

## **NOAA B-WET Teacher MWEE Survey Revised 2015**

### Introduction

This is a voluntary survey.

Our records indicate that some time ago you participated in a Meaningful Watershed Educational Experience (MWEE) professional development (PD) funded by the National Oceanic and Atmospheric Administration's Bay Watershed Education and Training program (NOAA B-WET). We would like to get your feedback on implementing MWEEs with your students, if you did so since the PD.

MWEEs are multi-stage activities that include learning both outdoors and in the classroom, and aim to increase the understanding and stewardship of watersheds and related ocean, coastal, riverine, estuarine, and Great Lakes ecosystems of all participants. MWEEs for students consist of multiple components: issue definition and background research, outdoor field activities, stewardship action projects, synthesis and conclusions. In addition, MWEEs should include teacher participation for the duration of the MWEE, be integrated with classroom curriculum, use the local context for learning, consist of a set of activities over time, and incorporate NOAA assets. [Click here to see a detailed MWEE definition.](#)

You will be asked about a range of practices and outcomes that represent the diversity of MWEEs, some of which may not apply directly to your experience. It is acceptable to answer "not applicable" (NA) in those instances.

Your responses will be entered anonymously and will not be associated with you as an individual. THANK YOU in advance for your candor and thoughtfulness in answering the questions. Your responses will be aggregated with other teachers' responses, and will be used by NOAA B-WET and B-WET-funded organizations to improve MWEE PD and student programs.

It will take about 20-30 minutes to complete this survey, depending on the nature of your MWEE implementation experience.

Note: You can close the survey and return at a later time to the same place as long as you use the same computer and that computer will save and retain the Qualtrics survey cookie (some work and public computers do not save and/or retain cookies). We recommend that you complete the survey in one sitting, if possible, to avoid issues with returning to the survey.

Thank you.

If you have technical issues or questions about this survey, please contact Bronwen Rice, NOAA B-WET National Coordinator, [Bronwen.Rice@noaa.gov](mailto:Bronwen.Rice@noaa.gov)

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*Paperwork Reduction Act Statement*

*Public reporting burden for this collection of information is estimated to average 30 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other suggestions for reducing this burden to Bronwen Rice, NOAA Office of Education, Herbert C. Hoover Building, Room 6863, 14th and Constitution Avenue, NW Washington, DC 20230.*

*Responses are voluntary and collected and maintained as anonymous data. Information will be treated in accordance with the Freedom of Information Act (5 USC 552).*

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How long ago did you complete a NOAA-BWET-funded professional development focused on watersheds (ocean, coastal, riverine, estuarine, Great Lakes) (also known as a Meaningful Watershed Educational Experience professional development or MWEE PD)?

- I did not complete a MWEE PD. (55)
- Less than 1 week ago (1)
- 1-2 weeks ago (2)
- 3-4 weeks ago (3)
- 5-8 weeks ago (4)
- 9-12 weeks ago (5)
- More than 12 weeks ago (6)

MPDQ3 Are you currently a PreK-12 teacher or educator?

- No (0)
- Yes (1)
- Logic: Must select Yes to continue the survey

MPDQ5 In what setting do you primarily teach? (select one)

- Public school (1)
- Private school (2)
- Non-formal education (e.g., environmental centers, zoos, museums, interpretive programs at local or state level parks, youth organizations, summer camps, after school programs) (3)
- Home-school (4)
- Other (88)

Logic: Must select 1 or 2 to continue the survey

UniqueID To allow us to compare your past, current, and future responses, please create a unique 8-digit ID number using the 2 digits of your birth month, the 2 digits of your birth day, and the last 4 digits of most often used phone number. If you were born on March 9 and your home phone is 410.719.1234, your ID number would be 03091234.

MPDGQ1 In which region did you teach this past year? (check one)

- California (1)
- Chesapeake Bay (2)
- Great Lakes (3)
- Gulf of Mexico (4)
- Hawaii (5)
- New England (6)
- Pacific Northwest (7)
- Other (please describe) (88) \_\_\_\_\_

MPDQ8 In what 5-digit zip code is your school located?

