

CALIFORNIA COASTAL COMMISSION

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**2022 SEA GRANT FELLOWSHIP PROPOSAL****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 Coastal Commission also has the responsibility to work with local governments to establish Local Coastal Programs (LCPs) which, when certified by the Coastal Commission, become the land use plan basis for coastal permitting at the local level. Furthermore, the Coastal 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. In particular, the fellow will assist executive management, senior level and technical staff on the agency's climate change and sea level rise adaptation planning work and addressing coastal hazards (i.e. tsunami, bluff stability/erosion) more broadly. This will include participating in multi-agency meetings, supporting interagency coordination and collaboration between the Coastal Commission and other state agencies, drafting recommendations for state-wide planning documents, and assisting the Coastal Commission in developing or enhancing informational products that serve to educate the Coastal Commission itself, local government partners, stakeholders, and the public. The fellow will also have opportunities to interface directly with senior government officials and leaders in coast and ocean resource management policy throughout California, including working on projects and/or work products developed in collaboration with other state agencies like the California Natural Resources Agency, the State Lands Commission, the State Coastal Conservancy, and the Ocean Protection Council (OPC).

The fellow may work on team projects and smaller independent projects. The Coastal Commission will also provide the fellow an opportunity to learn about and assist with the Coastal Commission's core regulatory and planning work.

Projects/activities that the fellow could work on would include:

- 1) Assist 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 in regulatory work in review of coastal development permits applications;
- 2) Support outreach and education efforts to local governments, other state agencies, stakeholders and the public about the Coastal Commission's climate and sea-level rise planning efforts, policy guidance and other informational products and tools. This work could include supporting updates to the Coastal Commission's website and with planning outreach events such as webinars and workshops;
- 3) Assist with interagency coordination and collaboration efforts such as the State Sea Level Rise Leadership Working Group and support coordination efforts with other state agencies to participate in, track and report on climate adaptation and other sea level rise planning efforts;
- 4) Work on various climate-related special projects as outlined in the Coastal Commission's Strategic Plan, including federally funded projects related to sea level rise planning, sustainable development and smart growth, addressing wildfire resilience and response in the coastal zone, public access vulnerability to sea level rise, environmental justice, and protecting public trust lands and resources. This work would involve background research, policy analysis, and data synthesis;
- 5) Assist with the agency's planning and regulatory work on offshore wind energy;
- 6) Assist with agency efforts to accelerate planning and permitting of wetland protection or habitat restoration efforts that support using nature-based solutions in response to coastal hazards; and
- 7) Support completion of the Coastal Commission's Coastal Armoring Database Project.

Given the wide range of projects and initiatives undertaken by the Coastal Commission along the entire California coast, a successful Sea Grant Fellow is expected to take on and deliver products for a range of projects. While there will be an emphasis on climate change related projects for most assignments, there will be room for the fellow to dig more deeply into topics of interest (such as environmental justice, affordable housing, offshore wind energy). **Assignments can be customized to match the unique skills or interests of the selected fellow.** The selected Sea Grant Fellow must be able to work well under minimal supervision and be willing to ask questions. In addition, having a strong personal initiative and an ability to work well in a collaborative style with others is 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 focused on climate change issues. This fellowship offers an excellent opportunity for teamwork and peer collaboration. The Coastal Commission will cover the proposed cost of hosting one fellow and supply needed operational, travel, and transit subsidy costs.

Host Location - Flexible

The fellow is usually based out of the Coastal Commission headquarters office in downtown San Francisco (455 Market Street, Suite 300, San Francisco, CA 94105) but we are willing to consider the fellow's base to be in one of our district offices (e.g., Arcata, Santa Cruz, Ventura, Long Beach or San Diego).

Fellowship Supervisors

Federal Programs Manager

Statewide Planning Program Manager

Point of Contact: Alison Dettmer, Chief Deputy Director, Alison.Dettmer@coastal.ca.gov



Sea Grant Fellowship California Department of Parks and Recreation

1. Host location and contact information

Natural Resources Division, California State Parks
1416 9th St, Room 923, Sacramento, CA 95814
Phone: 916-956-8939 (work mobile phone for Marina Cazorla)
Email: Marina.Cazorla@parks.ca.gov

2. Name of fellowship supervisor

Marina Cazorla, Coastal Program Manager, Natural Resources Division

3. Point of contact for California Sea Grant, prospective fellows, and finalists

Marina Cazorla, Coastal Program Manager, Natural Resources Division

4. Position Description

The California Department of Parks and Recreation (State Parks) manages 128 coastal park units, or nearly one quarter of the California coastline. As manager of these coastal lands, State Parks has the responsibility and opportunity to serve as a leader in coastal land management. State Parks' Natural Resources Division (NRD) provides policy direction and technical assistance for natural resource management in the State Park System. NRD also administers major funding programs for natural resources management and habitat restoration throughout the State Parks System, and coordinates with other State and federal agencies on policy issues of statewide significance. Within the NRD, the Coastal Programs team serves to coordinate these efforts as they relate to the coastal units of the State Park System. Further, with expected impacts from climate change 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 Fellow will work with the Coastal Programs Team to inform and implement State Parks' coastal policies and programs, including application of innovative natural resource management solutions. Specific duties will be developed collaboratively at the start of the fellowship, however, project and programmatic opportunities that could be pursued include:

Further State Parks' Estuary Initiative

The Estuaries Initiative is developing a comprehensive statewide approach for the management and restoration of coastal lagoons and estuaries within the State Park System. The Fellow may assist with synthesizing emerging science on coastal lagoons and estuaries, engaging with stakeholders and State Parks resource managers, and developing and implementing a collaborative strategy for prioritizing restoration and management for building estuary resilience in State Parks in the face of climate change.

Implementing State Parks' Sea Level Rise Adaptation Strategy

State Parks developed a departmental [Sea Level Rise Adaptation Strategy](#), which is now being implemented in a phased approach. The Fellow may assist with implementing action items identified in the Strategy, such as developing support tools to assist project managers, and/or tracking the progress of the State Parks System towards implementation.

Coastal Management and Policy

Depending on the Fellow's background and interest, there are additional coastal management responsibilities within the Coastal Programs team that would allow the Fellow to: apply or strengthen their technical and data/GIS skills; perform policy analysis; apply communications skills; or all of the above. The Fellow could:

- Assist district staff with coastal permitting as well as support for NRD staff review of coastal restoration and adaptation projects.
- Work with NRD engineering geologists, agency partners, and district on issues related to coastal sediment management, including the identification of California shoreline erosion concern areas within the State Park System.
- Track work products of other State and federal agencies and NGOs regarding coastal issues, including State policy guidance documents, coastal adaptation strategies, and science reports. Disseminate applicable information to appropriate audiences, including State Parks HQ and district staff.
- Collaborate with program staff at partner agencies such as the Ocean Protection Council, California Coastal Conservancy, California Coastal Commission, and other State and federal agencies on a wide range of coastal management issues.
- Collaborate with State Parks' Interpretation and Education Division, OPC, and other agencies to develop targeted and effective communication strategies and messaging related to issues impacting coastal park units.

California Sea Grant Host Application 2022

District 1 - 1656 Union Street, Eureka CA 95501



Agency Background

The California Department of Transportation (Caltrans) manages the state's highway system. Our transportation network maintains more than 15,000 miles to promote the regional flow of people and goods to support the economy, tourism, and everyday life in California. Caltrans strives to provide a safe and reliable transportation network that serves all people and respects the environment.

Caltrans envisions a brighter future for all through a world-class transportation network that is socially and environmentally responsible. With the leadership of the new director Toks Omishakin, Caltrans is undertaking a major shift in focus and values by prioritizing multimodal transportation, climate action, environmental stewardship and sustainability, and equity and livability in all communities. The organization will build on its existing environmental engineering, biological, and cultural studies branches to uphold protections for watersheds, coasts, and other environmental resources.

Position Description : California Department of Transportation - District 1 (Eureka) Environmental Engineering and Coastal Stewardship (2 Fellowship Opportunities)

A fellowship with Caltrans North Region Environmental will provide an experiential learning opportunity with professionals in diverse areas of expertise, including biologists, engineers, project managers, archaeologists, and more. Working with the Environmental Engineering and Coastal Stewardship units, the Fellow will integrate into a team that provides career support and guidance to the Fellow as they refine their goals. Caltrans Sea Grant Fellows are treated as full staff members and are given responsibility, value, trust, and appreciation.

The Fellow will directly contribute to the future development of California's critical infrastructure by minimizing the impacts and maximizing the environmental sustainability of Caltrans projects. Caltrans is committed to providing a positive fellowship experience and a beneficial career development opportunity, and therefore the specific projects undertaken will depend both upon the Fellow's interests and the department's needs. Past Sea Grant Fellows have contributed to the following Caltrans projects:

- Establishing the Mendocino Coast Mitigation Bank
- Eelgrass restoration in Humboldt Bay
- Wildfire fuel reduction for water quality benefits
- Mitigation and Monitoring Plans and Reports
- CEQA-level watershed assessments for upcoming transportation projects
- Clean Water Act 401 Certifications

The Fellow will be supported by and work directly with the other Caltrans Fellow and previous Sea Grant Fellows. Caltrans emphasizes a healthy work-life balance and the District 1 location in Humboldt County offers a unique opportunity to immerse yourself in nature, nestled between the ocean, mountains, and ancient redwood forests.

