

# Engagement & Stewardship Action Team Funding Recommendations

Shad in the Classroom and Teacher Institute

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# Background

- **At the April 2018 Leadership Council Meeting, APNEP staff were asked to:**
  - Create evaluation process/metrics for projects (particularly Teacher Institute)
  - Use metrics to evaluate program effectiveness and continued funding



# Process

- **At October 2018 Engagement and Stewardship Team Meeting:**
  - Project leaders for Shad in the Classroom (funded since 2011) and Teacher Institute (funded since 2004) gave short presentations about their programs, with emphasis on any metrics they have been using to assess program effectiveness and how they are working to implement the Team's CCMP actions
  - Team discussion (with project leaders excused)
  - Team members anonymously provided recommendation for each program, with understanding that this would mean two more years of funding (beyond 2019) and then a reevaluation based on Team/APNEP-developed metrics and/or an open RFP process
  - Meeting notes can be accessed at: <http://bit.ly/Oct2018EST>



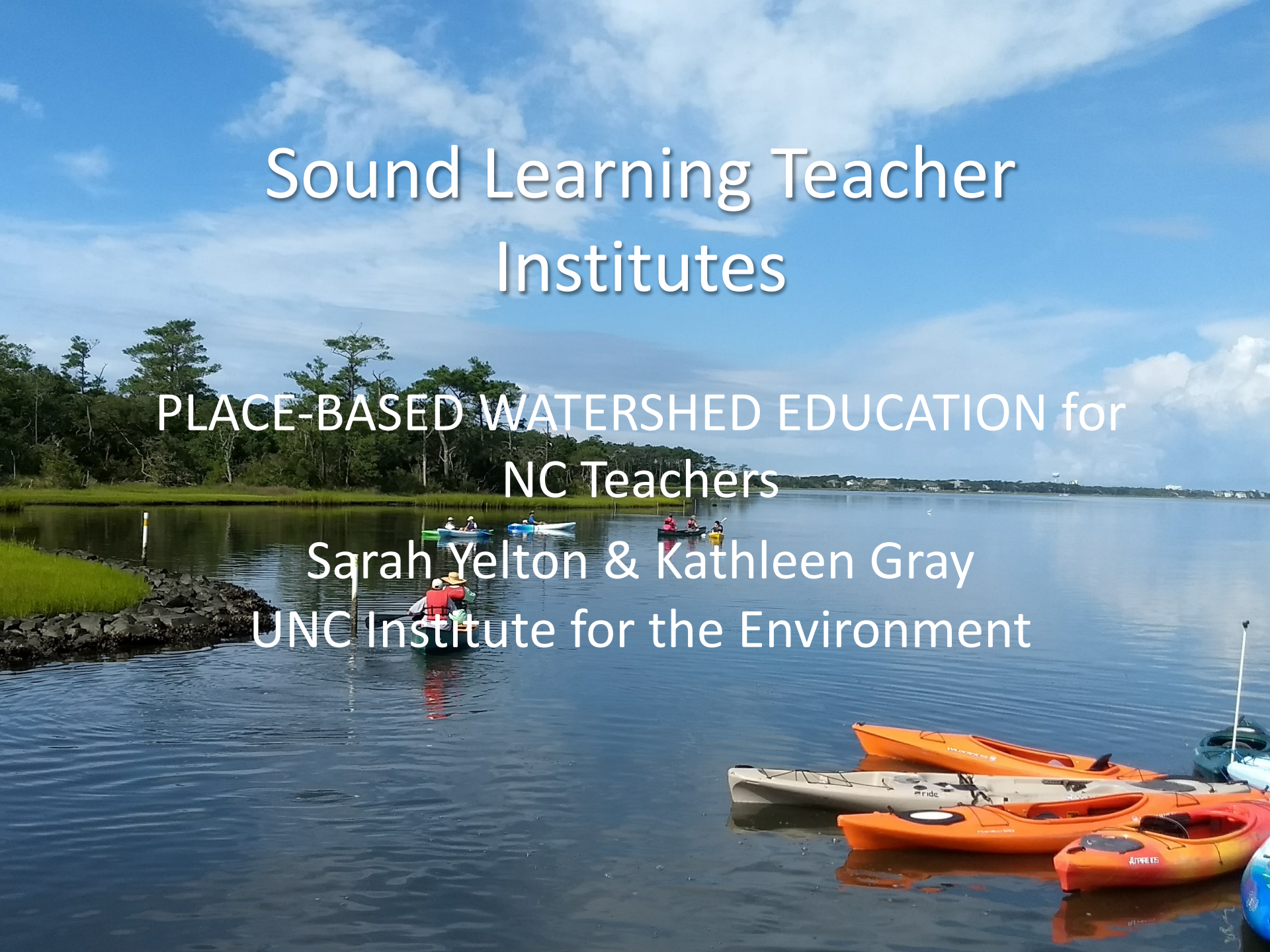