How many years have you been an educator? (select one)

- 1 to 5 years
- 6 to 10 years
- 11 to 20 years
- More than 20 years

In which grade level do you primarily teach? (select one)

- PreK (1)
- Elementary (2)
- Middle (3)
- High (4)
- Other (88)

Which of these categories best describes your school's community (during the school year)?

- Rural (population of less than 10,000) (1)
- Town/Suburban (population 10,000-99,999) (2)
- Small urban (population 100,000-250,000) (3)
- Urban (population greater than 250,000) (4)

About what percent of your students are (percent should equal 100):

American Indian or Alaska Native (1)

Asian (2)

Black or African American (3)

Hispanic or Latino (4)

Native Hawaiian or Other Pacific Islander (5)

White (6)

Multi-racial

Don't know (99)

Is the school where you teach a Title 1 school?

No (0)

Yes (1)

NA (55)

MQ9 In the past 12 months, did you implement a Meaningful Watershed Educational Experience (MWEE) with your students? ~~MWEEs are investigative, project-oriented, sustained activities that include one or more outdoor experiences, consider the watershed as a system, and are an integral part of a school instructional program.~~

No (0)

Yes (1)

If no: Why were you not able to implement a MWEE with your students? (text box)

Logic: If no, end of questionnaire.

MGQ37\_1 How many of your students participated in a MWEE during the most recent school year? (Please provide your best estimate, NOT a range)

About \_\_\_ students (1)

MGQ45 On average, did students participate in a MWEE over the course of:

Less than a week

~~One day (1)~~

~~2-6 days (2)~~

~~One A week (3)~~

~~2-3~~Multiple weeks (4)

~~One month (5)~~

~~2-3~~Multiple months (6)

~~4-8 months (7)~~

~~A full school year (about 9 months) (8)~~

~~A full calendar year (9)~~

Multiple years (10)

MGQ43 On average during the last school year, about how many hours did a typical student spend involved in MWEE activities? (check one)

- ~~None (0)~~
- 1-~~5~~2 hours (1)
- ~~3-5 hours (2)~~
- 6-9 hours (3)
- 10-~~24~~16 hours (4)
- ~~17-24 hours (5)~~
- 25-40 hours (6)
- More than 40 hours (7)

MGQ44 On average during the last school year, about how many hours did a typical student spend outdoors during MWEE activities? (check one)

- None (0)
- 1-~~5~~2 hours (1)
- ~~3-5 hours (2)~~
- 6-9 hours (3)
- 10-~~24~~16 hours (4)
- ~~17-24 hours (5)~~
- 25-40 hours (6)
- More than 40 hours (7)

Logic: If answer to MGQ44 On average during the last school year, about how many hours did a typical student spend outdoors during MWEE activities? Is not None

About how many separate outdoor learning experiences did students have during their MWEE? (check one for each row)

	<u>I don't know</u>	<u>None</u>	<u>One</u>	<u>Two</u>	<u>Three or more</u>
<u>Led by your organization</u>					
<u>Led by a teacher</u>					
<u>Led by another provider</u>					

MQ29 Where did the outdoor component of your students' MWEEs occur?

	No (0)	Yes (1)
On school grounds (1)	<input type="radio"/>	<input type="radio"/>
<del>Near the school (1-5 minute walk) (2)</del>	<input type="radio"/>	<input type="radio"/>
<u>Off school grounds, within walking distance</u> <del>Walkable from the school (more than 5 minutes) (3)</del>	<input type="radio"/>	<input type="radio"/>
<u>Off school grounds, requiring transportation</u> <del>In a location to which the students were bussed or driven (4)</del>	<input type="radio"/>	<input type="radio"/>



MQ32 ~~DURING~~ the outdoor learning experience(s), my students:

