

Sea Grant Host Application for the State Water Contractors (SWC)
Submitted June 27, 2022

| | |
|---|---|
| <p>1. Host location and contact information.</p> | <p>State Water Contractors 1121 L Street, Suite 1050 Sacramento, CA 95814 (916) 447-7357</p> |
| <p>2. Names of fellowship supervisor(s).</p> | <p>Chandra Chilmakuri, Darcy Austin</p> |
| <p>3. Fiscal point(s) of contact for California Sea Grant. Please note if same as fellowship supervisor(s)</p> | <p>Darcy Austin, Linda Standlee</p> |
| <p>4. Position description (not to exceed two pages, single spaced). If selected as a participating host, this description will be made available as submitted to prospective fellowship applicants.</p> <p>The State Water Contractors (SWC) seeks a Sea Grant fellow who possesses the ability to think beyond traditional approaches to fisheries science to work on a team of nine staff dedicated to the Delta Plan co-equal goals of improved water supply reliability and restoring and enhancing the Delta ecosystem. Specifically, we seek someone with an interest in hydrology, and aptitude for hydrologic and/or hydrodynamic modeling. Education and familiarity with California’s water supply system and quantitative models are desired but not necessary. The selected fellow would work closely with SWC and member agency staff and would have the opportunity to attend SWC Board meetings and various meetings/forums with staff from state and federal agencies, NGOs, and Central Valley Project (CVP) water contractor staff.</p> <p>The Delta Plan co-equal goals provide an insight into the conflict inherent in the Delta. The Delta is situated at the confluence of the Sacramento and San Joaquin Rivers and is both an ecosystem that supports hundreds of fish and wildlife species as well as being the hub of California’s water supply. The watershed extends roughly 500 miles from the Cascade Range in the north to the Tehachapi Mountains in the south and is bounded by the Sierra Nevada Mountain Range on the east and the Coast Range on the west. Nearly half of the surface water in California falls within the watershed and flows downstream to where the freshwater comeslingles with saltwater from San Francisco, San Pablo, and Suisun Bays. Given the enormous size of the watershed, many contaminants end up in the water and can be hazardous for aquatic species and for humans. Nutrients are limited, so food for fish can be scarce. Invasive species have created challenges, such as predation on native species and competition for food, and the proliferation of invasive aquatic weeds that create navigational and water quality hazards. Habitats have been removed and climate change threatens to undo the habitat restoration that has been completed. Given the magnitude of the problems in the Delta, the Bay-Delta science and management communities strive to fill knowledge gaps to better understand the many stressors affecting the Delta system and the species that depend on it.</p> <p>The SWC is an association of 27 of the public water agencies (member agencies) and represents the legal, policy and regulatory interests of the State Water Project (SWP) contractors, who are responsible for the capital and operations and maintenance costs of the SWP (https://swc.org/about-us/). The SWP is a multi-purpose water storage and delivery system (collection of canals, pipelines, reservoirs, and hydroelectric power facilities) that delivers clean water to 27 million Californians (2/3 of the state’s population), 750,000 acres of farmland (12% of California’s total agricultural production), and businesses throughout California. The California Department of Water Resources (DWR) operates and maintains the SWP and the SWP is the nation’s largest state-owned water and power generator and user-financed water system.</p> <p>The SWC works in partnership with other water organizations, and coordinates with DWR on behalf of its members. The mission of the SWC is to advocate on behalf of our members for improved supply reliability and</p> | |

water quality based on sensible, science-based policies that result in the sustainable and cost-effective management of the SWP for the benefit of California's citizens, economy and environment. The SWC and its member agencies are committed to science-based decision-making for the management of water supplies and the environment and for the people of California. The SWC invests over \$2 million annually in science and research to study the delicate Delta ecosystem. The SWC aims to manage water actions and decisions in response to real-time conditions in the environment and promotes the use of science to inform the way state and federal regulators maintain a balance between providing a more reliable water supply for California and protecting, restoring and enhancing the Delta ecosystem.

Duties for the selected fellow will include:

1. Tracking of SWP and CVP operations
2. Tracking of observed flows, salinity, and other hydrologic conditions.
3. Tracking of observed water quality/contaminant conditions.
4. Running models/simulations of water supply and Delta and watershed hydrology
5. Running models on SWP and CVP operations
6. Running models on Bay-Delta hydrodynamics and water quality
7. Participating in monthly SWC Board meetings and providing updates on water operations and hydrology to the Board.
8. Participating in meetings on water project operations,
9. Potentially tracking SWC science investments and outcomes

The fellow's project does not have to be related to Delta operations, but, for instance, a fisheries project that relates to operations in some way is highly desired.

The fellow will be supervised by the SWC Deputy General Manager and the Science Manager.