

CA B-WET FY 20: San Francisco Bay Watershed		
Grant Recipient	Project Description	Funded Amount
Marine Science Institute (Student MWEE)	<b>“Redwood Creek Watershed Investigators &amp; Sea Level Rise Heroes (R-WISH)”-</b> All 300 6th grade students in an underserved and primarily Hispanic San Mateo County Redwood City middle school will experience and build perspectives on their local watershed’s connection to the ocean, and the possible changes to it from climate change and sea level rise. Monthly exploration and action, in and out of the classroom, including 2 stream studies, 2 canoe-based creek studies, and 6 classroom experiences will provide hands-on practice of the scientific method. This comprehensive program will include activities to reduce marine debris in the watershed, conduct water quality surveys, increase knowledge of sea level rise and climate change topics, and incorporates an environmental mentorship between high school students and 6th graders.	\$55,701
Greater Farallones Association (Student MWEE)	<b>“LiMPETS Climate Literacy Project: Meaningful Watershed Educational Experiences for San Francisco Bay Area Students”-</b> During the 2018-2019 school year, the Greater Farallones Association will provide Meaningful Watershed Educational Experiences for Students that focus on climate change education at four Title 1 schools in the San Francisco Bay Area through LiMPETS. Students). LiMPETS is a hands-on marine science education program in which students contribute to a statewide effort to monitor rocky intertidal and sandy beach habitats of California’s national marine sanctuaries. Through the Project, four teachers and 320-340 students will focus their most-monitoring discussions and data analysis on climate-related trends and issues.	\$45,375
Napa County Resource Conservation District (Student MWEE)	<b>“LandSmart Youth Stewards - Salmon to Sanctuary (S2S)”-</b> Through S2S, students will explore how salmon population size and health are related to both freshwater and ocean conditions. Students will investigate how climate change impacts salmonid population by exploring core issues of Ecosystem Resiliency, Consumer Choices, and Ocean Acidification (OA). Through the MWEE, RCD will guide students into examining how 1) human activities are changing earth’s climate, 2) collective actions are needed to adapt our carbon footprint and lower overall emissions to preserve and maintain biodiversity, and 3) students’ choices and actions today that can make a difference into the future.	\$59,963
Sonoma Ecology (Student and Teacher MWEE)	<b>“Water Wonders and Climate Champions: Inspiring the Next Generation of Environmental Stewards”-</b> Sonoma Ecology Center will engage students in every Sonoma Valley public school in our fifth grade Water Wonders and sixth-grade Climate Champions programs. Our Water Wonders program teaches concepts of the watershed, water pollution, and the salmon life cycle, and connects impacts in the Sonoma Creek watershed to impacts in San	\$39,986

	<p>Pablo Bay and the Pacific Ocean. Students learn with interactive models, hands-on investigations, and a salmon dissection. A four-hour field experience to Sugarloaf Ridge State Park includes water quality testing of Sonoma Creek and the study of creek ecology through observations of riparian trees and aquatic life.</p> <p>In our sixth-grade Climate Champions program, students build on their experience in the fifth grade Water Wonders program. Through interactive models, demonstrations, and hands-on investigations, Climate Champions teaches students how climate is regulated by complex earth systems. It teaches about the greenhouse effect, and about the carbon cycle and human influences on it. Impacts of a changing climate on our watershed are explored. We include sea level rise and how the ocean is a “climate heart” that pumps cycles of rain and drought on shore. Students collect streamflow and stream transect data in the field, and analyze relationship between stream conditions and climate, adding data annually to track local rainfall variability. At Sugarloaf Ridge State Park, students will learn about the impacts of the 2017 Nuns Fire that burned approximately 80% of the park.</p>	
<p>Marin County Office of Education (Teacher MWEE)</p>	<p><b>“Marin’s Ocean and Bay Backyard (MOAB)”</b>- The Marin County Office of Education will design and implement the professional development program, <i>Marin’s Ocean and Bay Backyard (MOAB)</i>, for 4<sup>th</sup> and 5<sup>th</sup> grade teachers in the Novato Unified School District and the San Rafael City Schools Elementary District. The program is driven by the question, “What is the impact of humans on Marin County’s coastal ecosystem?” Through the proposed three-year project, students, teachers, administrators, and local NOAA educators will experience and research answers to that question together through the implementation of MWEEs on the school site and in the local school community. Participating teachers from Year 1 will take on leadership roles in Year 2 and Year 3 in order to provide a sustainable professional learning structure beyond the life of the grant.</p>	<p>\$100,000</p>
<p>Strategic Energy Innovations (Teacher MWEE)</p>	<p><b>“Discovering Watersheds through Experiential Learning”</b>- SEI, a nonprofit, will utilize this funding to equip high school teachers within the San Francisco Bay Delta watershed with the resources and skills to engage students in investigations of the human impacts on our climate, watersheds, and oceans, and to empower students with actionable tools and strategies to mitigate these effects. SEI’s NGSS-aligned Watersheds and Public Water Systems curriculum engages students in investigating evidential datasets on anthropogenic climate change. SEI will provide three days of in-person, place-based training for 25 high school teachers. The training will focus on implementation of SEI’s classroom curriculum and on watershed field projects. SEI will also maintain a communication platform to help teachers exchange best practices and resources.</p>	<p>\$59,629</p>

