

# B-WET

BAY WATERSHED EDUCATION  
& TRAINING PROGRAM

## B-WET National Reporting and Evaluation

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< *B-WET Gulf of Mexico*



# Purpose

- Review how grantees are asked to report on their grant activities
  1. Progress reports
  2. National evaluation system



# Meaningful Watershed Educational Experiences (MWEEs)



- The B-WET supports Meaningful Watershed Educational Experiences (MWEEs) for students and related professional development.
- MWEEs are multi-stage activities that include learning both outdoors and in the classroom, and aim to increase the environmental literacy of all participants.
- In 2016 the B-WET program adopted a revised MWEE definition:  
[www.noaa.gov/office-education/bwet-mwee.pdf](http://www.noaa.gov/office-education/bwet-mwee.pdf)

# Progress Reports vs. National Evaluation

	PROGRESS REPORTS	NATIONAL EVALUATION
<b>Platform</b>	Grants Online	Qualtrics web-based surveys
<b>What does the PI do?</b>	Uploads Word document (see progress report guidance) to Grants Online	1) completes the grantee survey; 2) provides teacher contact info for teacher survey
<b>Purpose</b>	Tracks progress toward specific tasks in a grant	Tracks satisfaction with, and outcomes of, the B-WET and MWEE approach
<b>Scale</b>	Project/local level evaluation, data reviewed by grant	National/regional level evaluation of B-WET approach, data reviewed in aggregate
<b>Timing</b>	Every 6 months from the start of your grant (or as established in your award)	At the end of each grant year, and periodically during grant for PD projects

# Progress Reports vs. National Evaluation

	PROGRESS REPORTS	NATIONAL EVALUATION
<b>Example</b>	Your progress report will indicate progress toward your project goals as measured by your project evaluation. For example, a PI in Alabama may want to know if "teachers understand how oyster reef restoration can benefit coastal Alabama and specifically the communities in the Mobile Bay watershed?"	The National Evaluation will indicate the effectiveness of B-WET, and the MWEE approach, to improving environmental knowledge and conservation regardless of the location and specific local watershed environmental issues.

# Progress Report Updates



- New progress report guidance (optional), available here: <http://www.noaa.gov/office-education/bwet/grantee-resources>
- We're required to report on numbers of teachers and students served by B-WET, your progress reports are the only way for us to get this info!
- MWEE definition includes Stewardship Action Projects

# Stewardship Action Projects

Grantees are now asked to report on stewardship activities as appropriate as part of your regular progress reports (metric units preferred, see guidance for details)

Examples of stewardship actions include:

- Watershed Restoration or Protection (e.g., create schoolyard habitat, planting trees or grasses, invasive species removal)
- Everyday Choices (e.g., reduce/reuse/recycle/upcycle, composting, energy conservation, water conservation)
- Community Engagement (e.g., presentations, social media, event-organizing, messaging at community events/fairs/festivals, mentoring, PSAs, flyers, posters)
- Civic Action (e.g., town meetings, voting, writing elected officials/decision makers, advocating for policy change)

# 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 national data. Grantee reports will have the same results – just limited to the respondents associated with that grant.

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

# Grantee Implementation

- 56% of respondents are from non-profits (including informal education institutions)
- Over half of the respondents use service learning as an education method
- The most valuable resources identified were:
  - NOAA materials and lesson plans relevant to watersheds
  - Suggested "best" or "preferred" practices for MWEEs
  - Access to local NOAA subject-matter experts
- Least valuable resource was facilitated networking with B-WET grantees from other regions

# 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	%
0	None		0	0%
1	1-2 hours		7	6%
2	3-5 hours		11	9%
3	6-10 hours		17	15%
4	11-20 hours		16	14%
5	21-40 hours		29	25%
6	41-60 hours		20	17%
7	61-80 hours		11	9%
8	More than 80 hours		5	4%
	Total		116	100%

# 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: **88% intend to Implement MWEEs 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	55	31	35	45	36	18	19	239	3.4
2	Incorporate MWEEs into my curriculum	70	59	28	42	22	7	11	239	2.8
3	Implement MWEEs without support from a professional development provider	86	45	34	40	18	6	9	238	2.6
4	Use NOAA resources to enhance my students' MWEE experiences	88	41	42	32	16	12	5	236	2.6
5	Guide students through taking action to protect or restore watersheds	53	37	48	37	32	17	13	237	3.3
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	20	39	71	99	232	6.0
2	Incorporate MWEEs into my curriculum	-	5	10	26	46	76	68	231	5.7
3	Implement MWEEs without support from a professional development provider	-	4	11	33	48	71	65	232	5.6
4	Use NOAA resources to enhance my students' MWEE experiences	1	6	13	37	51	65	58	231	5.4
5	Guide students through taking action to protect or restore watersheds	-	3	7	28	38	64	90	230	5.8

