

## What you will find in this Packet

---

This packet should help you get a good picture of what we are offering. In it you will find:

- Great Lakes Watershed Field Course Overview
- Great Lakes Watershed Field Course: Goals and Objectives
- Commitments required of participating teachers
- Commitments Inland Seas will make to you
- 7 good reasons to participate
- Meaningful Watershed Experiences Defined

## Great Lakes Watershed Field Course: Overview

---

The Great Lakes Watershed Field Course happens:

**June 26-29, 2017 in Suttons Bay, MI**

### What you get:

Our goal is to get students doing real-world projects in their communities that support watershed health. To do that we will train teachers throughout the Great Lakes region on how to engage students in local issues, investigate solutions, devise a plan and take action. It starts with immersing teachers in the types of things they can do with their students, and giving teachers an unforgettable experience that inspires and energizes them to do new and powerful things with their students.

That immersion experience will be the four-day professional development field course in Suttons Bay. Inland Seas will introduce teachers to a range of professionals who will share their expertise and passion for conservation projects and field-based education. We will take you to awesome projects that support the priorities laid out by the [Great Lakes Restoration Initiative](#):

- Combating invasive species
- Promoting nearshore health by protecting watersheds from polluted run-off
- Restoring wetlands and other habitats

The goal is to get teachers well-versed in the types of projects and experiences they can bring to their classrooms. In addition to field visits we will take time to go sailing on our 77' tall ship schooner and use it as a platform for investigation of Great Lakes ecology. Inland Seas will provide transportation to all of the field sites and experts who can involve us in their work and answer all of your questions.

The next step is to help teachers actually do a project with their students. Teachers in this program may have a range of experience with this kind of work:

- Perhaps you have done this kind of work before and simply want to trouble shoot your process and get some fresh inspiration for your work.
- Maybe you have dreamed about doing stewardship action projects with students, and are finally ready to make it happen.
- You might be a committed teacher looking for the best educational opportunities for your students, yet haven't given much thought to community action projects.

You could be coming at this for entirely different reasons. We will give you a framework for doing the work and introduce you to education experts who can help you wherever you are.

Finally, we recognize the importance of down time in any professional development experience. Teachers need time to relax, integrate what they are learning, have conversations with fellow participants, and take care of personal needs. The schedule will allow for these things and offer opportunities to get to know the Grand Traverse region. If place-based education is what we are asking you to do, we must show you what it looks like to connect to place.

Many of the participants in the course will come from schools that are located in watersheds targeted for ecological restoration by the Great Lakes Restoration Initiative.

### **Ongoing support:**

When the field course is over, teachers will step forward to implement all they have learned. They will design a set of meaningful watershed experiences for their students and engage them in a stewardship action project. Projects can be small or large, in the school or in the community. It's up to teachers and the students to decide what works for the curriculum and what is meaningful to the group. Inland Seas will keep in touch with teachers through a series of group phone calls or webinars throughout the school year, and will provide up to \$300 for project implementation.

### **Agenda:**

The participants will influence the specifics of the four-day field course and the ongoing support during the school year. We will look at who you are and where you are from and bring in experts and projects that will meet your needs. Dates for group calls and webinars will be decided jointly.

### **About us:**

Inland Seas Education Association is committed to connecting people to the Great Lakes through experiential programming and first-hand experience with science and Great Lakes ecology. We exist to encourage stewardship behavior, promote science, and provide unforgettable and meaningful experiences with the Great Lakes. Inland Seas has been offering shipboard programming since 1989, most of which has occurred about our tall ship schooner, *SV Inland Seas*.

Jeanie Williams is the lead scientist and education specialist at Inland Seas and will be directing this collaborative. She taught biology and ecology at the college level for 9 years, has earned certification for teaching secondary biology, and is passionate about outdoor and place-based education. Her experience and enthusiasm for action based stewardship projects will guide this collaboration.

