ATTACHMENT 3: NOAA B-WET PD TEACHER SURVEY

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.

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.

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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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). 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 a PreK-12 teacher or educator?

O No

O Yes

IF NO, SKIP TO END 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 SCHOOL, SKIP TO END OF SURVEY

Did you recently complete a professional development opportunity focused on watersheds or water quality issues (also known as a Meaningful Watershed Education Experience {MWEE} professional development)?

O No

O Not sure

O Yes

IF NO OR NOT SURE, SKIP TO END OF SURVEY

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(s) did you teach this past year? (check one)

- O California
- **O** Chesapeake Bay
- O Great Lakes
- $\mathbf{O} \quad \text{Gulf of Mexico}$
- O Hawaii
- $\mathbf{O} \hspace{0.1in} \text{New England}$
- **O** Pacific Northwest
- O Other (please describe)

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

- D PreK
- □ Elementary
- Middle
- 🛛 High
- Other

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

- **O** Science
- O Math
- **O** Language Arts
- $\mathbf{O} \ \ \text{Social studies}$
- $\mathbf{O} \ \ \, \text{Fine arts}$
- **O** Multiple disciplines, including science
- **O** Multiple disciplines, not including science
- O Other

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

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

What is your ethnicity? (check one):

- $\mathbf{O} \hspace{0.1in} \text{Hispanic or Latino}$
- $\textbf{O} \quad \text{Not Hispanic or Latino}$
- **O** 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?

- O No
- O Yes
- O NA

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

O Don't know

- O Less than 20%
- **O** 21-40%
- **O** 41-60%
- **O** 61-80%
- **O** 81-100%

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

- _____ American Indian or Alaska Native
- _____ Asian
- _____ Black or African American
- _____ Hispanic or Latino
- _____ Native Hawaiian or Other Pacific Islander
- _____ White
- _____ Don't know

Did you conduct MWEEs with your students before participating in the MWEE professional development?

- O No
- O Yes

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

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

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 yes or no for each type)

	No	Yes
One day workshops (usually less than 8 hours)	Ο	Ο
Teacher institute (usually on consecutive days that cumulatively consist of 40 hours of more)	Ο	Ο
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)	O	o
A college-level course	0	0
Professional development provider training (training for individuals who provide teacher professional development)	o	0
Individual teacher coaching and support (e.g., curriculum planning, shared teaching, demonstrations and/or other forms of in-school or in-field support	o	ο
On-line professional development support (e.g., courses, webinars, discussion forums)	0	Ο

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

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

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

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

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

- O No
- O Yes

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DISPLAY IF ANSWER YES ABOVE

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

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

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)	o	o
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)	o	o
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)	ο	o
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	o

DISPLAY IS ANSWER YES TO SCIENTIFIC INQUIRY ABOVE

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

	Not sure	No	Yes
Formulating scientific questions that can be answered using data	Ο	Ο	Ο
Making predictions or hypotheses	Ο	0	Ο
Collecting data or using existing data	Ο	0	Ο
Analyzing and interpreting data	Ο	0	Ο
Making conclusions and adjusting predictions/hypotheses	Ο	Ο	Ο
Developing presentations of findings	0	0	0

Did you participate in an education/training workshop, institute, or class as part of your professional development?

O No

O Yes

If No Is Selected, Then Skip To What types of support did you recei...

Did the workshops, institutes, or classes you participated in include the following professional development practices? (Please indicate yes or no for each statement)

	No	Yes	
Sharing of information and examples illustrating how other teachers have integrated MWEEs	Ο	Ο]
Discussion of how teachers may be able to integrate MWEEs into their own curriculum or classroom activities	Ο	0	
Discussion of alignment of MWEEs with state, regional, or national standards	0	Ο	
Provision of examples of how MWEEs align with standards	0	Ο	
Engaging you and other participating teachers in aligning MWEEs with your school or school district standards	Ο	0	
Participating along with other teachers from my school, at the same time	0	Ο	
Allowing you and other participating teachers time to plan how to implement MWEEs	0	0	
Engaging you and other participating teachers in activities/practices that can be used with your students	Ο	0	
Presentation of how NOAA data can be used to support student scientific inquiry	Ο	Ο	
Discussion of how NOAA data can be used to obtain knowledge about local issues	0	0	
Examples of how other teachers have used NOAA data with their students	0	Ο	
Allow you and other participating teachers time to plan how to integrate the use of NOAA data with your students	ο	0	

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.

POPULATED FROM SELECTED ITEMS ABOVE

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

	No	Yes
Assistance with conducting field trips or field work	Ο	Ο
Assistance with establishing schoolyard habitats	Ο	Ο
Assistance with establishing restoration projects	Ο	Ο
Co-teaching in my classrooms or in field	Ο	Ο
Coaching in my classroom	Ο	Ο
Demonstrations in my classroom	Ο	Ο
Assistance with the use of equipment or technologies	Ο	Ο
Communicating with provider through personal phone calls or email	Ο	Ο
Communication with provider through newsletters or web-site (e.g., an online community)	0	Ο

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. POPULATED FROM SELECTED ITEMS ABOVE Which additional practices did your MWEE professional development and/or the support you received include? (Please indicate yes or no for each statement)

