

# **Water is Life**

Highland Community Middle School  
Grades 6-8

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# Our Goal

To introduce students to primary research and the scientific methods of observation, including collecting data from stream surveys and water tests.

# Why is Water Quality Important?

- All living organisms need water to survive!



# What we are doing?

We are beginning a long term project that joins the Highland Community Middle School and the Wisconsin DNR to look at water quality in our area over time.



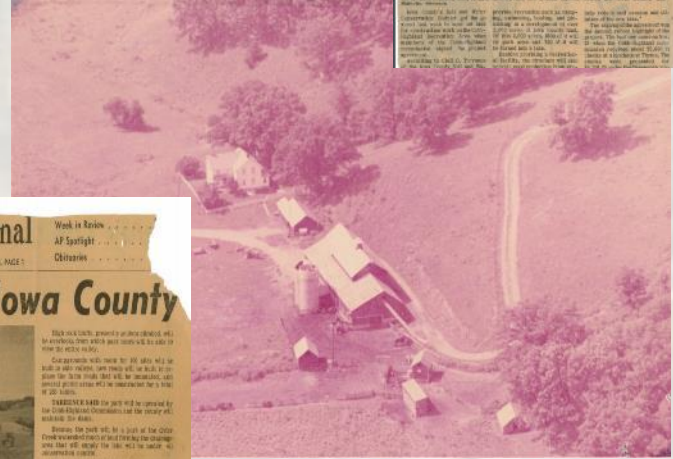
# Why are we doing this?

- To learn more about the condition of water quality in our waterways.
- To spread awareness of water quality, and why it's so important.
- To take actions to improve our future!



# Blackhawk Lake

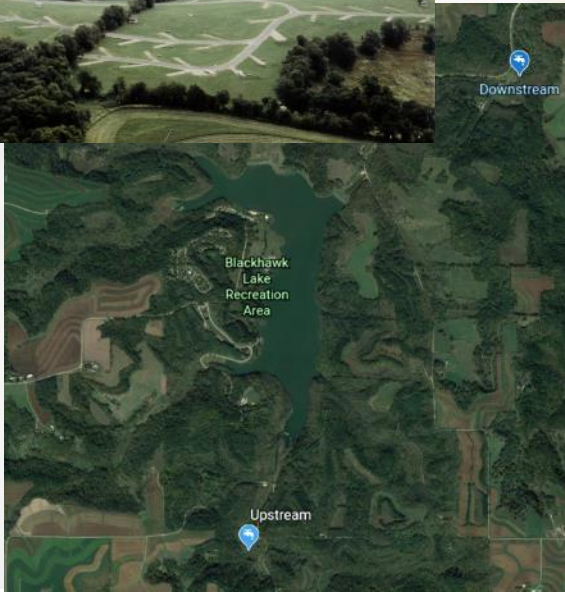
- They started filling the lake September 2, 1968.
- 15 farms were cleared for the lake and adjoining park.



# Blackhawk Lake

## Now

- Blackhawk Lake Recreational Area is 2,050 acres total.
- The body of water is 220 sq. acres.
- In 2019, 4,000 annual park stickers and 4,794 daily passes were sold.



# Our Day With the DNR at Blackhawk Lake Rec. Area





- We observed the DNR staff electrofish in Otter Creek, the origin of Blackhawk Lake.
- We ended up getting into the water to help them collect data.
- We measured the fish and collected data.



