

B-WET

BAY WATERSHED EDUCATION
& TRAINING PROGRAM



B-WET National Evaluation

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< *B-WET Gulf of Mexico*



Outline



- Introduction to the National Evaluation System
- Example Results
- How Data is Collected
- How you can help!

The B-WET National Evaluation System

Collects information from grantees and from teacher participants in grantees' professional development programming.

Focuses on Meaningful Watershed Educational Experiences (MWEEs)

Will answer these evaluation questions:

- To what extent do regional B-WET programs support grantees in implementing Meaningful Watershed Educational Experiences (MWEEs)
- How are MWEEs implemented by grantees and teachers?
- To what extent do B-WET funded projects increase teachers' knowledge of watershed concepts, their confidence in their ability to integrate MWEEs into their teaching practices, and the likelihood that they will implement high quality MWEEs?
- To what extent do B-WET funded projects increase students' knowledge of watershed concepts, attitudes toward watersheds, inquiry and stewardship skills, and aspirations towards protecting watersheds?

Components of the National Evaluation System

For Grantees:

- Provide teacher contact info (email addresses)
- Complete an online survey at the end of the grant period (annually)

For Teachers:

- Complete an online survey following their professional development (“PD Survey”)
- Also receive a follow-up survey at the end of the following school year (“MWEE Survey”)

All information is collected via an online survey management system (Qualtrics)

What will we do with the data?



- Ensure anonymity – **intention is not to evaluate an individual teacher or grantee**
- B-WET and NOAA will review data in aggregate at the regional and national levels
- **Grantees may view their post-PD Survey and follow-up MWEE implementation survey results in aggregate through password protected private reports**
- Hope to be able to provide the aggregate data set to researchers to inform the field

Some Results (Examples)



The following examples are based on aggregate data, however grantee reports will have the same results – just limited to the respondents associated with that grant

Grantees can access their project-specific reports via links provided in monthly reminder emails. The links stay the same, but results will update as teachers respond.

Grantee Survey

About how many hours of MWEE professional development and/or support did your organization typically provide for any one teacher this past grant year?

#	Answer	Bar	Response	%
1	None		0	0%
2	1-2 hours		4	7%
3	3-5 hours		5	8%
4	6-10 hours		11	18%
5	11-20 hours		10	16%
6	21-40 hours		12	20%
7	41-60 hours		10	16%
8	61-80 hours		5	8%
9	More than 80 hours		4	7%
	Total		61	100%

Grantee Survey

It was a goal of my organization's B-WET-funded MWEE professional development that teachers would:

#	Question	NA	Don't know	No	Yes	Response
7	Be more likely to use the outdoors for instruction	-	-	1	60	61
1	Teach more about watersheds	-	-	2	59	61
10	Be more enthusiastic about teaching science	1	1	1	58	61
6	Be more likely to use science inquiry instruction	-	1	3	57	61
2	Be more likely to implement MWEEs	-	2	2	57	61
5	Be more likely to guide students through taking action to protect or restore watersheds	1	2	2	56	61
11	Be more likely to act to protect and/or restore ocean, coastal, or Great Lakes watersheds	1	-	4	56	61
9	Be more likely to use interdisciplinary approaches to instruction	1	-	4	56	61
8	Be more likely to use local community resources as part of instruction	1	4	1	55	61
3	Be more likely to implement MWEEs after they are no longer supported by our organization	-	2	4	55	61
4	Be more likely to use NOAA resources to enhance their students' MWEE experiences	2	5	10	44	61

Teacher PD Survey

Scale of 1-7 from (1) Strongly disagree to (7) Strongly agree

Teachers also asked about their INTENTION to do these things in the future

BEFORE the MWEE professional development, how confident were you in your ability to:

#	Question	Not at all confident 1	2	3	4	5	6	Extremely confident 7	Response	Average Value
1	Teach my students about local watersheds	38	15	17	25	23	10	8	136	3.3
2	Incorporate MWEEs into my curriculum	51	28	11	25	12	4	5	136	2.6
3	Implement MWEEs without support from a professional development provider	57	21	21	22	8	3	4	136	2.5
4	Use NOAA resources to enhance my students' MWEE experiences	54	19	19	23	10	8	2	135	2.6
5	Guide students through taking action to protect or restore watersheds	34	18	30	20	20	6	7	135	3.1

AFTER the MWEE professional development, how confident are you in your ability to:

