

# B-WET

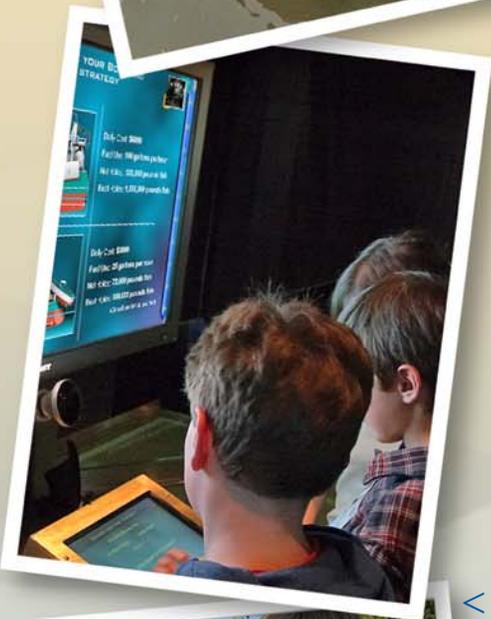
BAY WATERSHED EDUCATION  
& TRAINING PROGRAM



## B-WET National Evaluation Overview

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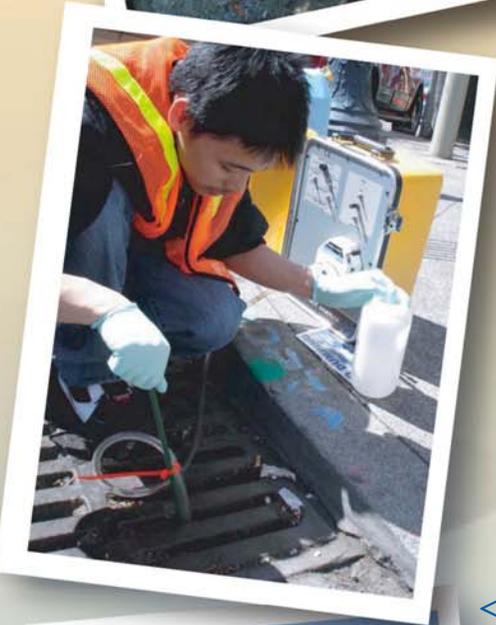
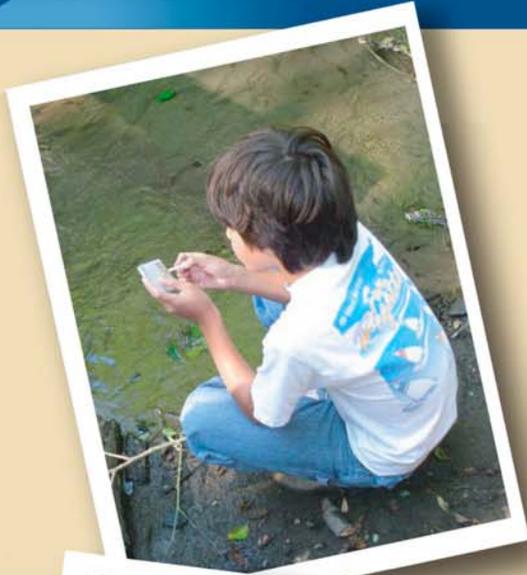


# B-WET National Evaluation Overview



- Objective:
  - Understand components and status of national B-WET evaluation and how current B-WET recipients can participate
- Outline
  - B-WET Program and Evaluation History
  - National Evaluation System Overview
  - Implementation and Ongoing Data Collection (How you can help!)
  - Example Results and Next Steps

# B-WET Evaluation History



- Building on previous project and region-level evaluation work in California and Chesapeake
  - In 2004 B-WET California enlisted the support of an evaluation consultant to assist grantees in creating project-specific evaluations. Since then, similar work has also happened in other regions.
  - B-WET Chesapeake completed a one-time, external evaluation of their grant-funded program in 2007.
  - In 2010 began work on a **National Evaluation System**.
- Contributes to broader NOAA-wide evaluation

# Goal of the National Evaluation System

To collect information from grantees and teacher participants in grantees' professional development programming. (More on student data later!)