# Measuring Fish



# Water Testing

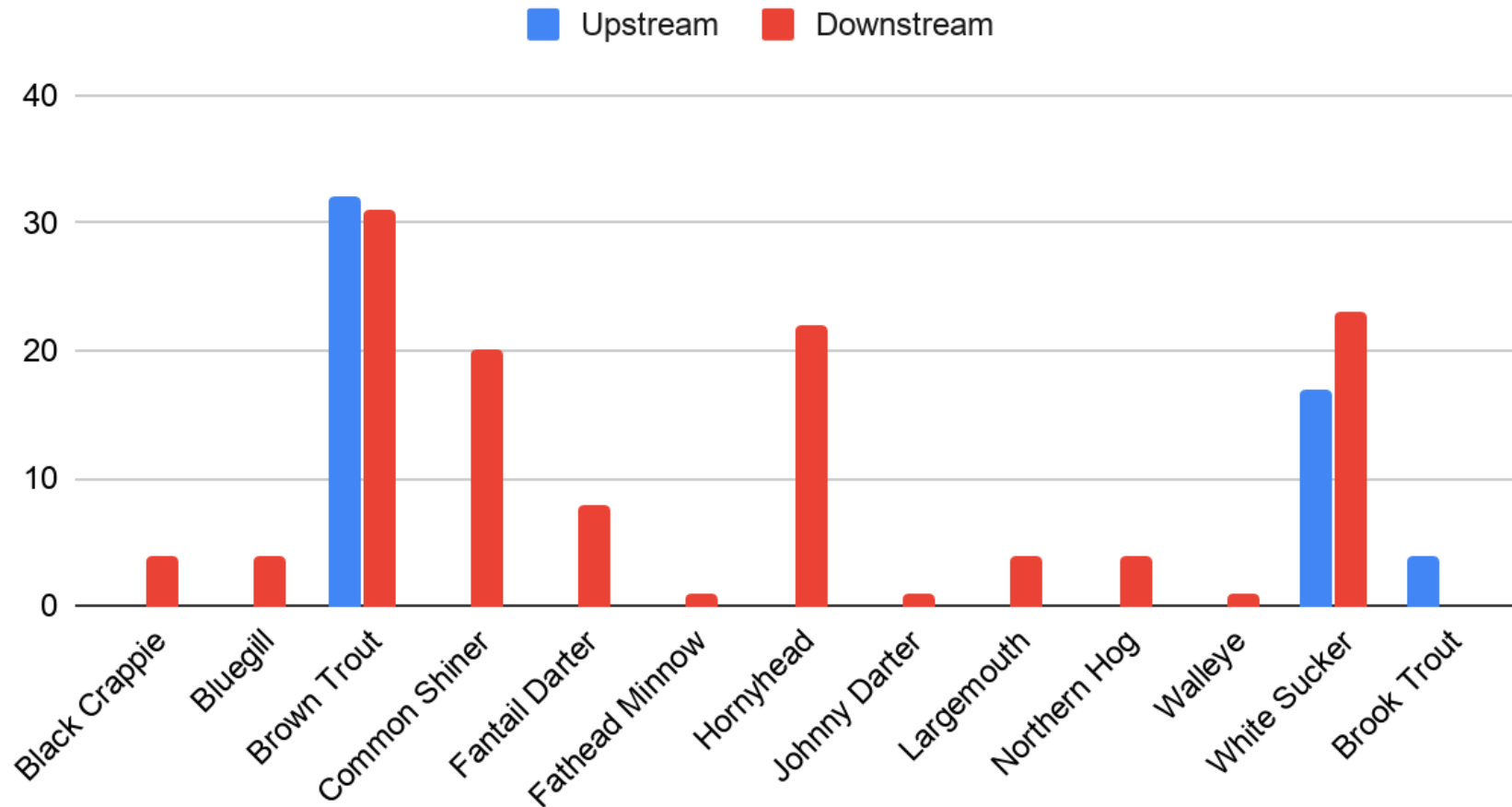


## Equipment We Used

