ATTACHMENT 5: NOAA B-WET TEACHER MWEE SURVEY

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.

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.

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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Are	you currently a PreK-12 teacher or educator?
O	No
O	Yes
IF N	IO. SKIP TO FND OF SURVEY

 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 IF NEITHER PUBLIC NOR PRIVATE, SKIP TO END OF SURVEY
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.
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. O No O Yes IF NOT, SKIP TO END OF SURVEY
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
On average, did students participate in a MWEE over the course of: One day 2-6 days One week 2-3 weeks One month 2-3 months 4-8 months A full school year (about 9 months) A full calendar year Multiple years

On average during the last school year, about how many he	ours did a typical student spend involved in
MWEE activities? (check one)	
O None	
O 1-2 hours	
O 3-5 hours	
O 6-9 hours	
O 10-16 hours	
O 17-24 hours	
O 25-40 hours	
O more than 40 hours	
On average during the last school year, about how many he during MWEE activities? (check one) O None O 1-2 hours O 3-5 hours O 6-9 hours O 10-16 hours O 17-24 hours O 25-40 hours O more than 40 hours	ours did a typical student spend outdoors
IF NONE, SKIP OUTDOOR BLOCK	
START OUTDOOR BLOCK Where did the outdoor component of your students' MWE	
Or wheel mount	No Yes
On school grounds	
Near the school (1-5 minute walk)	
Walkable from the school (more than 5 minutes)	
In a location to which the students were bussed or driven	O

To what extent do you agree or disagree with the following:

	NA	Strongly disagree 1	2	3	4	5	6	Strongly agree 7
Overall, what I taught my students about watersheds in the classroom was closely integrated with students' outdoor learning experience(s).	0	•	O	O	O	O	O	O
My students' outdoor learning experiences were designed to help them understand what they had been introduced to during regular science class	0	•	O	0	O	0	O	O
My students' outdoor learning experiences were designed to reinforce what students learned during regular science class	0	•	O	O	O	O	O	O

BEFORE students participated in their outdoor learning experience:

	NA	Strongly disagree 1	2	3	4	5	6	Strongly agree 7
I provided them with detailed information about what they were going to do	O	0	O	O	O	O	O	0
I let students know what activities they were going to do	O	•	O	0	O	O	O	0
I spent a lot of time preparing students for what to expect	0	•	O	0	O	O	O	•
I introduced relevant science concepts	O	•	O	0	O	O	O	0

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

Bottive the outdoor learning experience(3), my students.								
	NA	Strongly	2	3	4	5	6	Strongly
		disagree 1						agree 7
Conducted a one-time data or sample collection	O	0	O	O	O	O	O	0
Conducted water quality monitoring over a period of time	0	0	O	O	O	O	O	•

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

74 TER students participated in the outdoor learning experience(3).								
	NA	Strongly	2	3	4	5	6	Strongly
		disagree 1						agree 7
They discussed results based on their observations	O	•	O	O	O	O	0	O
They offered explanations for what they observed	O	O	O	O	O	O	0	0
They were expected to draw on what had been learned	O	•	O	O	O	O	0	0
I spent a lot of time to make sure the students had integrated what they had learned	O	•	O	O	O	O	0	0

END OF OUTDOOR BLOCK

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

U	On	ly	science	con	cept	ts
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	Concents from	mulfinle	disciplines	including	science

O Other

To what extent was the content of your students' MWEEs aligned with:

	NA	To no extent 1	2	3	4	To a great extent 5
school district education standards	C	0	O	O	O	O
state education standards	0	•	O	O	O	O
national education standards	O	0	O	O	0	O
regional environmental/natural resources management priorities	O	O	O	O	O	O

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	O	O
Conserved water at school to protect the local watershed	O	O
Installed a rain barrel at school	O	O
Reduced litter at the school	O	O
Gave presentation(s) about the local watershed (e.g., for school, other organizations)	O	O
Participated in an event to raise awareness about the importance of watersheds	O	O
Helped clean up or take care of a local stream or beach	O	O
Participated in a restoration activity (e.g., planting trees) to benefit watersheds	O	O
Told others about ways they can protect their local watersheds	O	O

Were any NOAA resources were used as part of MWEES for students?

- ON C
- O Yes

DISPLAY THIS QUESTION IF ANSWER IS YES

Which NOAA resources were used as part of your typical student MWEE?