Skills Learned

Caltrans offers tangible and transferrable skills that will develop your career, supplementing your education with fast-paced and hands-on work experience. By the end of your fellowship, you will:

- Understand implemented environmental regulations and their application, including:
 - California Environmental Quality Act (CEQA)
 - National Environmental Policy Act (NEPA)
 - Clean Water Act
 - California Coastal Act
- Gain project management and delivery process experience
- Refine technical writing skills into specialized reporting formats
- Experience field work opportunities such as:
 - Biological surveys for salmonids, Northern Spotted Owls, rare plant species, butterflies, & more
 - Wetland delineations
 - Site visits to assess potential impacts of construction on water quality and coastal resources
 - Mitigation creation and site monitoring
- Directly collaborate on projects with other agencies, including:
 - California Coastal Commission
 - California Department of Fish and Wildlife
 - Regional Water Resources Control Boards
 - U.S. Army Corps of Engineers
 - National Oceanic and Atmospheric Administration
 - U.S. Fish and Wildlife Service
 - California State Parks
 - U.S. National Parks Service
 - California Department of Forestry and Fire Protection (CALFIRE)
 - U.S. Forest Service

In addition, the Fellow will have access to Caltrans Environmental training and career development courses, and will be directly mentored by policy analysts, biologists, and other environmental experts.

Desired Qualifications

A successful Caltrans Sea Grant Fellow does not require specific experience or expertise, but rather a positive attitude, open mind, and willingness to learn and take on new challenges. Good time management, organization, communication, and interpersonal skills will help fellows succeed in the fast-paced and team-oriented Caltrans work environment. The interdisciplinary and technical nature of Caltrans projects requires creative and analytical thinking, the ability to learn quickly, and a solutions-oriented approach.

Fellowship Supervisors:

- Kevin Church, Branch Chief, Environmental Engineering - North kevin.church@dot.ca.gov
- Lorna McFarlane, Senior Resource Specialist, Coastal & Fish Passage lorna.mcfarlane@dot.ca.gov

Prospective Fellow Contacts:

Amanda Haas, Water Quality Coordinator
(707) 296-5469 amanda.haas@dot.ca.gov

Cari Williams, Associate Environmental Planner
(707) 298-1465 cari.williams@dot.ca.gov



Caltrans District 4 – Sea Grant Fellowship 2022

Caltrans District 4 (Bay Area) Environmental (1 Fellowship Opportunity)

Caltrans District 4 encompasses the nine-county Bay Area in northern California. Prospective Sea Grant Fellows would be able to live in and explore all that the Bay Area has to offer, including hiking, kayaking, beautiful beaches, biking, and numerous cultural activities in San Francisco, Oakland, San Jose, and more.

Position Description

A Fellowship with Caltrans District 4 (Bay Area) Environmental will provide an experiential learning opportunity with professionals in diverse areas of expertise, including biologists, engineers, project managers, archaeologists, landscape architects, and more. Working with the Office of Environmental Analysis and Coastal Stewardship, the Fellow will integrate into a team that provides career support and guidance to the Fellow as they refine their goals. Caltrans Sea Grant Fellows are treated as full staff members and are given responsibility, value, trust, and appreciation. The Fellow will be supported by and work directly with the other Caltrans Fellow and previous Sea Grant Fellows.

The Fellow will directly contribute to the future development of California's critical infrastructure by minimizing the impacts and maximizing the environmental sustainability of Caltrans projects. Caltrans is committed to providing a positive Fellowship experience and a beneficial career development opportunity, and specific projects undertaken will depend both upon the Fellow's interests and the District's needs. Caltrans District 4 emphasizes a healthy work-life balance and the District 4 location in Oakland in Alameda County offers a unique opportunity to immerse yourself in nature and a vibrant cultural and urban scene.

Skills Learned

Caltrans offers tangible and transferrable skills that will develop your career, supplementing your education with fast-paced and hands-on work experience. By the end of your Fellowship, you will:

- Understand implemented environmental regulations and their application, including:
 - California Environmental Quality Act (CEQA)
 - National Environmental Policy Act (NEPA)
 - Clean Water Act
 - California Coastal Act
 - Endangered Species Act
 - California Endangered Species Act
- Have incorporated climate change stressors into project development
- Refine technical writing skills into specialized reporting formats
- Conduct public outreach and interagency partnering

- Experience field work opportunities such as:
 - Biological surveys for salmonids, Northern Spotted Owls, rare plant species, butterflies, wetland delineations
- Interface with and understand California Coastal Commission and Bay Conservation and Development Commission regulations and how they apply to Caltrans projects
- Conduct site visits to assess potential impacts of construction on water quality and natural resources
- Conduct ecological monitoring at mitigation sites
- Directly collaborate on projects with other agencies:
 - California Coastal Commission
 - California Department of Fish and Wildlife
 - Regional Water Resources Control Boards
 - U.S. Army Corps of Engineers
 - National Oceanic and Atmospheric Administration
 - U.S. Fish and Wildlife Service
 - California State Parks
 - U.S. National Parks Service
 - California Department of Forestry and Fire Protection (CALFIRE)
 - U.S. Forest Service

In addition, the Fellow will have access to Caltrans Environmental training and career development courses, and will be directly mentored by policy analysts, biologists, and other environmental experts.

Desired Qualifications

A successful Caltrans Sea Grant Fellow does not require specific experience or expertise, but rather a positive attitude, open mind, and willingness to learn and take on new challenges. Good time management, organization, communication, and interpersonal skills will help Fellows succeed in the fast-paced and team-oriented Caltrans work environment. The interdisciplinary and technical nature of Caltrans projects requires creative and analytical thinking, the ability to learn quickly, and a solutions-oriented approach.

Fellowship Location:

Caltrans District 4 Office (teleworking is available)
 111 Grand Avenue
 Oakland, California 94612

Fellowship Supervisor:

Lindsay Vivian, Office Chief, Environmental Analysis – (510) 506-4310
 Arnica MacCarthy, Branch Chief and Coastal Resource Specialist, Coastal & Fish Passage – (510) 506-0481

Fellowship Mentor:

Blake Hihara, Associate Environmental Planner and Permitting Specialist – (510) 407-9735

Commissioners
Peter S. Silva, President
Jamul

Samantha Murray, Vice President
Del Mar

Jacque Hostler-Carmesin, Member
McKinleyville

Eric Sklar, Member
Saint Helena

Erika Zavaleta, Member
Santa Cruz

STATE OF CALIFORNIA
Gavin Newsom, Governor

Fish and Game Commission



*Wildlife Heritage and Conservation
Since 1870*

Melissa Miller-Henson
Executive Director
P.O. Box 944209
Sacramento, CA 94244-2090
(916) 653-4899
fgc@fgc.ca.gov
www.fgc.ca.gov

California Sea Grant 2022 State Fellowship Program Application

Host Location/Contact: California Fish and Game Commission
1416 Ninth Street, Suite 1320
Sacramento, CA 95814 (Through August 2021)

California Fish and Game Commission
715 P Street, 16th Floor
Sacramento, CA 95814 (Starting August 2021)

Mailing Address: PO Box 944209
Sacramento, CA 94244-2090

Names of Supervisor: Melissa Miller-Henson, Executive Director

Point of Contact: Rachel Ballanti, Deputy Executive Director
(916) 201-6201
Rachel.BallantiBuck@fgc.ca.gov

Position Description

The [California Fish and Game Commission](http://www.fgc.ca.gov) (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 on all lands of the State and all waters, including ocean waters 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, marine aquaculture best management practices, 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;
- listing and delisting of native plants, animals, and fish as threatened or 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;
- addressing non-native species importation, possession and sale; and
- leasing state water bottoms and kelp beds for the purposes of aquaculture and commercial kelp harvest.

The Commission generally 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 have three meetings 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 under development, and to provide recommendations to the Commission for possible action on these topics. The committee meetings are less formal in nature than Commission meetings and provide for additional stakeholder access to the Commissioners. Since March 2020, all meetings have been conducted by webinar and teleconference due to the Covid-19 pandemic; however, we anticipate a transition back to in-person meetings later in late 2021.

Over the next year, the Commission expects to move to a hybrid work model where telework is expected and flexibility is prioritized. At the same time, the Sea Grant Fellow will be expected to be available for in-person collaboration at the Sacramento headquarters office on a regular basis.

The Commission's most frequent collaborator is the Department. 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 conducting the day-to-day management of programs established through regulation, and provides biological data and expertise to inform the Commission's decision-making process.

Potential Roles and Projects for 2022 Sea Grant Fellow

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 and professional goals, initiative, and communication and analytical skills. 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 Commission's marine advisor and wildlife advisor;
- 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;
- helping improve the Commission website and develop social media outreach.

While project priorities may change over time to address Commission direction and regulatory need, Commission staff are currently considering the following projects for the 2022 Sea Grant fellow:

- Coastal Fishing Communities Project and Policy Implementation
- Marine Aquaculture Projects
- Invasive Species Management Strategies

In addition to these Commission special projects, the Sea Grant fellow will be involved in ongoing interagency, tribal, and stakeholder collaboration to address the management of California's resources in various focal areas which may include climate change, tribal concerns, and new and emerging regulatory issues.

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 including direct interaction with Governor-appointed decision makers.



Sea Grant Host Application 2022

Two 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:** Jenn Eckerle, OPC Deputy Director
jenn.eckerle@resources.ca.gov
- Justine Kimball, Senior Program Manager,
OPC Climate Change Program
justine.kimball@resources.ca.gov
- Tova Handelman, Senior Program Manager,
OPC MPA Program
tova.handelman@resources.ca.gov
- 3. Points of contact for Sea Grant, prospective fellows, and finalists:** Justine Kimball, Senior Program Manager,
OPC Climate Change Program
justine.kimball@resources.ca.gov
- Tova Handelman, Senior Program Manager,
OPC MPA Program,
tova.handelman@resources.ca.gov

4. Position description:

Background: The Ocean Protection Council (OPC) is a cabinet-level state agency nested within the California Natural Resources Agency. Created by the California Ocean Protection Act of 2004, OPC was established to ensure healthy, resilient, and productive coastal and ocean ecosystems in California. OPC serves as the Governor’s advisor on ocean and coastal policy and uses partnerships, policy and funding to advance science-based solutions to protect coastal and ocean ecosystems in California. With this diverse complement of tools, OPC has unique flexibility to develop innovative and impactful approaches to conservation. We use each of these tools to identify and implement solutions that improve ocean governance, increase stewardship, and advance scientific understanding necessary to protect marine resources and

the communities that rely on them. These efforts yield significant benefits to the state while providing a model to improve protection and conservation across the world.