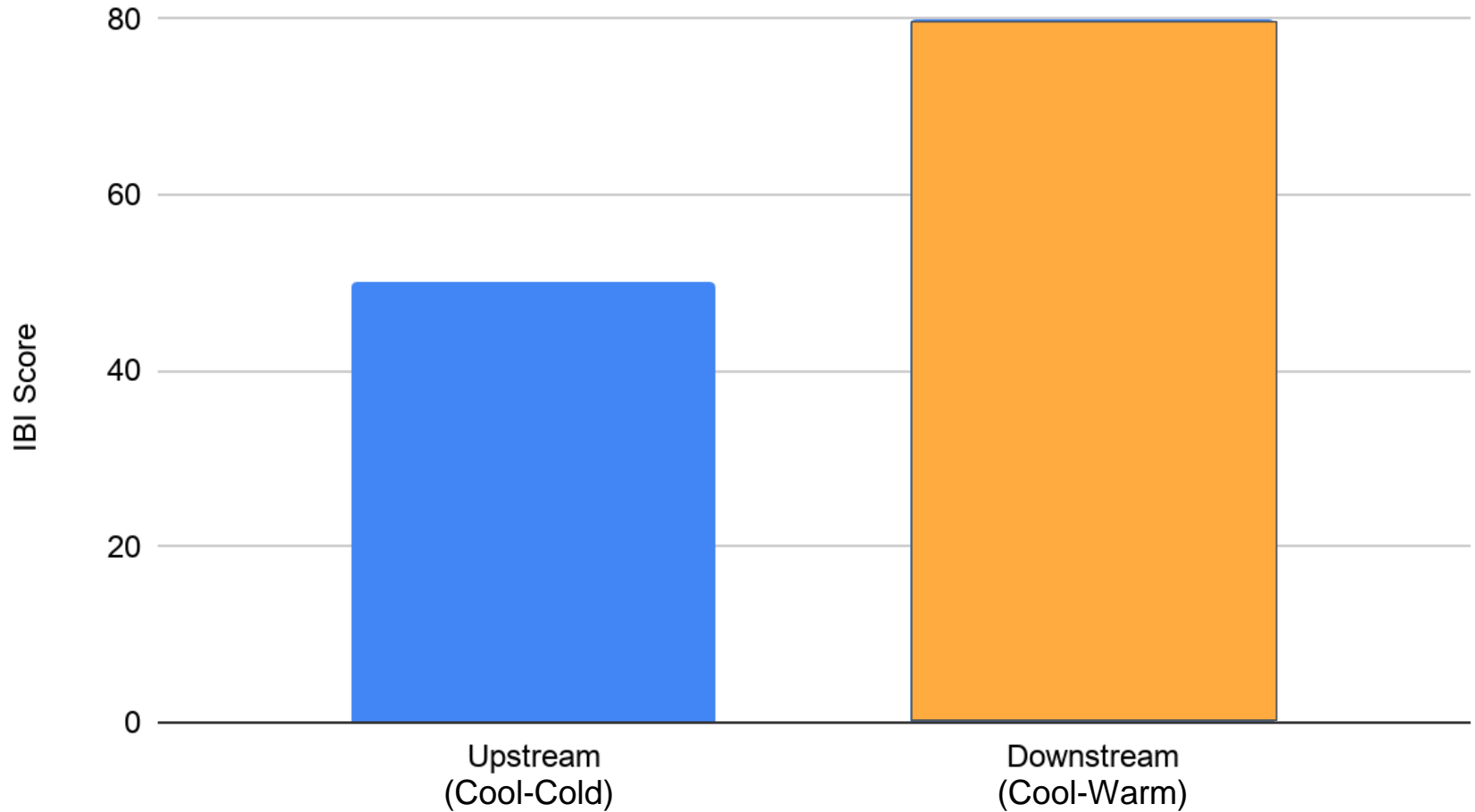
- Secchi Disk
- Water Turbidity Tube
- Water Sample Kit



