The Groundswell Guide

## A Student Watershed Stewardship Workbook

Introduction

The Groundswell Guide provides students with a path to having a meaningful watershed-based educational experience by helping students create change within their own communities.

The guide is segmented into five phases:

Each phase asks an important guiding question.

Students will work through the phases as teachers facilitate learning experiences to help students complete tasks in the guide. By the end of the guide students will implement a stewardship project within their community and will have a better understanding of their role in the Great Lakes Ecosystem and local watersheds. Let's get started!

Phase 1: Orientation

Phase 2: Framing

Phase 3: Finding

Phase 4: Doing

Phase 5: Sharing
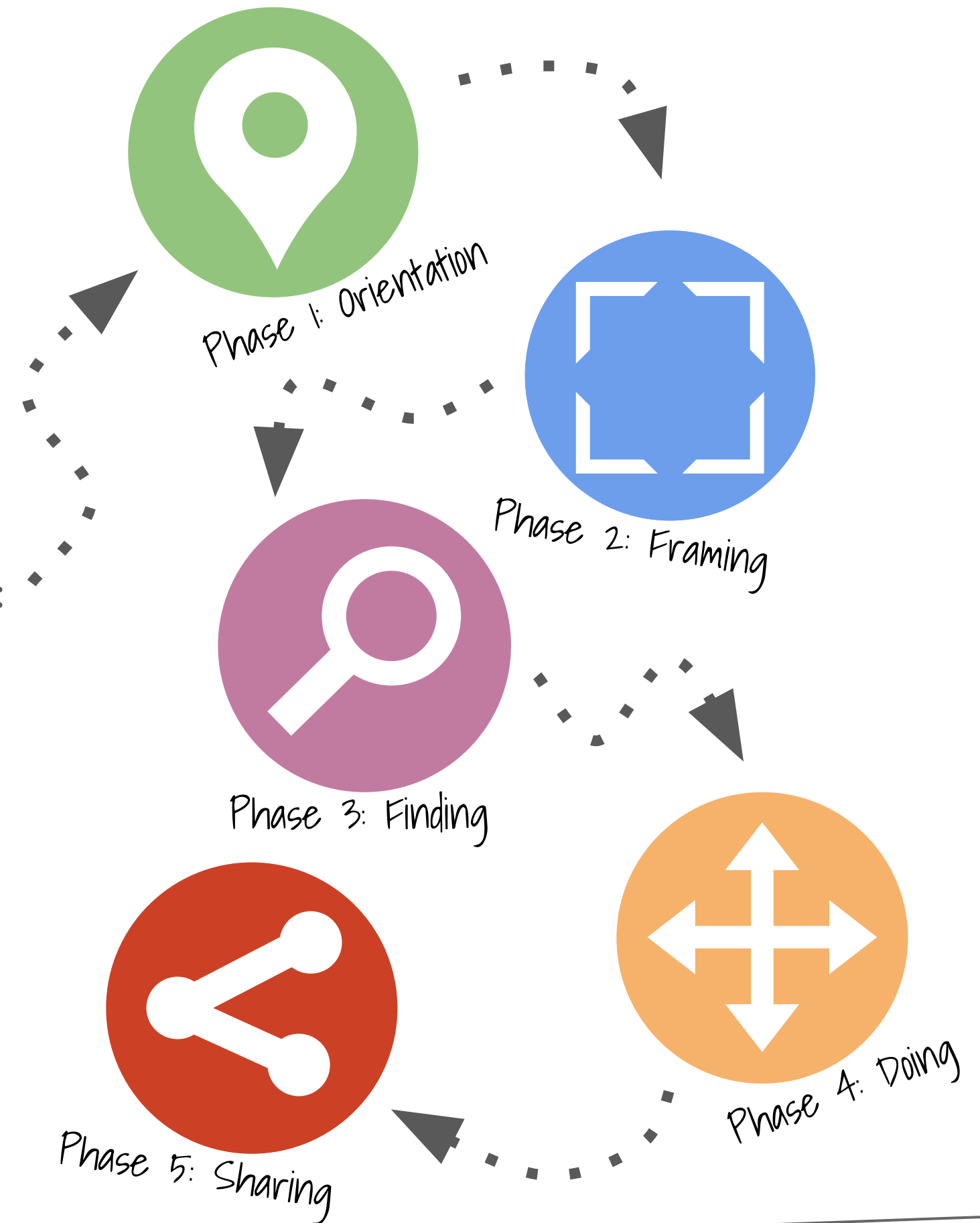
What is "Place" and what is my role in it?