#	Question	Not at all confident 1	2	3	4	5	6	Extremely confident 7	Response	Average Value
1	Teach my students about local watersheds	-	-	3	10	23	36	61	133	6.1
2	Incorporate MWEEs into my curriculum	-	3	7	12	24	45	41	132	5.7
3	Implement MWEEs without support from a professional development provider	-	3	8	13	28	46	36	134	5.6
4	Use NOAA resources to enhance my students' MWEE experiences	-	3	6	15	33	39	37	133	5.6
5	Guide students through taking action to protect or restore watersheds	-	2	3	17	24	32	54	132	5.8

Teacher PD Survey

Scale of 1-7
from (1)
Strongly
disagree to
(7) Strongly
agree

Teachers
also asked
about their
INTENTION
to do these
things in the
future

BEFORE the MWEE professional development, how confident were you in your ability to:										
#	Question	Not at all confident 1	2	3	4	5	6	Extremely confident 7	Response	Average Value
1	Research environmental issues affecting watersheds with students	31	19	25	19	21	9	8	132	3.3
2	Use scientific inquiry instruction	15	4	20	22	26	20	24	131	4.5
3	Use the outdoors for instruction	12	15	25	18	23	17	21	131	4.2
4	Act to protect and/or restore ocean, coastal, or Great Lakes watersheds	28	15	24	22	19	13	10	131	3.5
AFTER the MWEE professional development, how confident are you in your ability to:										
#	Question	Not at all confident 1	2	3	4	5	6	Extremely confident 7	Response	Average Value
1	Research environmental issues affecting watersheds with students	1	2	2	13	21	43	47	129	5.9
2	Use scientific inquiry instruction	-	2	2	7	21	41	56	129	6.1
3	Use the outdoors for instruction	-	1	2	10	18	34	65	130	6.1
4	Act to protect and/or restore ocean, coastal, or Great Lakes watersheds	-	4	8	12	22	32	51	129	5.7

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

- *“I feel that the resources (photos, videos, lesson plans/activities, and equipment) will make the most impact in allowing me to teach about our local watersheds.”*
- *“The web site that listed all the watersheds in my state. It was easy to see how they are all connected.”*
- *“LOVE the data resources on-line.”*
- *“Sharing ideas with other teachers on their plans and being given great resources which I can access to create lesson plans and activities.”*

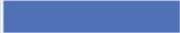
MWEE Teacher Survey (follow-up survey):

In the past 12 months, did you implement a MWEE with your students?

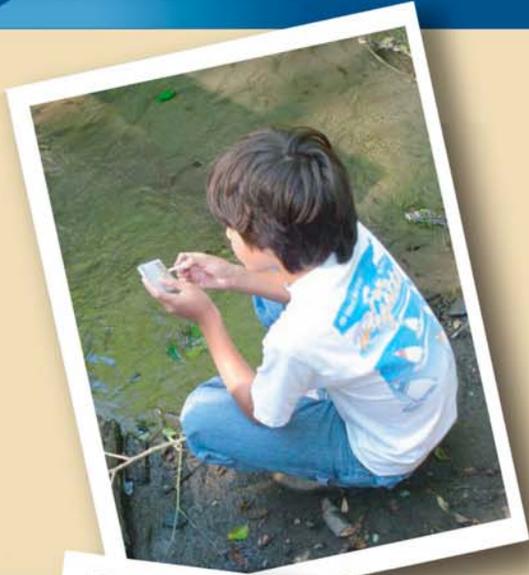
5

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.