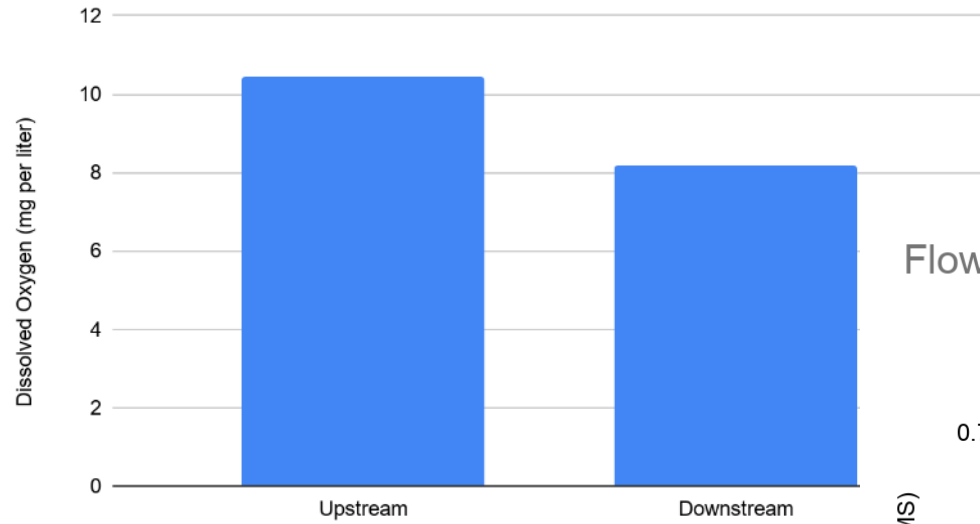
# Species of Fish Upstream vs Downstream



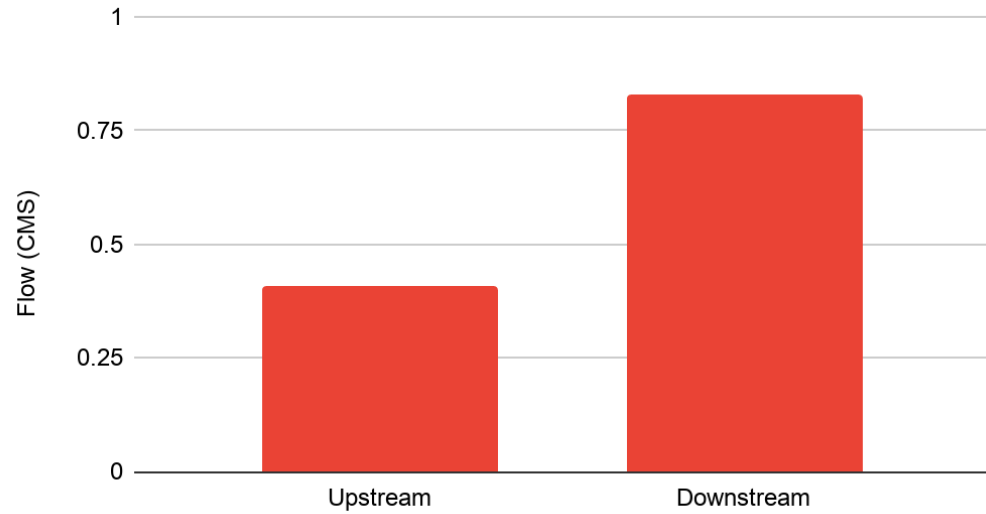
# IBI Score (Index of Biological Integrity)



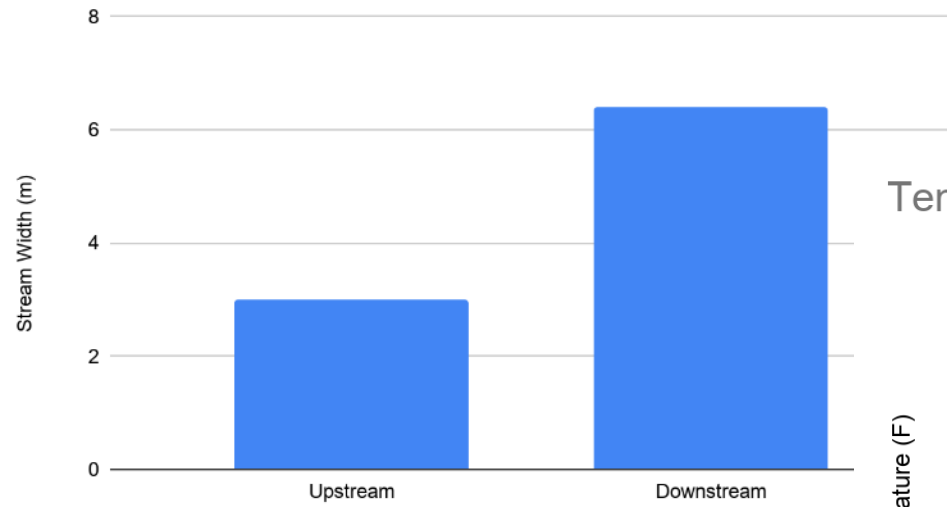
Dissolved Oxygen (mg per liter)