The first phase of Groundswell is about understanding place. There are many places in each person's life. To begin this project we need to understand a place where we live, go to school, work, recreate, and relax in. It's called the Great Lakes Ecosystem.

This first phase of the project will help you learn about the Great Lakes Ecosystem. It will introduce a concept called a Watershed and help you find your physical location in this place. When this phase is over you will know more about the beauty, complexity, and uniqueness of the place you call home.

I will learn:

- [ ] What the Great Lakes Ecosystem (GLE) is

- [ ] Where I fit within the GLE

- [ ] Why the GLE is a "Place" worth protecting

Understanding Place

What are the things that make a place unique?

Brainstorm: Think of your favorite places. Write, draw, list and record what makes those places stand out and what makes them special or unique.

How would you feel if your favorite places dramatically changed?

Compare your thoughts to others in your class. What common themes emerge?

Themes:: 1.   2.   3.   4.

The Great Lakes Ecosystem

What I Think I Know...

What I Wonder...

One fact that surprised me about the GLE was: ....

....

GLE Brain Dump

The names of the 5 Great Lakes are:

About how much of the world's surface fresh water is in the GLE?!

Which countries are in the GLE?

Different types of life that live in the GLE are:

Why is the GLE important for people?

How did the GLE form?

Follow a Drop

Map how you'd get to the nearest Great Lake starting from your house if you were a drop of water.
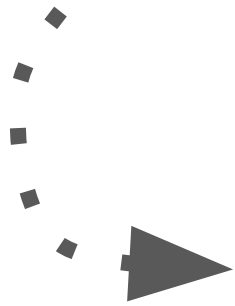
My nearest Great Lake is: _____

Why is the Great Lakes Ecosystem Worth Protecting?

What is a . . . Watershed?

Phase 2: Framing

No, it isn't a shed that holds water, although a lot of people think so.

The goal of this phase is to dive a little deeper into the idea of a Watershed. What is a watershed? How do we tell if our watershed is healthy or not? What Watersheds do I live in? These are all questions you will answer as you continue through phase 2.
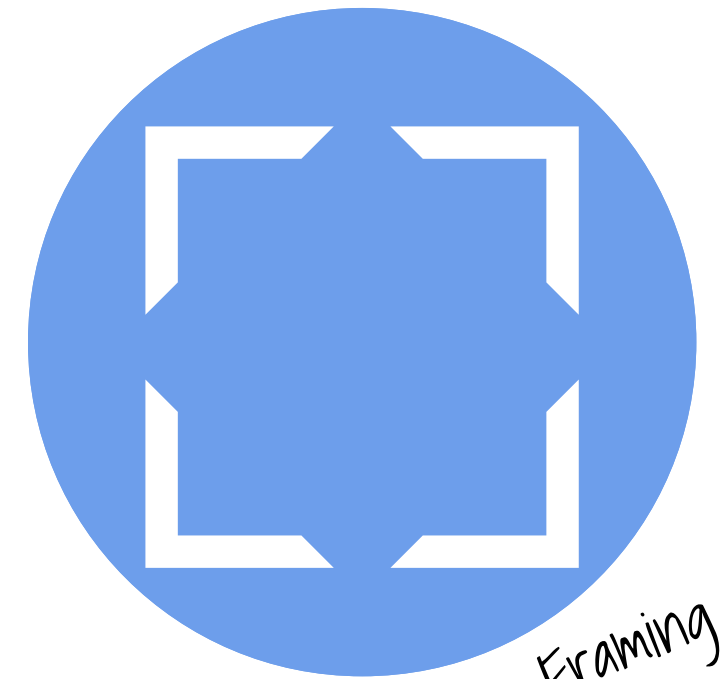
I will learn:

☐ The definition of a watershed

☐ What makes a watershed healthy

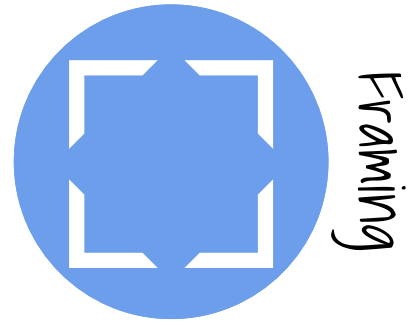☐ My own watershed "address"
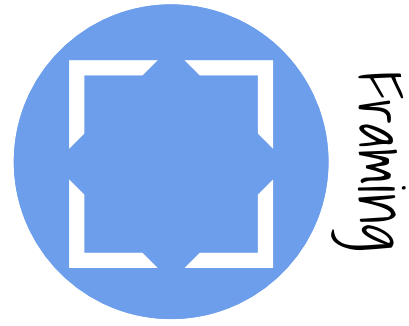
Watershed Defined

So, what is a watershed?

Write your best definition in your own words.

Mark where you live, and guess what watershed you live in.

Where do you think each lake's watershed starts and stops? Add those borders to the map too!
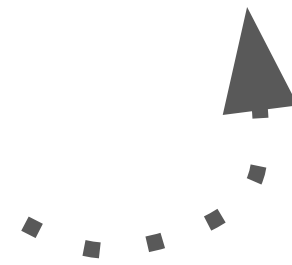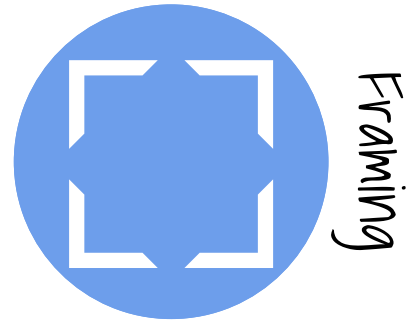
Minnesota

LAKE SUPERIOR

Ontario

Wisconsin

Québec

LAKE MICHIGAN

LAKE HURON

LAKE ONTARIO

Michigan

New York

LAKE ERIE

Pennsylvania

Illinois

Indiana

Ohio

Watershed Address

My watershed address is: # _____   Name: _____

Why is it possible to live in more than one watershed?

Prove it with a drawing.
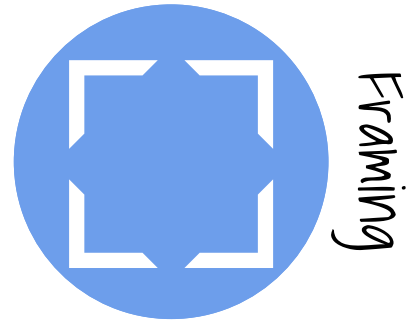
What makes a watershed healthy?

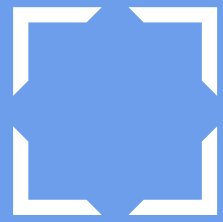## Indicators of Good Health

Benefits

What features of your school or community might help keep your watershed healthy?

What features of your school might be contributing to watershed pollution or damage?

Exploring your Watershed

Go to a river or stream in your watershed and explore!

Phase 2 Reflection

Why are watersheds an important part of human and natural communities?

What is happening in my Watershed?

Phase 3: Finding

In Phase 3 you will use the information you learned about Watersheds and connect it to your own local community. In this phase, it is crucial that students and teachers work together to get help from local experts and community members.

You will learn about the health of your local watershed and the challenges or opportunities your watershed faces. This phase will end with your class selecting an issue to study and address for the rest of the project!

I will learn:

- ☐ Who is working to help our watershed

- ☐ The challenges and opportunities in our watershed

- ☐ How we can help our watershed

The Who's Who

Who are the people and organizations in your community that might know about the challenges and opportunities in your watershed?

Tip: There are many ways to find information and network. Use the internet, friends, parents, teachers, newspapers, and social media!

1　Name/Org: _____

2　Name/Org: _____

3　Name/Org: _____

4　Name/Org: _____

5　Name/Org: _____

6　Name/Org: _____

7　Name/Org: _____

What to Know?

What...

Where...

Why...

How...

Now that you know who might be able to help, think about the information you'd like them to share with you related to your watershed.

Write at least one question for each box.

Asking for Help

Gather your thoughts and use the draft below to prepare a letter or e-mail asking for help from your local experts.

