move on a complaint and noted prevention was more effective. He particularly cited the case of an agricultural well installed in Santa Cruz County and that it took 6 years for the complaint to be addressed and the permit denied, while water continued to be pumped from an anadromous fish stream and that applicant is still using the well even though his permit was denied.

Mr. Kossack calls for the coastal program and Ocean Protection Council to address the need to reduce carbon dioxide to zero and for sequestration of carbon dioxide.

Included documents

- Email to advice@fppc.ca.gov, dated December 26, 2017.
- Coastal Commission Staff Report W21b Application A-3-SCO-12-046, dated January 19, 2018

- Letter from Dr. Kossack to California Coastal Commission, “Agriculture water impoundment in the coastal zone inundating the riparian corridor,” dated September 6, 2017
- Coastal Conservancy staff recommendation CEMEX Plant Reuse Plan, dated January 29, 2015
- Letter from John Laird assembly member, California Legislature to Mr. Rich Krumholz, District Director California Department of Transportation, District 5 regarding the scoping process underway for replacement of the Scott and Waddell Bridges in Santa Cruz County, dated June 25, 2007.

NOAA Office for Coastal Management Response: The office thanks Mr. Kossak for his comments. The Coastal Zone Management Act establishes a variety of policy priorities for approved coastal management programs, including natural resource protection, management of coastal development, public access to the coasts, and redevelopment assistance. Through the evaluation process and preparation of this findings document, the office has carefully considered the California Coastal Program’s implementation of these and other policy priorities, including the program’s ability to balance resource protection with public access and community development, along with the program’s identification of and response to implementation and enforcement challenges. For the reasons provided in these findings, the office considers that the coastal program has effectively implemented these balanced priorities in the evaluation period, although the office has also identified recommendations for areas of further progress and improvement.

The office is supportive of the Coastal Commissions efforts to develop guidance to help implement the Coastal Act and provides funding and technical assistance to assist with the commission’s identified priorities.

The California Ocean Protection Council is not part of the federally approved California Coastal Program and therefore the council’s activities do not fall under the scope of this evaluation. The state could choose to pursue incorporating the council into the federally approved program but would need to submit a request for this change to NOAA for approval.

The office is supportive of coastal program efforts to assess direct and cumulative impacts. The coastal program may choose to pursue such studies, and specific program actions or approvals may be subject to environmental review and analysis requirements under state law.

It is not entirely clear, what Mr. Kossak is referring to regarding confusing protecting ESHAs with project mitigation. The office concurs that it is time consuming and difficult for the Coastal Commission to enforce permit conditions related to habitat protection under its current procedures. The evaluation findings include a recommendation that the Coastal Commission explore solutions to address the remaining enforcement violation cases in an equally effective manner. In addition, the findings recommend that the Commission look to its 2008 report, *Towards Compliance Assurance: Developing a Program for Improving Compliance with the California Coastal Act* for recommendations for improving compliance.

The office is supportive of reducing carbon dioxide emissions but efforts to reduce carbon dioxide and sequestration of carbon dioxide are beyond the scope of this evaluation.

The Coastal Commission regulates wetlands under Public Resources Code Division 20. California Coastal Act Chapter 3 Coastal Resources Planning and Management Policies, Article 4 Marine Environment [30230-30236] and environmentally sensitive habitat areas under Article 5 Land Resources [30240-30244].

Jeff Clemence

Mr. Clemence described his experience going through the California Coastal Commission permitting process as disappointing. He expressed concern that some commissioners are out for their own agendas, were being unduly influenced, and specific speakers were given preference. He also noted that commissioners believed facts cited by other parties that were wrong while the applicant cited truthful facts directly from the county. He stated that commissioners should investigate conflicting 'facts' if they are going to use that information to make decisions. He also stated he strongly suspected exparte communications were not being turned in. He noted that you can see commissioners and parties emailing each other on video during commission meetings. He stated in his specific case staff reports were for the applicant and the county had approved the application but the approval was appealed by one county supervisor and Coastal Commissioners. He notes that Commissioners should be qualified people who don't make decisions based on personal agendas and politics.

