

Host Agency
Location

California State Controller
300 Capitol Mall, Suite 1850
Sacramento, CA 95814

Fellowship Supervisor and Point of Contact

Anne Baker
Deputy Controller, Environmental Policy
abaker@sco.ca.gov
(916) 445-2636

Agency Background:

The California State Controller is the chief fiscal officer of California, the world's sixth largest economy, and as such is responsible for the accountability and disbursement of the state's financial resources. The Controller also serves on 70 boards and commissions, including the State Lands Commission, which oversees California's ports, rivers, submerged tidelands, conservation lands, mineral rights, and marine oil terminals along the state's 1,100+ miles of coastline from approximately the mean high tide line to three nautical miles offshore, as well as millions of miles of non-coastal rivers and lakes. In even years, the Controller serves as the chair of the State Lands Commission, and as the chair, also serves on the Ocean Protection Council and the California Coastal Commission. In these roles, the Controller plays a vital role in protecting California's vital natural resources and coastline, advancing the shift to green energy, and modernizing state transportation systems to reduce greenhouse gases and combat climate change. These efforts ensure sustainable and responsible stewardship of public-trust lands, waterways, industrial wharves, marine terminals, pipelines, and resources through economic development, protection, preservation, and restoration consistent with the state's environmental needs.

Position Description:

The Sea Grant Fellow will be based in the Controller's primary office in Sacramento and will have the opportunity to work on complex and challenging marine and coastal issues, working on a variety of short-term and long-term projects throughout the fellowship year. The Fellow may also participate in conferences, interagency meetings, and collaborative projects with other Fellows as opportunities arise. While specific project duties will be developed collaboratively among the Fellow, Deputy Controller, Environmental Policy, Chief of Staff, and Controller, and will be based on what needs may arise during the fellowship, the Fellow would generally focus on assisting the Deputy Controller, Environmental Policy on issues and initiatives stemming directly from the Controller's membership on the Ocean Protection Council and California Coastal Commission, and her role as chair of the State Lands Commission.

The Fellow will mainly focus on projects related to climate change mitigation and greenhouse gas reduction efforts at the major ports; sea-level rise preparedness and adaptation; offshore renewable energy potential; coastal erosion, seawalls, and natural coastal infrastructure; and the San Diego ocean planning partnership. This will include continuing to refine ongoing climate change and sea-level rise policy and outreach strategies, integrating the best available science into decision-making processes, and collaborating with other state, federal, local, and tribal entities.

Examples of potential projects include:

- Sea level rise science and guidance
- Port air quality/climate action plans
- Marine renewable energy
- Offshore oil development and terminals
- Ocean spatial planning in San Diego
- Coastal armoring/natural infrastructure
- Port sea level rise preparedness (AB 691)
- Cultural and tribal resources

Desirable Qualifications:

- Ability to work both independently and with diverse interdisciplinary teams that require clear communication;
- Ability to develop and apply expertise in natural resources and coastal management issues;
- An interest in California Environmental Quality Act and other natural resource laws, rules, and regulations (e.g., National Environmental Policy Act, California Coastal Act, California Ocean Protection Act, Federal and State Endangered Species Acts, etc.).
- Ability to translate science into layperson's terms;
- Familiarity and/or experience with GIS and web-development;
- Ability to work toward consensus positions with governmental, private, and public interest groups;
- Enthusiasm for public policy and lawmaking; ability to work in a complex, fast-paced professional environment;
- An interest or experience in using social media to educate, engage, and communicate with a wide array of audiences.

CALIFORNIA COASTAL COMMISSION

45 FREMONT STREET, SUITE 2000
SAN FRANCISCO, CA 94105-2219
VOICE (415) 904-5200
FAX (415) 904-5400
TDD (415) 597-5885

**2018 SEA GRANT STATE FELLOWSHIP****CLIMATE CHANGE EMPHASIS****CALIFORNIA COASTAL COMMISSION****Overview**

The California Coastal Commission implements the California Coastal Act of 1976 and has regulatory authority over development along the coast in balance with the protection of coastal resources, environmentally sensitive habitats, and public access. This work is carried out through land use planning and permitting. The Commission is an independent, quasi-judicial state agency whose authority is defined as the coastal zone, a 1.5 million-acre area stretching 1,270 miles along the state's mainland coastline from Oregon to Mexico, and around nine offshore islands (333 miles of island shoreline). The Commission also has the responsibility to work with local governments to establish Local Coastal Programs (LCPs) which, when certified by the Commission, become the land use plan basis for coastal permitting at the local level. Furthermore, the Commission has the purview and planning responsibility to assess and address issues of state-wide importance such as sea level rise and coastal erosion and the implications of these on Coastal Act resources. Both sea level rise and coastal erosion will be exacerbated by climate change.

Position Description

The Sea Grant Fellow will be exposed to and work on a broad range of coastal and ocean issues that are part of the Coastal Commission's regulatory and Local Coastal Program planning work throughout the coastal zone. He/she will have a unique opportunity to assist executive, management and policy level staff in the headquarters and district offices of the California Coastal Commission on a variety of coastal and ocean resource protection issues with a special emphasis on climate change and sea level rise adaptation planning. The Fellow will also have the opportunity to interface directly with senior government officials and leaders in resource management policy throughout California. Fellow work products, potentially including presentations and collaborative work on reports with the Coastal Commission and with other state agencies, especially the Resources Agency and the Ocean Protection Council (OPC), will be highly visible. The Sea Grant Fellow may work with the OPC to help coordinate/staff efforts to improve interagency collaboration on California's marine protected areas, climate change and other issues to be determined.

More specifically, a Sea Grant Fellow with the Coastal Commission will support the executive and senior policy and technical staff in its broad state-wide climate change policy work such as implementation of Safeguarding California, participating in multi-agency meetings, serving as a communication conduit between the Commission and various California Natural Resources Agency/OPC sponsored workgroups, drafting Commission recommendations for state-wide planning documents, and assisting the Commission in developing or enhancing projects including those that are done in cooperation with other state partners. The role of the fellow may include support on large-scale team projects and also likely several smaller independent projects which the fellow will develop and manage.

Projects/activities that the fellow will be expected to work on would include:

- 1) Assisting in review of climate-related documents such vulnerability assessments, adaptation plans and other technical reports in support of land use plan development for Local Coastal Programs and regulatory work on coastal development permits;
- 2) Supporting outreach and education efforts to local governments, other state agencies, stakeholders and the public about climate and sea-level rise planning information, products and tools. This work could include assisting with updates to the Commission's website and with planning outreach events such as webinars and workshops;
- 3) Assisting Interagency Coordination and Collaboration. As described above, the fellow would support Commission staff efforts done in coordination with other state agencies to implement, track and report on climate adaptation and other sea level rise planning efforts,
- 4) Supporting implementation of key climate change related action items of the Commission's 2013-2018 Strategic Plan and the 2018 update of the Strategic Plan; and
- 5) Supporting various climate-related special projects including two distinct sea level rise-related grant projects, one on planning for critical infrastructure and one on protecting public trust lands and resources. The Fellow would carry out discreet tasks to complete those special projects.

Given the wide range of projects and initiatives undertaken by the Coastal Commission along the entire California coast, a successful Sea Grant Fellow at the Coastal Commission must be willing to take on and deliver products for a broad range of projects. While there will be an expected emphasis on climate change related projects for most assignments, there will be opportunity for the fellow to dig more deeply into topics of particular interest and assignments can be customized to match the unique skills of the selected fellow. The selected Sea Grant Fellow must be able to work well under minimal supervision and guidance. Possessing an entrepreneurial spirit, strong personal initiative and an ability to work well in a collaborative style with others would be a great plus.

The Coastal Commission senior management has broad experience and success in hosting fellows and giving them a wide breadth of experience in coastal management issues. The Coastal Commission has a team of staff members focusing on climate change issues. This fellowship offers an excellent opportunity for team work and peer collaboration for a Sea Grant Fellow. The Commission has two fellow proposals; however, it is likely that only one 2018 proposal will be funded.

Host Location

California Coastal Commission
45 Fremont Street, Suite 2000
San Francisco, CA 94105

Fellowship Supervisors

Susan Hansch, Chief Deputy Director
Michelle Jesperson, Federal Programs Manager

Point of Contact for Prospective Fellows, and Finalists

Susan Hansch, Chief Deputy Director
shansch@coastal.ca.gov
(415) 904-5244

CALIFORNIA COASTAL COMMISSION

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**2018 SEA GRANT STATE FELLOWSHIP
COASTAL ENGINEER, GEOLOGIST, OR OCEANOGRAPHER
CALIFORNIA COASTAL COMMISSION**

Overview

The California Coastal Commission implements the California Coastal Act of 1976 and has regulatory authority over development along the coast in balance with the protection of coastal resources, environmentally sensitive habitats, and public access. This work is carried out through land use planning and permitting. The Commission is an independent, quasi-judicial state agency whose authority is defined as the coastal zone, a 1.5 million-acre area stretching 1,270 miles along the state's mainland coastline from Oregon to Mexico, and around nine offshore islands (333 miles of island shoreline). The Commission also has the responsibility to work with local governments to establish Local Coastal Programs (LCPs) which, when certified by the Commission, becomes the land use plan basis for coastal permitting at the local level. Furthermore, the Commission has the purview and planning responsibility to assess and address issues of state-wide importance such as sea level rise and coastal erosion and the implications of these on Coastal Act resources. Both sea level rise and coastal erosion are likely to be exacerbated by climate change.

Position Description

The Sea Grant Fellow will be involved in a broad range of the Coastal Commission's regulatory and LCP planning work throughout the coastal zone. He/she will have an opportunity to assist executive, management, and policy staff in the Commission offices with the technical and engineering aspects of a variety of coastal and ocean issues. Working closely with Coastal Commission's Chief Deputy Director, Senior Coastal Engineer, technical staff and other senior staff, the Sea Grant Fellow will have the opportunity to work at the leading edge of natural resources and coastal and ocean management and climate change adaptation. The Fellow will have the opportunity to interact directly with senior technical staff and leaders in resource management policy throughout California. Fellow work products, potentially including presentations and collaborative work on reports with the Coastal Commission and with other state agencies, will be highly visible.

A Sea Grant Fellow with special expertise in Coastal Engineering, Coastal Geology and/or coastal processes with the Coastal Commission will support the executive and senior policy and technical staff in specific areas such as participating in multi-agency meetings, reviewing, commenting on and drafting comments on the technical components of regulatory, enforcement and planning documents, and assisting the Commission in developing or enhancing projects including those that are done in cooperation with partners. The role of the Fellow may include support on one or more of the above mentioned large-scale projects and he/she will also likely have several smaller projects that will be theirs to develop and manage.

Key focus areas could include addressing concerns related to: increased flooding, wave attack and erosion that could result from rising sea level and climate change; shoreline protection and effective options for soft protection; beach nourishment; living shorelines and adaptive protection options; tsunami risk and options for protection and response; sediment management; and, other coastal hazards.

Potential tasks associated with the analysis and development of projects include: review of site plans, grading plans, erosion and wave up-rush studies, slope stability and other engineering, geology, and technical reports; communicating with local planners, project applicants, technical consultants and others; review, analysis and summary technical reports; coordinating with stakeholders, partners, or technical consultants; organizing and/or participating in meetings and workshops; participating in site visits; problem solving; and maintaining broad project or program support.