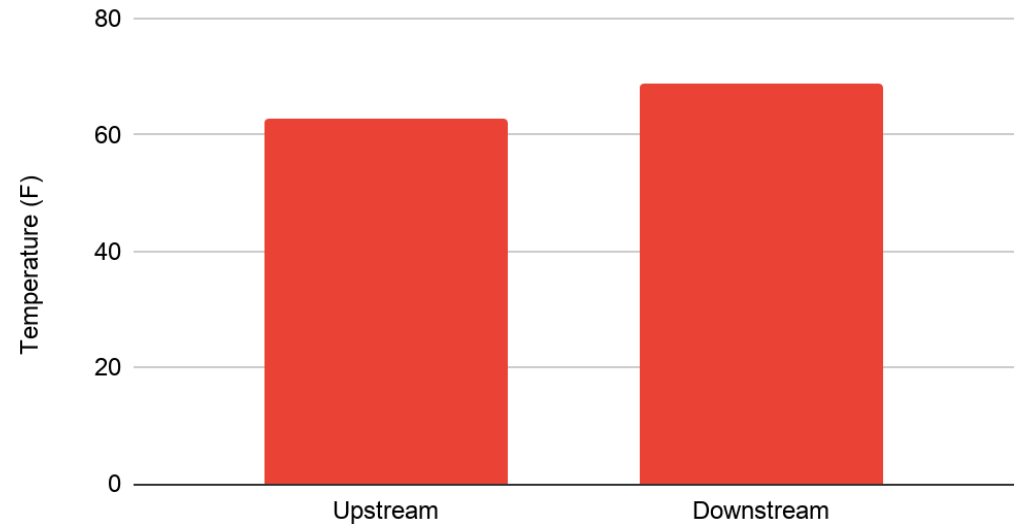
Flow (CMS)