# Program Evaluation Results

- Both Shad in the Classroom and the Teacher Institute have been collecting data on metrics to help them evaluate their programs
- Full presentations can be accessed at <http://bit.ly/ESTpresentations>

# Sound Learning Teacher Institutes

PLACE-BASED WATERSHED EDUCATION for  
NC Teachers

Sarah Yelton & Kathleen Gray  
UNC Institute for the Environment



# By the numbers, 2012-2018

- **145** 4<sup>th</sup>-12<sup>th</sup> grade teachers (~20 teachers/cohort)
  - Taught over **50,000** students since 2012
- Up to **50** contact hours/teacher/year
- **19 counties** in APNEP region, **47** in NC
  - Partners have statewide focus
- APNEP supports **35-75%** of total program funding

# Evaluation strategy

- **Changes in knowledge of content and resources**  
(pre-post event, end-of-year)
- **Behavior change** (pre-post event, end-of-year)
  - Use of outdoor learning
  - Use of program resources
- **Changes in teacher self-efficacy**
  - Pre-post program self efficacy surveys

# Program Outcomes

## Teachers indicated:

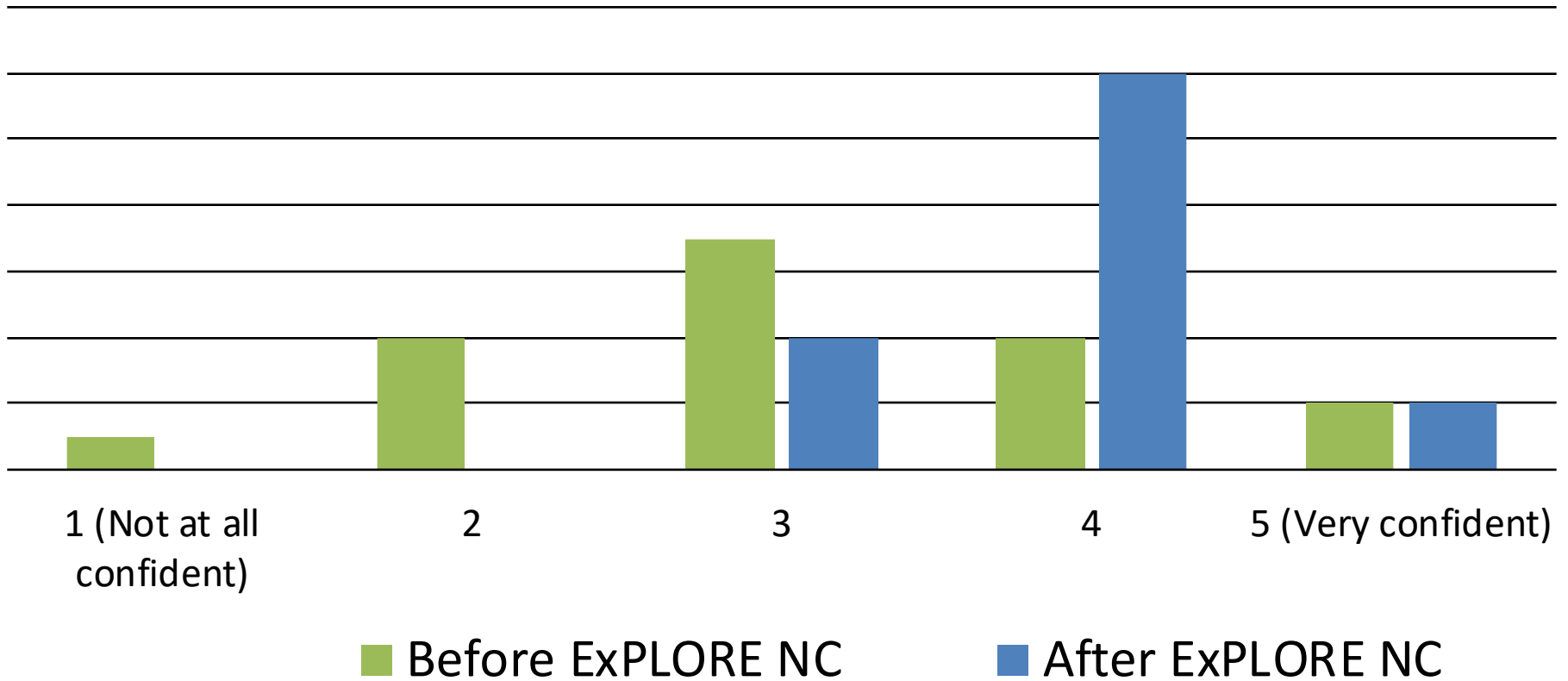
- ↑ Increased knowledge of local ecosystems and watershed science\*
- ↑ Increased confidence in using the outdoors to teach required curriculum\*
- ↑ Increased awareness and use of local EE resources