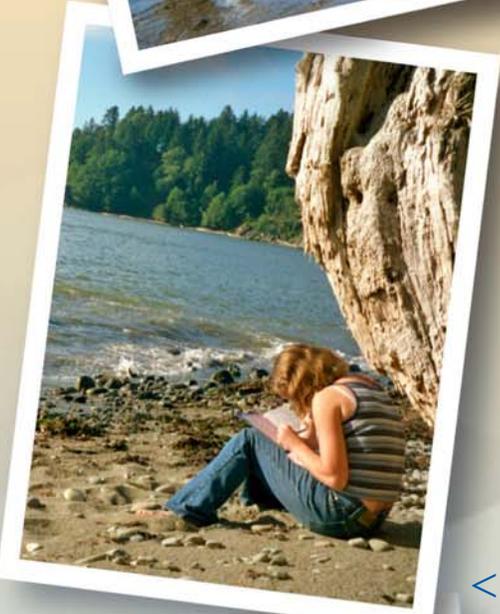
## Evaluation Questions:

- 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?

# Development of the National Evaluation System

- **2012-2013:** completed evaluation system plan including grantee, teacher, and student instruments – and obtained OMB approval
- **2014:** began collecting data from grantees and teachers to pilot-test on-line evaluation system
- **Sept. 2014:** synthesize pilot-test results to inform improvements to process, questionnaires, and gain initial insights into grantees' professional development and MWEEs
- **2015 and beyond:** revise system, renew OMB clearance, put long term system into place

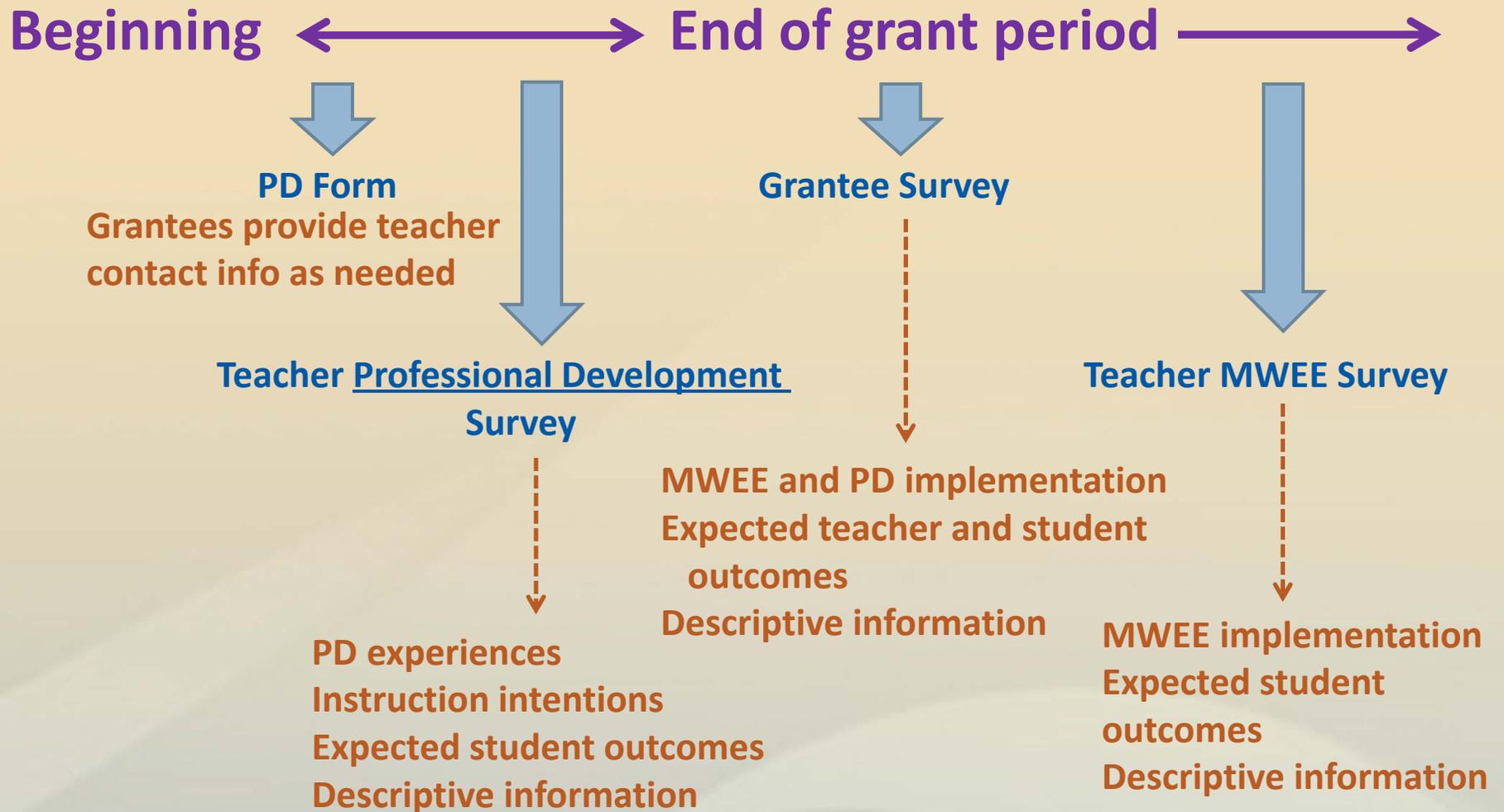
As a recipient of a grant from NOAA B-WET, we will ask you to participate in the national evaluation system.



