

Bay Watershed Education and Training (B-WET)

The NOAA Bay Watershed Education and Training (B-WET) Program is an environmental education program that promotes locally relevant, authentic experiential learning focused on K-12 audiences. B-WET funding is provided through competitive grants that promote Meaningful Watershed Educational Experiences (MWEEs). MWEEs are multi-stage activities that include learning both outdoors and in the classroom, and aim to increase the environmental literacy of all participants. These activities leverage local STEM assets and STEM professionals. NOAA funding is provided for teachers to support student investigation of environmental topics both locally and globally that are of interest to them. Students identify actions to address these issues and understand the value of those actions.



Students with the Marine Science Institute learn about their local ecosystem. B-WET California

B-WET currently serves seven regions of the country: parts of California, Chesapeake Bay, Great Lakes, Gulf of Mexico, Hawaii, New England, and the Pacific Northwest. For more information about the B-WET program, visit <http://www.oesd.noaa.gov/grants/bwet.html>.

2014 Program Impacts

- ❖ B-WET funded **86 institutions** bringing locally relevant, authentic experiential environmental learning to K-12 audiences, supported by local STEM assets and STEM professionals and impacting a total of 27 states and the District of Columbia.
- ❖ Approximately **2,600 educators** received professional development to enhance their skill and confidence in using environmental education and MWEEs to address multiple subjects' curriculum standards and local education agency initiatives.
- ❖ An estimated **69,000 students** participated in multi-stage, inquiry-based activities that include learning both in the classroom and outdoors in a local context.

Since 2002 NOAA has **awarded over \$63 million to support more than 600 B-WET projects**. Activities supported with 2014 funds include a student-teacher-scientist partnership examining stream health in Chesapeake Bay; exploring local coastal habitats in order to predict how climate change will impact the Gulf of Mexico region; and enabling at-risk San Francisco youth to understand their connection to their local watershed, human impacts on the watershed, and how those impacts migrate through the watershed to the Pacific, all while exploring environmental careers and developing college readiness.



Fourth graders take on an invasive species removal project with the Lake Superior National Estuarine Research Reserve. B-WET Great Lakes

Evaluation and Advancing the Field

In terms of evaluation B-WET has been an agency leader, lauded by the National Research Council in their 2010 report on NOAA Education as “the most rigorous evaluation design employed among the NOAA evaluation programs.” This recognition was in reference to an evaluation of the Chesapeake B-WET program in 2007 that demonstrated tangible links between students’ participation in B-WET funded MWEES and an increase in their environmental stewardship and literacy.

In addition, B-WET uses evaluation and evidence based practices to improve and refine the definition of the core B-WET experience, the MWEES. The MWEES approach is based on research literature, evaluation results and lessons learned over a decade of program implementation. The B-WET national evaluation system, which began data collection in 2014, enables the program to monitor and adjust program activities as a result of new information about best practices, and to support grantees in implementing those practices.