# Student Outcomes

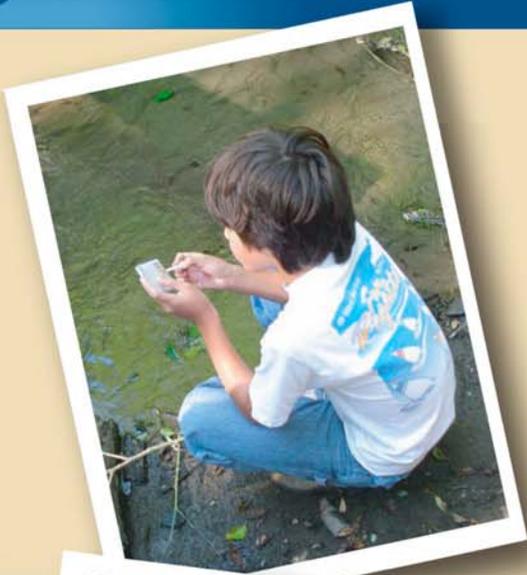
- 25% of respondents indicate students participate in a MWEE over the course of an entire school year
- 68% of student MWEEs are multidisciplinary
- 90% of teacher respondents said their students know more about watersheds as a result of participating in MWEEs
- 59% of teacher respondents believe their students perform better on standardized tests as a result of participating in MWEEs

## 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.”*



# Question Break



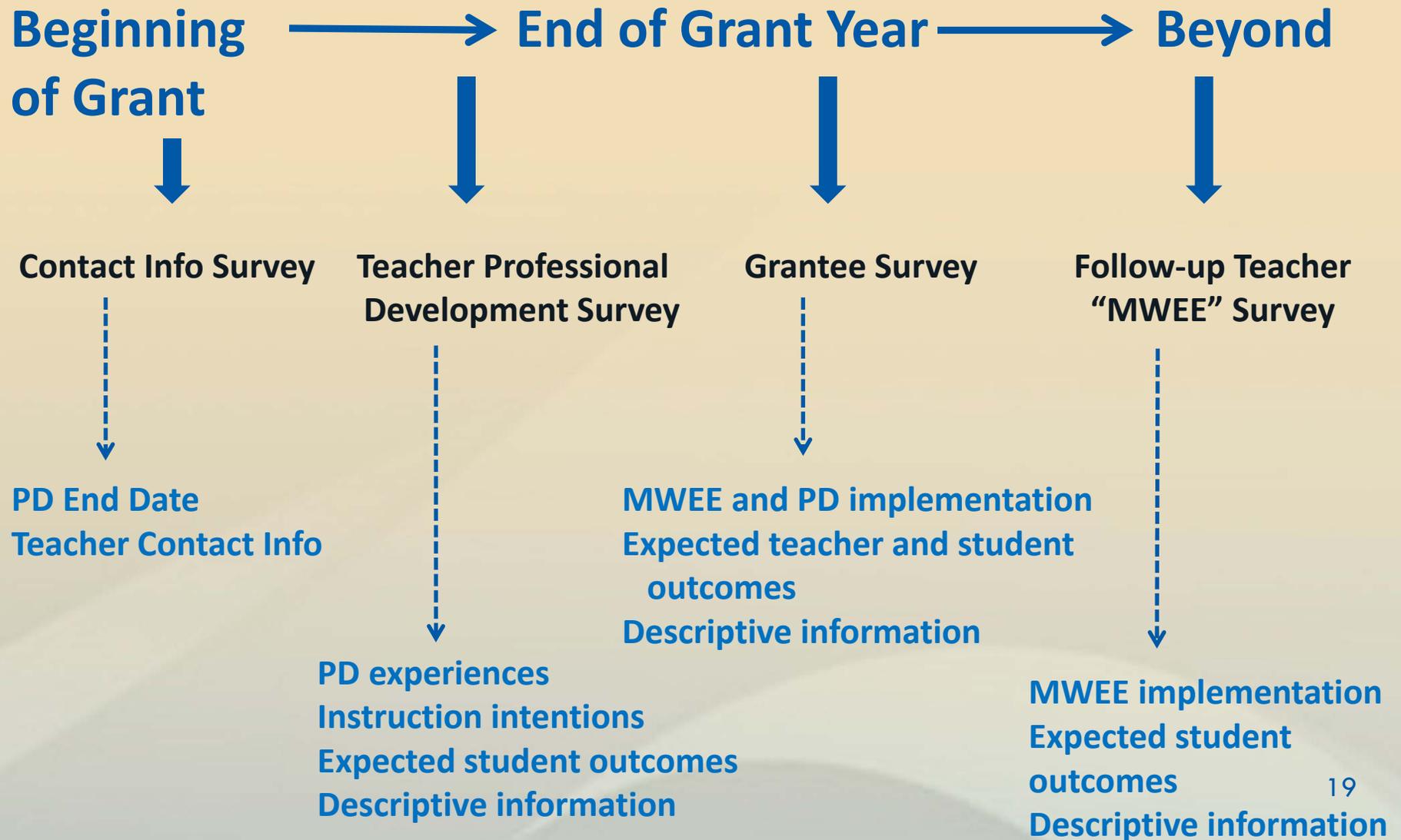
Questions?