Fellowships at OPC provide an opportunity to work at the interface of science, policy and management to protect California's coastal and marine ecosystems and the communities that rely on them. OPC fellows are fully integrated members of OPC staff and as such, they gain valuable professional experience that will prepare them for success in future endeavors.

OPC staff is currently involved in various projects and initiatives focused on: marine biodiversity; climate change; sustainable fisheries and aquaculture; marine protected areas; marine pollution; and offshore renewable energy. More information about OPC's current priorities can be seen in the recently adopted [Strategic Plan to Protect California's Coast and Ocean](#). To understand the scope and breadth of the Council's work, please see this recent [meeting agenda](#).

OPC Sea Grant Fellows: Changing ocean conditions have the potential to threaten communities, ecosystems and California's economy. As such, there is an urgent need to catalyze innovative and bold action that builds resilience and safeguards ocean health. To advance our work addressing these critical issues, OPC would host two Sea Grant fellows, one that would focus on climate change and the other who would focus on marine biodiversity, including marine protected areas.

The **climate change fellow** would support OPC's state, national and international efforts to understand, prepare for, and adapt to climate change impacts including, but not limited to, ocean acidification and hypoxia, sea-level rise, offshore wind, and harmful algal blooms. This work may include coordination with agency and external partners, scientific analysis, evaluation of data gaps, identifying opportunities for new and/or leveraged OPC investments, and stakeholder outreach.

The **marine biodiversity fellow** would help lead the ongoing effort among state, federal, tribal and non-governmental partners to implement the state's MPA Management Program. This includes supporting the work of the [MPA Statewide Leadership Team](#) and the state's completion of the first decadal adaptive management review of California's MPA network in 2022. This fellow would also support other marine biodiversity priorities, which may include kelp forest recovery, 30 x 30 conservation efforts, water quality, and sustainable fisheries and aquaculture.

Both fellows will likely have opportunities to support work on OPC's other strategic priorities. In addition to supporting the programmatic work on climate change and marine biodiversity specifically, the two Sea Grant fellows will be involved in the following:

Broad Efforts of the Council. All OPC staff support the functions of the [seven-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 of the Council.**

Resources Agency Sea Grant Advisory Panel. The Resources Agency Sea Grant Advisory Panel (RASGAP) helps fund scientific research that supports coastal and ocean management and policy priorities and decision-making by evaluating proposals solicited by California's two Sea Grant programs. **Fellows will be responsible for helping review and score pre- and full proposals and participating in RASGAP technical review panels.**

Legislative Reporting & Bill Analyses. As a state agency that is part of the Governor's Administration, OPC does not take a position on any legislation. However, OPC tracks relevant bills that may explicitly direct OPC to take action or indirectly impact OPC's priorities to protect coastal and marine resources. **One fellow will be responsible for tracking legislative bills that are relevant to OPC and providing weekly updates to OPC's tracking list. Both fellows may have the opportunity to contribute to bill analyses if an OPC-relevant bill is moving forward in the legislature.**

Communications. Both fellows will support OPC's communications to elevate our work to a wide and diverse set of partners and stakeholders. Communications activities may include but are not limited to: representing OPC publicly at meetings and workshops; drafting talking points and press releases; and writing content for OPC's website and social media platforms.

Desired skills or attributes include:

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



1. Host location and contact information

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

2. Fellowship Supervisor(s)

South Coast Fellowship – Evyan Sloane, Megan Cooper
Bay Restoration Fellowship – Jessica Davenport

3. Point of contact for CSG and prospective fellows and finalists:

Jessica Davenport
Deputy Regional Manager
jessica.davenport@scc.ca.gov

4. 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.

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:

- Coordinate the WRP's Cutting the Green Tape initiative by supporting WRP Work Plan projects in two permit pre-application meetings with WRP partner agencies.
- Implement the WRP's Regional Monitoring Program, if selected for EPA funding. This project focuses on developing a Level-3 monitoring framework for coastal wetlands across Southern California.
- Coordinate and provide staff support for meetings of the various branches of the WRP including the Directors Group annual meeting, Science Advisory Panel meetings as needed, Wetlands Managers Group quarterly 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.
- Help SCC staff track WRP Work Plan project progress internally as well as on the WRP's website and EcoAtlas's Project Tracker.
- 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.

The fellow will also work on managing and facilitating the Coastal Resilience Network. The Coastal Resilience Network is a global network of practitioners engaging in knowledge exchange to support adaptation solutions that strategically and comprehensively prepare California's coastal habitats and communities for climate induced impacts. The fellow will manage the Network's on-going webinar series by identifying speakers and facilitating the webinars.

The fellow will also help SCC staff manage the Climate Ready grant program. The fellow will be leading the reporting efforts for all (already) selected projects to the California Air Resources Board.

Although the WRP and SCC tasks listed above will be the focus of the fellow's work, 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).

Bay Restoration Fellow

One of the SCC's fellows will work on coastal habitat restoration along the shoreline of San Francisco Bay. Coastal resource enhancement is the SCC's largest funding program, and the complexity of designing, implementing and monitoring resource enhancement projects continues to grow. The Bay Restoration Fellow will spend his/her time working on the San Francisco Bay Restoration Authority (SFBRA) and the shoreline restoration work of the SCC's Bay Area Program. The SCC provides staff support to the SFBRA.

In the coming year, the fellow will work on the following initiatives:

- Populate and manage data to help the SFBRA track the impact of its wetlands restoration projects through a statewide data portal, EcoAtlas.
- Manage data related to performance measures and dashboards for the SFBRA grant program.
- Track the development of the San Francisco Bay Wetlands Regional Monitoring Program and contribute to ensuring its usefulness to the SCC and SFBRA.
- Help coordinate SFBRA work through meeting organization, meeting notes, preparing technical documents, and presenting information.
- Review project applications and make recommendations for project prioritization.
- Write staff recommendations and present them to the SFBRA and/or SCC board and manage projects and contracts.
- Support communications and public outreach (social media, website, etc).

Through the SFBRA and the SCC's Bay Area Program, the fellow will have the opportunity to work with leading scientists, restoration practitioners, resource managers, and community leaders. Tasks may include helping to determine management and science needs, participating in meetings, and conducting site visits. The fellow may also support SFBRA's and SCC's outreach and technical assistance to support community-based organizations in economically disadvantaged communities in developing projects eligible for our grant funding.

Although helping to support the SFBRA will be the fellow's primary tasks, s/he could also take on other SCC projects such as climate change adaptation, public access, and urban waterfronts. Tasks may include writing staff recommendations to the SCC Board, project and contract management, and presentations to the SCC Board and others.



California Sea Grant State Fellowship Program 2022

Host Agency: California State Lands Commission
Location: 100 Howe Avenue, Suite 100-South, Sacramento, CA 95825
Position Name: Climate Change/Coastal Resilience/Sea-level Rise
Fellowship Supervisors: Nicole Dobroski, Chief, Division of Environmental Planning and Management;
Jennifer Mattox, Science Policy Advisor/Tribal Liaison
Points of Contact: Nicole Dobroski, nicole.dobroski@slc.ca.gov; (916) 574-0742
Jennifer Mattox, jennifer.mattox@slc.ca.gov; (916) 574-1800

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. The three-person Commission is comprised of the State Controller, Lieutenant Governor, and the Director of Finance. One of the Commission's major roles is to act as the landlord for lands within its jurisdiction. This sets the Commission apart from purely regulatory agencies. 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 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 lands and resources and proactively plans for future issues and conflicts.

In addition, the Legislature has enacted more than 300 statutes granting sovereign public trust lands to over 80 local municipalities (referred to as grantees or trustees) to manage in trust for the people of California. The specific uses permitted in each granting statute vary. All grants reserve to the people the right to fish in the waters over the lands and the right to convenient access to those waters for that purpose. While granted public trust lands and assets are managed locally, the Legislature delegated the State's residual and review authority for granted lands to the Commission. The Commission represents the statewide public interest to ensure that trustees operate their grants in conformance with the California Constitution, applicable granting statutes, and the Public Trust Doctrine.

Recognizing the critical need to evaluate and plan for sea-level rise impacts on granted public trust lands, the Legislature enacted Assembly Bill (AB) 691 in 2013. This bill required trustees of granted lands with average annual gross public trust revenues exceeding \$250,000 to submit a sea-level rise adaptation strategy assessment to the Commission by July 1, 2019. The assessments are required to inventory vulnerable assets and infrastructure, estimate the

financial costs of sea-level rise, and describe specific sea-level rise adaptation and mitigation strategies. The assessments have been submitted, and Commission staff is preparing a statewide synthesis to inform a set of recommended actions.

Position Description:

Under the direction of the Chief of the Environmental Planning and Management Division and the Science Policy Advisor/Tribal Liaison, the Sea Grant Fellow will have the opportunity to work on climate change and coastal resilience issues and initiatives. One of the primary projects includes working with our granted lands trustees (major ports, harbor districts, marinas, and local jurisdictions) and the Commission's scientific staff on AB 691 implementation based on the report and findings from the sea-level rise vulnerability and adaptation assessments. Other projects will include working on initiatives related to developing and implementing policy on the use of nature-based solutions to build resiliency to sea level rise, coastal engineering, erosion, and armoring. The Fellow will also develop and facilitate climate change and sea-level rise education and resources for staff based on recent science and new policy developments. The Fellow may also participate in conferences, interagency meetings, and collaborative projects with other Fellows as opportunities arise.

The Fellow will also work on a variety of short and long-term projects throughout the fellowship year, which may include tracking new policy developments or initiatives (e.g., 30X30 and Cutting Green Tape), integrating the best available science into decision-making processes, and analyzing and compiling scientific materials for a variety of Commission projects. The Fellow will also have the opportunity to work with the Commission's Justice, Equity, Diversity, and Inclusion team and Environmental Justice Liaison.