\* $p < .05$





# Confidence using outdoor environments to teach



A woman with long brown hair, wearing sunglasses and a purple long-sleeved shirt, is smiling and holding a large, silver shad fish. She is on a boat with a metal railing, and the background shows a wooded area with many trees and a body of water. The text is overlaid on a semi-transparent green background.

# Shad in the Classroom

**Melissa Dowland, Coordinator of Teacher Education**

**Danielle Pender, Shad in the Classroom Program Specialist**



# Shad in the Classroom by the Numbers

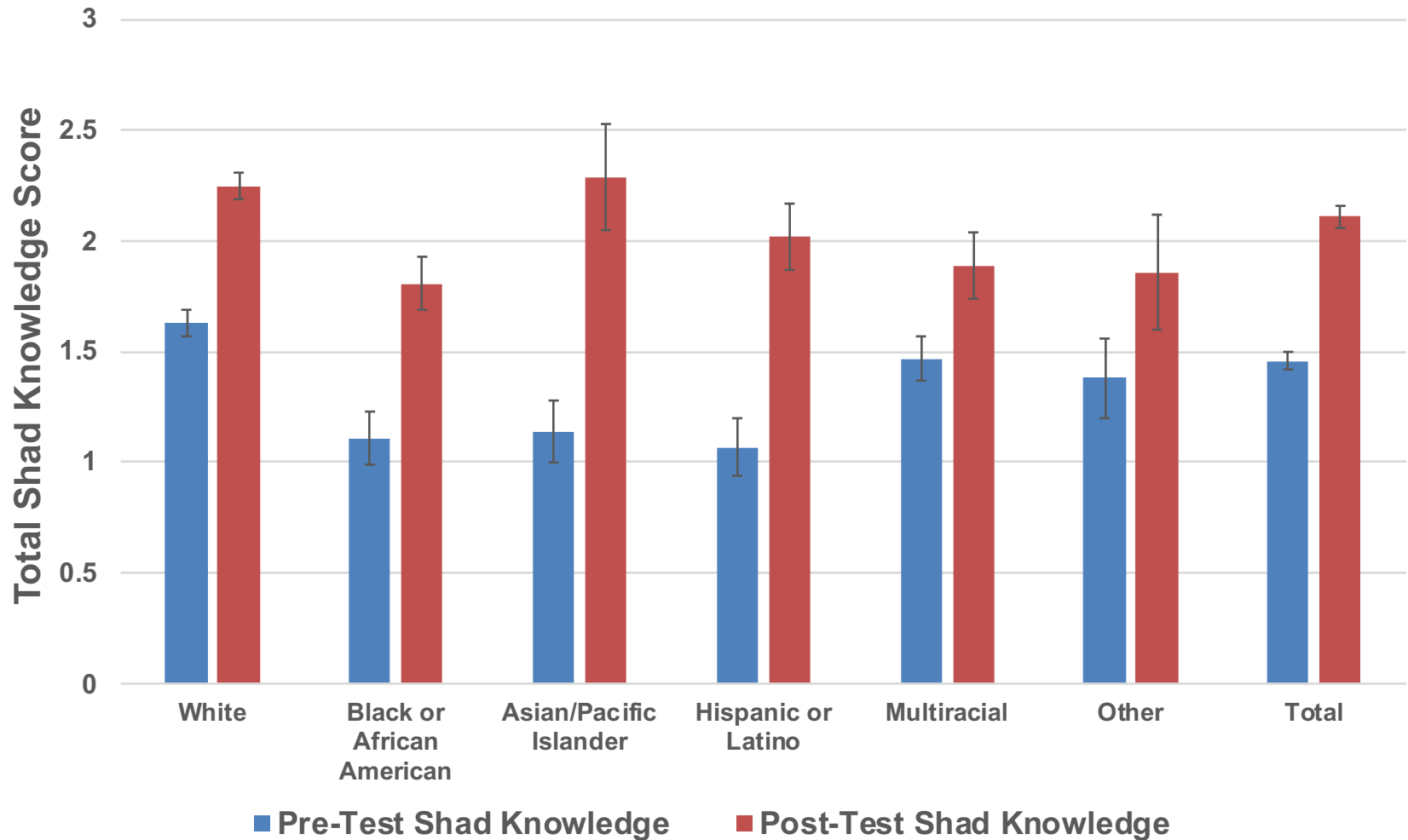
- **Shad in the Classroom (2009-2018)**
  - 216 classrooms
  - 13,764 students (2013-2018, not counted prior)
- **River Days (2014-2018)**
  - 28 schools
  - 2,304 students
- 100% positive evaluation of workshops and overall program