## Benefits:

- Clarifying national program and evaluation goals
- Learning about evaluation/research methods
- Resources for evaluation (literature review, questionnaires and student item bank)
- Results to inform changes to MWEEs/B-WET program implementation
- Evidence of impact
- Longitudinal data for future research

# Data Collection and Grant Timeline



## What we will ask **you** (the grantee) to do:

- **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

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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.

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

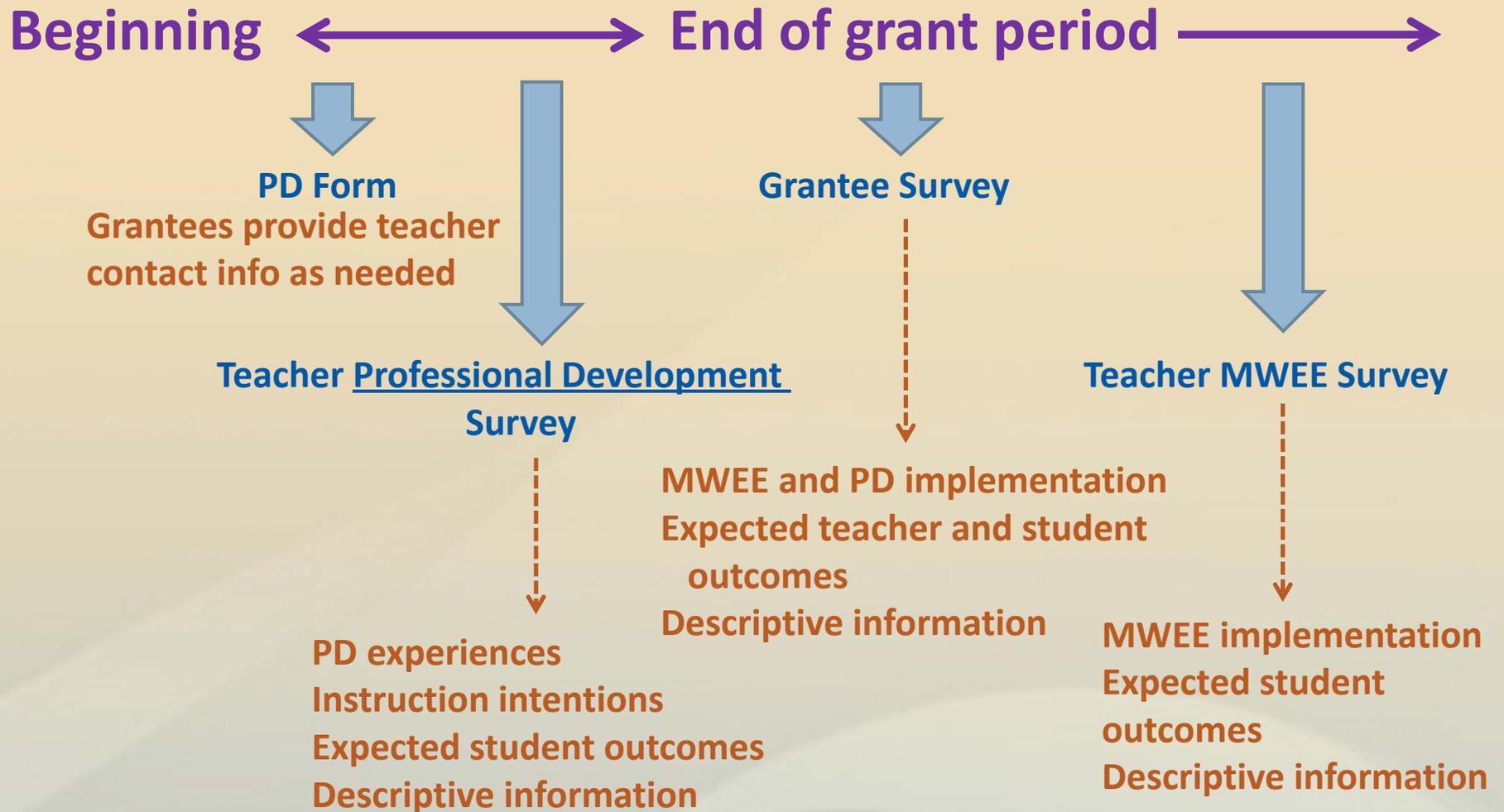
# What we will ask **you** (the grantee) to do:

