
Introduction

Please answer the following questions in reference to your most recently-completed Meaningful Watershed Educational Experience (MWEE) professional development (PD). You will be asked about a range of practices and outcomes that represent the diversity of MWEE PD funded by the National Oceanic and Atmospheric Administration's Bay Watershed Education and Training program (NOAA B-WET), some of which may not apply directly to your experience. It is acceptable to answer "not applicable" (N/A) in those instances.

For the purposes of this questionnaire, we assume that Meaningful Watershed Educational Experiences (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. MWEEs for students are projects that provide K-12 students opportunities for these activities. MWEEs for teachers provide K-12 teachers opportunities for professional development to build their confidence and capacity to implement MWEE activities with their students. MWEEs are enhanced by NOAA products, services, or personnel; support regional environmental and natural resource management priorities; and are designed to increase students' and teachers' understanding and stewardship of watersheds and related ocean, coastal and Great Lakes ecosystems.

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 future professional development programs.

It will take about 20-30 minutes to complete this survey, depending on the nature of your professional development experience. **You can close the survey and return to the same place as long as you use the same computer to continue completing the survey.**

Thank you.

If you have questions about this survey, please contact Bronwen Rice, NOAA B-WET National Coordinator, Bronwen.Rice@noaa.gov

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Paperwork Reduction Act Statement

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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).

Notwithstanding any other provision of the law, no person is required to respond to, nor shall any person be subject to a penalty for failure to comply with, a collection of information subject to the requirements of the Paperwork Reduction Act, unless that collection of information displays a currently valid OMB Control

Number.

Are you currently an in-service or pre-service PreK-12 teacher or educator?

- No
 Yes

Thank you!

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

Setting

In what setting do you teach?

- Public school
 Private school
 Non-formal education (e.g., environmental centers, zoos, museums, interpretive programs at local or state level parks, youth organizations)
 Home-school
 Other

PD?

How long ago did you complete professional development focused on watersheds or water quality issues (also known as a Meaningful Watershed Education Experience professional development or MWEE PD)?

- I did not complete a MWEE PD in the last 3 months
 Less than 1 week ago
 1-2 weeks ago
 3-4 weeks ago
 5-8 weeks ago
 9-12 weeks ago

About the teacher

CREATE A UNIQUE ID: To allow us to compare your 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 your most often used phone number. For example, if you were born on March 9 and your home phone is 410.719.1234, your ID number would be 03091234.

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

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

- California
- Chesapeake Bay
- Great Lakes
- Gulf of Mexico
- Hawaii
- New England
- Pacific Northwest
- Other (please describe)

In which grade level(s) do you primarily teach? (select all that apply)

PreK

Elementary

Middle

High

Other

What subject(s) do you primarily teach? (select one)

- Science
- Math
- Language Arts
- Social studies
- Fine arts
- Multiple disciplines, including science
- Multiple disciplines, not including science
- Other

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

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

What is your ethnicity? (check one):

- Hispanic or Latino
- Not Hispanic or Latino
- I prefer not to respond

What is your race? (check all that apply):

- American Indian or Alaska Native
- Asian
- Black or African American
- Native Hawaiian or Other Pacific Islander
- White
- I prefer not to respond

Is the school where you teach a Title 1 school?

- No
- Yes
- NA

What percent of your students speak English as a second language (aka English Language Learners)?

- Don't know Less than 20% 21-40% 41-60% 61-80% 81-100%

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

American Indian or Alaska Native	<input type="text" value="0"/> %
Asian	<input type="text" value="0"/> %
Black or African American	<input type="text" value="0"/> %
Hispanic or Latino	<input type="text" value="0"/> %
Native Hawaiian or Other Pacific Islander	<input type="text" value="0"/> %
White	<input type="text" value="0"/> %
Don't know	<input type="text" value="0"/> %
Total	<input type="text" value="0"/> %

Did you conduct Meaningful Watershed Educational Experiences (MWEEs) with your students before participating in the MWEE professional development?