	NA (55)	Strongly disagree 1 (1)	2 (2)	3 (3)	4 (4)	5 (5)	6 (7)	Strongly agree 7 (7)
<del>Conducted a one-time data or sample collection (1)</del>	<del><input type="radio"/></del>	<del><input type="radio"/></del>	<del><input type="radio"/></del>	<del><input type="radio"/></del>	<del><input type="radio"/></del>	<del><input type="radio"/></del>	<del><input type="radio"/></del>	<del><input type="radio"/></del>
<del>Conducted water quality monitoring over a period of time (2)</del>	<del><input type="radio"/></del>	<del><input type="radio"/></del>	<del><input type="radio"/></del>	<del><input type="radio"/></del>	<del><input type="radio"/></del>	<del><input type="radio"/></del>	<del><input type="radio"/></del>	<del><input type="radio"/></del>

During the MWEE (outdoors or in classroom), my students: (choose No or Yes for each statement)

	No	Yes
<u>Did NOT collect data or make observations</u>		
<u>Conducted a one-time data collection or observation</u>		
<u>Conducted multiple data collections or observations over a period of time</u>		

MQ33 Back in the classroom AFTER students participated in the outdoor learning experience(s):

	NA (55)	Strongly disagree 1 (1)	2 (2)	3 (3)	4 (4)	5 (5)	6 (6)	Strongly agree 7 (7)
They discussed results based on their observations (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
They offered explanations for what they observed (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
They were expected to draw on what had been learned (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I spent a lot of time to make sure the students had integrated what they had learned (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Logic: All MWEEs

MGQ46 Were your typical MWEEs focused only on science concepts, or on concepts from multiple disciplines (e.g., science, math, social studies, literature, art, music)?

~~Only science concepts (1)~~

~~Concepts from multiple disciplines, including science (2)~~

~~Other (88)~~





MGQ51—Did students participate in any of the following activities to protect and/or restore ocean, coastal, and/or Great Lakes watersheds during their MWEE? (please indicate no or yes for each activity)

	No (-)	Yes (+)
Created a schoolyard or backyard habitat (1)	<input type="radio"/>	<input type="radio"/>
Conserved water at school to protect the local watershed (2)	<input type="radio"/>	<input type="radio"/>
Installed a rain barrel at school (3)	<input type="radio"/>	<input type="radio"/>
Reduced litter at the school (4)	<input type="radio"/>	<input type="radio"/>
Gave presentation(s) about the local watershed (e.g., for school, other organizations) (5)	<input type="radio"/>	<input type="radio"/>
Participated in an event to raise awareness about the importance of watersheds (6)	<input type="radio"/>	<input type="radio"/>
Helped clean up or take care of a local stream or beach (7)	<input type="radio"/>	<input type="radio"/>
Participated in a restoration activity (e.g., planting trees) to benefit watersheds (8)	<input type="radio"/>	<input type="radio"/>
Told others about ways they can protect their local watersheds (9)	<input type="radio"/>	<input type="radio"/>

Did students participate in any of these actions to protect or restore watersheds during your organization's B-WET-funded MWEEs? (select all categories that apply)

- The students did NOT participate in any watershed protection or restoration actions as part of their MWEE.
- Watershed Restoration or Protection (e.g., create schoolyard habitat, planting trees or grasses, invasive species removal, cleanup [e.g., beach, stream, school, community], raise & release (e.g., fish, oysters, turtles), stormwater management (e.g., rain garden, paint storm drains)
  - Briefly describe the actions (text box)
- Everyday Choices [e.g., reduce/reuse/recycle/upcycle, transportation (e.g., carpooling, bike riding, mass transit, walking), composting, energy conservation, water conservation]
  - Briefly describe the actions (text box)
- Community Engagement [e.g., outreach, presentations, social media, messaging at community events/fairs/festivals, event-organizing, mentoring, PSAs, flyers, posters]
  - Briefly describe the actions (text box)
- Civic Action [e.g., town meetings, voting, writing elected officials/decision makers, advocating for policy change]
  - Briefly describe the actions (text box)
- Other
  - Briefly describe the actions (text box)