- 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 will be asked to **complete an online survey following their PD, and another at the end of the following school year** (“MWEE survey”). The data they provide will be anonymous, and NOAA will not use their email addresses for any other purpose.
- The B-WET evaluation resources website has sample language you can use to communicate with your participants about this project. We will also send them a pre-notification with more info and they can choose to opt out of receiving emails from us at any time.

# Data Collection and Grant Timeline



# 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 PD and MWEE 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 (TBD)



# Some Early Analysis (Examples)

Please note:

Current pilot results are based on a small number of respondents, not representative of the national or regional B-WET programs!

- 19 grantees whose awards ended in 2013
- 56 teachers who completed MWEE professional development
- 26 different teachers who completed MWEEs with students

At the same time, the sample is large enough to provide initial insights into trends that may be confirmed as the number of respondents grow.

# Evaluation System Question 2

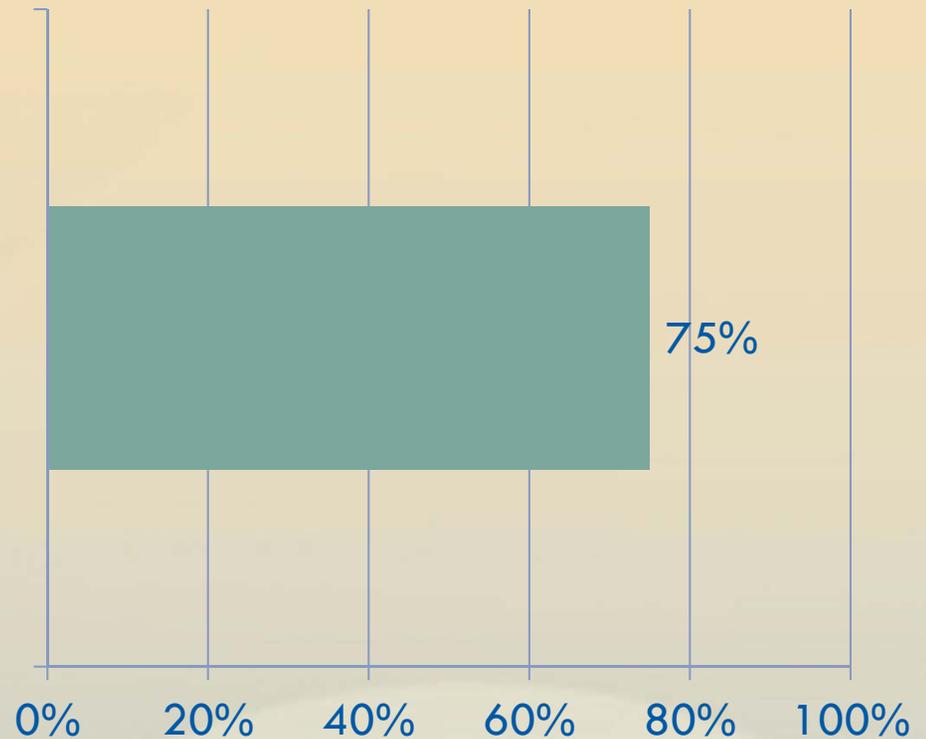
- How are MWEEs implemented by grantees and teachers? e.g.,
  - What were the characteristics of the grantees' MWEE PD?
  - What were the characteristics of teachers' MWEEs?

