Team Oden Creek
Samuel Lowery, Andrew Wolford, Mya Weidenhamer, Tamara VanAllsburg, Cheyenne Honson, & Bryce Fritz
Oden Creek Watershed

Watershed Information
- Watershed Size: 900 acres
- Channel Length: 3200 feet
- Upper Ponds Elevation: 613 feet
- Mouth Elevation: 596 feet
Oden Creek Watershed Details & Types of Land Use

- Watershed size: 900 acres.
- Channel length: 3200 ft.
- Upper Ponds Elevation: 623 ft.
- Mouth elevation: 596 ft.
- Oden fish hatchery.
- Road crossings+Bike Trail.
- Gravel/Sandpit.
- Scrap/Junk yard.
- Residential.
- Farming.
- Wetlands
Alanson History

- The village of Alanson was founded in 1882.
- The first clearing was made somewhere between the present Depot to the river.
- Later in time many famous and wealthy people built cottages on Burt Lake.
Oden State Fish Hatchery

- In 1921 Oden opened their first Fish Hatchery.
- It was one building, which is today’s visitor’s center.
- In 1951 there was a major renovation at the old facility. That facility was closed down in 2002 and rebuilt.
- The new or current facility built in 2002 cost $11 million, it now has raceways, and an isolation building for the study of diseases in fish.
Possible Sources of Pollution

- One possible source of pollution could be oil runoff because of the highway that runs over the creek.
- Also some possible pollution could be excess food and waste from the fish hatchery that is upstream of the site monitored.
Field Work

Our team worked very well together. But there were some obstacles, such as, weather, muddy spots, highway, etc. Although our team had some challenges we were prepared. Thanks to Mrs. Lipchick, Maria, Eli, Christine Steensma, and Misty Rose, we had enough extra clothes for the poor weather, and we had enough guidance.
<table>
<thead>
<tr>
<th><strong>Stream Name:</strong></th>
<th>Oden Creek</th>
<th><strong>Major Watershed:</strong></th>
<th>Lake Huron</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Location:</strong></td>
<td>US 31 Oden Fish Hatchery - Samples come from upstream and downstream of road crossing</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Date:</strong></td>
<td>5-16-16</td>
<td><strong>Water Sample Collected:</strong></td>
<td>Yes</td>
</tr>
<tr>
<td><strong># of Glass Jars Used:</strong></td>
<td>8</td>
<td><strong>Collection Start Time:</strong></td>
<td>9:10 AM</td>
</tr>
<tr>
<td><strong>Collection End Time:</strong></td>
<td>11:00 AM</td>
<td><strong>Monitoring Team</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Name of Person Completing Datasheet:</strong></td>
<td>Samuel Lowery</td>
<td><strong>Collector:</strong></td>
<td>Andrew Wolford and Bryce Fritz</td>
</tr>
<tr>
<td><strong>Other Team Members:</strong></td>
<td>Mya Weidenhamer, Tamara VanAllsburg, Cheyenne Honson, and William Hungo</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Stream Conditions

Water temperature: 7 °C   Average Water Depth: 11.65(in)

Air Temperature: 10 °C   Weather: Cloudy skies and rain.

Is the substrate covered with excessive silt: No

Substrate Embeddedness in Riffles: 0-25%   25-50%   > 50%   Unsure

Water turbidity/clarity: Clear   Somewhat turbid (cloudy)   Very turbid (muddy)

Water Chemistry   Turbidity: 0 JTU   pH: 7.5   BOD: 6 ppm

Dissolved Oxygen: 6 ppm  49.5% saturation

Nitrates: 3 ppm   Phosphates: >1 ppm

Bacteria/Coliform: positive / negative
Testing Water Chemistry

When testing the water we found that the water is in good condition. All of the chemical tests we found were in a good range for fish and other forms of life.

- From the evidence we have there was no form of chemical in the water that would affect the water's taste, smell, and look of the water.

- There still is the possibility of oils, gas, etc. from the highway the goes right over the creek.
Site Sketch

This site was unique because of US-31 dividing the 300’ sampled.

The vegetation and stream substrate (bottom) looked different in both sections.

The north section was groomed with trails along the creek for visitors.
Macro collection areas

**Macroinvertebrate Collection:** Check the habitats that were sampled. Include as many as possible.

- [X] Riffles  
- [X] Aquatic Plants  
- [X] Submerged Wood  
- [X] Runs  
- [X] Leaf Packs  
- [X] Root Wads  
- [X] Pools  
- [X] Stream Margins  
- [ ] Cobbles  
- [X] Undercut banks/Overhanging Vegetation

Did you see, but not collect, any **live crayfish? (YES)**, or **large clams? (No)**

Other wildlife & fish? (Yes)

Describe: White suckers, & Trout
Found Macroinvertebrates (Sensitive)

- Caddisfly Larvae
  *Trichoptera*

- Mayfly Nymphs
  *Ephemeroptera*

- Gilled Snails (right handed)
  *Gastropoda*
Found Macroinvertebrates (Somewhat Sensitive)

- #4 Beetle Adults *Coleoptera*
- #4 Black Fly Larvae *Diptera*
- #1 Net-spinning Caddisfly Larvae *Hydropsychidae; Trichoptera*
- #17 Scuds *Amphipoda*
- #8 Sowbugs *Isopoda*
Found Macroinvertebrates (Tolerant)

Aquatic Worms *Oligochaeta* - #12

Leeches *Hirudinae* - #12

Flatworms Planarian - #20

Other True Flies *Diptera* - #77

True Bugs *Hemiptera* - #4
MiCorps Rating

After collecting samples from the creek we put them in yellow trays and from there we selected macroinvertebrates to identify.

Then we had to count the number of each order to determine rare and common macroinvertebrates.

There are more sensitive than somewhat sensitive by .4 yet both are at least triple of tolerant.

Using a little math we found the quality of the creek to be 35.9 or “Good” (34-48)
Issues in your Watershed?

- Excess nutrients from the fish hatchery
- Nearby farm could be an issue because of fertilizer as the fertilizer can runoff in the stream.
- Scrapyard located in watershed.
- Houses near the river can pollution like smoke from a chimney or bad water from their homes from construction, shoreline practices and general waste.
- Sand pit for construction use located in watershed.
Recommendations?

To improve the water quality we could create something that would stop oil run off from the highway, and we could create more waste treatment plants/maintain them. Also, make sure that Team Oden Creek continues to monitor at the fish hatchery each spring and fall.
Stewardship Experience

Mya- “Stewardship means to just care, to care about what you’re doing, and about your team.”
William- “Stewardship means to care about the wellbeing of your community.”
Samuel- “Stewardship means to care about something, because you care about it, regardless of what others say.”
Tamara- “Stewardship means to care about the natural habitat that we live in.”
Andrew- “Stewardship means to take care of your watershed.”
Bryce- “Stewardship means to make sure that keep the watershed clean and make sure it is taken care of.”
Cheyenne- “Stewardship means to take part in helping your community.”
Thank You
Thank you to everyone that helped with our amazing experience of monitoring our local watershed. A special thankyou to Mrs. Lipchick, Misty Rose, and Mrs. Cook for making this happen. Thank you to Eli, and Maria for helping us create Team Oden Creek, and to Christine Steensma for the fun and informational tour of the fish hatchery.