(For an expanded definition of a MWEE, view this file: [MWEE defined](#))

- No
- Yes

What was your PRIMARY reason for participating in the MWEE professional development? (check one)

- To obtain information and resources for teaching
- Personal interest in the topic of the professional development
- To obtain continuing education, recertification, or graduate credit
- I was required to attend
- I was asked to attend
- Other, please describe:

About the PD

Please answer all of the following questions based on the last MWEE (watershed education) professional development you participated in.

Which type(s) of MWEE professional development did you participate in or receive: (please select No or Yes for each type)

	No	Yes
One day workshops (usually less than 8 hours)	<input type="radio"/>	<input type="radio"/>
Teacher institute (usually on consecutive days that cumulatively consist of 40 hours of more)	<input type="radio"/>	<input type="radio"/>
Multi-day workshops (events that last at least 6 hours, but are less than 40 hours, e.g., a three-day workshop on a specific topic or a series of five Saturday sessions)	<input type="radio"/>	<input type="radio"/>
A college-level course	<input type="radio"/>	<input type="radio"/>
Professional development provider training (training for individuals who provide teacher professional development)	<input type="radio"/>	<input type="radio"/>
Individual teacher coaching and support (e.g., curriculum planning, shared teaching, demonstrations and/or other forms of in-school or in-field support)	<input type="radio"/>	<input type="radio"/>
On-line professional development support (e.g., courses, webinars, discussion forums)	<input type="radio"/>	<input type="radio"/>

About how many hours of MWEE professional development and/or support did you receive over the past 12 months?

- 1-2 hours
- 3-5 hours
- 6-10 hours
- 11-20 hours
- 21-40 hours
- 41-60 hours
- 61-80 hours
- More than 80 hours

About how many of those MWEE professional development hours did you spend outdoors?

- None
- 1-2 hours
- 3-5 hours
- 6-10 hours
- 11-20 hours
- 21-40 hours
- 41-60 hours
- 61-80 hours
- More than 80 hours

Were NOAA resources used as part of MWEE professional development for teachers?

No

 Yes

Which NOAA resources were used as part of your MWEE professional development?

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

What education methods were used during your MWEE professional development? (select No or Yes for each method)

	No	Yes
Outdoor field trip (i.e., excursion to learn about natural history and ecology in the outdoors, may or may not include data collection)	<input type="radio"/>	<input type="radio"/>
Field work (i.e., scientific study carried out somewhere other than in a classroom/laboratory, includes data collection)	<input type="radio"/>	<input type="radio"/>
Place-based education (i.e., an interdisciplinary instructional strategy that uses the local environment and community as the context for teaching and learning)	<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)	<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)	<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)	<input type="radio"/>	<input type="radio"/>

As part of your MWEE professional development, were you involved in ...

	Not sure	No	Yes
Formulating scientific questions that can be answered using data	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Making predictions or hypotheses	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Collecting data or using existing data	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Analyzing and interpreting data	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Making conclusions and adjusting predictions/hypotheses	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Developing presentations of findings	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Did the workshops, institutes, or classes you participated in include the following professional development practices?

(Please indicate No or Yes for each statement)

	No	Yes
Sharing of information and examples illustrating how other teachers have integrated MWEEs	<input type="radio"/>	<input type="radio"/>
Discussion of how teachers may be able to integrate MWEEs into their own curriculum or classroom activities	<input type="radio"/>	<input type="radio"/>
Discussion of alignment of MWEEs with state, regional, or national standards	<input type="radio"/>	<input type="radio"/>
Provision of examples of how MWEEs align with standards	<input type="radio"/>	<input type="radio"/>
Engaging you and other participating teachers in aligning MWEEs with your school or school district standards	<input type="radio"/>	<input type="radio"/>
Participating along with other teachers from my school, at the same time	<input type="radio"/>	<input type="radio"/>
Allowing you and other participating teachers time to plan how to implement MWEEs	<input type="radio"/>	<input type="radio"/>
Engaging you and other participating teachers in activities/practices that can be used with your students	<input type="radio"/>	<input type="radio"/>
Presentation of how NOAA data can be used to support student scientific inquiry	<input type="radio"/>	<input type="radio"/>
Discussion of how NOAA data can be used to obtain knowledge about local issues	<input type="radio"/>	<input type="radio"/>
Examples of how other teachers have used NOAA data with their students	<input type="radio"/>	<input type="radio"/>
Allow you and other participating teachers time to plan how to integrate the use of NOAA data with your students	<input type="radio"/>	<input type="radio"/>

Please indicate which 3 practices were most valuable in helping you implement MWEEs. Type a 1 for most valuable, 2 for less valuable, and 3 for least valuable of the three.