Specific project and program duties will be developed collaboratively with the Fellow and with Coastal Commission staff members currently working on these issues. Potential project opportunities at this time address a mix of policy and technical needs. The Fellow would also have the opportunity to participate in numerous intra-agency and inter-agency working groups including the following:

- Coastal Sediment Management Work Group
- Tsunami Policy Work Group
- Sea Level Rise Mapping Partners and FEMA Resilience Alignment Meetings
- Beach Erosion and Coastal Hazards Working Group
- San Dieguito Lagoon Coastal Processes Technical Panel
- Coast and Ocean Climate Adaptation Work Group

A successful Sea Grant Fellow at the Coastal Commission must be willing to take on and deliver a broad range of projects. The Sea Grant Fellow must be able to identify and analyze an array of technical issues associated with Commission regulatory and planning efforts and communicate information clearly in both writing memos and reports, as well as through oral and visual presentations. The Sea Grant Fellow must be able to work well under minimal supervision or guidance. Assignments will be customized to match the unique skills of the selected Fellow. However, since there are few academic programs that provide all the necessary skills for this Coastal Engineering/Coastal Geology/coastal processes position, the Fellow must also know when they are working outside their sphere of understanding and be willing to ask for help or direction early in the work effort. An undergraduate degree in civil or environmental engineering or geology, and a masters or Ph.D. in coastal, environmental or ocean engineering; geology, environmental or engineering geology; physical oceanography; or related disciplines is desirable.

The Coastal Commission's senior management has broad experience and success in hosting Fellows and giving them a wide breadth of experience in coastal management issues. The Commission has two fellowship proposals; however, it is likely that only one 2018 proposal will be funded.

Host Location

California Coastal Commission
45 Fremont Street, Suite 2000
San Francisco, CA 94105

Fellowship Supervisors and Points of Contact for Prospective Fellows and Finalists

Susan Hansch, Chief Deputy Director
shansch@coastal.ca.gov
(415) 904-5244

Lesley Ewing, Sr. Coastal Engineer
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(415) 904-5291



Sea Grant Fellowship—2018 Host Description
California Department of Parks and Recreation
Natural Resources Division

**2018 Sea Grant State Fellowship
California Department of Parks and Recreation
Natural Resources Division**

2018 Host Description

Host location and contact information

Natural Resources Division, California State Parks 1416
9th St, Room 923
Sacramento, CA 95814

Phone: 916-653-6725

Name of fellowship supervisor

Laurie Archambault, Environmental Program Manager
(laurie.archambault@parks.ca.gov; 916-651-3743)

Point of contact for prospective fellows and finalists

Laurie Archambault, Environmental Program Manager
(laurie.archambault@parks.ca.gov; 916-651-3743)

Position description

See description on the following pages.

Position Description

California State Parks' Natural Resources Division (NRD) provides general policy direction and technical assistance for natural resource management. In addition, NRD administers major funding programs for natural resources management and ecological restoration throughout the State Park System and coordinates with other state and federal agencies on issues of statewide significance. Currently, California State Parks protects and manages over 100 coastal park units that span a substantial portion of the state's coastline. With expected impacts from Sea Level Rise (SLR) and an increase in extreme events along the California coast, identifying and addressing management priorities for coastal State Park units is becoming increasingly critical for the protection of coastal resources.

The 2018 Sea Grant Fellow will have a unique opportunity to inform State Parks policy and program development and assist in the development of natural resource management solutions, with a focus on coastal parks. The Sea Grant Fellow will work closely with NRD headquarters, and district staff, and will coordinate with the Ocean Protection Council (OPC) as an integral team member on a leading edge of natural resource management in State Parks. The fellow will also have the opportunity to interface directly with senior government



Sea Grant Fellowship—2018 Host Description California Department of Parks and Recreation Natural Resources Division

officials and leaders in natural resource management policy. Sea Grant Fellow work products include presentations and reports that may be shared throughout the department and with external entities.

Potential Projects and Duties

Specific project and program duties will be developed collaboratively with the Sea Grant Fellow. Listed below are several project opportunities that address a mix of current policy and technical needs:

Refine strategies and policies to better address projected sea level rise impacts

Evaluate existing State Parks policies and management directives in light of expected climate change and SLR impacts. Work with the NRD Environmental Program Manager to prepare policy revisions for consideration by State Parks leadership.

Staff the State Parks Sea Level Rise Working Group

The State Parks Sea Level Rise Working Group is an internal body consisting of managers or their designees from a range of State Parks divisions. The Working Group tackles complex coastal issues, including those related to sea level rise and extreme storm events, that affect management of coastal state park units. The Working Group also helps to develop appropriate adaptation strategies and planning for projected sea level rise scenarios. The Sea Grant Fellow will conduct research, gather relevant background information, schedule and organize meetings, and track meeting minutes for the Working Group.

Internal and external communication and coordination

Prepare and deliver presentations to State Parks leadership and department staff. Presentations may address Parks-focused topics or the findings of regional and statewide studies related to a particular coastal resource or topic that affects state park units.

Engage directly with department staff to increase awareness and understanding of high priority resources for coastal resource management. Work with coastal State Park districts to identify local priorities and opportunities to address the impacts of sea level rise and extreme storm events. Collaborate with State Parks' Interpretation and Education Division, the OPC, and others to develop communication strategies and messaging related to sea level rise impacts and climate change adaptation strategies.

Participate in interagency meetings and coordinate with program staff at the California Natural Resources Agency, California Coastal Conservancy, California Coastal Commission, other state and federal agencies, and NGOs regarding coastal issues. Disseminate applicable information to appropriate audiences, including State Parks HQ and district staff.

Analyze and integrate data to address SLR and other global climate change impacts

In collaboration with the OPC, Coastal Commission and others, recommend data sets and



Sea Grant Fellowship—2018 Host Description
California Department of Parks and Recreation
Natural Resources Division

analytical approaches to assist district and field staff with addressing local land management decisions. Provide land managers with assistance incorporating SLR data in project development and grant applications. As appropriate, develop or revise existing guidance documents to ensure up-to-date, system-wide access to information about data products.

Assist with other coastal issues

Work with NRD and district staff on other coastal issues, as assigned.

Commissioners

Eric Sklar, President
Saint Helena

Jacque Hostler-Carmesin, Vice President
McKinleyville

Anthony C. Williams, Member
Huntington Beach

Russell E. Burns, Member
Napa

Peter S. Silva, Member
El Cajon

STATE OF CALIFORNIA
Edmund G. Brown Jr., Governor

Valerie Termini, Executive Director

1416 Ninth Street, Room 1320
Sacramento, CA 95814
(916) 653-4899
www.fgc.ca.gov

Fish and Game Commission



Wildlife Heritage and Conservation

Since 1870

2018 California Sea Grant State Fellowship Program: Host Description

Host Location/Contact: California Fish and Game Commission
1416 Ninth Street, Suite 1320
Sacramento, CA 95814

Names of Supervisor: Valerie Termini, Executive Director

Point of Contact: Susan Ashcraft, Marine Advisor
(916) 653-1803
Susan.Ashcraft@fgc.ca.gov

Position Description

The California Fish and Game Commission (Commission) was the first wildlife conservation agency in the United States, pre-dating even the U.S. Commission of Fish and Fisheries. The Commission has hundreds of authorities, some general in nature and some very specific through statutes of the Fish and Game Code, Public Resources Code, and Government Code.

In general, the Commission has jurisdiction over nearly every living thing in California except people, agriculture, and domestic animals. Specifically, the Commission is formally vested with authority to regulate the take, possession and conservation of birds, mammals, fish, amphibians and reptiles from the Oregon border to the Mexican border, and from the Nevada border to three miles out into the Pacific Ocean. The Commission also addresses fish, wildlife and conservation issues on a broad scale, through such subjects as climate change, marine plastics pollution, sustainable fishing communities, predator management, tribal nation engagement, fisheries bycatch and marine protected areas.

The California State Legislature has deemed that the scope and responsibilities of the Commission have significantly expanded over the years as the size and diversity of California's population has increased, and as the scientific knowledge of the habitat conservation and ecosystem-based management needs of fish and wildlife has expanded. The Governor-appointed Commissioners are expected to make complex public policy and biological decisions on behalf of the people of California, with a small staff that works to ensure the Commissioners have the necessary information for making those decisions. Examples of the Commission's statutory authorities include:

- formulating general policies for the conduct of the California Department of Fish and Wildlife (Department);

- determining when, where and by what methods hunters and fisherman may take animals and fish;
- addressing non-native species importation, possession and sale;
- listing and delisting threatened and endangered species under the California Endangered Species Act;
- establishing and regulating uses of protected lands and waters such as wildlife areas, ecological reserves and marine protected areas;
- regulating the possession and care of restricted species, such as eagles, owls, bobcats, bears and freshwater sharks; and
- leasing state water bottoms and kelp beds for the purposes of aquaculture and commercial kelp harvest.

The Commission conducts its business at six meetings per year, which are strategically located throughout the State to encourage public outreach and participation. In addition, the Commission currently has three committees that each meets three times per year: The Marine Resources Committee, Wildlife Resources Committee, and Tribal Committee. Each committee is chaired or co-chaired by no more than two Commissioners. The goal of these committees is to allow for greater in-depth presentations and discussions on fish and wildlife issues and regulatory proposals. The committee meetings are less formal in nature than Commission meetings and provide for additional access to the Commissioners.

There is sometimes confusion about the distinction between the Commission and the Department. In the most basic terms, the Commission establishes policies and regulations while the Department is guided by the Commission's policies, is charged with implementing and enforcing regulations set by the Commission, and provides biological data and expertise to inform the Commission's decision-making process.

The California Sea Grant fellow will have the opportunity to serve as staff on a wide variety of issues before the Commission, including many of those listed above, depending on the fellow's areas of interest, educational goals, initiative, communication and analytical skills, and professional goals. The types of functions the fellow might support include:

- assisting the executive director in developing policies and/or strategic approaches to items that may be controversial in nature;
- working on committee agendas and topics directly with the marine and wildlife advisors;
- organizing and/or leading related meetings and workshops;
- enhancing transparency by outreach and communication with stakeholders and partners, and working to maintain broad project or program support;
- drafting and reviewing staff summaries for Commission and committee meetings; and
- helping improve the Commission website and develop social media outreach.

Placement with the Commission will help the fellow better understand how fish and wildlife statutes, regulations and policies are established and implemented in California, and will also provide a front seat to political, administrative, and stakeholder participation processes.



2018 Sea Grant State Fellowship Host Description

2 Fellowships available at the Ocean Protection Council

1. Host location and contact information

Ocean Protection Council
1416 Ninth Street, Suite 1311
Sacramento, CA 95814

2. Fellowship Supervisor(s)

Deborah Halberstadt
Executive Director, OPC
(916)-657-0198
deborah.halberstadt@resources.ca.gov

3. Point of contact for prospective fellows and finalists

Cyndi Dawson, Marine Protected Areas Policy
Advisor, OPC (916) 653-5656,
cyndi.dawson@resources.ca.gov;
Jenn Phillips, Ocean Acidification Program
Manager, OPC (916) 651-0237,
jennifer.phillips@resources.ca.gov

4. Position description

The Ocean Protection Council (OPC) was created by state law, the California Ocean Protection Act of 2004, to protect ocean health and we view all of our actions through the lens of climate change. Under changing ocean and coastal conditions that threaten communities, ecosystems and our economy, we have an urgent need to catalyze innovative and bold action to protect ocean and coastal health. The OPC engages with partners inside and outside government to break down silos and ensure coordinated science informed decision making that supports sustainable ocean and coastal health. *How do we know if our management actions are resulting in a healthy ocean and coast? What are concrete actions that agencies and researchers can take to reduce the impacts of climate change? How can we make our fisheries climate ready? How will we know if we are successful with adapting to sea-level rise? How can we use Marine Protected Areas (MPAs) as living laboratories to understand changing ocean conditions and to offer refuges from stressors?* OPC was designed to be a convener and problem-solver for difficult questions like these that require bringing together managers, scientists, tribal representatives and other groups to protect, conserve and where possible restore what we love about California's coast and ocean.