Lynn Clemence-Lucas

Ms. Clemence-Lucas states that over the past year or so she had been in front of the Coastal Commission on three separate occasions and livestreamed other meetings. She noted that some of the commissioners listen to the information provided, ask questions and are thoughtful in their comments and deliberation while others are seemingly not paying attention, wondering around and are seen talking to persons that may be trying to gain votes for their case.

She stated that the Coastal Commission is supposed to be nonpartisan and each application given careful and honest evaluation based on its merits. She noted that in her case it was apparent that several minds were made up long before the presentation. A member of the Local Board of Supervisors, who had previously publically stated he is against all vacation rentals, gave incorrect numbers to support his view while the applicants were not allowed to rebut the incorrect statements. The staff report prepared for both the De Novo hearing and the official hearing supported approval. One commissioner incorrectly lectured another commissioner and the public on his belief that commissioners should, and normally do, side with the commissioner whose district the application falls under. She expressed concern that a few commissioners are advancing and protecting their own personal agendas to the exclusion of doing an open and honest service for the people and coast of California.

Ms. Lucas-Clemance also included observations made by a judge in the case for Spotlight on Coastal Corruption that questioned if the commissioners had the time to carry out their duty as a part-time unpaid volunteer board.

NOAA Office for Coastal Management Response: The office thanks Mr. Clemence and Ms. Clemance-Lucas for sharing their experiences and providing comment. The evaluation findings, Target Area 1, include a discussion of issues around short term rentals and encourage the Coastal Commission to hold a public workshop with commissioners to further understanding around issues surrounding short term rentals and the role of the coastal program. The December 6, 2016 Executive Director's Report includes information on commission staff's efforts to address ex-parte communication issues through the development of a disclosure checklist for commissioners and a commission staff procedures memorandum for handling ex-parte communication disclosures and archiving the information to help achieve a more open and transparent ex-parte disclosure reporting process. The recent litigation regarding ex-parte communications upholds the importance of reporting and disclosing ex-parte conversations. Commissioners receive training when they become commissioners and coastal commission staff hold periodic workshops to inform commissioners, staff, and the public regarding key issues. The office is supportive the ongoing training opportunities for commissioners that are implementing the Coastal Zone Management Act.

Penny Elia

Ms. Elia states that as NOAA noted in their 2010 evaluation, the Coastal Commission needs more funding and more staff to handle their job of ongoing protection and preservation of the coastline. In particular, she noted the need for additional enforcement staff.

She noted the importance of updating outdated LCP's, many over 20 years old, and not just focusing on developing new LCPs. She noted that outdated LCPs can create conflict and turmoil as cities implement unapproved amendments as if they have certification, often leading to development that is not consistent with the Coastal Act and end up as enforcement cases. She also noted that the Coastal Commission continues to be constrained by outdated technology and could benefit from better sharing of information across resource agencies.

She noted that there are potential opportunities to expand funding which is needed as funding that is decreasing as fewer people are buying Whale Tail license plates, which supports education. She noted there is an educational need, particularly around sea level rise and ensuring the increasing number of people visiting the beach are equipped to be strong ocean and beach stewards. She strongly supports the establishment of a 501c3 by the Coastal Commission to allow it to directly accept donations. Ms. Elia encourages the coastal program to analyze web usage and assess the need for additional funds. She notes that the coastal program, since 2010 has been able to hire a public information officer, but that this position needs current technology.

She also noted the Coastal Commission and State Coastal Conservancy appear to both be drifting away from protecting the coast and the need to strike a better balance between public access

and protection of habitat. She notes that they are increasingly becoming planning-driven agencies instead of implementing the Coastal Act's required protection of coastal resources in the face of growing development pressure.

Ms. Elia encouraged closer coordination between the Coastal Commission and Coastal Conservancy to ensure that grant funds are directed to projects that can actually have a positive impact.

NOAA Office for Coastal Management: The office thanks Ms. Elia for her comments. The office has considered and addressed the staffing and resource limitation issues in this findings document, and as described above, the Coastal Commission has been able to hire additional staff during this evaluation period, to work on local coastal programs and enforcement. These positions, along with additional grant funds for communities, have enabled the Coastal Commission staff to engage earlier with communities in the planning process resulting in a more efficient and effective process. In addition, state funds for grants to local communities have provided the opportunity for a number of communities to update their local coastal programs to address current issues including sea level rise. Recently the commission also was able to hire two temporary staff to support enforcement of public access.