Many of the fellowship projects are ongoing, and the Fellow will have an opportunity to continue the work started by current and former Fellows. The Fellow will interact with Commission staff from multiple divisions that encompass a wide variety of coastal and marine resource topics. Specific project and program duties will be developed collaboratively among the Fellow, Science Policy Advisor and Tribal Liaison, and Environmental Planning and Management Chief, and will be based on the Commission's needs that arise during the fellowship, as well as the Fellow's interests.

Desirable Qualifications:

- Ability to work independently and with diverse interdisciplinary teams
- Excellent written and verbal communication skills;
- Someone who is a self-starter and deadline-oriented;
- Experience with GIS and web-development;
- Ability to develop and apply expertise in natural resources and coastal management issues and regulations (e.g., CEQA and NEPA, California Coastal Act, California Ocean Protection Act, Federal and State Endangered Species Acts, etc.).
- Ability to translate science into layperson's terms;
- Knowledge of/familiarity with resource economics;
- Ability to work toward consensus positions with government, 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 Sea Grant State Fellowship Program 2022

Host Agency: California State Lands Commission
Location: 100 Howe Avenue, Suite 100-South, Sacramento, CA 95825
Position Name: Special Projects/Coastal Resilience/Science Team
Fellowship Supervisors: Nicole Dobroski, Chief of Environmental Planning and Management Division;
Jennifer Mattox, Science Policy Advisor/Tribal Liaison
Points of Contact: Nicole Dobroski, nicole.dobroski@slc.ca.gov; (916) 574-0742;
Jennifer Mattox, jennifer.mattox@slc.ca.gov; (916) 574-1800

Agency Background:

The [California State Lands Commission](http://www.slc.ca.gov) (Commission) is an independent and dynamic state agency that works on the cutting edge of integrating science into policy decisions. One of the Commission's major roles is to act as the landlord for lands within its jurisdiction. This sets the Commission apart from purely regulatory agencies. 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 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 lands and resources 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 Chief of the Environmental Planning and Management Division and the Science Policy Advisor/Tribal Liaison. These host mentors will provide a highly interdisciplinary environment, consulting with other Commission staff on many issues where science and policy interface and helping 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 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 planning and management projects. Under the direction of the Chief of Environmental Planning and Management and the Science Policy Advisor/Tribal Liaison, the Sea Grant Fellow

will work on complex projects, including offshore renewable energy, platform decommissioning, aquaculture, coastal restoration, underwater infrastructure, and marine spatial planning. These projects encompass a number of challenging and high-profile activities, including participating on interagency teams exploring offshore renewable energy and aquaculture potential; conducting environmental review under CEQA for offshore wind activities; participating in efforts related to the Commission's oil and gas decommissioning activities; evaluating and compiling scientific materials for negotiations on sensitive projects; integrating the best available science into Commission decision-making processes; and collaborating with other state, federal, local, and tribal entities.

The Fellow will likely have a variety of short-term and long-term projects throughout the fellowship year, which may include working with the Commission's Justice, Equity, Diversity, and Inclusion team and Environmental Justice Liaison, tracking new policy developments or initiatives (e.g., 30X30 and Cutting Green Tape), refining climate change and sea-level rise policy and outreach strategies, integrating the best available science into decision-making processes, and analyzing and compiling scientific materials for a variety of Commission projects.

The Fellow will also be welcome to participate in conferences, interagency meetings, and collaborative projects with other Fellows as opportunities arise. Many of these projects are ongoing and the Fellow will have an opportunity to continue the work started by current and former Fellows. The Fellow will interact with Commission staff from multiple divisions that encompass a wide variety of coastal and marine resource topics. Specific project and program duties will be developed collaboratively among the Fellow, Science Policy Advisor and Tribal Liaison, and Environmental Planning and Management Chief, and will be based on the Commission's 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
- Excellent written and verbal communication skills;
- Ability to develop and apply expertise in natural resources and coastal management issues;
- 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;
- 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.).



The Delta Stewardship Council will host one Sea Grant Fellow in the Planning and Performance Division

Background

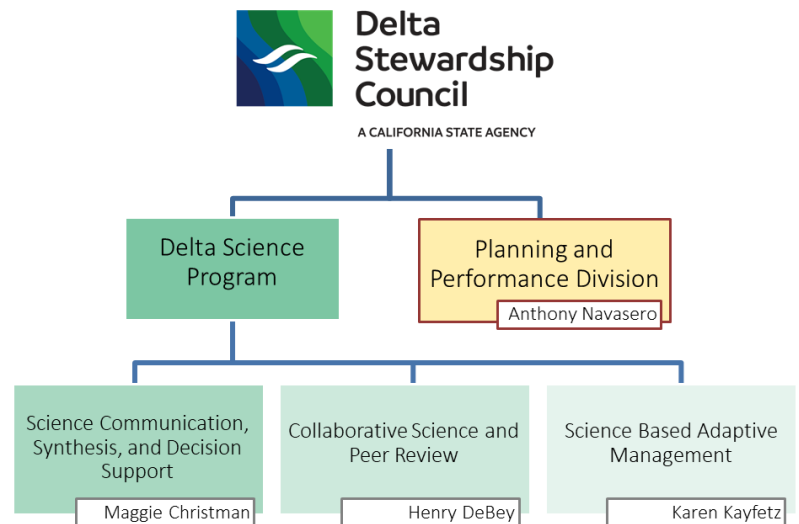
The Sacramento–San Joaquin Delta (Delta), along with the San Francisco Bay, is part of the largest estuary on the West Coast of the Americas. The Delta provides vital habitat for endangered and endemic species and is the portal through which important fish species, including anadromous Chinook salmon, pass on their way to and from their spawning grounds. The Delta is a major stop on the Pacific Flyway as well as the hub of the State’s water supply system, supplying two-thirds of California’s water supply. Thus, the Delta is inextricably linked to statewide water supply issues that affect its ability to function as a natural ecosystem.



Location Map: Sacramento-San Joaquin Delta

Delta Stewardship Council

In 2009, seeking an end to decades of conflict over water, the Legislature established the **Delta Stewardship Council** (Council) to resolve long-standing issues and achieve the state-mandated coequal goals for the Delta. Coequal goals mean the two goals of providing a more reliable water supply for California and protecting, restoring, and enhancing the Delta ecosystem in a manner that protects and enhances the unique cultural, recreational, natural resource, and agricultural values of the Delta as an evolving place. To advance the state’s coequal goals for the Delta, the Council was required to develop the Delta Plan, an enforceable long-term sustainable management plan for the region to ensure coordinated action at the federal, state, and local levels. To better facilitate collaboration and coordination with agencies working in and around the Delta, the Council is located in Sacramento, a hub for many federal (e.g. NOAA, USFWS, USBR, USGS), state (e.g. CDFW, DWR, SWRCB), and local agencies as well as consulting firms, academia, and NGOs.





Planning and Performance Division

As one of the divisions in the Council's organization, the **Planning and Performance Division** (Division) provides integration of environmental, engineering, and land use planning expertise to support and coordinate the implementation of the [Delta Plan](#), which is enforced through the regulatory authority of the Council. The Division implements the plan through the Council's roles to coordinate with federal, state, and local agencies to achieve the coequal goals; ensure consistency with the Delta Plan; inform stakeholders how to achieve the coequal goals; comment on projects, plans, and programs with significant impacts to the Delta; and ensure accountability for consistency of projects, plans, and programs with Delta Plan policies.

The Division has three primary tasks; 1) reviewing, revising, and implementing the Delta Plan by collaborating with federal, state, and local agencies to follow the Delta Plan's recommendations; 2) measuring progress in achieving the coequal goals of a reliable water supply for California and healthy ecosystem through [Delta Plan Performance Measures](#); and 3) review of governmental agency projects or programs that take place within the Delta for potential environmental impacts and consistency with policies in the Delta Plan.

The Planning and Performance Division is currently working on such topics and policies as:

- Delta habitat restoration to support endangered species
- Delta adaptation strategy on a response to climate change and sea level rise
- Risk reduction from flooding in the Delta
- Social science in the Delta
- Environmental justice and the human right to water
- Fisheries management and protection from non-native/invasive species
- A reliable water supply for the majority of the state's population
- Water quality for people and species
- Delta as an evolving place

Planning and Performance Division Sea Grant Fellow Position

The Division's Sea Grant fellow 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 - an opportunity that may be different from a fellow's past experiences, but one that would be enriching and experience-broadening. The Sea Grant fellow will meet with the supervisor/mentor and other Division staff to identify specific projects and work groups for assignment considering the Sea Grant fellow's expertise and interests. Working closely with staff across the entire agency, the fellow will have the opportunity to interact with national and international scientific experts; California policy makers and implementers; and water operators and managers. The fellow will gain exposure to how policies, programs, plans, and projects are developed and implemented in the Delta, the Suisun Marsh, and statewide.

Below are examples of potential assignments on which the Division's fellow could engage and collaborate in the upcoming year.



Potential Assignments

- Participate in developing Delta Adapts, the Council's climate change initiative for the Delta and Suisun Marsh, by working with stakeholders to develop adaptation strategies.
- Assist with public outreach to community-based organizations and disadvantaged communities to provide and gain information on the Council's projects, such as its climate change initiative.
- Assist on the preparation of the Council's Environmental Justice White Paper.
- Evaluate land use, water supply, water storage, ecosystem restoration, and flood protection projects, plans, and programs for consistency with Delta Plan regulations.
- Assist in early consultation with state and local agencies on their proposed projects, plans, and programs considered covered actions to provide guidance regarding consistency with Delta Plan regulations.
- Develop GIS maps and analyze data using tools such as R and Python to support Division activities, such as analysis of performance measures, implementation of Delta Plan regulations, and development of visualization tools to facilitate stakeholder participation.