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

(For past grantees) Have you used the evaluation system results?



# How the Data is Collected



# 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<sup>®</sup>



## B-WET

### BAY WATERSHED EDUCATION & TRAINING PROGRAM

Q1. Please enter your NOAA B-WET award number. Your award number consists of 1) the NOAA award number, such as NA12NMF4638049. The award number includes 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

# 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

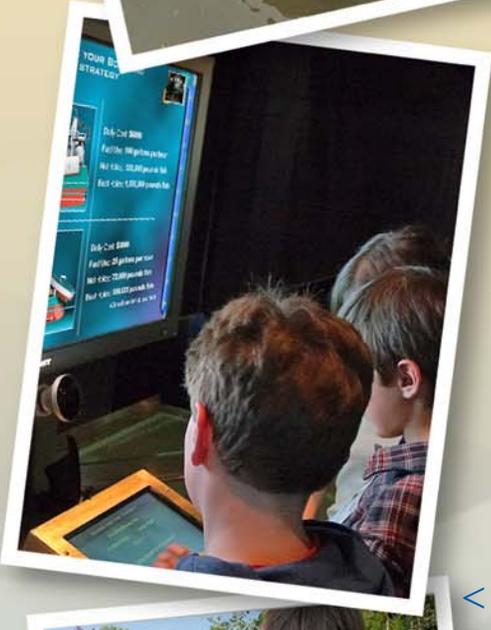
## What we'll ask your **teacher participants** to do:

- 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.

# Student Item Bank

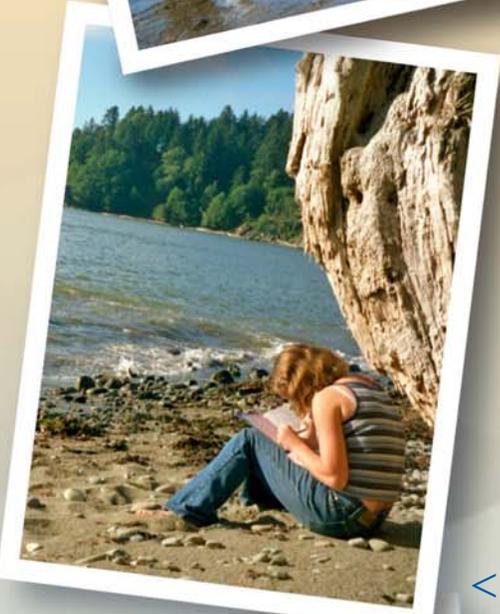
- Student data collection is not part of the formal evaluation system
- Item bank is a evaluator-developed resource for grantees and covers:
  - Science Learning Outcomes
    - e.g., science inquiry skills, science engagement
  - Environmental Stewardship Outcomes
    - e.g., connection with nature, water conservation behaviors, locus of control
  - Watershed Literacy Outcomes
    - e.g., Define the term “watershed”, Identify local watershed(s), Identify the functions that occur in a watershed (transport, store, and cycle water), Recognize that both natural processes and human activities affect water flow and water quality in watersheds etc.

# 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 not designed to replace your project level evaluation
- Your participation helps us troubleshoot and improve the system!

# What's Next?



- We will have results of the first in-depth analysis this fall
- Continue data collection to increase sample size
- Share guidance with grantees to support their participation in the evaluation system and support use of item bank to measure student outcomes

# Evaluation Resources



## Resources for Evaluation System Participants

As part of this evaluation system, recipients of B-WET grants and teacher-participants in grantees' professional development programs are asked to voluntarily complete online questionnaires to provide evaluation data. One individual from each grantee organization will be asked to complete a questionnaire once per year of the award. For projects that work with teachers, the teacher-participants will be asked (using email addresses provided by the grantee organization) to complete one questionnaire at the close of their professional development and one after implementing Meaningful Watershed Educational Experiences with their students (at the end of the following school year). Grantees should be able to complete their questionnaire within 30-60 minutes (depending on the nature of their program) and teachers, within 30 minutes. B-WET grantees and teachers who respond to the questionnaires will remain anonymous.

### Grantee Instructions (PDF)

Start here to learn about the mechanics of the evaluations system and how you can participate.

### Frequently asked questions

Comprehensive list of common questions from grantees. Please check here to see if your question is answered before contacting your program manager.

### Evaluation overview webinar presentation slides (PDF)

Annual overview webinar providing grantees with details about how to participate.

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



<http://www.noaa.gov/office-education/bwet/grantee-resources/national-evaluation>

# B-WET

## BAY WATERSHED EDUCATION & TRAINING PROGRAM

FOR MORE INFORMATION ON B-WET  
EVALUATION:



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<http://www.noaa.gov/office-education/bwet>

<http://www.noaa.gov/office-education/bwet/grantee-resources/national-evaluation>

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