~~MGQ47 Were any NOAA resources were used as part of MWEEES for students?~~

- ~~⊖ No (0)~~
- ~~⊖ Yes (1)~~

~~MGQ48 Which NOAA resources were used as part of your typical student MWEE? (check all that apply)~~

	Not sure (7)	No (0)	Yes (4)
<del>Information from NOAA research studies or reports (1)</del>	<del><input type="radio"/></del>	<del><input type="radio"/></del>	<del><input type="radio"/></del>
<del>Data collected by and accessible through NOAA, IF YES: Name the NOAA data source: (2)</del>	<del><input type="radio"/></del>	<del><input type="radio"/></del>	<del><input type="radio"/></del>
<del>NOAA expert (e.g., scientist, educator, Sea Grant staff member, policy expert) (3)</del>	<del><input type="radio"/></del>	<del><input type="radio"/></del>	<del><input type="radio"/></del>
<del>NOAA curricula and education programs, IF YES: Name the curricula or programs: (4)</del>	<del><input type="radio"/></del>	<del><input type="radio"/></del>	<del><input type="radio"/></del>
<del>NOAA labs or facilities, IF YES: Name the lab or facility: (5)</del>	<del><input type="radio"/></del>	<del><input type="radio"/></del>	<del><input type="radio"/></del>
<del>NOAA National Marine Sanctuary (6)</del>	<del><input type="radio"/></del>	<del><input type="radio"/></del>	<del><input type="radio"/></del>
<del>NOAA National Estuarine Research Reserve (7)</del>	<del><input type="radio"/></del>	<del><input type="radio"/></del>	<del><input type="radio"/></del>

- None
- Information from NOAA websites or reports (e.g., NOAA website, NOAA Education Resources webpage, NOAA Climate Portal, Marine Debris Program Education webpage, NOAA FishWatch, NERRS education website)
  - o IF YES, Name the websites or reports:
- Data sets collected by and accessible through NOAA (e.g., NOAA View, NOAA Digital Coast, NOAA Buoys, Real-time Tides and Currents, NERRS SWMP data)
  - o IF YES, Name the NOAA data sets:
- NOAA experts (e.g., scientist, educator, Sea Grant staff member, policy expert)
  - o IF YES, Name the NOAA experts:
- NOAA curricula and education programs (e.g., Data in the Classroom, Estuaries 101 curriculum, Ocean Exploration)
  - o IF YES, Name the curricula or programs:
- NOAA labs or facilities (e.g., Northeast Fisheries Science Center Milford Lab, NOAA Chesapeake Bay Office Oxford Lab, Southeast Fisheries Science Center in Pascagoula MS, NOAA Science On a Sphere sites, Sea Grant floating classroom vessel)
  - o IF YES, Name the labs or facilities:
- NOAA National Marine Sanctuary, <http://sanctuaries.noaa.gov/about/welcome.html>
  - o IF YES, Name the sanctuary:
- NOAA National Estuarine Research Reserve, <http://www.nerrs.noaa.gov>
  - o IF YES, Name the reserve:

MGQ49 What education methods were used during your students' MWEEs? (select No or Yes for each method)

	No (0)	Yes (1)
Outdoor field trip <u>or field work</u> (i.e., excursion to learn about natural history and ecology in the outdoors, may or may not include data collection) (1)	<input type="radio"/>	<input type="radio"/>
<u>STEM education (i.e., an approach to teaching that integrates the content and skills of science, technology, engineering, and math to inspire students and prepare them for 21st century jobs)</u>	<input type="radio"/>	<input type="radio"/>
<del>Field work (i.e., scientific study carried out somewhere other than in a classroom/laboratory, includes data collection) (2)</del>		
Place-based education (i.e., an interdisciplinary instructional strategy that uses the local environment and community as the context for teaching and learning) (3)	<input type="radio"/>	<input type="radio"/>
Scientific-inquiry-based learning (i.e., an instructional strategy that gives students the opportunity to explore an idea or question. To arrive at an answer or to better understand the concept, students often collect and analyze data) (4)	<input type="radio"/>	<input type="radio"/>
Issue investigation (i.e., an interdisciplinary instructional strategy that engages learners in investigating complex, real-world environmental issues and problem-solving as the context for teaching and learning) (5)	<input type="radio"/>	<input type="radio"/>
Service learning (i.e., an instructional strategy that integrates meaningful community service with instruction and reflection to enrich the learning experience, teach civic responsibility, and strengthen communities) (6)	<input type="radio"/>	<input type="radio"/>