Building a shared vision for ocean and coastal health is about strengthening institutional partnerships to span boundaries and leverage resources. In California, we are doing this through initiatives such as the State Coastal Leadership on Sea-level Rise, the Pacific Coast Collaborative, the MPA Collaboratives and the MPA Statewide Leadership Team and the emerging West Coast Ocean Partnership. Unifying around a vision of ocean and coastal health and collective action on climate change is important as we are challenged by complex issues and limited capacity. By bringing groups together, we can identify which agency should take the lead, or whose mandate is best reflected in cross-cutting issues; what scientific information can support decision-making and how our network of MPAs can serve as a tool in service of ocean and coastal health under the challenge of climate change.

To learn more about current initiatives, see a summary of [OPC Program Areas](#) and a [meeting agenda](#). A fellow with the OPC may work on the following emerging themes:

1. Understanding changing ocean and coastal processes (science and policy formulation).
2. Sea level rise and MPA Management by understanding how the state works on the things it directly controls and provides assistance to tribal and local governments (green and grey infrastructure).
3. Protecting our assets, both human and ecosystem, by understanding and reducing controllable stressors (vulnerability assessments and pollution prevention and habitat protections).
4. Doing our work in partnership (refining the application of strategies and engagement of social networks moving toward co-management with other government structures and communities).

The OPC staff is currently involved in developing and managing various large-scale projects and developing innovative policy solutions on marine resource issues, including:

Supporting the functions of the Council. All OPC staff support the functions of the 7-member council, including agenda setting, policy recommendations, and project development. Potential tasks associated with managing projects include: frequent communication with project stakeholders, partners, or grantees; presenting staff recommendations to the council; drafting and amending contracts and grant agreements; managing project-related invoices; organizing, and/or leading related meetings and workshops; participating in site visits; ensuring outcomes of projects are communicated to the public, relevant agencies, and institutions; seeking out additional funding sources or matching funds; encouraging transparency by working with stakeholders; and working to maintain broad project or program support. **Both fellows would support all the functions, above.** <http://www.opc.ca.gov/>

Sea-level Rise (SLR). The incumbent Sea Grant fellow may help manage various Local Coastal Program grants that the OPC has funded to support sea level rise planning and adaptation work in coastal cities and counties. The fellow may also assist in convening the Coastal and Ocean Climate Action Team (CO-CAT) and/or the State Coastal Leadership Group on SLR (SCLG), both composed of many ocean and coastal state agencies to provide input on updates to state guidance documents and processes. OPC is the sector lead for the Oceans and Coastal Resources and Ecosystems Sector Plan for Safeguarding California, and the fellow may be involved in updates to this document. The OPC is also engaged in implementing legislative mandates in AB 2516, regarding the development of an innovative sea level rise planning database for the State.

Pacific Coast Collaborative. The incumbent Sea Grant fellow will be involved with the Pacific Coast Collaborative Subcommittee on Ocean Acidification, which is a subset of the larger Pacific Coast Collaborative (PCC). The PCC represents a collaboration among the Governors of Washington, Oregon, California and the Premier of British Columbia to address critical climate and energy issues that affect the health of communities, natural resources and economies along the West Coast. The PCC Subcommittee on Ocean Acidification is leading on implementing the policy recommendations from the West Coast Ocean Acidification and Hypoxia Science Panel's (Panel) executive summary, which was released in April 2016 and funded by the OPC. The fellow will assist the Ocean Acidification Program Manager in OPC's work to implement and advance the Panel recommendations and actions in California.

Resources Agency Sea Grant Advisory Panel (RASGAP). The Resources Agency Sea Grant Advisory Panel (RASGAP) is in charge of evaluating proposals for ocean and coastal research by California's two Sea Grant programs. **One fellow with the OPC will be responsible for all aspects of the RASGAP project including managing the membership of RASGAP, leading meeting logistics, review of pre-proposals and proposals, and participation in technical review panels held in San Diego.**

Legislative Reporting & Bill Analyses. The OPC does not take a stance on any legislation as a state agency; however, the OPC keeps track of relevant bills that may impact the OPC throughout the year. **One fellow with the OPC will be responsible for tracking legislative bills that are relevant to the OPC and updating the tracking list weekly. Both fellows may have the opportunity to contribute to agency bill analyses when requested if an OPC-relevant bill is moving forward in the legislature.**

Marine Protected Areas (MPAs). The incumbent Sea Grant fellow will help manage an on-going effort among several state agencies and outside partners to collaborate more effectively on the long-term management of MPAs created under the auspices of the Marine Life Protection Act through the work of the [MPA Statewide Leadership Team](#).

Sustainable Fisheries. The incumbent Sea Grant Fellow will work with a host of partners inside and outside government to assist with the ongoing integration and implementation of the broad ecosystem health goals of the Marine Life Management Act and Marine Life Protection Act. The OPC supports science-based approaches to inform fisheries management, and works with partners to advance improved governance of California fisheries.

Thank You Ocean. The Thank You Ocean campaign is a joint partnership between the State of California and the National Oceanic Atmospheric Administration (NOAA) Office of National Marine Sanctuaries to raise awareness about the importance of the ocean and to engage the public in stewardship. The campaign's website focuses on four specific threats to the ocean and uses social media tools to engage the public in the campaign. Specific activities may include development or review of campaign materials (such as podcasts, web content, and social media), overall project management, and fundraising. **Both fellows with the OPC will be involved in the Thank You Ocean campaign.** <http://www.thankyouocean.org/>

For the past two years, the OPC has hosted two fellows, one of which has been focused on climate impacts and changing ocean conditions, primarily working on ocean acidification and hypoxia (OAH) and sea level rise (SLR), and a fellow focused entirely on the MPA Management Program which includes work in outreach and education, research and monitoring, enforcement and compliance and policy and permitting. With the continued maturity of the MPA Management Program OPC anticipates the MPA focused fellow for 2018 would also be working on fisheries related projects that work to further integrate and leverage work in sustainable fisheries management with MPA management. The other fellow for 2018 would have a focus on Climate Impacts which include a wide range of topics including but not limited to SLR, OA and Harmful Algal Blooms.

Skills or attributes we seek include:

- Excellent verbal and written communication skills.
- Ability to lead groups of people, often with divergent views on how to move forward on a particular issue.
- Ability to translate complex scientific information for use by government decision-makers.
- Ability to work well independently under minimal supervision or guidance.
- Ability to manage multiple projects concurrently
- An entrepreneurial spirit and strong personal initiative.



California Sea Grant State Fellowship Program 2018

Host Agency: California State Lands Commission

Location: 100 Howe Avenue, Suite 100-South, Sacramento, CA 95825

Fellowship Supervisor: **Science Policy Advisor/Tribal Liaison**

Point of Contact: Jennifer Mattox, Science Policy Advisor/Tribal Liaison
Jennifer.mattox@slc.ca.gov; (916) 574-0748

Agency Background:

The California State Lands Commission (Commission) is an independent and dynamic state agency that works on the cutting edge of integrating science into policy decisions. When California became a state in 1850, it acquired approximately four million acres of land underlying the State's navigable and tidal waterways. These "sovereign lands" include the beds of California's navigable rivers, lakes, and streams, as well as the State's tide and submerged lands along the State's 1,100+ miles of coastline and offshore islands, from approximately the mean high tide line to three nautical miles offshore. The Commission holds these lands in trust for the people of California under the Public Trust Doctrine.

Part of the Commission's trust responsibility includes reviewing and approving or denying lease applications for uses of or activities on sovereign lands (e.g., major energy projects, artificial reefs, piers, etc.). Activities on sovereign lands must be appropriate public trust uses, including commerce, fishing, navigation, environmental preservation, and recreation. The Commission is the main agency tasked with protecting public access and overseeing public trust uses. Valid public trust uses may sometimes conflict with each other; the Commission works to manage those conflicts and ensure that the Public Trust Doctrine is upheld on sovereign land. In this way, the Commission, along with its sister state agencies, decides on appropriate uses for California's ocean and proactively plans for future issues and conflicts.

The three-person Commission is comprised of the State Controller, Lieutenant Governor, and the Director of Finance. The Fellow will be supervised by the Science Policy Advisor/Tribal Liaison, within the Commission's Executive Office. The Science Policy Advisor/Tribal Liaison consults with other Commission staff on many issues where science and policy interface and helps staff navigate complex and politically sensitive issues, including adaptation to climate change and sea-level rise; management of California's marine protected areas; development of offshore renewable energy; and the preservation of cultural and tribal resources. This work includes extensive coordination with other Commission divisions, including Environmental Planning and Management, Legal, External Affairs, Mineral Resources Management, Marine Environmental Protection, and Land Management.

Position Description:

The Sea Grant Fellow will have the opportunity to work on complex and challenging marine and coastal issues. Accordingly, the Fellow will likely have a variety of short-term and long-term projects throughout the fellowship year. The Fellow will also be welcome to participate in conferences, interagency meetings, and collaborative projects with other Fellows as opportunities arise. Previous Commission Sea Grant Fellows worked on and participated in

a number of challenging and high-profile activities, including developing a comprehensive sea-level rise and climate change education and training program for Commission staff that included development of a GIS viewer; participating on state-level interagency efforts to address sea-level rise policy, including the State Guidance update and the Safeguarding California update; evaluating and compiling scientific materials for negotiations on sensitive projects, including coastal sand mining on the Central Coast and shellfish aquaculture in Humboldt Bay; compiling, reviewing, and developing materials for a coastal armoring report; participating on interagency teams exploring offshore renewable energy potential; supporting staff's development of a pilot ocean planning partnership in San Diego; and participating in the development of an environmental justice policy. Many of these projects are ongoing and the Fellow will have an opportunity to continue the work started by current Fellows.

Specifically, the Fellow will likely continue projects related to climate change and sea-level rise; offshore renewable energy; coastal erosion, seawalls, and natural coastal infrastructure; and the San Diego ocean planning partnership. This will include continuing to refine and deliver ongoing climate change and sea-level rise training program for Commission staff, integrating the best available science into Commission decision-making processes, and collaborating with other state, federal, local, and tribal entities.

In addition to these long-term projects, the Fellow will interact with Commission staff from multiple divisions that encompass a wide variety of coastal and marine resource topics. Examples of potential projects include:

- Coastal engineering, erosion, armoring
- Marine and terrestrial renewable energy
- Aquatic invasive species
- Offshore oil development and terminals
- Legacy oil wells and other coastal hazards
- Environmental Justice
- Granted lands/AB691
- Underwater infrastructure impacts
- Cultural and tribal resources
- Marine spatial planning/ocean planning

Specific project and program duties will be developed collaboratively among the Fellow, Science Policy Advisor and Tribal Liaison, and Executive Office, and will be based on Commission needs that arise during the fellowship, as well as the Fellow's interests.

Desirable Qualifications:

- Ability to work both independently and with diverse interdisciplinary teams that require clear communication;
- Ability to develop and apply expertise in natural resources and coastal management issues;
- Ability to translate science into layman's terms;
- Familiarity and/or experience with GIS and web-development;
- Ability to work toward consensus positions with governmental, private, and public interest groups;
- An interest or experience in using social media to educate, engage, and communicate with a wide array of audiences; and
- An interest in CEQA and other natural resource laws, rules, and regulations (e.g., National Environmental Policy Act (NEPA), California Coastal Act, California Ocean Protection Act, Federal and State Endangered Species Acts, etc.).