Grantee Survey:

Were NOAA resources used as part of MWEE professional development for teachers? (n=12)

Percent GRANTEES Responding "Yes"

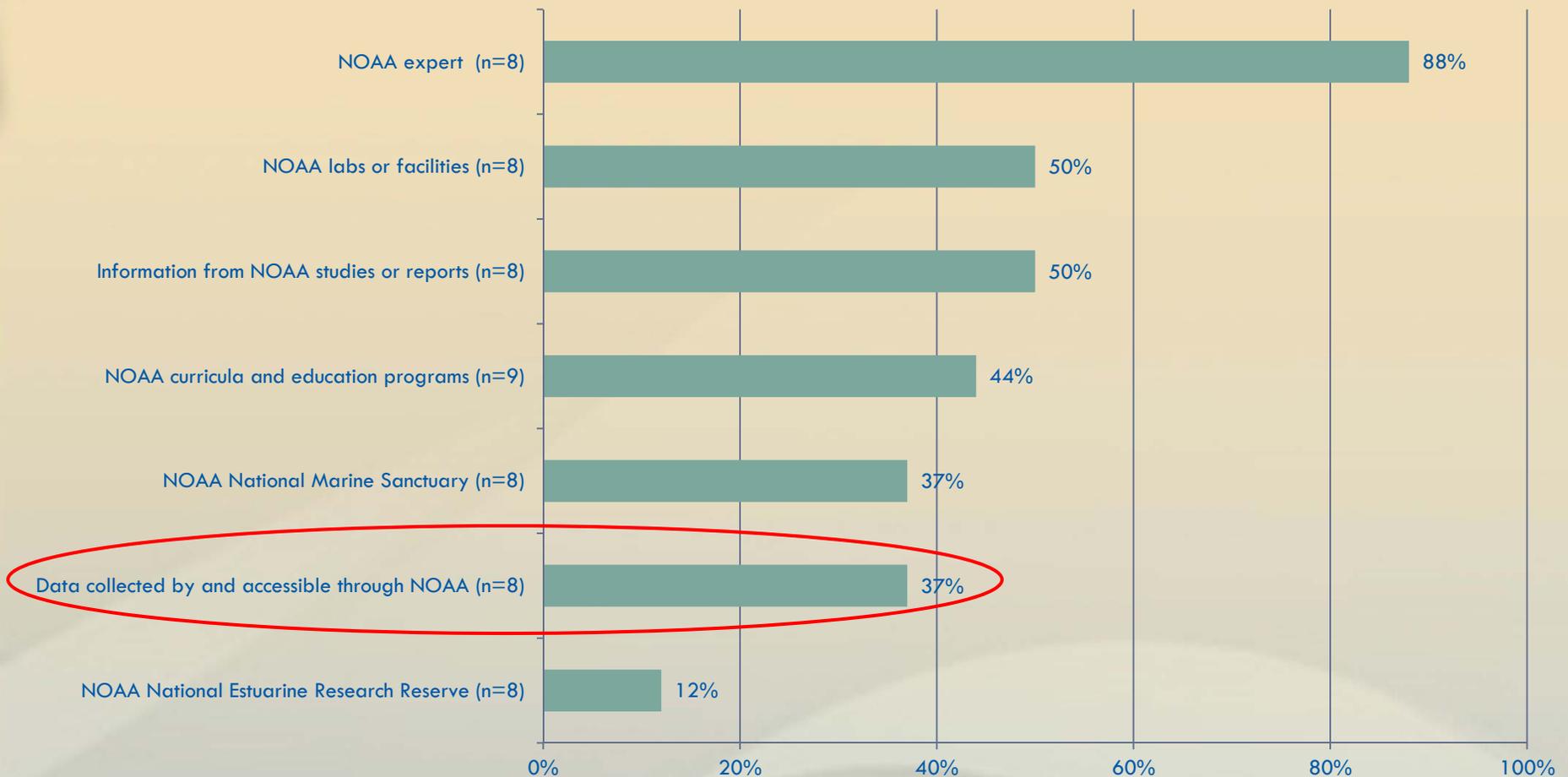
NOAA resources used as part of MWEE PD



## Grantee Survey:

Which NOAA resources were incorporated into your organization's typical B-WET-funded MWEE professional development?