# Program Evaluation

- **Teacher training evaluation:**
  - Participants are very satisfied with training
  - Learned the concepts very to extremely well
- **Program implementation survey:**
  - Illustrates use and quality of supplemental student activities
  - Demonstrates a positive impact on students
- **Pre- and post-surveys of students:**
  - Demonstrate that the program has a positive impact on students of all races and ethnicities
  - 505 students surveyed in 2016 (analysis in graph following)
  - 835 students surveyed in 2017, plus 50 control students
  - Surveys for 2018 are being evaluated
  - With more data, we hope to examine behavioral impacts on students

# Student Analytics

## 2016 Change in Shad Knowledge by Race (n = 505)





# Engagement Team Recommendation

- **100%** (10 responses) recommended continued funding for both Shad in the Classroom and Teacher Institute
  - Responses from meeting attendees (remote and in-person) as well as opportunity for feedback from other Team members



# Engagement Team Recommendation

- **Teacher Institute**

- **Response Summary:**

- Proven success, long-term engagement
    - Meets multiple CCMP Actions (D2.2 and D2.1)
    - Connects teachers to science-based resources and encourages them to seek out other opportunities for professional development
    - Measurable goals are being met that align with APNEP's goals, efficient way to reach a large number of students
    - Watershed-wide approach.

- **Suggestions:**

- Added component or emphasis on Environmental Justice, especially in Tier I counties. Be intentional about reaching out to communities/counties that have not been represented in the past- especially those in Tier 1 or 2 counties or places where there are not high concentrations of environmental programs or educators.
    - Continued/expanded partnerships with APNEP partners.
    - Fund at a lower amount and contingent upon additional support from others.



# Engagement Team Recommendation

- **Shad in the Classroom**

- **Response Summary:**

- Proven success, large reach
- Great way to connect with and train teachers that impacts students
- Meets multiple CCMP actions (D2.1 and D2.3)
- Lasting and significant impact to underserved communities
- Hatcheries/aquaculture are areas of future job creation
- Gives students a reason to care about the watershed

- **Suggestions:**

- Encourage more partners in the APNEP region to become involved in order to increase reach, maybe even via skype.
- Utilize/incorporate traditional shad boats on the coast into program.
- Only fund through 2020 - after which cut funding by half and work to find additional funders.
- Be intentional about reaching out to communities/counties that have not been represented in the past- especially those in Tier 1 or 2 counties or places where there are not high concentrations of environmental programs or educators.





# Next Steps

- Leadership Council will approve/not approve continued funding as a part of overall budget approval at May meeting
- APNEP staff (with Team feedback) have been developing a set of criteria to be used for evaluation of <\$2500 funding requests for outreach/engagement projects – ongoing need/issue
  - Currently being finalized and will be posted on our website in mid/late February
  - Includes requirement for reporting relevant metrics and connecting them to CCMP actions
- If continued funding is approved, APNEP staff will work with Shad/Teacher Institute staff to take Team’s suggestions into account and make sure they understand how they will be evaluated in 2021 (based on current criteria development)
  - If continued funding is not approved – TBD; would likely depend on overall APNEP allocation of funds for outreach/engagement.