Potential Activities

- Attend agency, division, and working group meetings
- Participate in training opportunities and skill set development
- Attend seminars and conferences
- Visit sites and projects in the Delta
- Enroll in professional development courses
- Participate in social and networking opportunities

Host Location: 715 P Street, Sacramento, CA

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



The Delta Science Program will host three Sea Grant State Fellows in 2022

Background

The Sacramento–San Joaquin Delta along with the San Francisco Bay, is part of the largest estuary on the West Coast of the Americas. The “Bay-Delta” supplies two-thirds of California’s water and provides vital habitat for endangered, endemic, and migratory species such as Chinook salmon and Sandhill cranes.



The **Delta Stewardship Council** (Council) is a state agency whose mission is to support a more **reliable statewide water supply** and a **healthy and resilient 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) is a division of the Council and functions as a boundary organization with a mission to provide scientific information, independent peer review, and syntheses on issues critical for managing the Bay-Delta system. The DSP also leads efforts to build an open, integrated, and collaborative Delta science community.

The DSP has hosted fellows for the past nine years and provides a welcoming, collaborative and exciting work environment. Past fellows have enjoyed touring the Delta, taking professional development courses, attending seminars and conferences, and assisting partner agencies with field work. As one of three Science Program fellows, you will work at the interface of science and policy - **synthesizing, reviewing, coordinating, funding, and communicating science** on several high-priority issues, including:

- Climate change
- Sea level rise
- Water supply reliability
- Habitat restoration
- Endangered species
- Non-native and/or invasive species
- Fisheries management
- Integrated modeling
- Human dimensions of natural resource management

As California’s capital, Sacramento is a hub for environmental science and policy. The DSP provides fellows with opportunities to build their professional network as they engage with collaborators from a range of state, federal, and local agencies including the National Oceanic and Atmospheric Administration, the California Department of Fish and Wildlife, the United States (U.S.) Fish and Wildlife Service, U.S. Bureau of Reclamation, U.S. Geological Survey, California Department of Water Resources, and the State Water Resources Control Board, as well as consulting firms, academia, NGOs, and others. Many fellows have gone on to work with these partners.

Position 1: Science Communication, Synthesis, and Decision Support Unit

This unit has three primary areas of emphasis: 1) enhance science communication among multiple stakeholders in the Bay-Delta system, including scientists, managers, decision-makers, and the public, 2) facilitate and participate in the analysis and synthesis of scientific information to inform management and decision-making, and 3) facilitate cooperative decision-making by supporting open science and integrated modeling initiatives. The fellow will have the option of working on one of the above core functions or a blend of tasks.

Host Location: 715 P Street, Sacramento, California

Fellowship Supervisor & Point of Contact: Maggie Christman, Program Manager II,
Maggie.Christman@deltacouncil.ca.gov, (916) 320-6174

Potential Projects

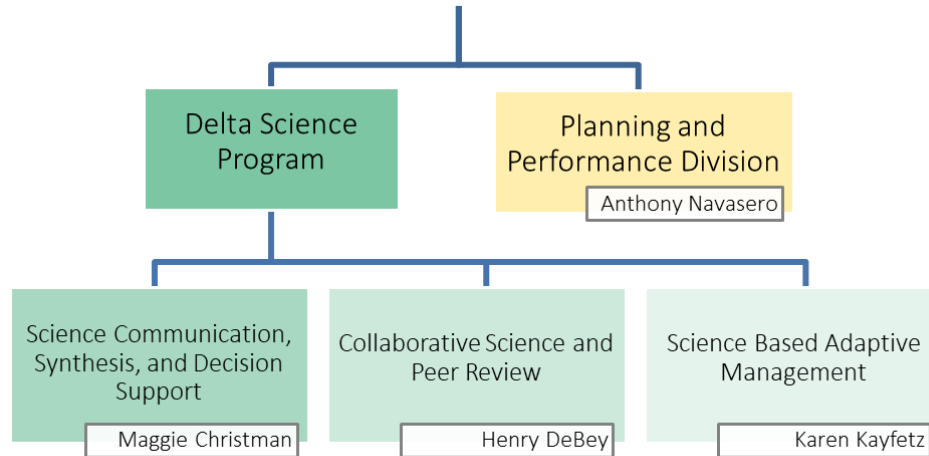
- Work with the Delta Lead Scientist (Dr. Laurel Larsen) on monthly reports to the Council that summarize recent science efforts around the Delta as well as water supply metrics and ecological indicators. Recent examples include: [Lead Scientist Report](#), [By The Numbers Report](#), [Visual Abstract](#).
- Participate in synthesis efforts (e.g., the [State of Bay-Delta Science](#)), including supporting communication of key messages to appropriate audiences using a variety of media and platforms (i.e., lay abstracts, infographics, briefs or fact sheets, web content, and seminars).
- Communicate science facilitated or funded by the DSP in creative and accessible formats for a variety of audiences.
- Support initiatives related to open science, science activity tracking, or integrated modeling, such as the Delta Science Tracker, [Integrated Modeling Steering Committee](#), and development of a virtual modeling collaboratory.

Examples of Previous Fellows' Projects

- Creation of a website ([A Beginner's Guide to the Delta](#)) to serve as a resource for those interested to learn more about this integral place in California.
- Participation in Delta Stewardship Council social media to highlight Delta science (e.g., Science Fridays on Twitter ([#scifri](#) for the [@DeltaCouncil](#) Twitter account)).
- Organization of Brown Bag seminars to explore a specific theme of importance to managing the Bay-Delta system.
- Leadership and facilitation of interagency working groups (e.g., the Remote Imagery Collaborative).
- Authoring a synthesis study modeling juvenile Chinook salmon migration to inform fisheries management and development of a complementary [Shiny App](#).



A CALIFORNIA STATE AGENCY



Position 2: Collaborative Science and Peer Review Unit

The Collaborative Science and Peer Review Unit is working on several exciting and challenging efforts focused on: 1) catalyzing coordination and collaboration of Bay-Delta science efforts with a diverse set of stakeholders and agencies to jointly implement the [Delta Science Plan](#), 2) supporting science [funding](#) of priority research aligned with the [Science Action Agenda](#), 3) facilitating [independent scientific peer reviews](#) of programs, plans, and reports, and 4) synthesizing scientific information to generate best available science for informing water and environmental resources decision-making. A fellow in this unit will engage in our unit's collaborative interagency initiatives and lead an independent project that leverages their unique skillset and interests.

Host Location: 715 P Street, Sacramento, CA

Fellowship Supervisor & Point of Contact: Henry DeBey, Environmental Program Manager I, Henry.DeBey@deltacouncil.ca.gov, (916) 996-8658

Potential Projects

Specific projects will be identified based on the fellow's expertise and interests, but may include:

- Contributing to the development of the **Delta Science Plan** which aims to collaboratively identify and implement approaches and mechanisms for fostering an inclusive, proactive and resilient Delta science community;

- Advancing the integration of **social science** to inform Bay-Delta management and policy decisions through implementing investigations on the social dimensions of the estuary, facilitating collaborative synthesis or meta-analyses of existing datasets, and building a social science community of practice;
- Contributing to the update of the **Science Action Agenda** (SAA) and/or execution of **science funding mechanisms** using the SAA as a framework;
- Supporting Delta Science Program **independent peer review efforts**, including tracking and summarizing actions resulting from independent scientific peer reviews;
- Assisting with developing guidelines and best practices for **policy-science forums** to identify scientific uncertainties, prioritize management questions, and facilitate exchange among programs and entities to promote science communication among decision-makers, scientists, and stakeholders;
- Enhancing how we work at the **interface of science, management, policy and civil society**, by leveraging partnerships with other boundary organizations, fostering diversity, equity and inclusion in science and management governance, communicating science, and contributing content to K through 12 education programs;
- **Synthesizing information** on ecological or social science issues in the Bay-Delta ecosystem.

Examples of Previous Fellows' Projects

- Case study of a non-critically over-drafted groundwater basin, in the context of the Sustainable Groundwater Management Act
- Development and establishment of the Delta Stewardship Council's Delta Diversity Initiative
- Multi-agency investigation of salmon behavior and migration in floodplain habitats
- Multi-agency and stakeholder [salmon gaps analysis report](#)
- Contributed to the Interim Science Action Agenda ([past fellows' promotional video](#))
- Assisted in organizing a public workshop on Sacramento River temperature modeling
- Conducted an analysis of the potential values striped bass provide to the Delta
- Wrote a collaborative science governance report and appendix to the Delta Science Plan

Position 3: Science-Based Adaptive Management Unit

This unit provides support and leadership on the use of adaptive management, which is a structured, scientific approach to management that aims to produce and incorporate new knowledge into management of natural resources. Current work includes (1) leading collaborative interagency groups to support the application of adaptive management in habitat restoration projects in the Delta and Suisun Marsh, (2) planning a biennial mini-conference called the Adaptive Management Forum, for communicating adaptive management outcomes and coordinating adaptive management governance, (3) evaluating and communicating “lessons learned” from past restoration efforts and water management actions, and (4) supporting the reviews of scientific programs conducted by the Delta Independent Science Board (Delta ISB). The Delta ISB, which is comprised of renowned scientists across the nation and across disciplines, supports adaptive management by periodically reviewing scientific research, monitoring, and assessment programs in the Delta.

Host Location: 715 P Street, Sacramento, California

Fellowship Supervisor & Point of Contact: Karen Kayfetz, Environmental Program Manager | Karen.Kayfetz@deltacouncil.ca.gov, (916) 870-9036

Potential Projects

- Collaborate on planning the next Adaptive Management Forum. Bring in experts from around the Delta and from other systems to discuss “lessons learned” from previous management efforts in a 2-3 day event. Plan and facilitate interactive workshops to train people in the application of adaptive management to individual projects, or to promote dialogue about adaptive management at the landscape scale. Co-produce a meeting summary, white paper, or essay for a scientific journal.
- Perform evaluation and synthesis related to “lessons learned” from ecosystem restoration and/or water management, drawing on long-term environmental datasets and research. Publish results in agency literature or scientific journals.
- Help to plan and facilitate meetings of the IAMIT and/or the Suisun AMAT, interagency groups who support ecosystem restoration adaptive management in the Delta and Suisun Marsh. Help to support interagency initiatives within these groups.
- Support the reviews of the Delta ISB, which could include literature reviews, analyzing questionnaire data from the science community, coordinating interagency events (e.g., panel discussions), and creating communication products and outreach materials on Delta ISB reviews.