Dear _____ ,

My name is _____ and I am a _____ grade student at _____. This year my class is studying watersheds and the Great Lakes Ecosystem. At this point we are seeking help from local experts. We are interested in learning more about:

What _____

_____

Where _____

_____

Why _____

_____

How _____

_____

Our class would appreciate your assistance. Would you be able to visit our class and share your expertise on any of these topics? If you are unable, would you be able to e-mail me information or other resources that may help us better understand the challenges and/or opportunities in our watershed? My e-mail address is _____. Thank you for your time and consideration.

Sincerely,

_____

Expert Analysis

What are the experts telling you and what do you think? Put your thoughts below.

Who was the most interesting?

What shocked you?

What issue or opportunity stood out?

Criteria Based Decisions

List the top five issues your class chose in the chart below. After deciding as a group, list the criteria that you will use to rate each issue. Score every box with a ranking of 1-5, with a 5 indicating that the criteria is fully met. Add your scores in the bottom row, circle the winner and report your results.

Issues, Challenges, or Opportunities					
	1	2	3	4	5
Criteria 1					
Criteria 2					
Criteria 3					
Criteria 4					
Totals					

Criteria (vertical label on left side)
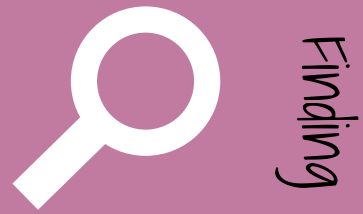
What is the most significant watershed issue you've learned about, and why do you feel it is important?

How can we improve our Watershed?
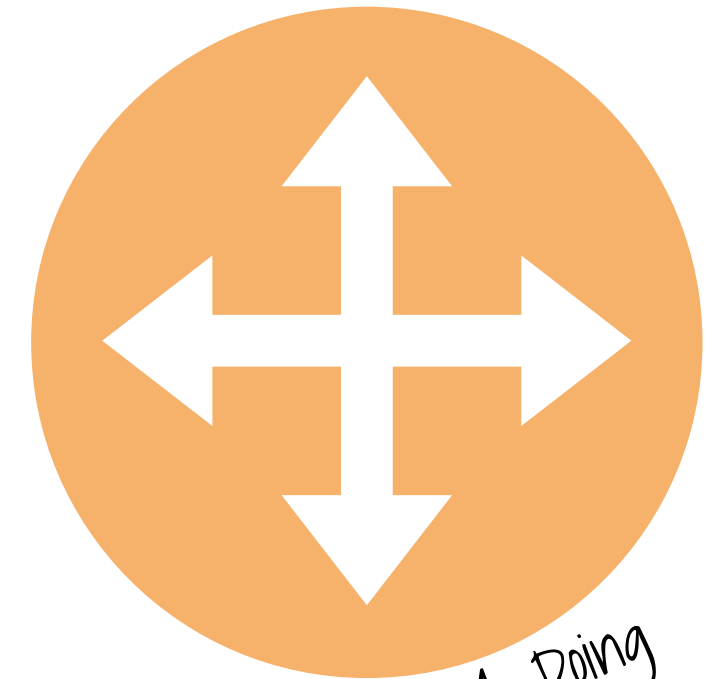
Phase 4: Doing

During the "Doing" phase you will take even more control of your project while you dive more deeply into understanding watershed issues. Then, you will design an action plan to address the watershed issue you chose.

Later you will work with your community advocates and partners to refine and adjust your plan will work, and finally you will venture out into your community to put the plan into action!

I will learn:

☐ The cause and effect of watershed issues

☐ How to work with partners to create a plan

☐ How to improve my community
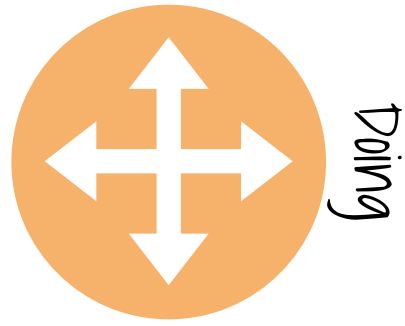
Root Cause and Effect

The ICO we will tackle is: _____

Now that you have selected an issue, challenge, or opportunity (ICO) think about its root-cause and its effect on your community.
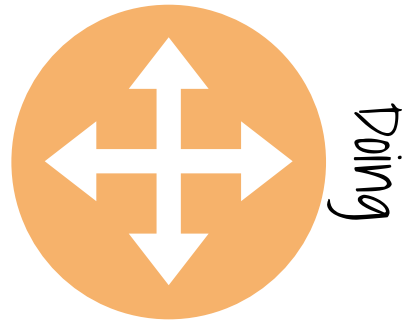
What is the root-cause of the ICO? Why does it exist?

