

CA B-WET FY 20: Monterey Bay Watershed		
Grant Recipient	Project Description	Funded Amount
Coastal Watershed Council (CWC) (Student & Teacher MWEE)	<p>“Watershed Rangers COVID-19 Response” — The Coastal Watershed Council (CWC) is responding to the immediate and pressing needs of teachers, students and administrators in adapting to COVID-19, including changing educational priorities and learning formats in the year ahead. Over the past year, teachers were required to adapt curricula to a distance learning format and meet the new state education requirements established under SB-98, which left too many unable to bring science or environmental education into the classroom on their own. In collaboration with teachers and education partners, CWC researches and implements best practices for changing COVID scenarios and uses Meaningful Watershed Educational Experiences (MWEEs) to meet education standards in distance learning, in-person or hybrid delivery. The project results in:</p> <ul style="list-style-type: none"> • Increased teacher capacity to use the MWEE approach to meet education standards, local education initiatives and teaching objectives in a distance learning, in-person, or hybrid scenario. • Increased school capacity to systemically implement MWEEs and outdoor experiences across grade levels, with 60-80% of Bay View Elementary School classrooms participating. • Improved teacher comfort and confidence with instruction in an outdoor setting, which increases the overall capacity of the school system to implement MWEEs and outdoor experiences. • Strengthened CWC capacity to collaborate with teachers and serve students from marginalized communities by adapting curriculum and practices based on feedback from teachers, school administrators and a diversity, equity and inclusion consultant. • Expanded access to the MWEE-based Watershed Rangers curriculum by supporting CWC in publishing its distance learning, in-person and/or hybrid curricula on its website. 	Requested Funding: \$61,591
Save The Whales (Student MWEE)	<p>“Bees, Butterflies, and Blue Whales: Teaching South Monterey County Students about Ecosystem Resilience” — Save The Whales is proposing to partner with Frank Ledesma Elementary School in Soledad, a Title 1 school, to provide a meaningful watershed educational experience for approximately 84 children in grade 5. The proposed program focuses on culturally diverse, low-income, and underserved children in southern Monterey County. South County children are typically provided far fewer extracurricular educational opportunities than children in other parts of the county, due to their geographic remoteness. This remoteness, coupled with</p>	Requested Funding: \$49,853

	<p>the added isolation of COVID-19, has made the educational situation for children in Soledad especially grim. The 5th grade teachers at Frank Ledesma Elementary School have been doing the best they can with little guidance and very few resources. The B-WET project proposed for 2021/2022 follows two successful years of B-WET programming in South County and is intended to provide a special extracurricular program for a smaller, more focused group of children who have been especially impacted, educationally, by the COVID pandemic.</p> <p>This year’s driving question is: “What is ‘ecosystem resilience,’ and what can I do to help make ecosystems more resilient to climate change and other stressors?” To help students answer that question, we have designed a mix of classroom (both in-class and distance learning) and outdoor activities that focus on two different ecosystems, using bees and butterflies (land-based) and blue whales (ocean) as platforms for discussing watersheds, the connection between land and sea, urban runoff, marine debris, the Monterey Bay National Marine Sanctuary, and the importance of stewardship. The program will provide regular student “contact” every 2-4 weeks over the course of one school year and will consist of the following components: 1) Teacher Orientation; 2) Save The Whales’ WHALES ON WHEELS WOW™ program, “Land and Sea Watershed Model”; 3) WOW™ “Land and Sea Trash Timeline Game”; 4) NOAA Marine Debris Art Contest; 5) WOW™ “Blue Whales: Gardeners of the Ocean”; 6) Peer-to-Peer Sharing: Blue Whales Video from 5th Grade Students in Watsonville; 7) WOW™ “Dee The Beautiful Whale”; 8) Outdoor Activity: Schoolyard Litter Pickup; 9) WOW™ “Pollinators and Ecosystems”; 10) Our Water Our World’s “Squish No Squish Game”; 11) Outdoor Activity: Plant a Butterfly Garden; 12) Outdoor Activity: Butterfly Garden Stewardship; 12) Field Trip: Salinas River State Beach; 13) Final Reflection. Each element of the project will reinforce and build upon the lessons learned previously. The project cost per student is \$593.</p>	
<p>Santa Cruz County Office of Education (SCCOE) (Student & Teacher MWEE)</p>	<p>“Relevant Action and Learning for Science (REAL Science)” — REAL Science will incorporate all elements of a Meaningful Watershed Educational Experience (MWEE). REAL Science will increase the scientific and environmental literacy of teachers and students by integrating classroom curriculum with outdoor science and stewardship activities. This will be achieved by providing high quality professional learning opportunities to prepare teacher leaders throughout Santa Cruz County school districts to implement MWEEs with students and share resulting programs with teacher teams at all school sites in the county.</p> <p>REAL Science will advance the Next Generation Science Standards (NGSS), the California Environmental Literacy Standards, and the Ocean and Climate Literacy Essential Principles through engaging students and teachers in outdoor field experiences and classroom activities that</p>	<p>Requested Funding: \$300,000</p>

will increase understanding and stewardship of these local watersheds, the ocean, and the Monterey Bay National Marine Sanctuary.