2022 Sea Grant Fellowship Position Description

Host Agency: Monterey Bay Aquarium

Location: 886 Cannery Row, Monterey, CA 93940

Fellowship Supervisor: Josh Madeira | Senior Manager, Ocean Conservation Policy, Conservation and Science – jmadeira@mbayaq.org

Point of Contact: Josh Madeira | Senior Manager, Ocean Conservation Policy, Conservation and Science – jmadeira@mbayaq.org

Agency Background:

The Conservation and Science (C&S) Division at the Monterey Bay Aquarium focuses on conserving ocean wildlife and the marine environment. The division is comprised of three program areas: Ocean Conservation Policy, Conservation Research and Seafood Watch. C&S engages in strategies and activities to take action on behalf of ocean conservation while also collaborating with partners to achieve the Aquarium's mission *to inspire conservation of the ocean*. The Aquarium's ocean conservation priorities are to:

- **Build a constituency for the ocean**
We believe in the power of collaboration, and a commitment to science-based management, to protect ocean health for future generations. We enlist new ocean champions from government, the private sector and the public to act for the ocean—in the Monterey Bay area, in California, across the United States and around the world.
- **Restore and protect California ocean ecosystems**
The health of marine life is connected to the health of their ocean homes, which helps to sustain all life on earth. Beyond our work to conserve southern sea otters and white sharks—we're monitoring ocean biodiversity and ecosystem health. Through our policy influence and partnerships, we support and defend ocean protections.
- **Improve the sustainability of global fisheries and aquaculture**
Unsustainable fishing and aquaculture exact a significant toll on ocean health—and on human communities. As a leader in the global sustainable seafood movement, we inform fishing and aquaculture practices, as well as national and international fishery management policies—driving a market shift to ocean-healthy seafood production worldwide.
- **Reduce sources of ocean plastic pollution**
Plastic pollution is a growing global problem for ocean ecosystems, wildlife and people. Our scientists are investigating the scope and impact of plastic pollution in the marine environment. And we're using science-based information to ignite individual and collective action, championing policies and practices to reduce the flow of plastic from land to sea.
- **Combat climate change impacts on ocean health**
Carbon emissions profoundly affect ocean health, and our own survival. We advocate for policies to reduce carbon emissions, end our reliance on fossil fuels, promote clean energy and mitigate the unavoidable impacts underway. We conduct scientific research on climate change, and bring science-based information to the public, encouraging them to be a part of the solution.

As an organization, the Aquarium celebrates and embraces diversity. We foster an inclusive, welcoming environment where individual differences are respected, appreciated and recognized as a source of strength to our organization. These qualities enrich our workplace and increase our capacity to fulfill our mission.

Position Description:

The Sea Grant Fellow will contribute to the research, analysis, planning, and coordination needs of the Ocean Conservation Policy program to help achieve the Aquarium's ocean conservation priorities.

Potential Assignment

- Perform research and analysis of state, federal and international ocean policy issues relevant to the Aquarium's ocean conservation goals.
- Produce briefing memos, talking points, comment letters, informational folders, and similar material in support of the Aquarium's policy strategies.
- Work with the Ocean Policy team to develop and execute policy strategies at the state, federal and international levels.



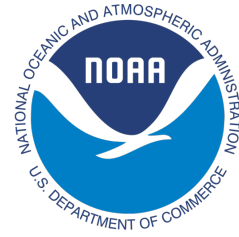
2022 Sea Grant Fellowship Position Description

Desirable Qualifications

- Ability to work both independently and with diverse interdisciplinary teams that require clear communication.
- Experience or advanced knowledge in environmental policy, law, management, or another science-related field.
- Excellent research and writing skills.
- Outstanding verbal communication skills.
- Strong time-management and multi-tasking skills.

California Sea Grant Fellowship 2022
Host Office Application and Position Description
NOAA's Channel Islands National Marine Sanctuary

Host Location: Santa Barbara, California
NOAA Channel Islands National Marine Sanctuary
University of California Santa Barbara, Ocean Science
Education Building 514,
Santa Barbara, California 93106



Fellowship Supervisors

- Michael Murray, Deputy Superintendent for Programs; michael.murray@noaa.gov, 805-893-6418
- Julie Bursek, Team Lead Education and Outreach; julie.bursek@noaa.gov, 805-893-6422

About the Sanctuary

[Channel Islands National Marine Sanctuary](#) (the sanctuary) is a federally-designated marine protected area that is administered by the [Office of National Marine Sanctuaries](#), part of the National Oceanic and Atmospheric Administration (NOAA). 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 the islands of Anacapa, Santa Cruz, Santa Barbara, Santa Rosa, and San Miguel. A fertile combination of warm and cool currents creates a highly productive marine ecosystem supporting many habitats, a wide diversity of fish and invertebrates, twenty-seven species of whales and dolphins, five species of pinnipeds, and over sixty species of seabirds. The islands and surrounding sanctuary waters are sacred to the indigenous Chumash people. The sanctuary's primary objective is to conserve, protect, and enhance the biodiversity, ecological integrity, and cultural legacy of marine resources surrounding islands for current and future generations. Enabling federal legislation is the [National Marine Sanctuaries Act](#).

Position Description

We are seeking a 2022 California Sea Grant Fellow to join our hard-working and supportive team. We offer a working environment that is welcoming, innovative, positive, fun, and growth-oriented. We have enjoyed mentoring fellows for the past ten years.

The 2022 California Sea Grant Fellow will play a key role in advancing several policy, planning and education projects and programs, working closely with the sanctuary's deputy superintendent for programs, and the team lead for education & outreach. Former sanctuary fellows have become permanent or contract NOAA employees, received Knauss and Presidential Management Fellowships, or taken research and leadership positions in the private and non-profit sectors. Several former fellows work at the sanctuary office, serving as a built-in support network for incoming fellows.

Education & Outreach (approx. 30% time)

Public education and outreach is a vital sanctuary conservation tool. The fellow will assist the sanctuary's Education & Outreach Team with community science monitoring projects, including:

1. engaging with a biosecurity working group as part of the 2022 California Islands Symposium;
2. a community science initiative with local recreational diving interests focused on identifying living endangered white abalone in the Northern Channel Islands region to support restoration efforts;
3. updating the sanctuary's [website](#) and posting weekly to sanctuary [social media](#) accounts,
4. assisting with implementation of an intertidal monitoring student education program, [LiMPETS](#).

The 2022 fellow will also be encouraged to pursue a variety of short-duration education and outreach projects. This will often involve serving as an informal educator speaking to various audiences (students, stakeholder groups, agency partners), and participating in educational field cruises within the sanctuary.

Sanctuary Advisory Council (approx. 30% time)

The [sanctuary advisory council](#) is essential to successful management of the sanctuary, and comprised of ten government agency seats and eleven community stakeholder seats in addition to several [working groups](#). The fellow will play a leadership role in council meeting agenda preparation, consultation with the council's Executive Committee, preparing and delivering presentations, corresponding with council members and the public, assisting with member recruitment, and more. **For mentorship, networking and job prospecting, it cannot be overstated how important the advisory council has been to every fellow that has worked at the sanctuary.**

Management Plan Revision (approx. 20% time)

A comprehensive management plan guides operation of the sanctuary. The [current management plan](#) was last updated in 2009, and a public process began in October 2019 to support [development of the next updated plan](#). The fellow will assist with final completion of the NEPA-compliant management plan revision process. This will include responding to public comments, helping to prepare final documents, and assisting with implementation of a communications strategy for public roll-out of the completed plan.

Justice, Equity, Diversity, and Inclusion (JEDI) (approx. 10% time)

Across all of the primary duties described above, we seek a fellow that is interested in supporting efforts to improve justice, equity, diversity, and inclusion among sanctuary programs and activities. Projects to improve JEDI initiatives may include: 1) improving our diversity recruitment efforts for the sanctuary advisory council, 2) improved JEDI in education & outreach programming, and 3) supporting enhanced access to a diversity of audiences. Other opportunities available depending upon the fellows' interests.

Additional Opportunities (approx. 10% time)

- Engage in personal career development planning with the active support and mentorship of staff.
- Participate in internal office meetings, including providing progress reports and/or presentations.
- Contribute to superintendent reports and weekly activity reports, including compilation, information gathering, and document editing/formatting.
- Represent the sanctuary at select meetings, to speak/present, and assist with follow-up.
- Occasionally participate in sanctuary research and monitoring activities, or other projects of interest.

The fellow will get the most out of this opportunity if they bring these skills, experiences and interests:

- a natural self-starter approach to work;
- strong organizational, communication and writing skills;
- a personable approach and comfort working with a variety of constituencies in public and occasionally contentious settings;
- a proven ability to work with diverse groups to achieve results;
- a strong ability to effectively manage multiple projects, deadlines, and prioritize tasks
- an ability to adapt to interruptions and a fluctuating workload;
- function effectively under deadline pressure to fulfill assignments on schedule;
- an enthusiasm for ocean stewardship and conservation!

PORT OF SAN DIEGO, SAN DIEGO, CA

PLANNING, ENVIRONMENT, AND GOVERNMENT RELATIONS

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.