Cause

How does your ICO impact your watershed?

How does your ICO impact people?
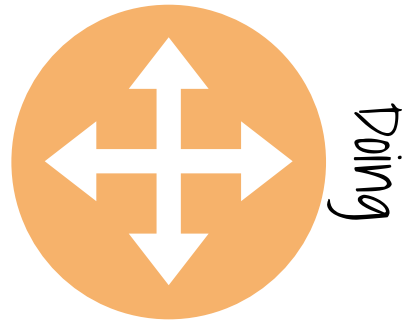
Effect

Fixing it at the Root

It is better to solve a problem at its root than simply fixing the symptoms of that problem.

What is the change I'd like to see?

A few things we could do to create that change are...

1.
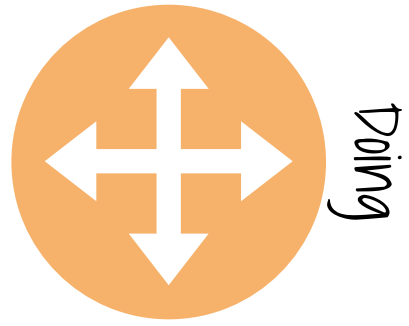
2.

3.

What is the root cause of our ICO?

Setting Goals

Create a goal for your project. Ask your experts for feedback.

1 We want to work with _____ people/organizations/places

2 To _____ what do you want to see changed?

3 Which will result in _____ what impact will you see in your watershed?

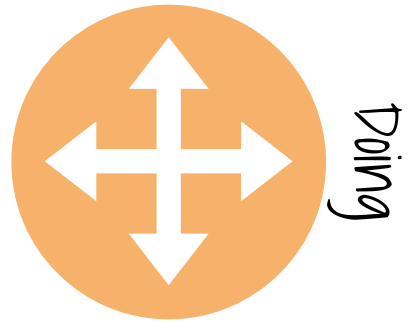*adapted from Earth Force Project Goal Statement activity

Create a Plan

**Map out a plan to reach your goal.**

First we need to...

Now write it out in steps so you can share it with others for feedback.

Evaluate the Plan

1. The plan is doable with the amount of time we have

2. The plan is affordable

3. We have partners to help us execute the plan

4. The plan addresses the root cause of an ICO

5. We will measure the success of our plan by _____

6. Our plan is safe and complies with laws and rules in our community

7. Our plan will improve our watershed or the Great Lakes Ecosystem

Can you put a check next to every statement? If not, reiterate your plan.
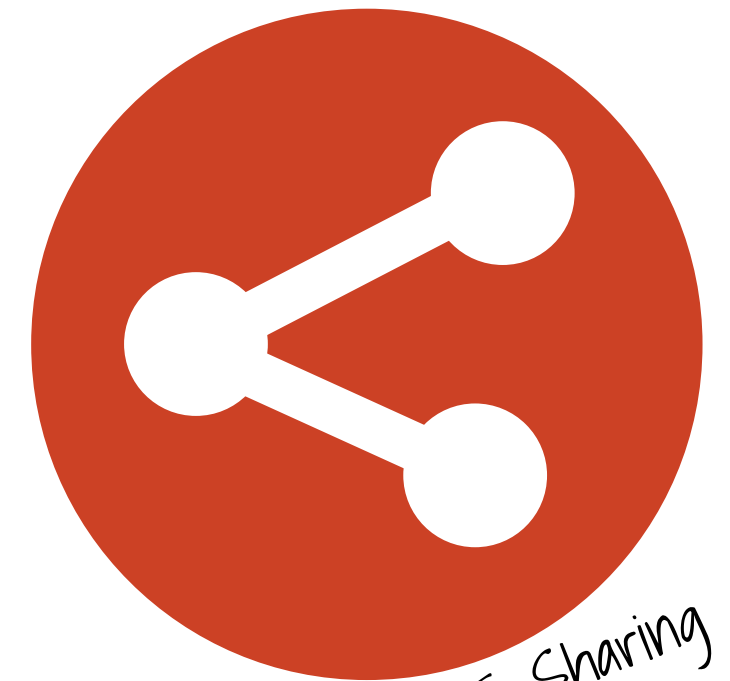
Doing
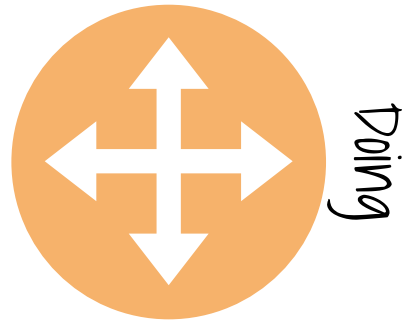
Get out there and do it!
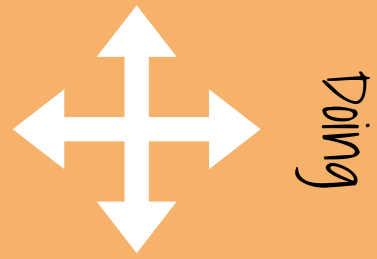
Phase 4 Reflection