- » Sharing of information and examples illustrating how other teachers have integrated MWEEs
- » Discussion of how teachers may be able to integrate MWEEs into their own curriculum or classroom activities
- » Discussion of alignment of MWEEs with state, regional, or national standards
- » Provision of examples of how MWEEs align with standards
- » Engaging you and other participating teachers in aligning MWEEs with your school or school district standards
- » Participating along with other teachers from my school, at the same time
- » Allowing you and other participating teachers time to plan how to implement MWEEs
- » Engaging you and other participating teachers in activities/practices that can be used with your students
- » Presentation of how NOAA data can be used to support student scientific inquiry
- » Discussion of how NOAA data can be used to obtain knowledge about local issues
- » Examples of how other teachers have used NOAA data with their students
- » Allow you and other participating teachers time to plan how to integrate the use of NOAA data with your students

What types of support did you receive from your MWEE professional development provider? (Please indicate No or Yes for each statement)

	No	Yes
Assistance with conducting field trips or field work	<input type="radio"/>	<input type="radio"/>
Assistance with establishing schoolyard habitats	<input type="radio"/>	<input type="radio"/>
Assistance with establishing restoration projects	<input type="radio"/>	<input type="radio"/>
Co-teaching in my classrooms or in field	<input type="radio"/>	<input type="radio"/>
Coaching in my classroom	<input type="radio"/>	<input type="radio"/>
Demonstrations in my classroom	<input type="radio"/>	<input type="radio"/>
Assistance with the use of equipment or technologies	<input type="radio"/>	<input type="radio"/>
Communicating with provider through personal phone calls or email	<input type="radio"/>	<input type="radio"/>
Communication with provider through newsletters or web-site (e.g., an online community)	<input type="radio"/>	<input type="radio"/>

Please indicate which 3 support practices were most valuable in helping you implement MWEEs. Type a 1 for most valuable, 2 for less valuable, and 3 for least valuable of the three.

- » Assistance with conducting field trips or field work
- » Assistance with establishing schoolyard habitats
- » Assistance with establishing restoration projects
- » Co-teaching in my classrooms or in field
- » Coaching in my classroom
- » Demonstrations in my classroom
- » Assistance with the use of equipment or technologies
- » Communicating with provider through personal phone calls or email
- » Communication with provider through newsletters or web-site (e.g., an online community)

Which additional practices did your MWEE professional development and/or the support you received include? (Please indicate No or Yes for each statement)

	No	Yes
Connections were made to local community organizations and resources	<input type="radio"/>	<input type="radio"/>
Interactions were facilitated with NOAA scientists/staff	<input type="radio"/>	<input type="radio"/>
Interactions were facilitated with natural resource professionals	<input type="radio"/>	<input type="radio"/>
I was provided with a stipend	<input type="radio"/>	<input type="radio"/>
I was offered continuing education credits	<input type="radio"/>	<input type="radio"/>
I was offered graduate credits	<input type="radio"/>	<input type="radio"/>
I was provided with equipment	<input type="radio"/>	<input type="radio"/>
I was provided with instructional/educational/curriculum materials	<input type="radio"/>	<input type="radio"/>
I was provided with information on how to obtain grants or funding for MWEEs	<input type="radio"/>	<input type="radio"/>

Please indicate which 3 practices were most valuable in helping you implement MWEEs. Type a 1 for most valuable, 2 for less valuable, and 3 for least valuable of the three.

- » Connections were made to local community organizations and resources
- » Interactions were facilitated with NOAA scientists/staff
- » Interactions were facilitated with natural resource professionals
- » I was provided with a stipend
- » I was offered continuing education credits
- » I was offered graduate credits
- » I was provided with equipment
- » I was provided with instructional/educational/curriculum materials
- » I was provided with information on how to obtain grants or funding for MWEEs

During your MWEE professional development, did you participate in any of these activities that protect and/or restore ocean, coastal, and/or Great Lakes watersheds?