DELTA STEWARDSHIP COUNCIL

A California State Agency

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Twitter: @DeltaCouncil

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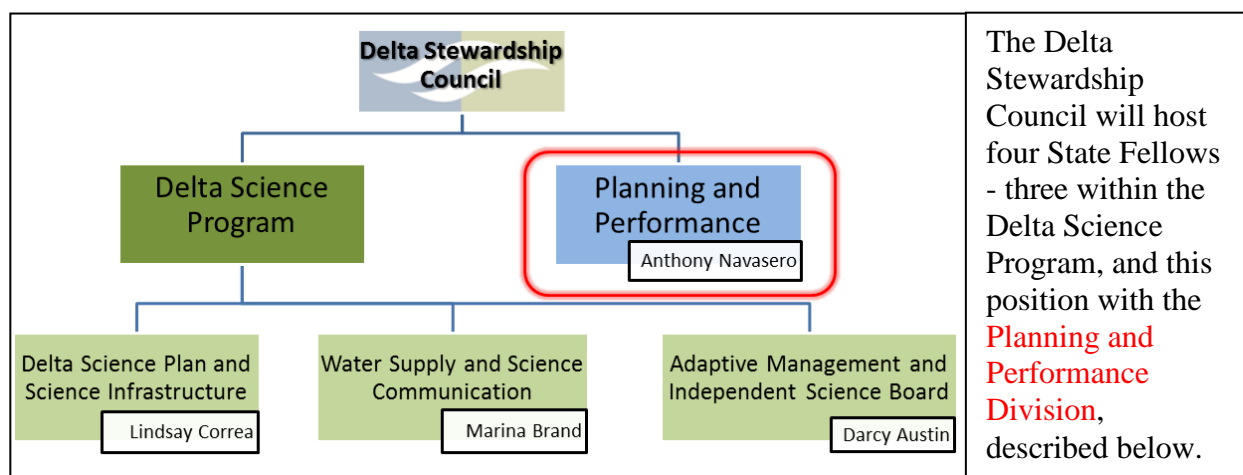
Planning and Performance Division

Introduction

California's Sacramento-San Joaquin Delta is the largest estuary on the West Coast and is the hub of the state's major water supply systems. It is inextricably linked to statewide water supply issues that affect its ability to support more natural ecosystem functions.

In November 2009, the California Legislature enacted the Delta Reform Act, and created the [Delta Stewardship Council](#) to achieve the coequal goals (see footnote). The Council's Planning Division provides integration of environmental, engineering, and land use planning expertise to support and coordinate implementation of the [Delta Plan](#), a comprehensive, long-term management plan for the Delta based on the best available science. The implementation of the Delta Plan is through cooperation among affected agencies and is enforceable through the Council's regulatory authority, which requires State and local actions that significantly affect the coequal goals to be consistent with the Delta Plan.

Position Description



A Sea Grant fellow with the Council's Planning Division will have the unique opportunity to work at the interface of policy, planning and science on some of California's most challenging and important natural resource management issues. The Sea Grant fellow would be working and interacting with staff in Planning Division's units

- Integrated Regional Water Management
- Ecosystem Restoration, Land Use and Scientific Integration
- Performance Management
- Federal Coordination and Consistency

"Coequal goals" means the two goals of providing a more reliable water supply for California and protecting, restoring, and enhancing the Delta ecosystem. The coequal goals shall be achieved in a manner that protects and enhances the unique cultural, recreational, natural resource, and agricultural values of the Delta as an evolving place."

– CA Water Code §85054

Initially, the Sea Grant fellow will meet with the Supervisor/Mentor and other Planning Division staff as appropriate to develop a mentoring plan for the year. This plan will be based on the interests and background of the Sea Grant fellow and is intended to maximize the Sea Grant fellow's experience, knowledge, and networking opportunities. Working closely with Planning Division staff, the Sea Grant fellow will have the opportunity to interact with California policy makers, national and international scientific experts, and gain exposure to how policies and plans are developed and implemented in the Bay-Delta and Suisun Marsh as well as, at times, statewide.

Planning and Performance Division

Currently the Planning Division is working on several efforts focused on:

- [Environmental review](#) of a Delta Plan amendments regarding:
 - [Conveyance, Storage Systems, and the Operations of Both](#);
 - [Delta Levee Investment Strategy](#); and
 - Refined Delta Plan [Performance Measures](#);
- Supporting efforts to integrate flood management and habitat restoration into multi-benefit projects;
- Developing a Delta Plan amendment regarding ecosystem restoration;
- Evaluating efforts to enhance recreation and tourism that are compatible with the cultural heritage of the Delta;
- Promoting land use decisions that enhance economic vitality while reducing flood risk and preserving agriculture and open space; and
- [Monitoring status and collecting data](#) on State programs and projects to measure the State's progress towards achieving the coequal goals and the success of the Delta Plan.

Potential Assignments

Specific projects will be identified and assigned for the Planning Division's Sea Grant fellow based on their expertise and interests. The fellow's work will support functions of the Planning Division. Potential projects include:

- Evaluating major water supply, water storage, ecosystem restoration, and flood protection projects and programs.
- Researching statewide water conservation and groundwater management efforts.
- Reviewing and reporting studies, reports, and documents of interest to the Delta Plan's policies and recommendations.
- Tracking progress towards achievement of performance measures of the Delta Plan.
- Gathering and developing GIS data for visualization tools to facilitate stakeholder participation in habitat restoration and flood management planning.
- Supporting Planning Division staff in their daily tasks in implementing the Delta Plan.

Host Location: 980 Ninth Street, Suite 1500, Sacramento, California

Fellowship Supervisor/ Mentor and Point of Contact: Anthony Navasero, Senior Engineer, Water Resources—contact information: (916) 445-5471, Anthony.Navasero@deltacouncil.ca.gov



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Delta Science Program – **Adaptive Management and Independent Science Board Fellowship Supervisor:** Darcy Austin, Program Manager II (darcy.austin@deltacouncil.ca.gov; (916) 445-0720)

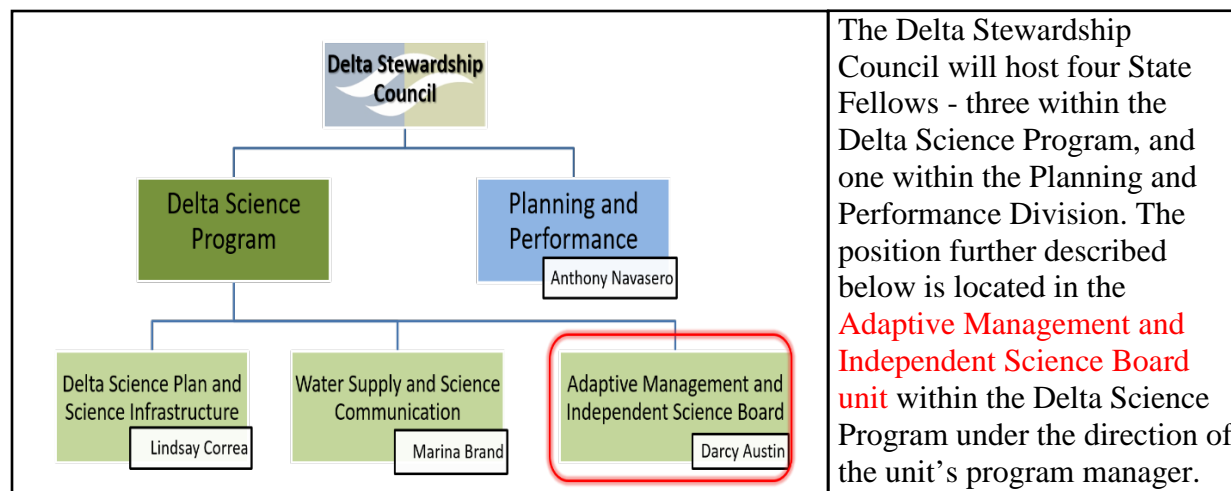
Introduction

Located just minutes from major urban areas, the Sacramento-San Joaquin Delta's meandering waterways spread over 1,160 square miles before flowing into the San Francisco Bay. The Delta is the largest estuary on the West Coast, supplying two-thirds of California's water and providing vital habitat for endangered, endemic, and migratory species such as Chinook salmon and Ridgway's rail. The incumbent for this position has the potential to work at the dynamic interface of land and sea, in a system that is inextricably linked to complex water supply, ecosystem, and policy issues.

Due to the multifaceted nature of this system, the California Legislature enacted the Delta Reform Act, which created the Delta Stewardship Council. The Council's purpose is to uphold the coequal goals for the Delta – a more reliable statewide water supply and a healthy and protected ecosystem, both achieved in a manner that protects and enhances the unique characteristics of the Delta as an evolving place.

The [Delta Science Program](#) (DSP), housed within the Stewardship Council, was established to develop scientific information and syntheses on issues critical for managing the Bay-Delta system. That body of knowledge must be unbiased, relevant, authoritative, integrated across state and federal agencies, and communicated to Bay-Delta decision-makers, agency managers, stakeholders, the scientific community, and the public. The work of the Science Program is guided by the [Delta Science Plan](#), a framework for conducting science that organizes and integrates Delta science activities and builds an open collaborative science community.

Position Description



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The Fellow will work under the direction of the DSP Adaptive Management and Independent Science Board (AMISB) Unit. The Independent Science Board defines adaptive management as “a science-based structured approach to environmental management. It aids decision-making in the face of uncertainty about outcomes by emphasizing the acquisition and use of new knowledge, experience, and stakeholder input in management of natural resources under changing conditions.”

Restoration Adaptive Management Frameworks

The AMISB works with interagency partners to advise on ecosystem restoration adaptive management frameworks and project- and landscape-level conceptual models. In addition to its advisory role, the AMISB Unit currently provides support for an Interagency Adaptive Management Integration Team (IAMIT) that is developing an ecosystem restoration adaptive management program for [California EcoRestore](#), the initiative to coordinate and advance at least 30,000 acres of critical habitat restoration in the Delta by 2020.

Potential Assignments

- California EcoRestore Adaptive Management Support
 - Carry out recommendations from IAMIT [white paper](#)
- Synthesis of Information - Opportunities will exist to
 - Synthesize information obtained from research and site visits with governmental and non-governmental staff

Independent Science Board

The Delta Independent Science Board (Delta ISB) is comprised of nationally and internationally renowned scientists with backgrounds in ecology, biology, biogeochemistry, geology, and economics and is mandated to provide oversight of the scientific research, monitoring, and assessment programs that support adaptive management of the Delta, including Suisun Marsh. These result in [thematic reviews](#).

Potential Assignments

- Assist Delta ISB on developing thematic reviews on
 - Monitoring Enterprise
 - Restoration
 - Ecosystems
 - Water Supply Reliability
 - Water Quality
- Create outreach and communication materials relating to thematic reviews for distribution to policymakers and other stakeholders



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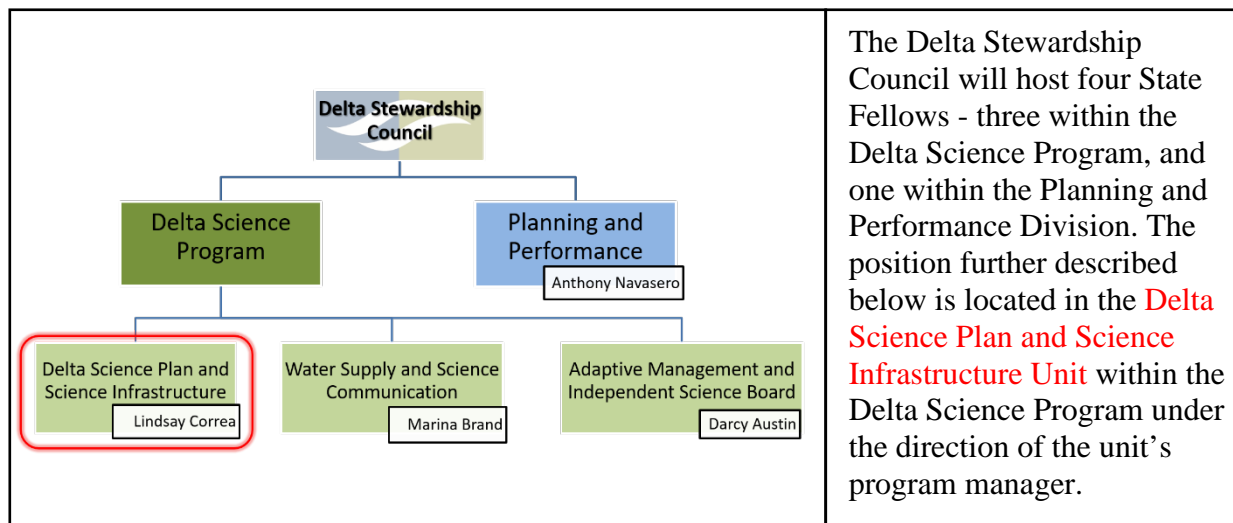
Delta Science Program – Delta Science Plan and Science Infrastructure Unit

Introduction

Located just minutes from major urban areas, the Sacramento-San Joaquin Delta's meandering waterways spread over 1,160 square miles before flowing into the San Francisco Bay. The Delta is the largest estuary on the West Coast, supplying two-thirds of California's water and providing vital habitat for endangered, endemic, and migratory species such as Chinook salmon and Ridgway's rail. The incumbent for this position has the potential to work at the dynamic interface of land and sea, in a system that is inextricably linked to complex water supply, ecosystem, and policy issues.