What did you learn, How did you impact your community, and what has changed in from your own perspective?

How have we changed our watershed?

You should be proud of all the work you have accomplished! It is important to share or publish your results for the rest of the community to take notice so they see why the Great Lakes ecosystem is worth protecting!

In this phase you will brainstorm how to inform your community about their watershed and what you have done to help it. Additionally, this is a time to reflect on the entire project and make connections between your project and the larger Great Lakes Ecosystem. You are almost done so keep it up!

I will learn:

☐ How to share my work with my community

☐ What the project meant to me and my community
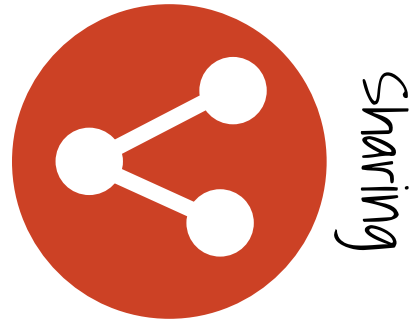
☐ How my effort impacts the GLE

30
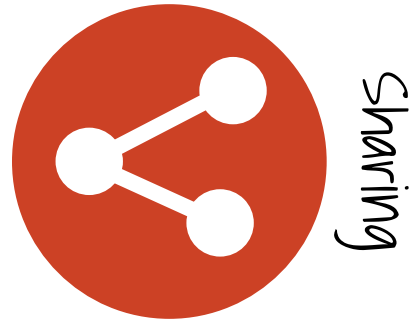
Telling your Story

What are the ways that people communicate information to one another?

Don't forget to share your amazing project with the world.
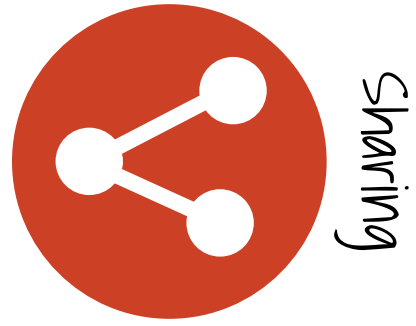
Why is sharing your effort important?

Evaluating your Impact

Accomplishments

Improvements

One thing I would have changed to make a bigger impact was: ....
....
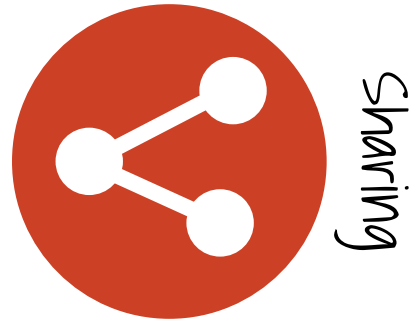
Four Corner Reflection

How did our project change our watershed?

How did our actions influence the Great Lakes Ecosystem?

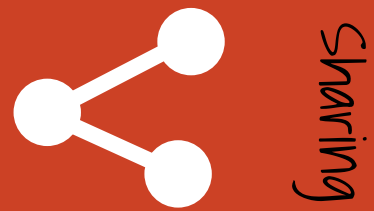What would be different if everyone was a steward of their watershed?

How would you influence someone else to become a steward?

Stay Involved

What still needs to be done?

How will you stay involved or ensure the work continues?

Sharing

Phase 5 Reflection

What was the most significant thing that happened or that you experienced during this project?

Congratulations!

Your project is complete. Your Watershed and Community thank you.