	No	Yes
Connections were made to local community organizations and resources	0	0
Interactions were facilitated with NOAA scientists/staff	0	0
Interactions were facilitated with natural resource professionals	0	0
I was provided with a stipend	0	0
I was offered continuing education credits	Ο	0
I was offered graduate credits	Ο	0
I was provided with equipment	Ο	0
I was provided with instructional/educational/curriculum materials	Ο	0
I was provided with information on how to obtain grants or funding for MWEEs	Ο	Ο

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. POPULATED FROM SELECTED ITEMS ABOVE 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	Ο	Ο
Installed a rain barrel at school or at home	Ο	Ο
Gave presentation(s) about the local watershed (e.g., for school, other organizations)	Ο	Ο
Participated in or organized event(s) to raise awareness about the importance of watersheds	Ο	Ο
Participated in or helped coordinate a clean-up of a local stream or beach	Ο	Ο
Participated in a restoration activity (i.e., planting trees)	Ο	Ο
Limited or avoided the use of household chemicals including fertilizers, herbicides and pesticides	o	ο
Told others about ways they can protect their local watershed	0	0
Monitored water quality over a period of time	0	0

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

- O No
- O Yes

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

- **O** 1
- **O** 2
- **O** 3
- **O** 4**O** 5
- \mathbf{O} $\mathbf{6}$
- **O** 7
- **O** 8
- **O** 9
- **O** 10
- **O** 11
- **O** 12
- **O** 13

Briefly describe why you selected this grade.

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	NA	Strongly disagree 1	2	3	4	5	6	Strongly agree 7
Define the term "watershed"	0	Ο	0	О	О	О	0	0
Identify my local watershed(s)	o	Ο	0	0	0	0	0	О
Identify how watersheds are connected to the ocean via streams, rivers, and human-made structures	o	О	0	0	0	0	0	О
Identify the functions that occur in a watershed (transport, store, and cycle water)	o	Ο	0	0	0	0	0	0
Recognize that both natural processes and human activities affect water flow and water quality in watersheds	o	0	0	О	0	0	0	О
Identify connections between human welfare and water flow and quality	o	Ο	0	0	0	0	0	0
Identify possible point and non-point sources of water pollution	o	Ο	0	0	0	0	0	Ο
Identify actions individuals can engage in to protect/restore water quality in watersheds	ο	Ο	0	0	0	0	0	О

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

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

	No	Yes
what NOAA does?	0	Ο
scientific data accessible through NOAA?	0	Ο
educational resources available through NOAA?	Ο	O

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For each statem						· ·				- 1.2		سار ام										
		BEFORE the MWEE professionalAFTER the MWEE professionaldevelopment, how confident were you indevelopment, how confident are you in							In the FUTURE, I intend to													
				cor	παε	ent v	vere you in		development, how confident are you in													
	your ability	to:						your ability	to:													
	Not at all				_		Extremely	Not at all				_		Extremely	Strongly				_		Strongly	
	confident	2	3	4	5	6	confident	confident	2	3	4	5	6	confident	disagree	2	3	4	5	6	agree 7	
	1						7	1						7	1						0	
Teach my																						
students about	Ο	0	0	0	0	0	0	Ο	0	Ο	О	0	Ο	Ο	0	0	0	О	0	0	0	
local																						
watersheds																						
Incorporate		$ \mathbf{o} $	$ $ \mathbf{o}	\circ	0	0			0	ο	0	\circ	0			\circ	\circ	Ο	Ο	O		
MWEEs into	0						Ο	0						Ο	Ο						Ο	
my curriculum																						
Implement																						
MWEEs																						
without											\sim								~			
support from a	Ο	0	0	0	0	0	0	0	0	Ο	0	0	0	Ο	Ο	0	0	0	0	0	0	
professional																						
development																						
provider																						
Use NOAA																						
resources to																						
enhance my		\mathbf{o}	\mathbf{o}	\circ	0	0			O	Ο	0	0	0			0	0	Ο	Ο	Ο		
students'	Ο						Ο	0			Ŭ			Ο	Ο				•		Ο	
MWEE																						
experiences																						
Guide students																						
through taking																						
action to		$ $ \circ	$ $ \circ	\circ	0	0			0	0	0	\circ	0			\circ	0	0	Ο	0		
protect or	Ο						0	Ο			J			Ο	Ο						Ο	
restore																						
watersheds																						

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

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Research environmental issues affecting watersheds with students	О	0	0	0	О	0	C	О	0	0	0	0	0	О	0	0	0	0	0	О	O
Use scientific inquiry instruction	0	0	0	0	0	О	0	О	0	0	0	0	0	0	О	0	0	0	0	0	О
Use the outdoors for instruction	0	0	0	0	О	0	О	О	0	0	0	0	0	О	О	0	0	0	0	0	О
Act to protect and/or restore ocean, coastal, or Great Lakes watersheds	О	0	0	0	0	0	O	О	0	0	0	0	0	О	О	0	0	0	0	0	О

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?

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

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This questionnaire was (choose one for each line)

	1	2	3	4	5	6	7	8
Difficult to complete:Easy to complete	0	0	0	0	o	О	О	O
Not informative:Informative	О	Ο	Ο	Ο	O	О	О	О
Long:Short	Ο	0	Ο	Ο	Ο	Ο	Ο	Ο

How can this questionnaire be improved?

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