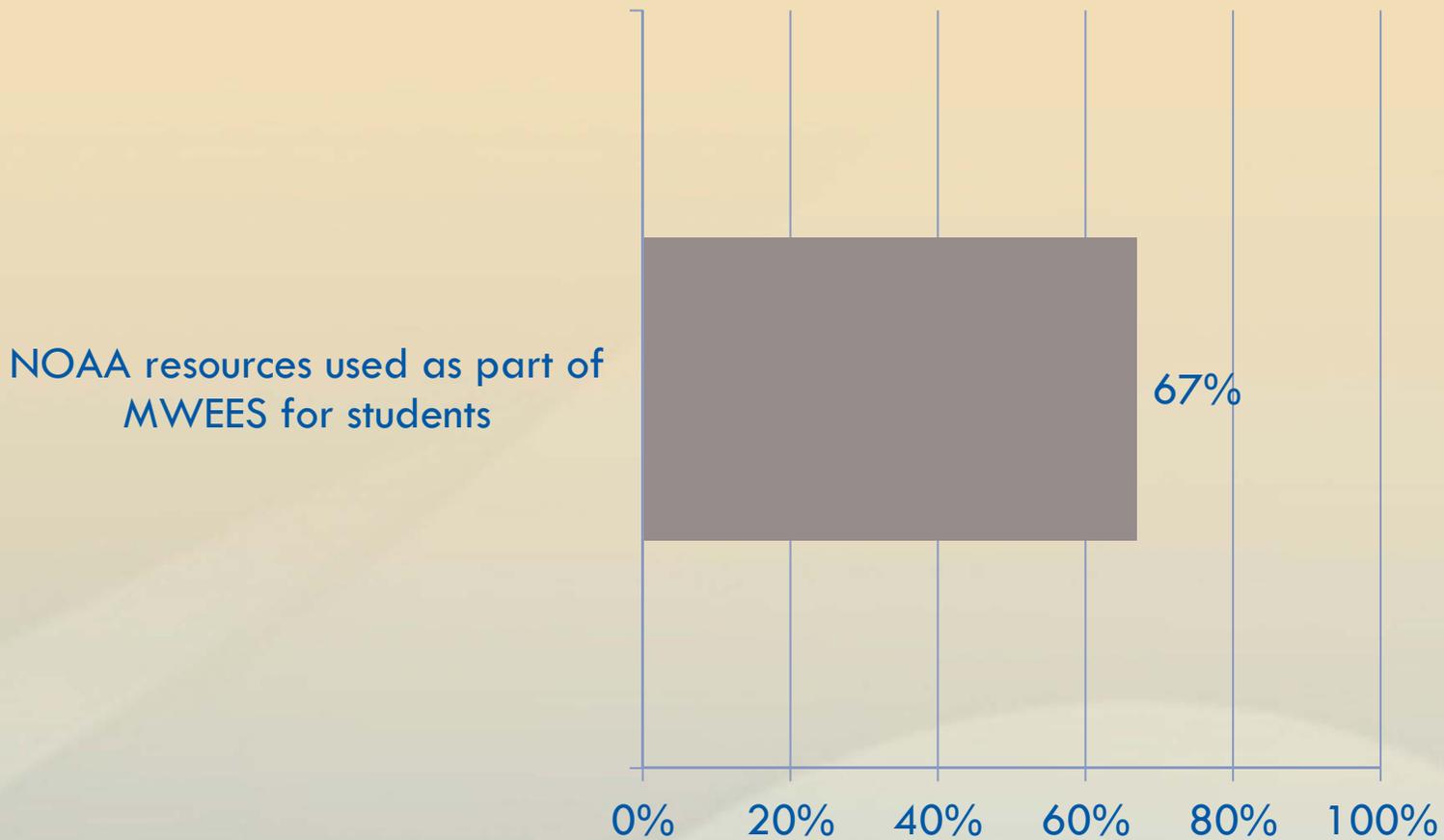
### Percent GRANTEES Responding "Yes"