	No	Yes
Created a schoolyard or backyard habitat	<input type="radio"/>	<input type="radio"/>
Installed a rain barrel at school or at home	<input type="radio"/>	<input type="radio"/>
Gave presentation(s) about the local watershed (e.g., for school, other organizations)	<input type="radio"/>	<input type="radio"/>
Participated in or organized event(s) to raise awareness about the importance of watersheds	<input type="radio"/>	<input type="radio"/>
Participated in or helped coordinate a clean-up of a local stream or beach	<input type="radio"/>	<input type="radio"/>
Participated in a restoration activity (i.e., planting trees)	<input type="radio"/>	<input type="radio"/>
Limited or avoided the use of household chemicals including fertilizers, herbicides and pesticides	<input type="radio"/>	<input type="radio"/>
Told others about ways they can protect their local watershed	<input type="radio"/>	<input type="radio"/>
Monitored water quality over a period of time	<input type="radio"/>	<input type="radio"/>

Did your B-WET professional development provider indicate that it was funded (in part) with funding from the National Oceanic and Atmospheric Administration (NOAA)?

- No
- Yes

Overall, what grade would you give your MWEE professional development experience? (slide the scale between F and A+)



Briefly describe why you selected this grade.

Outcomes

As a result of participating in the MWEE professional development, I am better able to:

	NA	Strongly disagree 1	2	3	4	5	6	Strongly agree 7
Define the term "watershed"	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Identify my local watershed(s)	<input type="radio"/>	<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	<input type="radio"/>	<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)	<input type="radio"/>	<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	<input type="radio"/>	<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	<input type="radio"/>	<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	<input type="radio"/>	<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 engage in to protect/restore water quality in watersheds	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Did participating in the B-WET professional development increase your knowledge of ...

	No	Yes
what NOAA does?	<input type="radio"/>	<input type="radio"/>
scientific data accessible through NOAA?	<input type="radio"/>	<input type="radio"/>
educational resources available through NOAA?	<input type="radio"/>	<input type="radio"/>

For each statement, select one response for BEFORE, one response for AFTER, and one response for FUTURE.

	BEFORE the MWEE professional development, how confident <u>were</u> you in your ability to:							AFTER the MWEE professional development, how confident <u>are</u> you in your ability to:							St dis
	Not at all confident 1	2	3	4	5	6	Extremely confident 7	Not at all confident 1	2	3	4	5	6	Extremely confident 7	
Teach my students about local watersheds	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Incorporate MWEEs into my curriculum	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Implement MWEEs without support from a professional development provider	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Use NOAA resources to enhance my students' MWEE experiences	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Guide students through taking action to protect or restore watersheds	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	



For each statement, select one response for BEFORE, one response for AFTER, and one response for FUTURE.

	BEFORE the MWEE professional development, how confident <u>were</u> you in your ability to:							AFTER the MWEE professional development, how confident <u>are</u> you in your ability to:							St dis
	Not at all confident 1	2	3	4	5	6	Extremely confident 7	Not at all confident 1	2	3	4	5	6	Extremely confident 7	
Research environmental issues affecting watersheds with students	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Use scientific inquiry instruction	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Use the outdoors for instruction	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Act to protect and/or restore ocean, coastal, or Great Lakes watersheds	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	



Feedback

What component(s) of the MWEE professional development best prepared you to teach your students about local watersheds?

How could the MWEE professional development be improved to better prepare teachers to teach about the watershed?

Do you have any other comments about the MWEE professional development?

This questionnaire was (choose one for each line)

Difficult to complete	<input type="radio"/>	Easy to complete							
Not informative	<input type="radio"/>	Informative							
Long	<input type="radio"/>	Short							

How can this questionnaire be improved?

Please use the following reference, if you plan to use this resource:

Zint, M. and A. Kraemer. 2012. NOAA B-WET Evaluation System Plan: Teacher Professional Development Instrument. Bay Watershed Education and Training Program, National Oceanic and Atmospheric Administration, Washington, D.C.

For more information contact:

Bronwen Rice (bronwen.rice@noaa.gov) or Michaela Zint (zintmich@umich.edu)