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Unit Description

The Delta Science Plan and Science Infrastructure Unit works to fulfill the DSP's mission by catalyzing activities that build the community of Delta science and providing science services that identify and generate best available science to inform water and environmental decision-making. To accomplish these objectives, we lead and collaborate with diverse stakeholders on the implementation, reviews, and updates of the Delta Science Plan. We also support research aligned with the [Science Action Agenda](#), coordinate independent scientific peer reviews, and facilitate and participate in analysis and synthesis of scientific information.

Position Description

The Delta Science Plan and Science Infrastructure Unit is working on several efforts focused on, 1) coordinating Bay-Delta science, 2) synthesizing scientific information, 3) facilitating independent scientific peer reviews, and 4) communicating scientific information to decision-makers, scientists, and the public. Initially, the Sea Grant fellow will meet with the Supervisor, Lead Scientist, and other DSP staff as appropriate to develop a mentoring plan for the year. This plan will be based on the interests and background of the Sea Grant fellow and is intended to maximize the Sea Grant fellow's opportunities.

Potential Projects

Specific projects will be identified with the fellow based on their expertise and interests. The fellow's work will support functions of the DSP. Potential projects include:

- ◆ Contributing to the review and update of the Delta Science Plan – including organizing and coordinating public workshops and multi-agency meetings
- ◆ Conducting a review of how the social sciences have been effectively integrated with the natural and physical sciences to inform management and policy decisions in the Bay-Delta and/or other managed estuaries
- ◆ Developing a strategy for increasing the DSP's roles in advancing the integration of social sciences with the natural and physical sciences
- ◆ Synthesizing information on stressor impacts on the Bay-Delta ecosystem
- ◆ Evaluating needs and opportunities to invest in tide and water level gauges and other infrastructure to support restoration planning, track sea level rise, and environmental monitoring
- ◆ Collaborating with Delta Stewardship Council Executive and Planning staff on Delta sea-level rise issues
- ◆ Working with interagency groups developing models and decision support tools
- ◆ Developing science communication products for a wide range of audiences, including the Delta Stewardship Council

Examples of Previous Fellows' Projects

- ◆ Contributed to a multi-agency and stakeholder salmon gaps analysis report
- ◆ Contributed to the development of the Interim Science Action Agenda
- ◆ Assisted in organizing a public workshop on Sacramento River temperature modeling
- ◆ Conducted an analysis of the potential values striped bass provide to the Delta

Host Location: 980 Ninth Street, Suite 1500, Sacramento, California

Fellowship Supervisor and Point of Contact: Lindsay Correa, Program Manager
(916) 445-0092, lindsay.correa@deltacouncil.ca.gov



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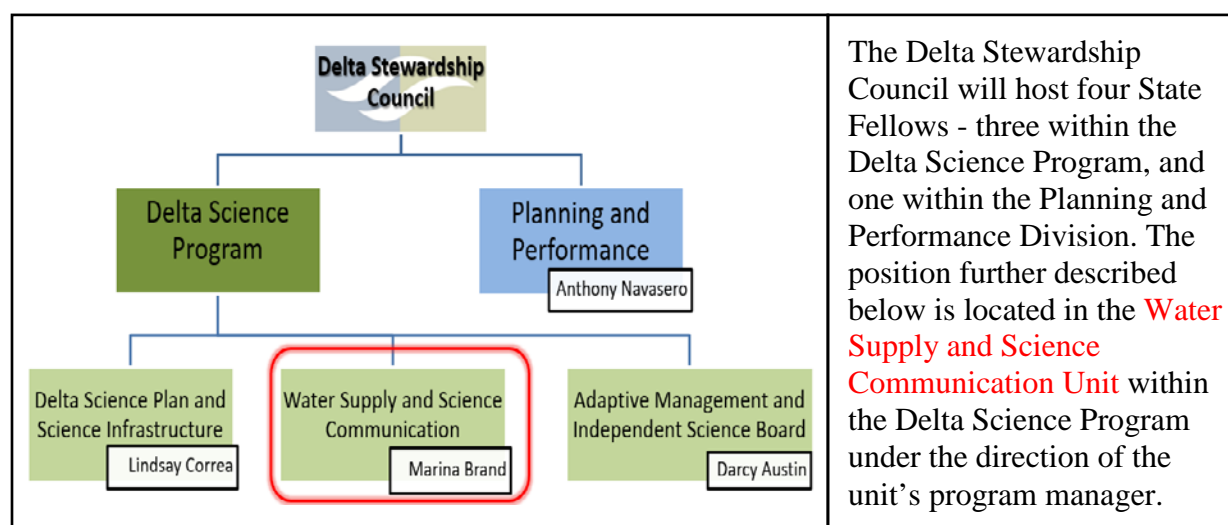
Delta Science Program – **Water Supply and Science Communication Unit**

Introduction

Located just minutes from major urban areas, the Sacramento-San Joaquin Delta's meandering waterways spread over 1,160 square miles before flowing into the San Francisco Bay. The Delta is the largest estuary on the West Coast, supplying two-thirds of California's water and providing vital habitat for endangered, endemic, and migratory species such as Chinook salmon and Ridgway's rail. The incumbent for this position has the potential to work at the dynamic interface of land and sea, in a system that is inextricably linked to complex water supply, ecosystem, and policy issues.

Due to the multifaceted nature of this system, the California Legislature enacted the Delta Reform Act, which created the Delta Stewardship Council. The Council's purpose is to uphold the coequal goals for the Delta – a more reliable statewide water supply and a healthy and protected ecosystem, both achieved in a manner that protects and enhances the unique characteristics of the Delta as an evolving place.

The **Delta Science Program** (DSP), housed within the Stewardship Council, was established to develop scientific information and syntheses on issues critical for managing the Bay-Delta system. That body of knowledge must be unbiased, relevant, authoritative, integrated across state and federal agencies, and communicated to Bay-Delta decision-makers, agency managers, stakeholders, the scientific community, and the public. The work of the Science Program is guided by the Delta Science Plan, a framework for conducting science that organizes and integrates Delta science activities and builds an open collaborative science community.



"Coequal goals" means the two goals of providing a more reliable water supply for California and protecting, restoring, and enhancing the Delta ecosystem. The coequal goals shall be achieved in a manner that protects and enhances the unique cultural, recreational, natural resource, and agricultural values of the Delta as an evolving place."

– CA Water Code §85054

Unit Description

The **Delta Science Program Water Supply and Science Communication unit** has two primary tasks: 1) develop and implement a Water Supply Adaptive Management Framework to address water management actions, and 2) improve science communications to multiple stakeholders in the Bay-Delta estuary/system. Based on their interests, the Fellow will have the option of working only on implementing the Water Supply Adaptive Management Framework, only on Communication tasks, or a blend of tasks. Typically, a Fellow in this unit will work on one major project, which they take ownership of, and assist with numerous other projects.

Position Description

Water Supply Adaptive Management Framework and Implementation

Currently, the unit is completing a framework that will address how adaptive management could be incorporated into water supply management actions in California (see [Appendix C of the Delta Plan](#) for further discussions on adaptive management). Once completed, the unit will begin developing an Implementation Plan for the Framework.

Potential Assignments

The Fellow will collaborate with staff to develop an implementation plan for the Water Supply Adaptive Management Framework and potentially assist in its implementation. Specific topics would include, but are not limited to:

- How adaptive management can be used to better manage California's water supplies.
- Social, political and economic challenges and opportunities in applying adaptive management to water supply issues.
- How various water management (or supply) actions impact the ecosystem and water quality.
- Water supply challenges facing California, specifically the Sacramento-San Joaquin Delta.
- Collaboration with other agencies to incorporate adaptive management into specific water management projects/actions.

Science Communications

One goal of the Communications Unit is to translate complex scientific information into a form readily understood by the non-scientists. Currently, one staff scientist is working in Science Communications and would collaborate with the fellow on related projects. These could include various means such as written research summaries, social media, DSP website content, as well as seminars, workshops, and conferences (including the 2018 Bay-Delta Science Conference).

Potential Assignments

- Summarize science funded by the DSP in a format accessible to non-scientists including policy-makers.
- Develop a DSP blog or contribute short videos to the Council's video blog.
- Assist in dissemination of DSP efforts through social media, fact-sheets, and other means.
- Research and write a report determining the science communication needs of the Delta.
- Plan and facilitate 3-5 Brown Bag seminars centered on a specific theme of importance to managing the Bay-Delta system.

Host Location: 980 Ninth Street, Suite 1500, Sacramento, California

Fellowship Supervisor and Point of Contact: Marina Brand, Program Manager
(916) 445-5031, Marina.Brand@deltacouncil.ca.gov

2018 CA Sea Grant State Fellowship
State Coastal Conservancy
Host Description
2 POSITIONS



Host location and contact information

State Coastal Conservancy
1515 Clay St., 10th Floor
Oakland, CA 94612-1401

Fellowship Supervisor(s)

South Coast Fellowship - Megan Cooper, Joan Cardellino
Climate Ready Fellowship - Mary Small

Point of contact for prospective fellows and finalists:

Mary Small
Deputy Executive Officer
510-286-4181, mary.small@scc.ca.gov

Position description(s)

General Overview: Established in 1976, the State Coastal Conservancy (SCC) is a non-regulatory agency that works to protect and improve natural lands and waterways, help people get to and enjoy the outdoors, and sustain local economies along the length of California's coast and around San Francisco Bay. The SCC works in partnership with local governments, other public agencies, nonprofit organizations, and private landowners. Much of the Conservancy's work involves collaborating with scientists and other professionals to deliver on-the-ground coastal resource protection and restoration.

The Conservancy's broad mandate allows it to undertake planning, projects, and initiatives such as the following:

- Protect and improve the quality and resiliency of coastal wetlands, streams, watersheds, and near-shore ocean waters;
- Help people get to and along the coast and bay shores by building trails and stairways and by acquiring land and easements. The Conservancy also assists in the creation of low-cost accommodations along the coast, including campgrounds and hostels;
- Help to solve complex land-use problems;
- Protect coastal lands, including agricultural lands and working landscapes;
- Address the potential impacts of climate change on resources within its jurisdiction, and undertake projects that address extreme weather events, sea level rise, storm surge, beach and bluff erosion, flooding, and other coastal hazards that threaten coastal communities, infrastructure, and natural resources.

Specific Scope of Work: The SCC is applying to host two fellows to help carry out our work. The SCC is committed to fostering and developing the fellow's professional goals as much as possible, and will tailor the suite of tasks accordingly.

South Coast Fellow

One fellow will be placed in the SCC's South Coast Program to help support the Southern California Wetlands Recovery Project (WRP) and other SCC work in Southern California.