## How to apply

---

Go to this link and fill in all the blanks: <https://goo.gl/forms/PopcNmSHwZy6D3c42>

Some things to help you prepare to fill in the application:

1. We will ask you for a reference who can speak to your level of commitment to education, your experience as an educator, and/or your innovation in teaching. This could be a supervisor, principal, science specialist etc. We will reach out this person so they can speak on your behalf. In the application we will ask for the name, phone number, and email address of this person.
2. There are three short essay questions, copied below. Write a paragraph or so for each one.
  - a. Tell us why you want to be part of the Great Lakes Watershed Field Course. *Your statement might address one or several of these questions: What would you like to get out of it? What do you have to contribute? Why do you think you will be a good fit? How will this benefit you? How will this benefit your students?*
  - b. Please explain your motivation to engage your students in field-based stewardship action projects. If you have any experience with this kind of work, please describe it briefly. *Your statement might address one or several of these questions: What does “stewardship action project” mean to you? Why is this kind of educational experience important to you? Why is it important to show students how to participate in civic action?*
  - c. Do you currently teach about water bodies (ponds, rivers, lakes, wetlands, etc.), watersheds, or the Great Lakes? *If yes, give a brief summary of how you cover these topics. If no, please share your initial thoughts on how you might incorporate watershed topics into your curriculum.*

Applications are due **February 28, 2017**. We will inform you of your acceptance by March 10, 2017. If you have any questions about this program, hesitations about any of the commitments, or ideas for how to make this offer even more valuable or enticing, please contact us right away. We want to work with the best teachers in the Great Lakes region and can usually figure out a way to make it work for both of us. Please contact Jeanie Williams: [jwilliams@schoolship.org](mailto:jwilliams@schoolship.org) or 231-271-3077.

## Great Lakes Watershed Field Course: Goals and Objectives

---

### Description

This year-long collaboration will prepare teachers to design and implement action-based watershed curriculum for their home communities. Teachers will meet in Suttons Bay, MI for a four-day experience that will lay a foundation in place-based education, investigate Great Lakes health, and take part in watershed activities that improve water quality. Teachers will engage their students over the following school year in an investigatory and service project that improves watershed functionality and health in their home community.

### Prerequisites

None, although experienced teachers are encouraged to apply.

### Goals

- To increase educator knowledge about watershed concepts and human connection to the watershed.
- To support teachers in developing curriculum that involves firsthand experience, rigorous academic learning standards, discovery and wonder, sense of community, responsible citizenship, and positive interactions with science, technology, engineering, and math. (*Why this pedagogy is important*)
- To engage students in personalized, investigatory watershed projects that improve watershed functionality and health, and train students in responsible civic action. (*Define a meaningful watershed education experience*)

### Learning Objectives

After completing this course, learners will be able to:

- Explain why learner-centered, discovery-oriented, place-based curriculum is important.
- Design and implement a “Meaningful Watershed Educational Experience” for their students.
- Point to various watershed actions that support watershed functionality and health.
- Describe current critical issues impacting watersheds, and how those issues play out in their home areas.
- Provide reasons to protect and improve the health of the Great Lakes.

### Required Materials/Textbook

None, all materials provided or are freely available online

### General Methodology

1. Sailing and science research on the Schooner *Inland Seas*
2. Field trips to local watershed projects
3. Lecture and discussion with watershed and curriculum experts
4. Practice developing Meaningful Watershed Education Experiences
5. Small group and individual curriculum planning
6. Contributions to a virtual community platform
7. Periodic group calls/webinars during the school year

## Commitments

---

### Teachers must commit to:

1. Complete pre-workshop assignments (should take less than 4 hours)
2. Attend the entire 4-day workshop, June 26-29, 2017 in Suttons Bay, MI (Transportation to and from the workshop is not included)
3. Bring a classroom of students (32 people max, including adults) to Inland Seas for a shipboard education program in fall 2017. *There is no cost for the program. Schools are responsible for transportation costs.*
4. Engage students in “meaningful watershed experiences” (see definition in this packet)
5. Develop a stewardship action plan with least one classroom of students
6. Submit project proposal with students
7. Support your students in the implementation of their action plan.
8. Participate in 3 group calls/webinars during the 17/18 school year
9. Participate in a GLWFC Facebook group (recommended)
10. Attend culmination/celebration event at the end of the project period (driving stipend provided)
11. Evaluate student project with students
12. Complete ISEA and NOAA evaluations at various points before, during, and after the program

### Inland Seas promises to provide:

1. Visits to exemplary conservation projects in the Grand Traverse region related to the prevention and control of invasive species, reducing nutrient runoff, and restoring habitat for native species.
2. Access to experts on environmental issues related to watershed health, and current information on these topics.
3. Access to experts on field-based education pedagogy and strategy.
4. Training on how to develop and implement stewardship action projects with students.
5. Two trips on the sailing vessel and schooner *Inland Seas* to collect water quality data and visit conservation projects.
6. Opportunities to get to know the Grand Traverse Region. (paddling, hiking, food, drink etc.)
7. Support on meeting state education standards while completing stewardship action projects.
8. A private Facebook group for asking questions, sharing resources, and communicating ideas.
9. Ongoing support through the school year, including 3 group calls/webinars.
10. Full scholarship to bring one class of students (32 people max, including adults) on the Inland Seas schoolship in fall 2017 (\$825 value)
11. Meals, lodging, and transportation to field sites during the 4-day program.
12. \$300 mini grant to support student stewardship projects.
13. The opportunity to earn SCECHs (Michigan continuing education credits) and graduate credit