#	Answer	Bar	Response	%
1	No		42	26%
2	Yes		121	74%
	Total		163	100%

Question Break



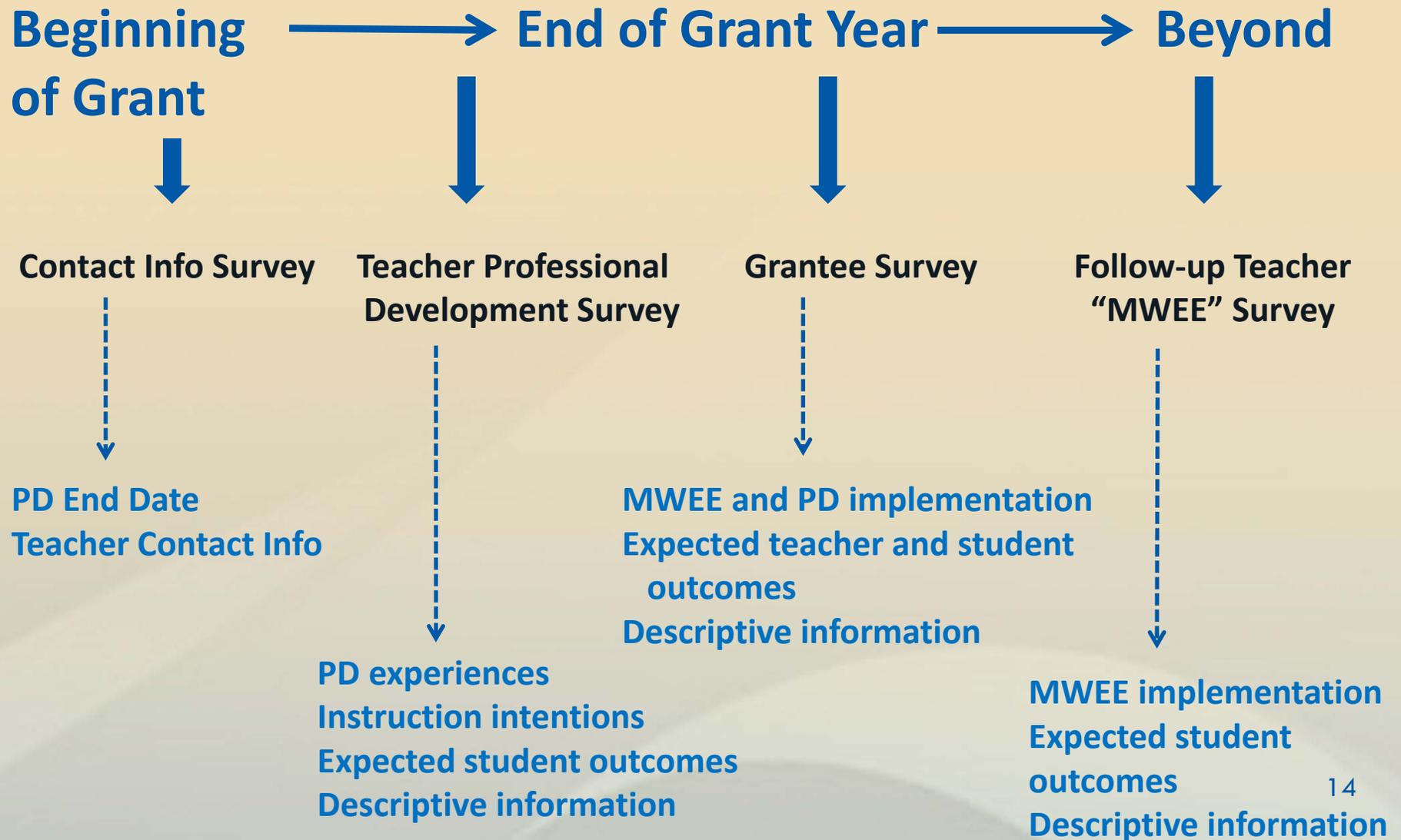
Questions?

How do you see these (kinds of) results benefiting your project and your work in general?

Recommended: Review Teacher Surveys as a starting point



How the Data is Collected



How the Data is Collected

**Beginning
of Grant**



Contact Info Survey



**PD End Date
Teacher Contact Info**



**Teacher Professional
Development Survey**



**PD experiences
Instruction intentions
Expected student outcomes
Descriptive information**

End of Grant Year



Grantee Survey



**MWEE and PD implementation
Expected teacher and student
outcomes
Descriptive information**



Beyond



**Follow-up Teacher
"MWEE" Survey**



**MWEE implementation
Expected student
outcomes
Descriptive information**

Teacher Contact Information Survey

- **If you have a Teacher PD or Exemplary grant, we will ask you to complete an online form to provide contact info for the teachers who participate in your professional development (PD).** If you have multiple cohorts of teachers, you may complete this form, emailed monthly, as many times as needed over the course of your grant. You will be asked for your contact information, a list of teachers' email addresses, and the dates of the professional development you plan to provide. No other teacher contact information is requested.

Preview of Online PD Form

qualtrics.com®



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Q1. Please enter your NOAA B-WET award number. Your award number consists of 1) the NOAA region, not your organization, and 2) allow us to link information provided by your project's teachers.

Q2. In case teachers have questions about the B-WET information for NOAA B-WET, will be included in the email distribution list.

First Name

Last Name

Organization Name

Your Email Address

Your Phone Number

Q3. In what region are you located? (choose one)

- California
- Chesapeake
- Great Lakes
- Gulf of Mexico

Q4.

Please provide the dates when your professional development interactions with this group of teachers will begin and end. The end date is for all of the professional development training and support that you will provide to this cohort of teachers, so depending on your type of program, it could be 7 days after the start date or 7 months.

Use the format MM/DD/YYYY, such as for June 9, 2013, enter 06/09/2013.

Start Date (MM/DD/YYYY)

End Date (MM/DD/YYYY)

Q5.