REAL Science was developed to be consistent with the National Oceanic and Atmospheric Administration (NOAA) principle that knowledge and commitment built from firsthand experience, especially in the context of one's community and culture, are essential for achieving environmental stewardship. Carefully selected experiences driven by rigorous academic learning standards and nurturing a sense of community, will further connect students with their watershed, help reinforce an ethic of responsible citizenship, and promote academic achievement.

The SCCOE County Science Initiative realizes that equity of student access to environmental learning experiences depends on the involvement of the classroom teacher. REAL Science will create a system of support by addressing the need to train teacher leaders at every school site across Santa Cruz County who will then support other teachers' implementation of MWEE projects, so that ultimately all students will have access to participation.

All ten school districts in Santa Cruz County are engaged in implementation of NGSS and Common Core State Standards. New academic achievement standards require shifts in instruction and pedagogy, as well as curriculum. To eventually provide this support to all teachers in all Santa Cruz County schools, the SCCOE County Science Initiative has developed a teacher leader support program. The Teacher Leadership Institute (TLI) is an innovative 5-day summer institute with three follow-up support days during the school year. The Institute supports emerging teacher leaders for science by deepening knowledge, increasing confidence, and enhancing abilities to support the implementation of the Next Generation Science Standards using the local environment as a source of phenomena.

The SCCOE County Science Initiative is collaborating with the Pajaro Valley Unified School District (PVUSD) which is planning to submit a B-WET proposal that addresses Priority 2 to provide MWEEs for students. The SCCOE REAL Science B-WET project will include PVUSD teachers in professional learning activities, so that their MWEE experiences can inform the work of teachers in the nine other Santa Cruz County schools districts and contribute to this systemic effort to create equitable student access to MWEEs across grades and districts.

<p>Ventana Wildlife Society (Student MWEE)</p>	<p>“Ventana Wildlife Society's (VWS) strategic goal for Education and Outreach is to instill a conservation ethic and inspire youth to act by fully integrating innovative scientific and ecological education. For this project we will provide planning, curriculum, resources, and transportation for 28 recurring classes throughout the school year for six teachers and their students, as well as two summer sessions of six classes each, to participate in Meaningful Watershed Educational Experiences (MWEEs). This is an increase from our current five school year classes and two summer sessions. Program curriculum focuses on the Salinas and Carmel Valleys and the central coast region as a primary watershed of the Monterey Bay National Marine Sanctuary (MBNMS). Our partners are schools that specialize in serving at-risk teens. We will serve 128 youth at an average cost of \$1,000 per participant. Each class includes one teacher, and some may include a therapist, probation officer or teacher aid. Teachers assist in the development and co-instruction of MWEEs. We will continue to provide pre-program training and teacher support throughout year, as well as develop a new post program training for the teachers we work with to prepare them to plan and lead their own outdoor experiences and develop the community partnerships and resources. With few exceptions' classes take place outdoors on public lands. Should the on-going pandemic make meeting in person possible, we have the capacity to pivot to meaningful virtual programming, as demonstrated this past year.</p>	<p>Requested Funding: \$68,932</p>
<p>Watsonville Wetlands Watch (Student MWEE)</p>	<p>“Building Capacity in Environmental Literacy in the Pájaro Valley” — Watsonville Wetlands Watch (WWW) will continue to collaborate with Elkhorn Slough National Estuarine Research Reserve (ESNERR), Save Our Shores (SOS), and the Pájaro Valley Unified School District (PVUSD) to build capacity in environmental literacy in the Pájaro Valley. This collaboration works primarily with Latino children from low-income families in the Pájaro Valley enabling them to become knowledgeable about watershed ecology so that they grow to become part of an informed community practicing stewardship behaviors towards protecting their watersheds. The Pájaro River and Elkhorn Slough watersheds contain 3,000 acres of freshwater and saltwater wetlands that filter the water that drains into the Monterey Bay National Marine Sanctuary (MBNMS).</p> <p>The proposed project activity is aligned with the NOAA B-WET Priority area 4, “Continuation Projects that Focus on Student MWEEs” with the goals to: 1- Educate students on the topics of water quality, watershed ecology, native flora and fauna, the significant cultural and historical relationships with the watershed, as well as human influences both locally and globally; 2- Promote watershed stewardship actions and activities among students, their families, and teachers; and, 3- Promote student academic achievement through Next Generation Science</p>	<p>Requested Funding: \$75,000</p>

	<p>Standards (NGSS) and English Language Arts (ELA) aligned program activities while supporting and inspiring classroom teachers to integrate environmental literacy principles into classroom curriculum. Three participating schools will be offered five-part MWEEs for all 3rd, 4th, and 5th grade classes. This project is a continuation from the work started in the 2019-2020 school year and continues via distance learning in the 2020-2021 school year. B-WET funding for three schools is a multi-year effort with increasing number of students and teachers served annually. In this third year of collaboration, the program will serve three schools, 29 classroom teachers, and approximately 810 students at a cost of \$154 per student.</p>	
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