The evaluation findings include a recommendation that the Coastal Commission continue to pursue additional funding to support local coastal program updates and to ensure that coastal communities have the information and tools they need to update or develop their plans. The evaluation findings discuss enforcement in the *Program Administration section* and include a recommendation for pursuing expanded authority to make the enforcement program more effective and efficient. The addition of expanded authority to address public access issues and the addition of several temporary staff have resulted in dramatically improved timeliness in addressing violations. The office agrees the Coastal Commission could benefit from improved technology and the findings include a recommendation to pursue expanding their new permit system. The office is supportive of Coastal Commission efforts to pursue funding for education. The *Target Area 2 section* discusses the concerns raised by some stakeholders regarding the balance of public access and protection of habitat and includes a recommendation to build expertise on the impacts of public access on coastal habitat and how to mitigate public access impacts and to engage early with federal and state agencies as habitat restoration projects are planned to ensure appropriate access.

Anna Christensen

Protect the Long Beach/Los Cerritos Wetlands

Ms. Christensen stated that public outreach for the California Coastal Commission meeting was inadequate as only one community member attended. She stated that the newspaper notice should have been placed in the LA Times, made part of the daily TV news, and that NOAA should maintain a list of environmental nonprofits to contact. She also stated that hearings should be held from Oregon to the San Diego border.

She stated that it was disrespectful that hundreds of residents traveled to Sacramento to attend the NOAA hearing on new offshore drilling leases but did not have the opportunity to speak, only to fill out comment cards. She requested that NOAA provide a better plan for inclusion.

Ms. Christensen expressed concern about a proposed project involving the Los Cerritos Wetlands Authority and Beach Oil Minerals Partners. She states that the California Coastal Conservancy is in violation of its mandate and the federally approved California Coastal Program. The project includes drilling for 200 million barrels of oil beneath the Los Cerritos Wetlands and surrounding coastal lands and waters and construction of associated infrastructure next to ESHA. Ms. Christensen expressed concerns over the extraction and use of millions of gallons of groundwater, the re-injection of wastewater beneath the Los Cerritos Wetlands and surrounding coastal lands and waters, and the construction of an oil pipeline across ESHA wetlands and over the Newport Inglewood Fault. She notes that while the project itself has yet to be submitted for Coastal Commission review, the LCWA and the City of Long Beach have requested that the California Coastal Commission approve an amendment to the Local Coastal Plan for the City of Long Beach, as well as an application for new oil drilling permits for LCWA property and one other site containing ESHA habitat. She asks that NOAA investigate this matter in a timely fashion as the California Coastal Commission could be voting on this matter in August. She stated that requests to place this matter on the agenda of the Coastal Conservancy were rejected and our questions regarding the decision of our state environmental protection agencies to directly engage in the expansion of oil extraction have been met with silence.

She also raised concerns regarding the effect the proposed project would have on local tribal peoples who regard the Los Cerritos Wetlands as central to their history and culture. She states the LCWA, the Coastal Conservancy, the City of Long Beach, and Beach Oil Minerals Partners have failed to consult with tribal governments and groups having a historic and cultural connection to the project area in violation of state and national laws.

Ms. Christenson also raised concerns that the California Coastal Conservancy contributed \$500,000 towards the construction of a replica of Juan Cabrillo's ship with whose arrival began the assault on California Indian peoples and lifeways that continues today. She noted while technically legal (encouraging tourism in San Diego), the replica does nothing to protect or preserve natural coastal resources.

Attachments provided:

- Letter from Carrie Tai, City of Long Beach addressed to Charles R. Posner, California Coastal Commission, "City of Long Beach Local Coastal Program (LCP) Amendment Request No. 1-18 (LCP-5-LOB-18-0026) – Response to March 14, 2018 CCC letter" dated April 17, 2018
- Oil Map Amendment Findings Application No. 1601-05 (C and D), dated January 16, 2018
- Site Plan Review Findings Application No. 1601-05, dated January 16, 2018
- Draft Southeast Area Development and Improvement Plan (SEADIP)(PD-1), dated January 16, 2018
- Chapter 12.08 – Oil Operating Areas [City of Long Beach]