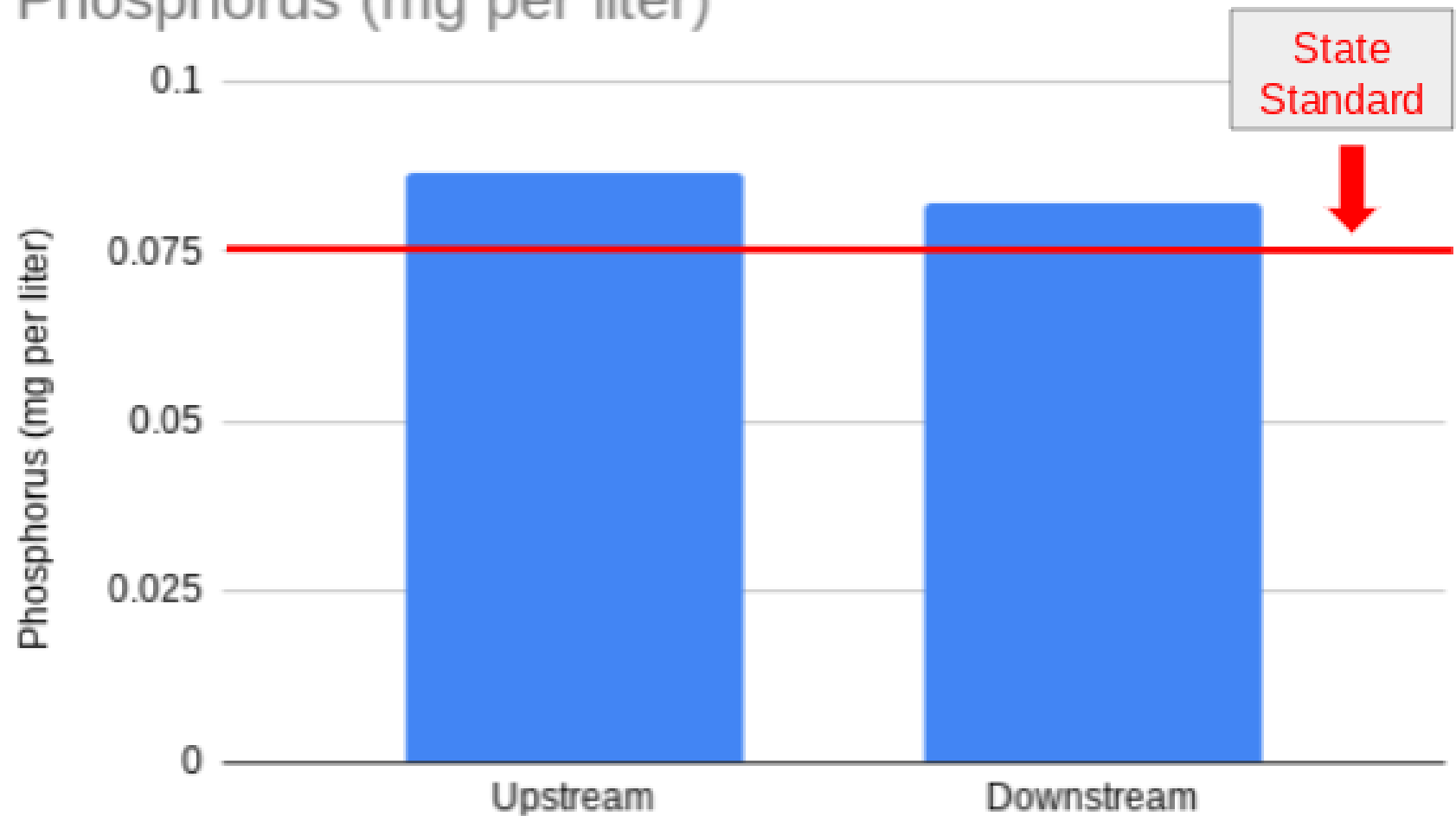
Stream Width (m)



Temperature (F)



# Phosphorus (mg per liter)





# ■ What phosphorus can do to the water? ■

It can cause algae blooms. When the algae dies as it decomposes oxygen is depleted that aquatic life needs to survive. Phosphorus has the potential to make recreational waters more dangerous and unappealing.

# How phosphorus is getting into our waterways

- Occurs after melting snow or heavy rain washes over farm fields.
- Natural soil erosion.
- It builds up in lake bottom sediments.
- Piped wastes and industrial wastewater treatment plants.



# The Importance of Blackhawk Lake

- Boating/kayaking
- Fishing
- Swimming
- Brings tourists into our area.