One Sea Grant Fellow with the Port of San Diego will support programs and initiatives through the Port's Planning, Environment, and Government Relations Division. Through integrated planning, sustainable development of Port of San Diego operations, and protection and enhancement of natural resources that celebrate tidelands and waterfront life, Planning, Environment, and Government Relations Division includes seven distinct teams and departments:

1. **Aquaculture and Blue Technology**
2. **Development Services**
3. **Energy**
4. **Environmental Conservation**
5. **Environmental Protection**
6. **Government and Civic Relations**
7. **Planning**

The Port's 2022 Sea Grant Fellow would have the opportunity to assist all of these programs, but would primarily support the Aquaculture and Blue Technology program:

Aquaculture and Blue Technology provides a launching pad for sustainable aquaculture and emerging blue technology businesses in and around San Diego Bay by offering key assets and support services focused on pilot project facilitation, planning and predevelopment tools, state and federal policy and legislative development, permit ready infrastructure, entitlements, market access, and strategic funding. Current and ongoing efforts with this team include: the Blue Economy Incubator, use of marine spatial planning and other tools to inform future aquaculture siting opportunities, and participation in current Blue Economy Incubator pilot projects.

Over the course of the fellowship, the Port's Sea Grant Fellow would also have opportunities to support and collaborate with other teams and departments within the Planning, Environment, and Government Relations Division, as well as other departments at the Port. In addition, a Sea Grant Fellow at the Port would be able to learn about the application of the California Environmental Quality Act, the California Coastal Act, and other state or federal coastal and environmental statutes, to environmental, aquaculture, and blue technology projects in San Diego Bay.

There are a number of initiatives currently underway with Planning, Environment, and Government Relations that a Sea Grant Fellow could contribute to. Some of these initiatives and general descriptions of the work needed by a Sea Grant Fellow could include:

- **Aquaculture pilot project support and research:** assist with a variety of current and upcoming pilot projects to support the growth of shellfish and seaweed aquaculture in San Diego Bay. This work may include research and literature review, data analysis and/or review to identify data gaps, and planning for new data collection to assist with identifying suitable locations for various types of aquaculture operations.
- **Policy, permitting, and grants:** assist with a variety of pilot and other projects conducted by Planning & Green Port programs (like the Blue Economy Incubator) or external stakeholders. This work may include pilot project proposal review, researching relevant grant opportunities and drafting grant proposals, planning, permitting and entitlements (CEQA, Coastal Act, Army Corps of Engineers, Regional Water Quality Control Board), coordination with partners, and outreach activities.
- **Natural Resources:** potential to be involved in 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, and mitigation banking.
- **Site Visits:** potential to attend site visits to various locations on Port tidelands, including parks, project sites, terminals, or other sites. These visits may involve meetings with Port staff or external stakeholders, environmental monitoring, tours, or public meetings.
- **Other project management and coordination:** assist with various projects (primarily with Aquaculture & Blue Technology) to achieve milestones, and provide due diligence for deliverables. This work may involve creating work plans and timelines, coordinating meetings with other Port departments or stakeholders (e.g. local or state agencies, nonprofits, academia), taking meeting minutes, drafting presentations and memos, and preparing reports.

A successful candidate for this fellowship position must be able to work independently but also function as part of a multi-disciplinary team within the Planning, Environment, and Government Relations Division and other Port departments such as Marketing & Communications, Maritime, and Engineering, as well as counterparts in other agencies and industries. The professional development component of this fellowship has a strong emphasis on communication, interpersonal skills, interaction with policy and regulatory information. While there is limited opportunity in this particular position for direct scientific research, the ability to conduct detailed literature, legal, and administrative reviews and research will be an important contribution. In addition, previous experience with or an interest in project management to assist with various projects, which may involve creating work plans and timelines, taking meeting minutes, drafting presentations and memos, and preparing reports. 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.



Host Location and Contact Information:

Port of San Diego
Planning & Green Port
3165 Pacific Highway
San Diego, CA 92101

Supervisor and Point of Contact for Finalists:

Paula Sylvia
Program Director – Aquaculture and Blue Technology
(see address above)
619-686-6491
psylvia@portofsandiego.org

Lily Tsukayama
Associate Planner – Planning
(see address above)
619-686-8199
ltukayama@portofsandiego.org



**San Francisco Bay Conservation and Development Commission
2022 California Sea Grant State Fellowship Program**

Fellowship Opportunity 1: **Regional Sea Level Rise Adaptation Planning Fellow**

1. Host location and contact information:

San Francisco Bay Conservation and Development Commission
375 Beale Street, Suite 510
San Francisco, CA 94105

2. Fellowship Supervisor:

Dana Brechwald, Adapting to Rising Tides Program Manager

3. Point of contact for California Sea Grant and prospective fellows and finalists:

Dana Brechwald
Adapting to Rising Tides Program Manager
415-352-3656, dana.brechwald@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.

Bay Adapt is an initiative to establish regional agreement on the actions necessary to protect our people and the natural and built environment from rising sea levels. Bay Adapt will build a new type of regional collaboration among a wide variety of agencies and stakeholders, based on a strong foundation of climate science and the proactive Bay Area adaptation efforts both already underway and proposed. Through this collaborative action-setting initiative, Bay Area regional, local and community leadership will identify, deliberate, and commit to a set of shared actions that will allow the Bay Area to adapt better and adapt faster to a rising Bay. Currently, the initiative is nearing completion of the final draft of the Joint Platform, the nine actions the region should take to "set the stage" for successful adaptation. Later in

2021 BCDC will initiate the implementation phase, where key stakeholders will take on leadership roles to enact the actions together.

Regional Sea Level Rise Adaptation Planning Fellow:

One fellow will be placed in BCDC's planning division to help support the agency's Bay Adapt process and the Adapting to Rising Tides Program. 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 regional scale adaptation planning and the ART process. The fellow will:

- Build GIS expertise and capacity using desktop and web-based tools to analyze exposure to current and future flooding.
- Gain familiarity with adaptation planning processes at a regional scale, including vulnerability and consequence analysis, creating appropriate adaptation responses for specific locations, linking adaptation to regional plans, regional governance for successful adaptation, and providing both large-scale and localized expertise, research, analysis, and support to communities around the Bay.
- 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 Regional Adaptation Planning 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.



San Francisco Bay Conservation and Development Commission
2022 California Sea Grant State Fellowship Program

Making San Francisco Bay Better

Fellowship Opportunity 2: **Sediment Management Fellow**

1. Host location and contact information:

San Francisco Bay Conservation and Development Commission

375 Beale Street, Suite 510

San Francisco, CA 94105

2. Fellowship Supervisor: Brenda Goeden, Sediment Program Manager

3. Point of Contact: Brenda Goeden

Sediment Program Manager

375 Beale Street, Suite 510

San Francisco, CA 94105

415.352.3623

brenda.goeden@bcdlc.ca.gov

4. Position Description:

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 first coastal zone agency. Its mission is to protect and enhance San Francisco Bay and to encourage the responsible and productive use of Bay resources for this and future generations. Its authority is established in the McAteer-Petris Act and the Suisun Marsh Preservation Act, the San Francisco Bay Plan, the Suisun Marsh Protection Plan, and other special area plans and laws and policies. The Commission leads the Bay Area's ongoing multi-agency regional effort to manage sediment in the Bay and to address the impacts of rising sea level on shoreline communities and assets. Sediment Management is one of BCDC's core programs and is a key consideration as the region looks to accelerate habitat restoration and resiliency projects to keep pace with sea level rise.

Sea Grant Fellow Opportunity. The Sediment Management Team is seeking a Fellow to assist in the development of scientifically-based outreach materials to explain the San Francisco Bay's sediment dynamics, regionally-managed activities such as dredging, and needs for sediment in habitat and adaptation projects. The fellow will help communicate sediment management goals and initiatives through website enhancement, story map development, and other mediums to assist the region in understanding this vitally important resource and how natural and human processes affect the system.

In addition, the fellow will have the opportunity to develop white papers on subjects such as how augmenting sediment in marsh restoration projects can support listed species; analyze and describe if/how increased beneficial use of dredged sediment captures greenhouse gases; impacts of human activities on the sediment system; or other sediment related topics that will underpin policy amendments.

As a member of BCDC's Sediment Management team, the fellow would promote regional sediment management efforts in the Bay Area through the development of web-based resources and science-based planning documents that communicate the sediment management needs of the region. A regional sediment management approach must carefully consider sediment sources, movement, sinks, and exchange with the ocean. Application of a regional approach to San Francisco Bay and its watersheds will help managers better understand the impacts of individual permit decisions locally and system-wide. In turn, managers can also evaluate the impacts of systemic processes such as climate change

and sea level rise on permitted projects. Mud and sand feed the estuarine system that fuels the environmental and economic vitality of the Bay Area.

GIS Analysis Mapping and Geospatial Analysis Product Development. A portion of the RSM work includes the use of spatial analysis using GIS, creating layers and maps for the website, story map, or other to be identified tools. The analysis would include conservation areas, areas where special status species occur, and areas of human impacts. This task would include researching necessary data and information, inputting data into the inhouse GIS system and developing visualization products that will assist managers in understanding relationships between human activities and environmental effects.

BCDC Fellowship Experience. The Sea Grant Fellowship program at BCDC also offers the opportunity to learn about regional planning and the associated regulatory process. Focus topics at BCDC include sea level rise adaptation and climate change issues, sediment dynamics, resource protection, and wetland restoration. The Fellow will apply their academic training to practical professional experiences, receive training from BCDC, and participate in staff activities. The Fellow will also have the opportunity to regularly attend a variety of meetings with federal, state and local agencies (EPA, U.S. Army Corps of Engineers, National Marine Fisheries Service, U.S. Fish and Wildlife Service, Regional Water Quality Control Board, State Lands Commission, California Department of Fish and Game, and city and county planners), make presentations, and prepare reports and documents specific to sediment management issues. Though the primary focus of these fellowship is further development of regional sediment management, the opportunity exists to do regulatory analysis, project management, environmental review, and review sediment quality testing to a limited extent.

BCDC has hosted NOAA Fellows nearly every year (two-year term) for the last fifteen years and has hosted multiple California Sea Grant Fellows since 2010 and is experienced in mentorship programs. In addition, the Commission regularly has a number of interns working in the different units including legal, enforcement, permitting, sediment management, planning and clerical and has recently initiated an environmental justice internship for undergraduates.