- Comment letter from Protect the Long Beach/Los Cerritos Wetlands to Long Beach Planning Commission and Long Beach Development Services, “Protect the Long Beach/Los Cerritos Wetlands appeals the decision by the Long Beach Planning Commission to approve the Los Cerritos Wetlands Restoration and Oil Consolidation Project (the FEIR and all requested permits), dated December 11, 2017
- Excerpts from California Coastal Commission’s Comment Letter on the Los Cerritos Wetlands Restoration and Oil Consolidation Project DEIR
- Letter from Patricia Martz, PhD, President California Cultural Resource Preservation Alliance to Mr. Chalfant, City of Long Beach, “Los Cerritos Wetlands Oil Consolidation and Restoration Project Draft Environmental Impact Report,” dated September 5, 2017
- State Coastal Conservancy Tribal Consultation Policy, dated September 14, 2015
- Factsheet “The Los Cerritos Wetlands Restoration and Oil Consolidation Project will pollute a pristine salt marsh, and drill 120 new oil and water injection wells along the Newport-Inglewood earthquake fault – you can’t drink oil and neither can wildlife”
- Letter with attachments from Kate Huckelbridge, California Coastal Commission to Craig Chalfant, City of Long Beach, “Comments on the Draft Environmental Impact Report for the Los Cerritos Wetlands Oil Consolidation and Restoration Project, dated September 15, 2017.
- Coastal Conservancy Staff Recommendation “Historic Ship *San Salvador* Reconstruction File No. 07-076,” dated September 20, 2017
- Hough, Susan E. and Page, Morgan. 2016. “Potentially Induced Earthquakes during the Early Twentieth Century in the Los Angeles Basin” *Bulletin of the Seismological Society of America*, Vol. 106 (6):2419-35, doi:10.1785/0120160157.
- Letter from Alice Stevens on behalf of Long Beach 350 to Craig Chalfant, City of Long Beach Development Services, undated
- Factsheet “Do goals of three state environmental protection agencies conflict with their decision to use groundwater to extract 200 million barrels of oil from under the Los Cerritos Wetlands and surrounding waterways?”
- Letter from Anna Christensen, Protect the Long Beach/Los Cerritos Wetlands to the California State Coastal Conservancy, “request to place an item on the agenda of the CSCC meeting in January 2018,” dated November 30, 2017
- Option Agreement between Los Cerritos Wetlands LLC and the Los Cerritos Wetlands Authority, dated September 2, 2016
- Rong-Gong Lin II. 2016. “Southern California’s deadliest quake may have been caused by oil drilling, study says.” October 31. *LA Times*
- Flyer “Save the Best Salt Marsh in Southern Calif Stop the Los Cerritos Wetlands Restoration and Oil Consolidation Project”

NOAA Office for Coastal Management: The office thanks Ms. Christensen from her comments. Consistent with Coastal Zone Management Act program evaluation public notice requirements and policies, the NOAA Office for Coastal Management advertised the public meeting in the *Federal Register* and on its website. Locally, a public notice was placed in the Los Angeles Times

and the Coastal Commission provided information on the public meeting on its website. Members of the public were also able to provide written comments.

Ms. Christenson raised concerns regarding a hearing in Sacramento on new offshore drilling leases. This matter is outside the scope of this analysis and the evaluation printings.

Ms. Christenson also raised concerns around the Los Cerritos Wetlands Restoration and Oil Consolidation Project. The coastal development permit for this project was approved by the Coastal Commission in December 2018. The scope of this evaluation considers implementation and enforcement of the program as a whole and does not address specific permitting decisions as part of the evaluation but rather any pattern of concern throughout the evaluation period.

NOAA acknowledges Ms. Christenson's concerns with regard to construction of a replica of the San Salvador. The Coastal Commission, State Coastal Conservancy, and San Francisco Bay Conservation and Development Commission have developed policies and invested in staff training to improve their understanding of environmental justice issues and policies. Recently the agencies have also developed and adopted tribal consultation policies. In addition, the state legislature has made changes to the Coastal Act and called for one Environmental Justice Coastal Commissioner to help address this issue. The NOAA Office of Coastal Management is supportive of the coastal program's efforts to better address environmental justice in its day-to-day activities and efforts to work with underserved communities.