	Not	No	Yes
	sure		
Information from NOAA research studies or reports	0	O	O
Data collected by and accessible through NOAA, IF YES: Name the NOAA data source:	O	0	0
NOAA expert (e.g., scientist, educator, Sea Grant staff member, policy expert)	O	O	O
NOAA curricula and education programs, IF YES: Name the curricula or programs:	O	O	O
NOAA labs or facilities, IF YES: Name the lab or facility:	O	O	O
NOAA National Marine Sanctuary	O	O	O
NOAA National Estuarine Research Reserve	O	O	O

What education methods were used during your students' MWEEs? (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)	O	0
Field work (i.e., scientific study carried out somewhere other than in a classroom/laboratory, includes data collection)	O	O
Place-based education (i.e., an interdisciplinary instructional strategy that uses the local environment and community as the context for teaching and learning)	O	O
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)	0	0
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)	0	0
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)	0	0

DISPLAY THIS QUESTION IF ANSWER YES TO SCIENTIFIC INQUIRY ABOVE Which of the following steps did you engage students in...

	No	Yes
Formulating scientific questions they can answer using data	O	O
Making predictions or hypotheses	O	O
Collecting data or using existing data	0	O
Analyzing and interpreting data	0	O
Making conclusions and adjusting predictions/hypotheses	0	O
Developing presentations of their findings	0	O

Did your typical MWEE include any of the following learning objectives? Students will be able to:

	No	Yes
Define the term "watershed"	O	O
Identify their local watershed(s)	O	O
Identify how watersheds are connected to the ocean via streams, rivers, and human-made structures	O	0
Identify the functions that occur in a watershed (transport, store, and cycle water)	O	O
Recognize that both natural processes and human activities affect water flow and water quality in watersheds	O	0
Identify connections between human welfare and water flow and quality	O	O
Identify possible point and non-point sources of water pollution	O	O
Identify actions individuals can engage in to protect/restore water quality in watersheds	C	O

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

As a result of participating in MWEEs, students:

As a result of participating in MWLLs, students.	NA	Strongly disagree 1	2	3	4	5	6	Strongly agree 7
Know more about watersheds	O	0	O	0	0	O	0	0
Express greater caring and concern for their local watershed	O	0	O	O	O	O	O	O
Are more confident in their ability to protect and/or restore watersheds	O	0	O	0	0	O	0	O
Are more likely to act to protect or restore watersheds	O	0	O	0	0	O	0	O
Are better able to make informed decisions about how to protect or restore watersheds	O	O	O	0	0	O	0	•
Are better able to conduct scientific investigations	O	O	O	0	O	O	O	O
Are better able to understand the nature of scientific research	O	O	O	0	O	O	O	•
Are more likely to express an interest in pursuing science careers	O	O	O	0	O	O	O	O
Perform better in science	O	O	O	0	O	O	O	•
Perform better academically	O	0	O	0	0	O	O	•
Perform better on state standardized tests	O	0	O	0	0	O	0	•
Are more engaged in their science learning	O	O	O	0	0	O	O	•

As a result of participating in my typical MWEEs, students are more likely to ______ to protect and/or restore ocean, coastal, and/or Great Lakes watersheds.

	NA	Strongly disagree 1	3	4	5	6	
Create a schoolyard or backyard habitat	O	0	O	O	O	O	00
Conserve water at school to protect the local watershed	O	O	O	O	O	O	99
Install a rain barrel at school	O	O	O	O	O	O	99
Reduce litter at the school	O	O	O	O	O	O	99
Give presentation(s) about the local watershed (e.g., for	O	O	O	O	O	O	99
school, other organizations) Participate in an event to raise awareness about the importance of watersheds	O	0	O	O	0	0	99
Help clean up or take care of a local stream or beach	0	O	O	O	O	O	00
Participate in a restoration activity (e.g., planting trees) to benefit watersheds	O	O	O	O	O	0	99
Tell others about ways they can protect their local	O	O	O	O	O	0	99
watersheds Other (please describe)	0	•	O	O	0	O	99

What could be done by others to help you develop and implement improved MWEEs?

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

	1	2	3	4	5	6	7
Difficult to complete:Easy to complete	O	O	0	O	0	0	O
Not informative:Informative	0	O	O	O	O	O	O
Long:Short	O	0	0	O	0	0	O

How can this questionnaire be improved?

Do you have any final comments you would like to share about MWEEs?

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