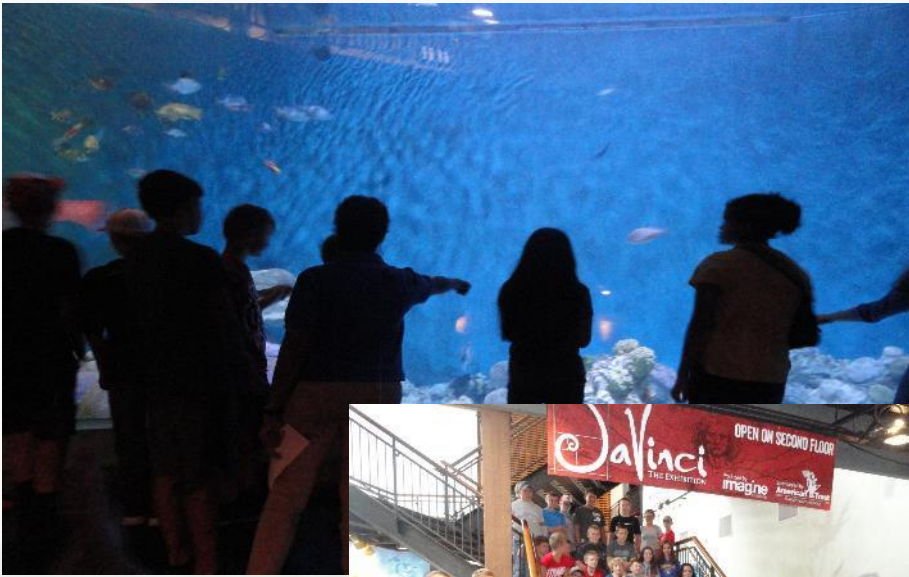


# Additional Projects and Water Activities





# Mississippi



R  
I  
V  
E  
R

# Museum



# Walk For Water



**THANK YOU**

Highland Community Middle School

*for*

helping the St. Peter's Primary School in Uganda









# Canoeing





# Kayaking



# Brainstorming



# Planning

# Lunker Building



# Storm Drain

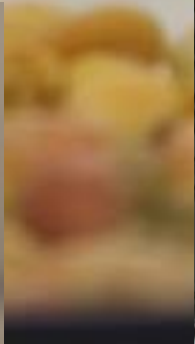


# Magnets

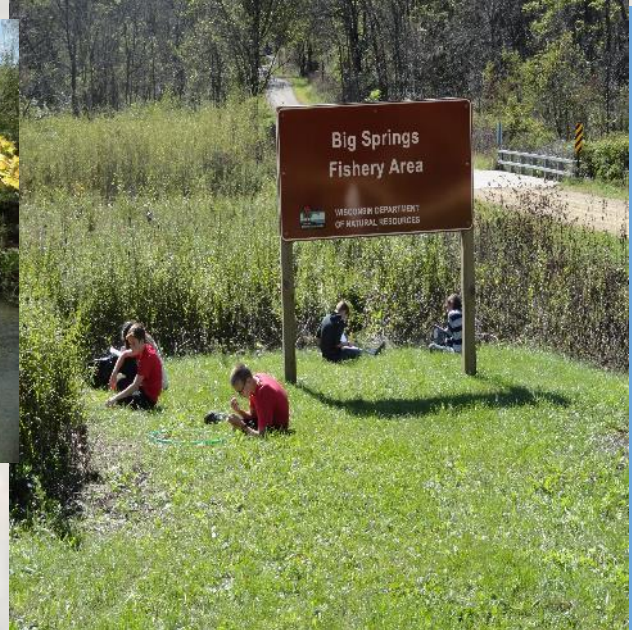
# Nevin Fish Hatchery



# Trout In The Classroom



# Visit to Big Springs





# Geology Museum



HIGHLAND  
HIGH SCHOOL

# Walk for water



# Hopes for the Future

- To continue this project over many years, to collect longitudinal data on the quality of our local watersheds.
- To better understand any potential impacts on the water we and other organisms need to survive.



# Future Plans

- Continue to work closely with the DNR to collect and monitor data of water quality.
- Raise trout in the classroom to later release in our local waters.
- Continue to spread awareness.



# What Can Be Done?

Things we can all work toward to improve water quality in Highland Community and surrounding areas.

# Actions to Help

- Keep paved surfaces clean.
- Minimize road salt.
- Reduce fertilizer use.
- Turn your downspouts onto your lawn.
- Stop the pollution of streams.
- Contact people to test water.



# People You Can Contact

for more information

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Clean Water Network

[Cleanwateraction.org](http://Cleanwateraction.org)

Waterkeeper Alliance

Wisconsin  
DNR

[waterforpeople.org](http://waterforpeople.org)

Safe Drinking Water Hotline





# **THANK YOU**

**For volunteering your expertise and dedication in making today's youth more knowledgeable about water quality.**





Justin Haglund - DNR Fisheries Biologist

Lloyd Meng - DNR Fisheries Technician

Kimberly Kuber - DNR Water Resources Management Specialist

Bradd Sims - DNR Fisheries Biologist

Sandy Benton - Green Schools Network

Sue Grahan - DNR Water Resources Management Specialist



Julie Benzschawel - DNR Water Resources Management Specialist

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Matt Wallrath - Invasive Species Project Coordinator (Upper Sugar River Watershed Association)

Donna Sefton - Clean Lakes - water quality monitoring volunteer