## MWEE Teacher Survey:

Were NOAA resources used as part of MWEEs for students? (n=18)

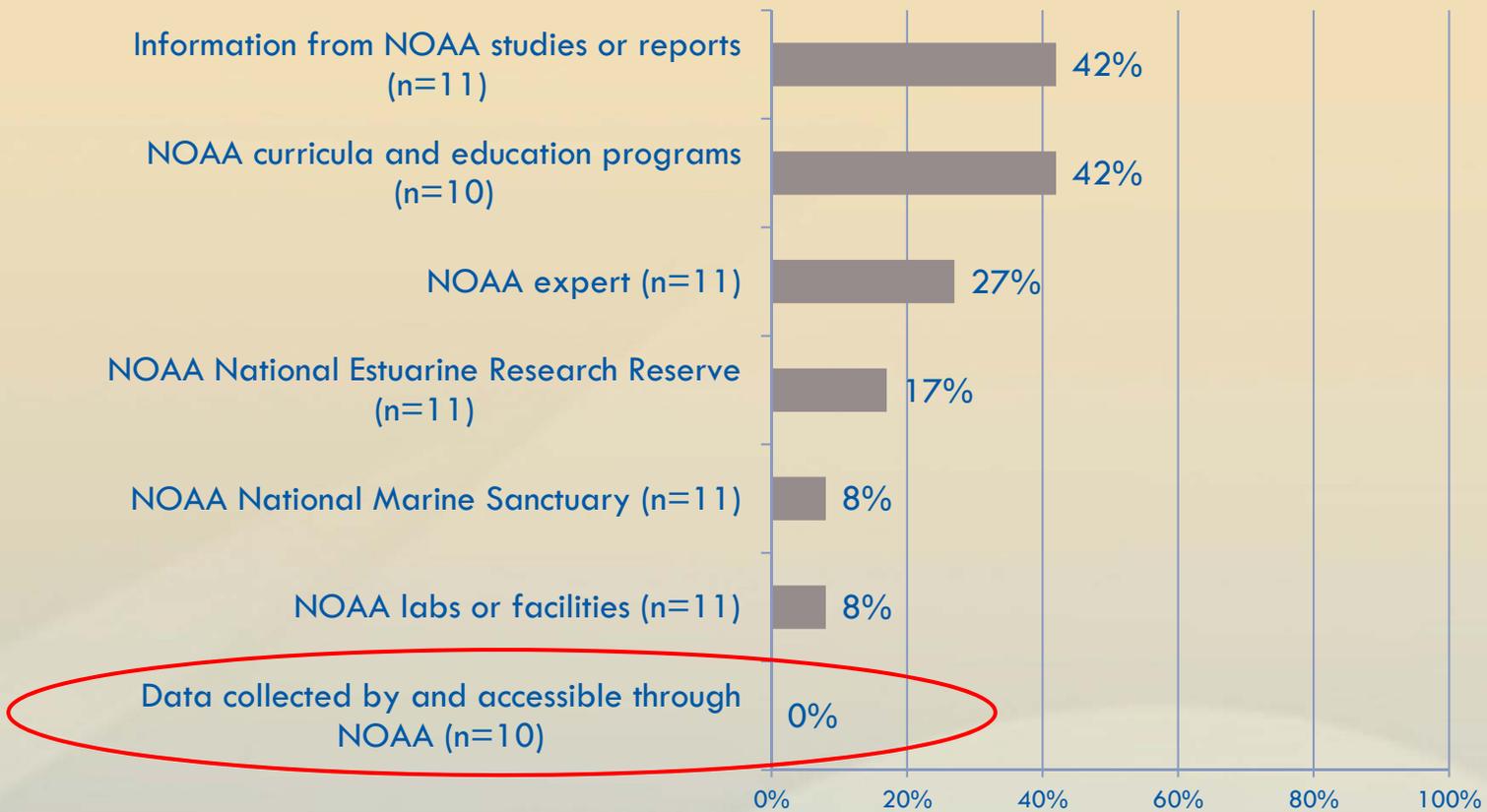
Percent of TEACHERS Responding "Yes"