## 7 Good Reasons to Participate

---

1. Expand your network of amazing teachers who care about the same things you care about.
2. Act on your desire to get your students working in their school and community on meaningful projects that support educational goals and community needs.
3. Learn from experts in conservation, education, restoration, and watershed science, to expand your knowledge base and inspire your curriculum design.
4. Provide your students with curriculum that teaches them to be active participants in their lives and communities.
5. Do something fun and interesting for yourself. These four-days will be full of meaningful and rewarding experiences.
6. Give your students a powerful science learning experience aboard our ship. A full scholarship is available for each participating teacher.
7. Gain SCECHs or graduate credit.

This opportunity is for you if you:

- Are a 4<sup>th</sup>-12<sup>th</sup> grade teacher in the Great Lakes region.
- Want to involve your students in real issues in the real world.
- Care about guiding students toward greater civic responsibility.
- Have the time and interest to commit to an unpredictable stewardship action project design and implementation process with your students.
- Understand the importance of field-based and hands-on experiential education for students.
- Crave connection and collaboration with other amazing teachers.
- Want to go sailing on a tall ship schooner - and want the same experience for your students.
- Desire deeper understanding about the ways humans interact with their watershed.
- Want your students to care about the health and future of freshwater.
- Like to collaborate with students and give them power and control over their education.
- Have the freedom to design original curriculum that brings students out of the classroom.

## Meaningful Watershed Experiences Defined

---

Inland Seas Education Association is able to offer the Great Lakes Watershed Field Course through funding by a NOAA B-WET grant. The following text is quoted from the NOAA B-WET website.

The NOAA Bay Watershed Education and Training (B-WET) Program is an environmental education program that promotes locally relevant, authentic experiential learning focused on K–12 audiences. The primary delivery of B-WET is through competitive funding that promotes Meaningful Watershed Educational Experiences (MWEEs).

MWEEs are multi-stage activities that include learning both outdoors and in the classroom, and aim to increase the environmental literacy of all participants. Teachers should support students to investigate topics both locally and globally that are of interest to them, learn they have control over the outcome of environmental issues, identify actions available to address these issues, and understand the value of those actions.

**Meaningful Watershed Educational Experiences (MWEEs) for students** should be learner centered and focused on questions, problems, and issues to be investigated through collecting, analyzing and sharing data; learning protocols; exploring models; and examining natural phenomena. These activities, grounded in best practices and the context of the local community and culture, help increase student interest, motivation, and attitudes toward learning, and achieve environmental stewardship. As a result of the MWEE activities students should have an understanding of basic watershed concepts, as well as the interaction between natural systems (e.g. wildlife, plants, and water cycle) and social systems (e.g. communities, transportation systems, and schools), highlighting the connection between human activity and environmental conditions. MWEEs consist of multiple components as defined below.

### 1.1 Issue definition and background research

Students focus on an environmental question, problem, or issue requiring background research and investigation. They learn more about the issue through classroom instruction, the collection of data, conducting experiments, talking to experts and reviewing credible publications.

### 1.2 Outdoor field activities

Students participate in multiple outdoor field activities sufficient to collect the data or make observations required for answering the research questions and informing student actions, or as part of the issue definition and background research. Students should be actively involved in planning the investigation, taking measurements, or constructing the project within appropriate safety guidelines, with teachers providing instruction on methods and procedures, data collection protocols, and proper use of equipment as needed. These activities can take place off-site and/or on the school grounds.

### 1.3 Stewardship action projects

Students participate in an age appropriate project during which they take action to address environmental issues at the personal or societal level. Participants in B-WET MWEE activities should understand they have control over the outcome of environmental issues, be encouraged to identify actions to address these issues and understand the value of those actions. Examples of stewardship activities include:

- Watershed Restoration or Protection (e.g., create schoolyard habitat, planting trees or grasses, invasive species removal, community cleanup, stormwater management)
- 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)

### 1.4 Synthesis and conclusions

Students analyze and evaluate the results of projects and investigations. Students synthesize and communicate results and conclusions to an external audience such as other classrooms, schools, parents, or the community.