Answer If What education methods were used during your students' MW... **Scientific-inquiry-based learning** - Yes Is Selected

MGQ50 Which of the following steps did you engage students in...

	No (0)	Yes (1)
Formulating scientific questions they can answer using data (1)	<input type="radio"/>	<input type="radio"/>
Making predictions or hypotheses (2)	<input type="radio"/>	<input type="radio"/>
Collecting data or using existing data (3)	<input type="radio"/>	<input type="radio"/>
Analyzing and interpreting data (4)	<input type="radio"/>	<input type="radio"/>
Making conclusions and adjusting predictions/hypotheses (5)	<input type="radio"/>	<input type="radio"/>
<del>Develop</del> Giving presentations of their findings (6)	<input type="radio"/>	<input type="radio"/>

MGQ53 ~~As a result of participating in MWEEs, students are better able to: Did your typical MWEE include any of the following learning objectives? Students will be able to:~~

	Strongly disagree 1 (1) No (0)	2 (2) Yes (+)	3 (3)	4 (4)	5 (5)	6 (6)	Strongly agree 7 (7)
Define the term "watershed" (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Identify their local watershed(s) (ocean, coastal, riverine, estuarine, Great Lakes) (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Identify how watersheds are connected to the ocean via streams, rivers, and human-made structures (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Identify the functions that occur in a watershed (transport, store, and cycle water) (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Recognize that both natural processes and human activities affect water flow and water quality in watersheds (5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Identify connections between human welfare and water flow and quality (6)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Identify possible point and non- point sources of water pollution (7)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Identify actions individuals can <del>engage intake</del> to protect or <del>restore water quality in</del> watersheds (8)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Benefit\_Txt What is the most important benefit of MWEEs for your students?



<u>removal, cleanup [e.g., beach, stream, school, community], raise &amp; release (e.g., fish, oysters, turtles), stormwater management (e.g., rain garden, paint storm drains]</u> Create a schoolyard or backyard habitat (1) <u>Everyday Choices [e.g., reduce/reuse/recycle/upcycle, transportation (e.g., carpooling, bike riding, mass transit, walking), composting, energy conservation, water conservation]</u> Conserve water at school to protect the local watershed (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<u>Community Engagement [e.g., outreach, presentations, social media, messaging at community events/fairs/festivals, event-organizing, mentoring, PSAs, flyers, posters]</u> Install a rain barrel at school (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<u>Civic Action [e.g., town meetings, voting, writing elected officials/decision makers, advocating for policy change]</u> Reduce litter at the school (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Give presentation(s) about the local watershed (e.g., for school, other organizations) (5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Participate in an event to raise awareness about the importance of watersheds (6)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Help clean up or take care of a local stream or beach (7)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Participate in a restoration activity (e.g., planting trees) to benefit watersheds (8)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Tell others about ways they can protect their local watersheds (9)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other (please describe) (10)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Help\_Txt What could be done by your PD provider to help you develop and implement improved MWEES?

MGPDQ74 The questionnaire was ... (select one for each line)

	1 (1)	2 (2)	3 (3)	4 (4)	5 (5)	6 (6)	7 (7)
Difficult to complete:Easy to complete (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Not informative:Informative (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Long:Short (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

ImprvQ\_Txt How can this questionnaire be improved?

Cmmts\_Txt ~~Do you have any~~What final comments you would you like to share about MWEEs?

Thank you Thank you for completing this survey! Please click on the Submit button below.