Fellows and interns come from a variety of backgrounds and provide opportunities to exchange experience. BCDC staff is diverse, and is composed of regional planners, lawyers, enforcement staff, policy and program analysts, structural engineers, ecologists, oceanographers, and high-level executive staff. BCDC Fellows operate in a manner equivalent to staff, attending general staff and Commission meetings, and become part of the BCDC team.

SFEP

SAN FRANCISCO



ESTUARY
PARTNERSHIP

California Sea Grant State Fellowship

2022 HOST

Host Location and Contact Information

San Francisco Estuary
Partnership
375 Beale
Street, Suite 700
San Francisco, CA 94105

Contact:

Caitlin Sweeney, Director
415.778.6681
caitlin.sweeney@sfestuary.org

Fellowship Supervisors

Caitlin Sweeney, Director
Heidi Nutters, Environmental Planner

Host Background Information

The San Francisco Estuary Partnership (www.sfestuary.org) 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 is staffed by 12 people who manage 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 contract for services. The Partnership is located 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.

Position Description

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 translating science to management for wetland monitoring.

The WRMP core team includes the Partnership, the San Francisco Estuary Institute, the US Environmental Protection Agency, the San Francisco Bay Regional Water Quality Control Board, the San Francisco Bay Joint Venture, 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 support the WRMP steering committee and technical advisory 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. High priority 2022 WRMP tasks include operationalizing a regional monitoring site network, building capacity to manage and deliver WRMP data, advancing alignment with state and federal wetland regulatory programs and procedures, and community outreach and engagement.

In addition to the WRMP, the Fellow would work to support ongoing Partnership projects and programs, such as updating the State of the Estuary Report, collaborating with regional partners to advance climate adaptation planning and funding, 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
Division of Water Quality: Ocean Standards Unit
2022 Sea Grant Fellow

HOST APPLICATION

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:
Katherine Walsh, Senior Environmental Scientist Supervisor
Ocean Standards Unit Chief
katherine.walsh@waterboards.ca.gov
(916) 445-2317
3. Point of Contact for California Sea Grant, Prospective Fellows, and Finalists:
Katherine Walsh
4. Position Description:
The State Water Resources Control Board (State Water Board) was created by the Legislature in 1967. Our mission is to preserve, enhance, and restore the quality of California's water resources and drinking water for the protection of the environment, public health, and all beneficial uses, and to ensure proper water resource allocation and efficient use, for the benefit of present and future generations.

The Ocean Standards Unit is a part of the State Water Board's Division of Water Quality. The Ocean Standards Unit is responsible for developing and amending statewide water quality control plans, policies, and standards involving marine waters. This includes the [Water Quality Control Plan for Ocean Waters of California](#) (Ocean Plan), the [Water Quality Control Plan for Control of Coastal and Interstate Waters and Enclosed Bays and Estuaries of California](#) (Thermal Plan), and the

[Water Quality Control Policy on the Use of Coastal and Estuarine Waters for Power Plant Cooling](#) (Once-Through Cooling Policy). The Ocean Standards Unit also administers the Public 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 Ocean Standards Unit supervisor, the Sea Grant Fellow (Fellow) will perform complex analyses involved in the development and implementation of statewide policies, plans, and standards to ensure the continued protection of ocean and estuarine water quality. The Fellow will use scientific principles and research to formulate recommendations to management and State Water Board Members on the development of beneficial uses of ocean waters, appropriately protective water quality objectives, and implementation programs.

The Fellow will have an opportunity to gain experience working on a variety of projects and ocean issues. The Fellow may be involved in developing amendments to the Ocean Plan identified in the [2019 Ocean Plan Review](#), including developing an amendment to address ocean acidification and hypoxia and developing an amendment to incorporate tribal beneficial uses of ocean waters (e.g., tribal cultural and subsistence uses). The Fellow may also assist with implementation of the Once-Through Cooling Policy, including developing [determinations to mitigate interim impacts to marine life](#) from facilities that continue to use ocean waters for power plant cooling.

In working on amendments to the Ocean Plan 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, to support the Ocean Standards Unit and the Division of Water Quality, such as providing scientific guidance on issues related to ocean water quality, facilitating stakeholder engagement, and participating in inter-agency working groups, such as the Marine Protected Areas Statewide Leadership Team. 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 policies, standards, and regulations.
- Strong interest in the intersections of water quality, environmental justice, and racial equity.
- 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.



STATE WATER RESOURCES CONTROL BOARD
Division of Water Quality, Sustainable Water Plans and Policies

2022 Sea Grant Fellow

HOST APPLICATION

1. Host Location and Contact Information:
State Water Resources Control Board, Division of Water Quality, Sustainable Water Plans and Policies
California Environmental Protection Agency Headquarters Building
1001 I Street, 15th Floor
Sacramento, CA 95814
www.waterboards.ca.gov
2. Fellowship Supervisor:
Laura McLellan, Senior Environmental Scientist
Recycled Water and Desalination Unit Chief
laura.mclellan@waterboards.ca.gov
(916) 319-8288
3. Point of Contact for California Sea Grant, Prospective Fellows, and Finalists:
Laura McLellan, Senior Environmental Scientist
Recycled Water and Desalination Unit Chief
laura.mclellan@waterboards.ca.gov
(916) 319-8288
and
Claire Waggoner, Environmental Program Manager
Sustainable Water Plans and Policies Section Chief
claire.waggoner@waterboards.ca.gov
(916) 341-5882
4. Position Description:
The State Water Resources Control Board is a regulatory agency whose mission is to preserve, enhance, and restore the quality of California's water resources and drinking water for the protection of the environment, public health, and all beneficial uses, and to ensure proper water resource allocation and efficient use, for the benefit of present and future generations.

In the Sustainable Water Plans and Policies Section in the Division of Water Quality, the Sea Grant Fellow (Fellow) will use scientific principles to develop and implement impactful statewide water quality plans and policies, including plans and policies relating to seawater desalination, stormwater capture, recycled water, and constituents of emerging concern (i.e., new or unregulated potential contaminants such as those found in pharmaceuticals, personal care products, and microplastics). The Fellow will work in multidisciplinary teams on projects including:

- Implementing and developing science-based policy recommendations to amend the seawater desalination provisions of the Water Quality Control Plan for Ocean Waters of California (Ocean Plan) to minimize marine life impacts from proposed seawater desalination facilities;
- Developing statewide policy for the management of urban pesticides to minimize their impact on coastal and inland surface waters, and creating a nimble statewide monitoring program for urban pesticides in urban-adjacent waters that can react to changes in the pesticide;
- Developing a comprehensive, flexible statewide Constituents of Emerging Concern strategy to bring the state into a new paradigm of chemical management for addressing emerging contaminants, filling critical data gaps, and taking appropriate actions to protect water quality and the environment;
- Implementing the Water Quality Control Policy for Recycled Water, which promotes the use of recycled water as a sustainable water supply; and
- Developing and managing research grants to fill critical knowledge gaps to advance the production and use of recycled water in California.

The Fellow may also work on other projects in the Sustainable Water Plans and Policies Section, including the State Water Board's Stormwater Strategy, and Per- and Polyfluoroalkyl Substances (PFAS) Strategy teams.

Throughout the fellowship, the Fellow will apply their scientific background and experience to develop and implement science-based water quality plans and policies, engage with stakeholders, respond to public comments, author technical reports, and engage in intra- and interagency collaboration (e.g., with regional water boards, Ocean Protection Council, Coastal Commission, State Lands Commission, Fish and Wildlife, Department of Water Resources, Department of Pesticide Regulation, etc.). Our goal is for the Fellow to experience as many facets of the State Water Board as possible while working on projects that will have lasting statewide impact to protect water quality and the environment. The fellowship is an excellent introduction to a career at the Water Boards, and many of our Fellows have gone on to full-time positions within the agency.

We are looking for a Fellow that has:

- Skill and experience working in a highly collaborative team setting.
- Ability to conduct scientific analysis to inform policy development.
- Strong written and verbal communication skills.
- Interest or experience in marine biology, oceanography, chemistry, toxicology, and environmental science.
- Ability to engage with diverse stakeholders who may not agree on scientific, technical, or policy recommendations.
- Self-starting initiative to identify project needs and work collaboratively with minimal supervision.



STATE WATER RESOURCES CONTROL BOARD
Office of Information Management and Analysis (OIMA)

2022 Sea Grant Fellow

HOST APPLICATION

1. Host Location and Contact Information:
State Water Resources Control Board, Office of Information Management and Analysis
California Environmental Protection Agency Headquarters Building, 19th Floor
1001 I Street
Sacramento, CA 95814
www.waterboards.ca.gov
2. Fellowship Supervisor:
Ali Dunn, Senior Environmental Scientist Supervisor
Surface Water Ambient Monitoring Program Unit Chief
ali.dunn@waterboards.ca.gov
(916) 319 - 8458
3. Point of Contact for California Sea Grant, Prospective Fellows, and Finalists:
Ali Dunn
4. Position Description:
The State Water Resources Control Board is a regulatory agency whose mission is to preserve, enhance, and restore the quality of California's water resources and drinking water for the protection of the environment, public health, and all beneficial uses, and to ensure proper water resource 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 [College of Water Informatics](#).

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 primarily freshwater and some marine environments. Duties may include coordinating with partner agencies and programs, data analysis and interpretation, data visualization and communication, field sampling and logistics, participating in monitoring study design, meeting facilitation, organization and notetaking, adding content to the [My Water Quality Portals](#), presentation of findings to both technical and lay audiences, and incorporating racial equity and environmental justice principles and practices into their work.

The Fellow will also perform other duties, as assigned, to support the SWAMP Unit and the Office of Information Management and Analysis, such as community engagement event planning and participation, trash and macroplastic monitoring in marine and freshwater environments, or assistance with [healthy watershed assessments](#). 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.
- Strong interest in the intersections of water, data, environmental justice, and racial equity
- 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.