## MWEE Teacher Survey:

# Which NOAA resources were used as part of MWEEs for students?

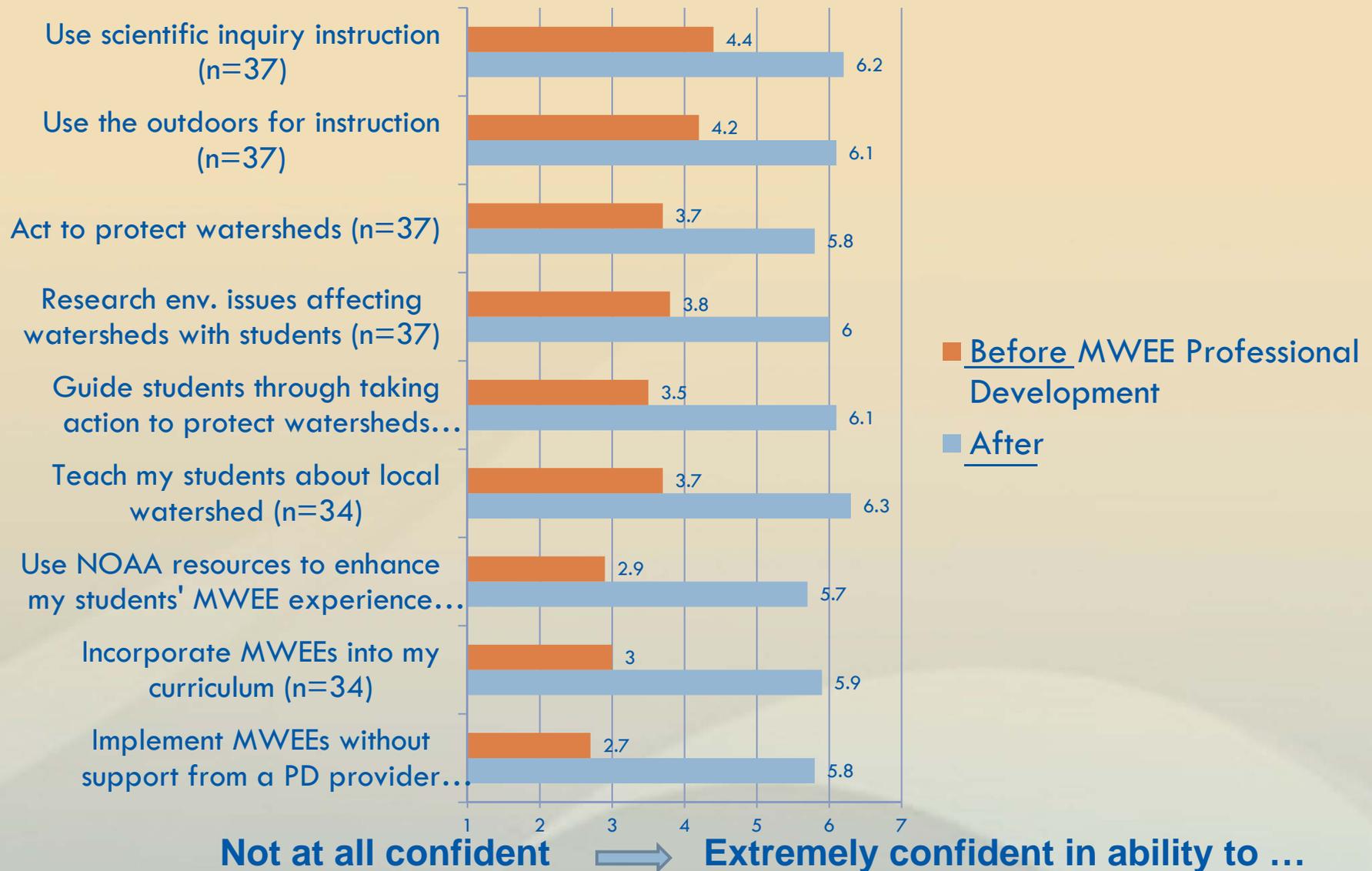
### Percent of TEACHERS Responding "Yes"



# Evaluation System Question 3

To what extent do B-WET funded projects increase teachers' knowledge of watershed science concepts, their confidence in their ability to integrate MWEEs into their teaching practices, and the likelihood that they will implement high quality MWEEs?

# Teacher Professional Development Survey:



# 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 item bank to measure 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.

# B-WET

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### FOR MORE INFORMATION ON B-WET EVALUATION:

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