Please provide the email addresses of the teachers who participated in your professional development. These email addresses will be used for distributing a NOAA B-WET questionnaire link. The teachers' data will be anonymous.

Please list up to 30 teachers' names and email addresses. If more than 30 participated in your professional development, please complete this survey again to add the additional teachers.

PLEASE CLICK ON THE SUBMIT BUTTON AT THE BOTTOM OF THE PAGE WHEN YOU ARE FINISHED ENTERING EMAIL ADDRESSES. THANK YOU!

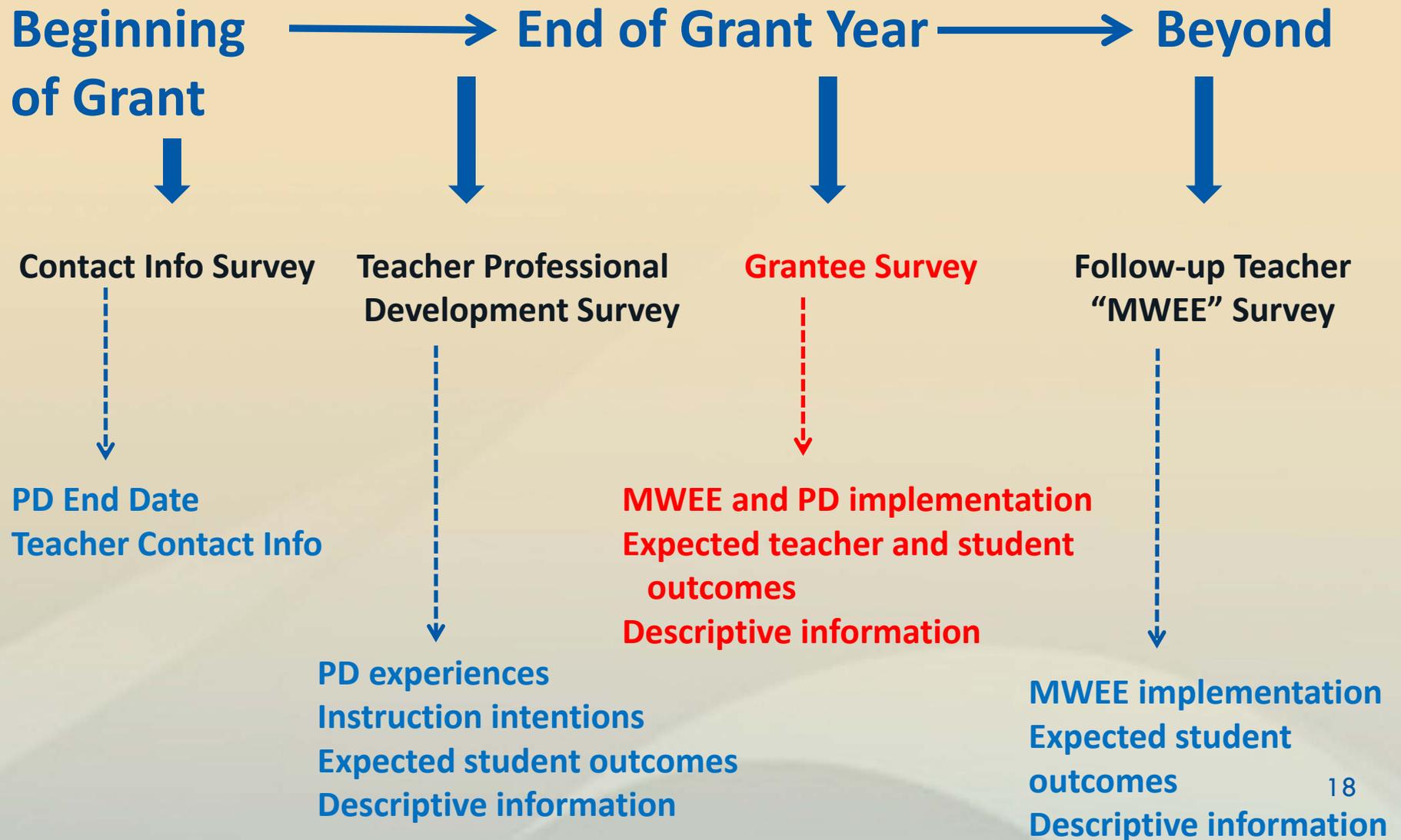
Q6. Teacher Contact Information

Email Address

Q7. Teacher Contact Information

Email Address

How the Data is Collected



Grantee Survey

- All grantees (regardless of project type) will be asked to complete an online survey at the end of your grant period (or once per year if your grant is multiple years).
- What is asked on the annual grantee survey:
 - Grantee satisfaction with B-WET program
 - Student MWEE goals and implementation
 - PD goals and implementation
 - Project descriptive information