The WRP is a broad-based partnership of 18 state and federal agencies working in concert with scientists, local governments, and environmental organizations. In the coming year, the WRP will undertake the following actions, which the fellow will work to support:

- Participate in a multi-year scientific grant from NOAA, in partnership with UC Davis, USGS, San Francisco Estuary Institute and others, to develop model predictions for sea level rise-induced effects on coastal wetlands.
- Coordinate and provide staff support for meetings of the various branches of the WRP including the Board of Governors annual meeting, Science Advisory Panel regional meetings (two to three per year), Wetlands Managers Group monthly meetings, and County Task Force meetings as needed.
- Develop a Work Plan of high priority wetland projects and coordinate with WRP partners to fund and implement these projects.
- Select a suite of small wetland restoration projects to fund through the Community Wetland Restoration Grants Program.
- Increase the WRP's public visibility by managing social media and web outreach.

Through the WRP, the fellow will have the opportunity to work with leading wetland scientists, practitioners, and managers. Tasks may include helping to determine management and science needs, facilitating movement of a very diverse group toward those goals, reviewing and writing technical papers, participating in meetings, conducting site visits, and undertaking GIS work.

Although helping to staff the work of the WRP will be the fellow's primary task, s/he will likely also take on other SCC projects such as climate change adaptation, public access, urban waterfronts, and habitat restoration. Tasks may include project development, writing staff recommendations to the SCC Board, project and contract management, presentations to the SCC Board and others, and leadership in communications (e.g., website, social media).

Climate Ready Fellow

SB 1066 (Lieu, 2013) gave the SCC explicit authority to work with its partners on projects to address the effects of climate change on coastal and to work to reduce greenhouse gas emissions. The Coastal Conservancy created its "Climate Ready Program" in 2013 to focus its work to protect important coastal resources and habitats from the current and future impacts of climate change. The SCC is collaborating with local partners and other agencies to reduce greenhouse gas emissions and prepare communities along the coast and within the San Francisco Bay for climate change.

Supervised by the SCC's Deputy Director, the Climate Ready fellow will assist the agency in implementing its Climate Ready program. Specifically, the fellow will:

- Develop and/or manage pilot studies or projects selected from for funding under the SCC's Climate Ready Grant Program. Depending on the fellow's start date, this may involve preparing one or more staff recommendations for SCC board approval, preparing the grant agreement(s), working with grantee(s) to finalize work plans and project budgets, and overseeing completion of work tasks;
- Work collaboratively with agency staff to assist in reviewing completed projects, compiling lessons learned and developing information to share with other partners, through publication, webinars and at conferences.
- Participate and support interagency coordination related to climate adaption work along the coast.
- Support communication about the science and management issues related to climate change via the SCC's website, planning and educational forums, conferences, and other means;
- Provide technical, scientific and administrative support to the work of climate change committees or collaborative that the SCC is involved with, such as the Bay Area Ecosystem Climate Change Consortium, the Climate Action Team, and the Alliance for Regional Collaborative for Climate Adaptation.

Tasks will be varied and may include working with wetland scientists, ecologists and other practitioners to prioritize science and management needs, and to conceptualize projects that will result in lessons learned for the broader community. The fellow may also review technical papers, interact with policy makers and technical practitioners focused on climate change adaptation planning. The fellow will likely support ongoing Climate Ready webinars and other communication and outreach efforts to help share information within the adaptation community of practice.



San Francisco Bay Conservation and Development Commission
2018 Sea Grant State Fellowship
Adapting to Rising Tides Program Fellow
HOST DESCRIPTION

1. Host location and contact information:

San Francisco Bay Conservation and Development Commission
455 Golden Gate Ave, Suite 10600
San Francisco, CA 94102

2. Fellowship Supervisor:

Lindy Lowe, Planning Director

3. Point of contact for prospective fellows and finalists:

Lindy Lowe
Planning Director
415-352-3642, lindy.lowe@bcdc.ca.gov

4. Position Description:

General Overview:

San Francisco Bay Conservation and Development Commission: The San Francisco Bay Conservation and Development Commission (BCDC) is a California state planning and regulatory agency with regional authority over the San Francisco Bay, the Bay's shoreline band, and the Suisun Marsh. BCDC was created in 1965 and is the nation's oldest coastal zone agency. Its mission is to protect and enhance San Francisco Bay and to encourage the Bay's responsible and productive use for this and future generations. The Commission leads the Bay Area's ongoing multi-agency regional effort to address the impacts of rising sea level on shoreline communities and assets. Its authority is found in the McAteer-Petris Act, the San Francisco Bay Plan, and other special area plans and laws and policies.

The Planning Division is responsible for conducting major planning studies, specialized research and policy development, and keeping the Commission's policy plans current, including the San Francisco Bay Plan. Planning division staff work collaboratively with other agencies and organizations on issues of regional importance including marsh conservation, sea level rise adaptation, recreation planning and oil spill prevention and response.

Adapting to Rising Tides Program: In 2010, BCDC and NOAA's Office for Coastal Management brought together local, regional, state and federal agencies and organizations, as well as non-profit and private associations for a collaborative planning project along the Alameda County shoreline to identify how current and future flooding will affect communities, infrastructure, ecosystems and economy.

Since then, the ART Program has continued to both lead and support multi-sector, cross-jurisdictional projects that build local and regional capacity in the San Francisco Bay Area to plan for and implement adaptation responses. These efforts have enabled the ART Program to test and refine adaptation planning methods to integrate sustainability and transparent decision-making from start to finish, and foster robust collaborations that lead to action on adaptation.

Adapting to Rising Tides Program Fellow:

One fellow will be placed in BCDC's planning division to help support two current projects within the Adapting to Rising Tides Program:

- **Adapting to Rising Tides, Bay Area** is the Bay Area's first 9-county Bay Area regional scale assessment. The project will conduct a climate assessment to evaluate the vulnerabilities and consequences of, and develop adaptation strategies for, the Bay Area transportation network including four key asset categories as defined through the ART process. The project seeks to illustrate the interconnected nature of regional vulnerabilities and identify the need for a range of adaptation strategies, including physical interventions, governance approaches and funding and financing options.
- **Adapting to Rising Tides, Eastern Contra Costa County** will develop modeling and analyses needed to understand the sea level rise vulnerability in Eastern Contra Costa County, which is uniquely influenced by both the Bay and the Delta. Using the ART adaptation planning process, tools, and data, ART staff will work with local jurisdictions, agencies, and organizations in Contra Costa County, as well as regional, state and federal agencies, to understand the vulnerabilities and consequences communities may face, including: the disproportionate impacts among community members, the disruption of transportation and utility infrastructure, the loss of employment sites, and limitations on access to goods and services. The project will work towards identifying shared and individual actions that will help improve resilience to rising sea levels and other climate change impacts.

The fellow will have the opportunity to participate in a highly collaborative, regional scale planning process while developing and applying geospatial, analytic, and communication skills to aid in the execution of ART process. The fellow will:

- Build GIS expertise and capacity through the use of desktop and web-based tools to analyze exposure to current and future flooding.
- Gain familiarity with vulnerability assessments utilizing the ART Assessment Questions to collect data and information that will inform characterization of vulnerability and consequences for the assets, systems of assets, sectors and services addressed in the projects.
- Develop communication skills participating in large collaborative processes to address the specific challenges of building climate resilience across different communities, assets and services, and jurisdictions and owners
- Coordinate and provide staff support for meetings of the various stakeholder groups including regional working group and public meetings.
- Gain experience developing data and functions for web mapping applications used by BCDC staff and the public.

Although the Adapting to Rising Tides projects will be the fellow's primary tasks, additional opportunities will likely include supporting the agency's internal GIS data and web mapping applications, in house training opportunities including robust exposure to regulatory and enforcement processes, and potential assistance in San Francisco Bay Plan amendment processes. BCDC is dedicated to accommodating and developing the fellow's professional goals, ensuring exposure to a wide range of tasks and agency partners, and will tailor the suite of tasks accordingly. BCDC has a long history of hosting fellows and interns and staff is used to welcoming and engaging fellows in meetings, challenging and topical work assignments. Fellows have universally found the experience enriching and rewarding and have continued their career with BCDC or moved to partner organizations, such as the San Francisco Estuary Partnership, San Francisco Planning Department and the Coastal Commission. Our Dredging & Sediment Management Team is currently hosting a NOAA Coastal Management Fellow, our GIS Team is hosting a GIS intern, and our planning team is hosting a master's student in marine science. These three fellows and interns are leading projects that will be instrumental to the agency moving forward.

SFEP

SAN FRANCISCO



ESTUARY
PARTNERSHIP

Caitlin Sweeney

1515 Clay Street
Suite 1400
Oakland, CA 94612
510.622.2362
caitlin.sweeney@sfestuary.org
www.sfestuary.org

California Sea Grant State Fellowship 2018 HOST DESCRIPTION

Host Background Information

The Partnership was established in 1988 as part of the National Estuary Program (NEP) under the Clean Water Act as a U.S. Environmental Protection Agency program. The Partnership is a collaboration of local, state, and federal agencies, NGOs, academia and business leaders working to protect and restore the San Francisco Bay-Delta Estuary. The Partnership's work is guided by the development and implementation of the *Estuary Blueprint*, a comprehensive, collective vision for the Estuary's future.

The Partnership manages important multi-benefit projects that improve the health of the Estuary. We build partnerships and leverage federal funding with millions of dollars in state and local funds for regional-scale restoration, water quality improvement, and resilience-building projects.

The Partnership's host entity is the Association of Bay Area Governments, which is staffed by the Metropolitan Transportation Commission under a memorandum of understanding and a contract for services. By the end of 2017, the Partnership will be moving from Oakland to join its regional agency partners at the Bay Area Metro Center at 375 Beale Street in San Francisco. The Bay Area Metro Center houses the Metropolitan Transportation Commission, the Association of Bay Area Governments, the Bay Area Air Quality Management District, and the San Francisco Bay Conservation and Development Commission, and is designed to facilitate communication and collaboration among the agencies.

Fellowship Supervisors

Caitlin Sweeney, Director

Heidi Nutters, Environmental Planner

Position Description

The Partnership recently collaborated with more than 70 partners throughout the region to develop long term goals and a five-year action plan. The resulting 2016 Estuary Blueprint is a comprehensive, collective vision for the Estuary's future. The partnership is seeking assistance from a Sea Grant Fellow with several critical actions identified in the 2016 Estuary Blueprint.

The Fellow's primary responsibility will be to assist with the development of a Bay Area Wetlands Regional Monitoring Program (WRMP). This grant-funded project responds to a new urgency for faster and more certain tidal marsh restoration in the Bay Area as a result of forecasts of accelerated sea level rise. The WRMP addresses the need to monitor wetland restoration efforts in ways that assess their effectiveness, improve future restoration efforts, support regional coordination of regulatory review and permitting, and adequately account for the large public investment in tidal marsh restoration. The WRMP project includes establishing a steering committee, developing an organizational structure, formalizing institutional arrangements, developing an annual program budget and funding plan, and conducting a series of workshops on four technical monitoring topics: vegetation cover, tidal hydrology, mosquito and vector control, and adaptive marsh management.

The WRMP core team includes the Partnership, the San Francisco Estuary Institute, and the San Francisco Bay National Estuarine Research Reserve. The Fellow would work directly with the Partnership's project manager, Heidi Nutters, and the core project team to establish and support the WRMP steering committee through direct engagement and technical assistance. In addition, there would be an opportunity for the Fellow to engage with Steering Committee members on various specific projects that support the development of the WRMP, depending on interest and skills. Finally, the Fellow would assist with all aspects of project management, including managing subcontracts, tracking deliverables, and developing quarterly progress reports.

In addition to the WRMP, the Fellow would work to support successful implementation of the Estuary Blueprint in other ways, such as working with partners to track implementation progress and strategizing solutions to implementation challenges, or by assisting with specific Partnership projects focused on restoring habitat, improving water quality, increasing climate resiliency, and championing the Estuary.