How the Data is Collected

**Beginning
of Grant**



End of Grant Year



Beyond



Contact Info Survey



**PD End Date
Teacher Contact Info**



**Teacher Professional
Development Survey**



**PD experiences
Instruction intentions
Expected student outcomes
Descriptive information**



Grantee Survey



**MWEE and PD implementation
Expected teacher and student
outcomes
Descriptive information**



**Follow-up Teacher
"MWEE" Survey**



**MWEE implementation
Expected student
outcomes
Descriptive information**

What we'll ask your **teacher participants** to do:

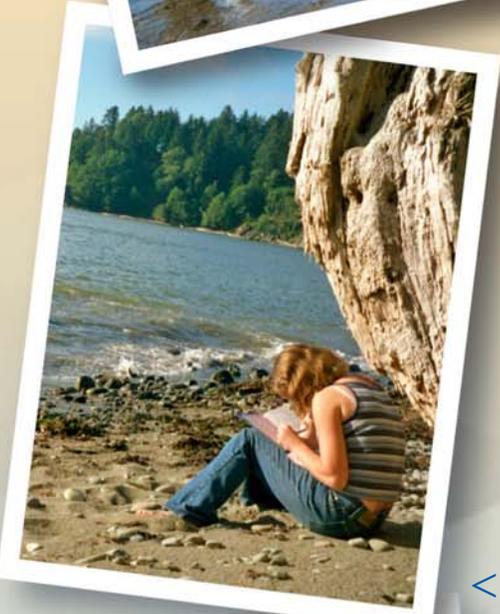
- The teachers for whom you have provided email contacts will be asked to complete two online surveys at different times:
 1. Following their professional development experience as part of your grant they will receive the **Teacher PD Survey**, which asks them to provide information about their experience in the professional development, their intentions for instruction as a result, and their anticipated student outcomes.
 2. At the end of the following school year they will receive the follow-up **Teacher MWEE Survey** which asks for information about how they actually implemented MWEEs with their students and student outcomes.

Please participate in this data collection!



- **Encourage your teachers to respond!**
 - Response rate is a major challenge
 - Wherever possible please try to incorporate participation in this project into your existing requirements for PD program completion
- **This system is unlikely to replace your project level evaluation**
- **Your participation helps us troubleshoot and improve the system!**

What's Next?



- Continue data collection to increase sample size and draw conclusions about national and regional B-WET programs
- Conduct analyses to gain insight into how to improve B-WET funded MWEEs
- Share guidance with grantees to support their participation in the evaluation system and support use of item bank to measure student outcomes

Evaluation Resources

NOAA B-WET Evaluation

The NOAA B-WET program strives for rigorous evaluation. Project-level evaluations have been supported as part of required grant activities for many years in order to help grantees document results and improve their activities. While project-level evaluation will continue to be supported, beginning in 2013 B-WET will begin rolling out an across-region, ongoing evaluation system to monitor program implementation and outcomes at the national level. Please see below for more information about these ongoing efforts.

Home > Grants > B-WET > B-WET Evaluation

About the National Evaluation | **National Evaluation Resources** | Project Evaluation | FAQs

Please check back often for new resources to help participants respond to the national evaluation effort.

B-WET National Evaluation Plan (PDF) - All of the sub-documents below

- B-WET Watershed Education Literature Review (PDF) - (DOC)

Evaluation Questionnaires:

- Grantee Instrument (PDF) - (DOC)
- Post-Professional Development (PD) Teacher Instrument (PDF) - (DOC)
- Post-MWEE Teacher Instrument (PDF) - (DOC)

Resources for Grantees

- Grantee Instructions (PDF)
- Sample text for communicating with teacher participants about this project (DOC)

Evaluation Overview Webinar:

- Presentation slides (PDF)
- Recording of full presentation (Adobe Connect, 10-16-2014)

Student Data Collection (not collected as part of the national evaluation system)

- Student Item Bank (PDF) - (DOC)
- Guidance for Measuring Student MWEE Outcomes - (DOC)

- Survey instruments
- Grantee instructions
- Overview presentation
- Student item bank and guidance

http://www.oesd.noaa.gov/grants/bwet_eval.php

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*FOR MORE INFORMATION ON
B-WET EVALUATION:*

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<http://www.oesd.noaa.gov/grants/bwet.html>
http://www.oesd.noaa.gov/grants/bwet_eval.php
<http://www.facebook.com/noaabwet>