Finally, the Fellow would be integrated into the Partnership staff, attending staff meetings, participating in quarterly meetings of the Partnership's Implementation Committee, and attending meetings or workshops with regional partners that pertain to the work of the Partnership.



STATE WATER RESOURCES CONTROL BOARD
2018 Sea Grant State Fellow

HOST DESCRIPTION

1. Host Location and Contact Information:
State Water Resources Control Board, Division of Water Quality
California Environmental Protection Agency Headquarters Building, 15th Floor
1001 I Street
Sacramento, CA 95814
www.waterboards.ca.gov
2. Fellowship Supervisor:
Rebecca Fitzgerald, Environmental Program Manager
Water Quality Standards and Assessment Section Chief
rebecca.fitzgerald@waterboards.ca.gov
916-341-5775
3. Point of Contact for Prospective Fellows and Finalists:
Rebecca Fitzgerald
4. Position Description:
The State Water Resources Control Board was created by the Legislature in 1967. Our mission is to preserve, enhance, and restore the quality of California's water resources, and ensure their proper allocation and efficient use for the benefit of present and future generations.

The Sea Grant Fellow will primarily work on projects in the Ocean Standards Unit, which is one of several units under the Surface Water Quality Standards and Assessment Section. The unit is responsible for developing and updating statewide water quality control plans, policies, and standards involving marine waters. This includes the California Ocean Plan, the California Thermal Plan, and the implementation of the Water Quality Control Policy on the Use of Coastal and Estuarine Waters for Power Plant Cooling. The unit also manages the Beach Safety Program to monitor pathogen contamination at ocean beaches, participates in marine invasive species issues from vessel ballast water discharges, and provides scientific support and inter-agency coordination regarding marine pollution and resource management issues.

Under the general direction of the manager of the Water Quality Standards and Assessment Section, the Sea Grant Fellow will perform complex analyses involved in the development and implementation of state policies and plans for the protection of ocean, estuarine, and inland surface waters. In performing these duties, the fellow shall interact with interested agency staff, stakeholders, and the general public in a courteous and helpful manner. The fellow is responsible for the quantity, quality, and timeliness of work assigned.

The Water Quality Standards and Assessment Section is dynamic with several high priority projects currently under development. The fellow may be involved in developing standards and policies for nutrients and blue-green algae in marine and estuarine waters, implementing protections for areas of special biological significance, amending and implementing the Once-Through Cooling Water Policy, and protecting and monitoring beach bacteria water quality. In addition, the section is involved with public outreach programs including working with California Native American tribal members on the development of water quality standards.

In working on Ocean Plan amendments and other water quality plans and policies, the fellow's duties may involve all phases of the public planning process, including literature reviews of scientific studies, California Environmental Quality Act (CEQA) scoping, discussion with interested parties to identify possible alternatives for action, preparation of environmental documentation, preparation for public meetings, response to public comments, preparation of recommendations to the Board, and preparation of the administrative record for any changes that the Board adopts. The fellow will also perform other duties as assigned. The working environment is primarily an office environment with limited opportunities for field visits.



STATE WATER RESOURCES CONTROL BOARD
2018 Sea Grant Fellowship Opportunity
Office of Information Management and Analysis
Surface Water Ambient Monitoring Program (SWAMP)
HOST DESCRIPTION

1. Host location and contact information

State Water Resources Control Board, CA-EPA building, Office of Information Management and Analysis (OIMA), 1001 I Street, Sacramento, CA 95814.

2. Fellowship Supervisor

Lori Webber, Senior Environmental Scientist
(916) 341-5556
lori.webber@waterboards.ca.gov

3. Point of Contact for Prospective Fellows and Finalists

Lori Webber, Senior Environmental Scientist
(916) 341-5556
lori.webber@waterboards.ca.gov

4. Position Description

The [State Water Resources Control Board](#) was created by Legislature in 1967. Our mission is to preserve, enhance and restore the quality of California's water resources, and ensure their proper allocation and efficient use for the benefit of present and future generations.

Under the general direction of the of the [Surface Water Ambient Monitoring Program \(SWAMP\)](#) Unit senior, the Sea Grant Fellow (Fellow) will apply data science practices to perform complex analysis, interpretation and visualization of environmental data collected by Water Board Programs, including SWAMP, and partner agencies to inform water quality managers and the public. The SWAMP Unit is part of the State Water Board's Office of Information Management and Analysis, home of the [Water Board Data Center](#).

SWAMP's purpose is to inform management decisions and improve the efficiency and effectiveness of Water Board actions (permits, policies, resource management and other activities). Its monitoring programs collect hundreds of chemical, physical and biological samples each year in both freshwater and marine environments. The Fellow will be the SWAMP Unit's main point of contact for marine studies and will be involved in multiple phases of the SWAMP [Coastal Fish Survey](#), the [National Coastal Condition Assessment](#) (NCCA) and other coastal monitoring programs (including monitoring required by Water Board permits and other regulatory actions). Duties will include participating in monitoring study design, field sampling and logistics, meeting organization and notetaking, coordinating with partner programs, data analysis and interpretation, data visualization and communication, adding content to the [My Water Quality Portals](#), and presentation of findings to both technical and lay audiences. The Fellow will also perform other duties, as assigned, to support the SWAMP Unit and the Office of Information Management and Analysis, such as rapid trash assessment method development or assistance with satellite imagery analysis to detect potential

harmful algal blooms. In performing these duties, the Fellow will interact with interested agency staff, stakeholders and the general public in a courteous and helpful manner. The Fellow is responsible for the quantity, quality, and timeliness of work assigned.

Skills or attributes we seek include:

- Ability to perform complex scientific analysis and communicate findings to technical staff, managers and the general public.
- Strong interest in the mechanics of utilizing science to inform public policy.
- Ability to lead groups of people, often with divergent views on how to move forward on a particular issue.
- Excellent verbal and written communication skills.
- A problem solver with strong personal initiative and the ability to work well under minimal supervision.

2018 California Sea Grant State Fellow
NOAA's Channel Islands National Marine Sanctuary
HOST DESCRIPTION

Host Location

NOAA's Channel Islands National Marine Sanctuary
University of California, Santa Barbara
Ocean Science Education Building 514
Santa Barbara, California 93106

Fellowship Supervisors

Chris Mobley, Sanctuary Superintendent; chris.mobley@noaa.gov, 805-893-6416
Michael Murray, Deputy Superintendent for Programs; michael.murray@noaa.gov, 805-893-6418
Sean Hastings, Resource Protection Coordinator; sean.hastings@noaa.gov, 805-893-6424

Position Description

[Channel Islands National Marine Sanctuary](#) (sanctuary) is part of the National Oceanic and Atmospheric Administration's (NOAA) [Office of National Marine Sanctuaries](#). It is located approximately 23 miles off the coast of Santa Barbara and encompasses 1,470 square miles of state and federal ocean waters surrounding Anacapa, Santa Cruz, Santa Barbara, Santa Rosa, and San Miguel Islands. The sanctuary waters are a fertile combination of warm and cool currents that result in a highly productive marine ecosystem with diverse habitats, a wide array of fish and invertebrates, 27 species of whales and dolphins, 5 species of pinnipeds, and over 60 species of seabirds. Recognized as an important marine protected area at the local, state, national and international levels, the sanctuary's primary goal under the National Marine Sanctuaries Act is to protect its natural and cultural resources.

The Sea Grant Fellow will play a key role in a multitude of policy, research and outreach activities, working closely with the sanctuary superintendent, deputy superintendent, and resource protection coordinator. The Fellow will research, write and conduct outreach on a wide array of marine resource management issues and will help foster productive relationships with state and federal agencies, academic institutions, and stakeholders. In this position, the Fellow will gain the diverse skills and professional experience necessary to succeed in a natural resource management career. Former sanctuary fellows and interns have become permanent or contract NOAA employees, received the Knauss and Presidential Management Fellowships, or taken research and leadership positions in the private and non-profit sectors.

Working in the capacity of a Resource Protection Specialist, the Fellow will support the following:

Reducing the threat of ship strikes on endangered whales: Since 2007, the sanctuary and its [Advisory Council](#) have been working in collaboration with the National Marine Fisheries Service (NMFS), U.S. Coast Guard, and the shipping industry to develop both short and long-term management measures to reduce the ship strike threat to Endangered Species Act listed large whales in the Santa Barbara Channel region. Management recommendations include continued research and monitoring, mariner education and outreach, incentives for changing vessel behavior, and the utilization of marine spatial planning techniques to protect high whale density areas. The Sanctuary Advisory Council hosted a multi-stakeholder collaborative process to explore solutions that address competing human uses (e.g. military activities and commercial shipping) and impacts to Santa Barbara and the marine environment (e.g. air pollution and whale strikes). Also under consideration are ship lane adjustments, vessel speed reduction zones, and research and education strategies. The Fellow will help advance these initiatives to broader NOAA, the US

Coast Guard, and possibly to the U. S. delegation to the International Maritime Organization. More information: http://channelislands.noaa.gov/management/resource/ship_strikes.html

Management Plan Revision

As mandated by the National Marine Sanctuaries Act, the management plan for CINMS must be updated. The Fellow will work with sanctuary staff to develop and implement the management plan revision process. This process requires involvement of the Sanctuary Advisory Council and close coordination among sanctuary staff at the local, regional, and national levels. The Fellow will be involved with all aspects of policy development and rulemaking as guided by the National Environmental Policy Act and Administrative Procedures Act.

Sanctuary Advisory Council

The Fellow will participate and support meetings, held every other month, with the Sanctuary Advisory Council and its working groups, including agenda preparation with the Executive Committee, preparing and delivering presentations, corresponding with council members and the public. The Fellow will support the Council's development of collaborative, innovative policy solutions to complex marine resource issues.

In addition to the above projects, the Sea Grant Fellow's duties and opportunities will include:

- Processing and creating marine mammal sightings maps in ArcGIS during large cetacean season from sightings reported on two whale apps '[SpotterPro](#)' and '[WhaleAlert](#).'
- Participating in sanctuary staff meetings and other planning meetings on the local, regional, and national level, including occasionally providing progress reports and/or presentations.
- Reviewing and responding to the proposed regulatory actions of other agencies to ensure consistency with the sanctuary's mission and regulations. This may involve producing internal memos of findings based on review of agency documents and drafting comment letters.
- Assisting with the review and development of sanctuary research and salvage permits, including literature review on research methods and potential environmental impacts.
- Contributing to superintendent reports, the sanctuary's annual operating plan, and other required reports, including compilation, information gathering, and document editing/formatting.
- Representing the sanctuary at select meetings and conferences, to observe, learn, speak/present, and assist with follow-up actions.
- Participating in sanctuary research and monitoring activities and communicating findings to a diverse audience. This will involve occasional trips aboard the sanctuary research vessels, assisting on deck, helping with data acquisition and processing, and summarizing information for presentation.
- Helping to update the sanctuary's [website](#) and posting to sanctuary [social media](#) accounts.
- Possible opportunities to visit the Office of National Marine Sanctuaries' West Coast Regional Office in Monterey, CA, and offices of the Greater Farallones, Cordell Bank, and Monterey Bay national marine sanctuaries on the central California coast.

A competitive Sea Grant Fellow applicant will have: strong research and demonstrated writing skills; some GIS experience; a personable approach and comfort working with a variety of constituencies in public and occasionally contentious settings; the ability to effectively manage multiple projects; and enthusiasm for ocean stewardship and conservation.



UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
National Marine Fisheries Service
Southwest Fisheries Science Center
8901 La Jolla Shores Drive
La Jolla, CA 92037-1508

NOAA/NMFS Southwest Fishery Science Center HOST DESCRIPTION

Location: (there are three possible locations for the Fellowship)

8901 La Jolla Shores Drive, La Jolla, CA 92037

110 McAllister Way, Santa Cruz, CA 95060

99 Pacific Street, Monterey, CA 93940

Fellow Supervisors: Lead Scientist of project and Division Director

Point of Contact: Toby Garfield, SWFSC Acting Deputy Director

(toby.garfield@noaa.gov, 858-546-7081)

Agency Background:

The NOAA Southwest Fisheries Science Center (SWFSC; <https://swfsc.noaa.gov>) is one of six federal regional science centers that comprise the science expertise for the National Marine Fisheries Service (<http://www.nmfs.noaa.gov/>). The SWFSC provides national and international leadership and innovation in several key areas of Pacific Ocean fisheries and marine mammal science and management in the California Current, throughout the Pacific Ocean and in the Southern Ocean off Antarctica. The SWFSC has three facilities: the headquarters laboratory is in La Jolla, and satellite laboratories in Santa Cruz and Monterey. SWFSC scientists conduct fisheries, marine biological, economic and oceanographic research, observations and monitoring of living marine resources and their environment. Center scientists also conduct research on the impacts of environmental variability and climate change on marine ecosystems and on fishery and conservation socio-economics. The ultimate goal of these efforts is to ensure that the region's marine and anadromous fish, marine mammal, marine turtle, seabird, and invertebrate populations remain at sustainable and healthy levels, as functioning parts of their ecosystem and enhancing the quality of life for the public.

Position Description:

One Fellow will be selected and assigned to work at one of the laboratories based on the project opportunity (below) negotiated between the Fellow and host. The Sea Grant Fellow will work at the interface between fishery science and regulatory actions. In this time of extreme weather events and changing climate, the SWFSC must interpret new science findings into management scenarios that will ensure resilient coastal communities. There are a number of areas where the Sea Grant Fellow could contribute that include management plans for highly migratory species, developing management strategies to implement Ecosystem-Based Fishery Management (EBFM) within the California Current large marine ecosystem or for the Antarctic fisheries, and critical issues regarding Central Valley salmon. The Fellow will work under the direction of the lead scientist to assist with strategies on informing adaptive management options. Initially, the Fellow will meet with the Division Director and the lead scientist to develop a mentoring plan. The plan will be based on the specific needs of the project and the Fellow's interests. The three will meet regularly during the year-long fellowship. The Fellow will be encouraged to participate in conferences, interagency meetings and collaborative projects and is expected to be a significant contributor to the work.



Southwest Fisheries Science Center Potential Assignments:

- **Development of NE Pacific Ecosystem Based Fishery Management (ERD)** – (EBFM) scenarios using results from the California Current Integrated Ecosystem Assessment ([CCIEA](#)). A Fellow working on this project would be based at La Jolla and also work with staff in Monterey. The Environmental Research Division (ERD) is the lead division working with the Pacific Fishery Management Council (PFMC) on developing a Fishery Ecosystem Plan to manage all species, including protected species, through a comprehensive ecosystem plan. The CCIEA has developed a robust set of environmental, ecological and human dimension indicators that will form the basis of EBFM recommendations. NMFS employees are working with the various PFMC subcommittees on recommendations for developing and implementing this plan.

- **Water resources management (FED)** –The Fellow will participate in research on economic and social aspects of water use policy in California. In-stream flow and water quality are primary factors affecting habitat quality for protected species of anadromous fish, including endangered Chinook salmon and steelhead in the Central Valley and endangered coho salmon, Chinook salmon, and steelhead trout in California coastal watersheds. The Fellow will be located in Santa Cruz and collaborate with researchers at the SWFSC's Fisheries Ecology Division ([FED](#)) on projects such as quantifying the economic impacts of reallocating water between fish habitat and human uses, designing cost-effective policies for anadromous fish habitat restoration, assessing the benefits and costs of water quality and habitat improvement projects, and developing risk management strategies for allocating water to competing uses over multiple time periods.

- **Communicating water issues (FED & Director's Office)** – Fresh water usage is one of the defining issues that brings together politics, agriculture, municipal planning, coastal modification, commercial and recreational fishing, and aesthetics. The Fellow would work with FED (Santa Cruz) and the Director's Office (La Jolla) on developing communication tools to promote SWFSC's scientific input to this vital discussion.

Dynamic Ocean Management (ERD & partners) – Dynamic Ocean Management to reduce bycatch in federal fisheries. Protecting highly migratory species from fishing gear bycatch relies on a suite of tools from seasonal closures, gear restrictions, and fisher communication. We are developing a real-time tool to reduce bycatch in pelagic fisheries yet current regulations do not have a provision for such an approach. The Fellow would work with Monterey scientists and NGO partners (e.g. Center for Ocean Solutions) to develop a policy framework for implementation of Dynamic Ocean Management in state and federally managed fisheries.

- **Dungeness crab fishery and multiple stressors (ERD)** – Dungeness crab fisheries are being hit with multiple regulatory concerns, e.g. record whale entanglements due to inshore distribution of humpbacks the past two years, and increased domoic acid from harmful algal blooms resulting in the shutdown of the fishery. The fellow would work with scientists at SWFSC and partners to develop policy approaches that would account for multiple stressors yet maximize the ability of the fishery to remain open. The position would be in Monterey.

SWFSC – Southwest Fisheries Science Center – Kristen Koch, Acting Director
(kristen.c.koch@noaa.gov)

AERD – Antarctic Ecosystem Research Division – George Watters (george.watters@noaa.gov)

ERD – Environmental Research Division – Toby Garfield (toby.garfield@noaa.gov)

FED – Fisheries Ecology Division – Steve Lindley (steve.lindley@noaa.gov)

FRD – Fisheries Resources Division – Gerard DiNardo (gerard.dinardo@noaa.gov)

MMTD – Marine Mammal & Turtle Division – Lisa Ballance (lisa.ballance@noaa.gov)



**Port of San Diego, San Diego, CA
Planning and Green Port – Aquaculture and Blue Technology Program
2018 Sea Grant State Fellow Opportunity**

**HOST DESCRIPTION
2 POSITIONS**

Host Location and Contact Information:

Port of San Diego
Planning and Green Port – Aquaculture and Blue Technology Program
3165 Pacific Highway
San Diego, CA 92101

Supervisor and Point of Contact for Prospective Fellows and Finalists:

Paula Sylvia
Program Manager – Aquaculture and Blue Technology; Planning and Green Port
(see address above)
619-686-6491
psylvia@portofsandiego.org

**Port of San Diego, San Diego, CA
Planning and Green Port – Aquaculture and Blue Technology Program
2018 Sea Grant State Fellow Opportunity**

Position Description:

The Port of San Diego was created by the State Legislature to manage San Diego Bay and surrounding waterfront land through a regional governance approach in 1962. The Port of San Diego is the fourth largest of the 11 deep water Ports in California, and is bordered by five member cities: Chula Vista, Coronado, Imperial Beach, National City, and San Diego. The Port oversees two marine cargo terminals, two cruise ship terminals, over 20 public parks, the Harbor Police Department, and the leases of over 200 tenants and over 500 sub tenant businesses around San Diego Bay. The Port is an economic engine, and environmental steward of San Diego Bay and the surrounding tidelands, and a provider of community services and public safety.

The Port's Planning and Green Port Department consists of several programs:

1. **Aquaculture and Blue Technology**
2. **Energy:** Energy efficiency; Conservation, and Renewables; and Climate Planning and Policy
3. **Environmental Conservation:** Natural Resource Management; Permitting; and Mitigation Banking
4. **Environmental Protection:** Storm Water; Water Quality and Watersheds; Site Assessment and Bioremediation
5. **Long Range Planning:** Integrated Planning; Planning and Policy

Since 2015, the Port has been exploring Blue Economy opportunities to diversify its portfolio of business lines and assets in alignment with its mission and responsibility to the region and the State of California. The Blue Economy is comprised of a wide variety of marine-dependent business clusters such as aquaculture and fisheries, eco-tourism, scientific research, security, and blue technology. The Port is interested in further exploring aquaculture to support a variety of economic and environmental development opportunities in and around San Diego Bay.

Aquaculture is a growing opportunity for new business development in southern California. This opportunity is primarily being driven by the growing global demand for seafood and the lack of a domestic supply. Traditional harvest fisheries are fully exploited and cannot meet this increasing demand. In the U.S., over 91% of our seafood is imported and 50% of that is from aquaculture, contributing to a nearly \$11 billion trade deficit. Demand will continue to increase with growing populations and an increased per capita consumption overall. While there is a clear food production component to this demand, aquaculture offers multiple co-benefits, such as fisheries enhancement, ecosystem restoration, mitigation banking, bio-fuel/medical purposes, bioremediation, and education and outreach.

Two Sea Grant Fellows within the Port of San Diego's Planning and Green Port Department will assist the Program Managers of the Aquaculture and Blue Technology Program in a range of duties encompassing planning and pre-development work for pilot scale projects; involvement in policy level processes that may interact with government (federal, state, and local resource agencies), aquaculture industry, academia, and a variety of other stakeholders and constituents; and will have the opportunity to be involved in a variety of collaborative aquaculture, blue technology, and natural resource projects.

The Port's current aquaculture initiatives and a Sea Grant Fellow's ideal complementary skill set include:

- **Supporting the CA Shellfish Initiative:** a collaborative effort to expand shellfish aquaculture (commercial and native shellfish restoration), to include stakeholder interests with localized regional planning and policy efforts. Skills needed include communication, collaboration, planning, inter-personal, administrative, and detail-oriented.
- **Ocean Planning:** The California State Lands Commission and the Port of San Diego formed the San Diego Ocean Planning Partnership to collaborate on an ocean planning pilot in the ocean space offshore San Diego County. Through the pilot, this Partnership will identify current ocean uses and characterize the relationships between them to effectively plan for present and future uses of the ocean space. This work may involve local, state, regional, and national collaborative efforts, as well as stakeholder engagement. Skills needed include communication, collaboration, planning, inter-personal, administrative, and detail-oriented.
- **Planning and Pre-development:** involves planning, designing, site selection, drafting various permitting package materials for a variety of land and ocean based projects for appropriate algae, shellfish, and finfish projects, including technology park feasibility studies. Involves working with inter-disciplinary teams across departments to assimilate existing data (water and sediment quality), identifying data gaps, and planning for new data collection to assist with identifying suitable locations for various types of aquaculture operations. Skills needed include communication, collaboration, planning, inter-personal, administrative, detail-oriented, and computer and data management skills.
- **Projects:** assist with a variety of pilot and other projects conducted internally, or externally with potential business partners proposing aquaculture and blue technology projects through the Port's newly established Blue Economy Business Incubator. This work may include proposal reviews, planning, permitting and entitlements (CEQA, Coastal, ACOE, RWQCB), coordination with partners, and education and outreach activities. Skills needed include communication, collaboration, planning, inter-personal, administrative, detail-oriented, and computer and data management skills.
- **Natural Resources and Coastal Resiliency:** potential to be involved or gain exposure to a variety of projects, including but not limited to: natural resources management, wetlands restoration and monitoring, living shorelines, climate change studies, permit compliance, bioremediation, sustainable energy, mitigation banking, etc. Skills needed include communication, collaboration, planning, inter-personal, administrative, detail-oriented, and computer and data management skills, and also willing to work in the field if needed.
- **Other:** coordination on aquaculture projects with CA Department of Fish and Wildlife (CDFW) and National Oceanic and Atmospheric Administration (NOAA) Fisheries Aquaculture office in CA; participation in offshore aquaculture inter-agency and other working groups to promote sustainable development of aquaculture in California and the U.S.

A successful candidate must be able to work independently but also function as part of a multi-disciplinary team within the Port's Planning and Green Port Department, as well as counterparts in other agencies and industry, with emphasis on communication, inter-personal skills, interaction with policy and regulatory information; there is little emphasis on direct scientific research, however, the ability to conduct literature, legal, and administrative reviews/research will be an important contribution. Strong organizational, listening, and writing skills and a willingness to work on and interact with a broad variety of projects will greatly enhance the fellowship