East Fork Little Miami Watershed

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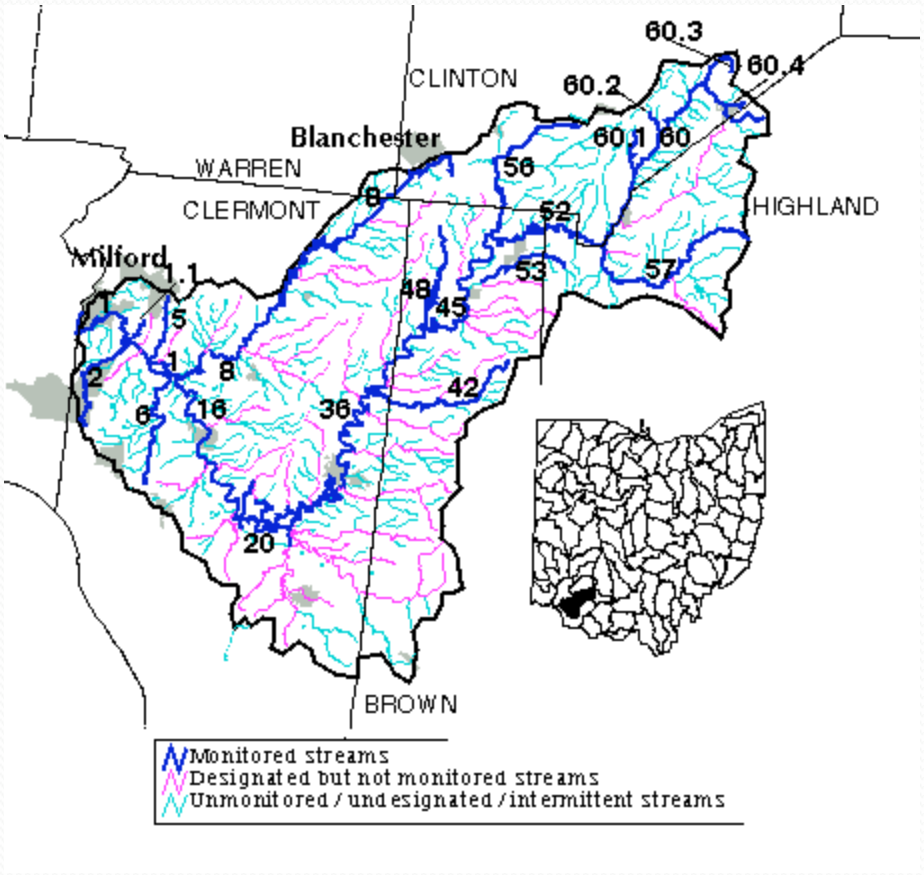
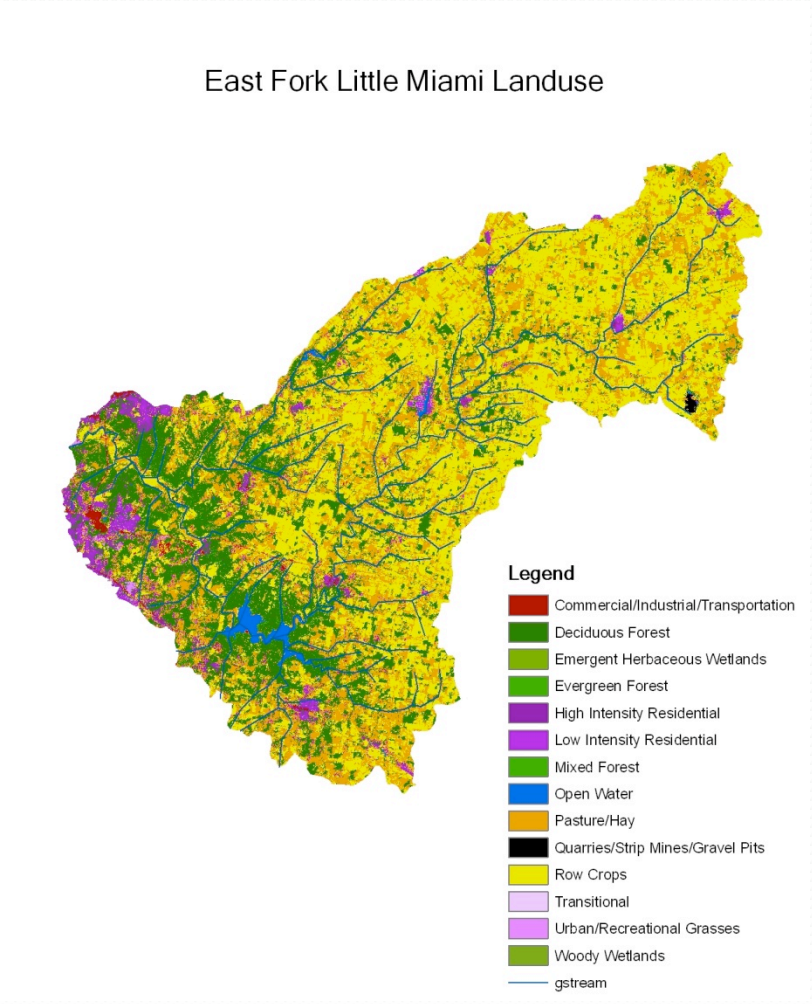
Where is our Watershed?

- Located in 5 counties, but mostly in Clermont county, which is in southwestern Ohio.
- It includes Lake Harsha which is near Bethel and Williamsburg



Information

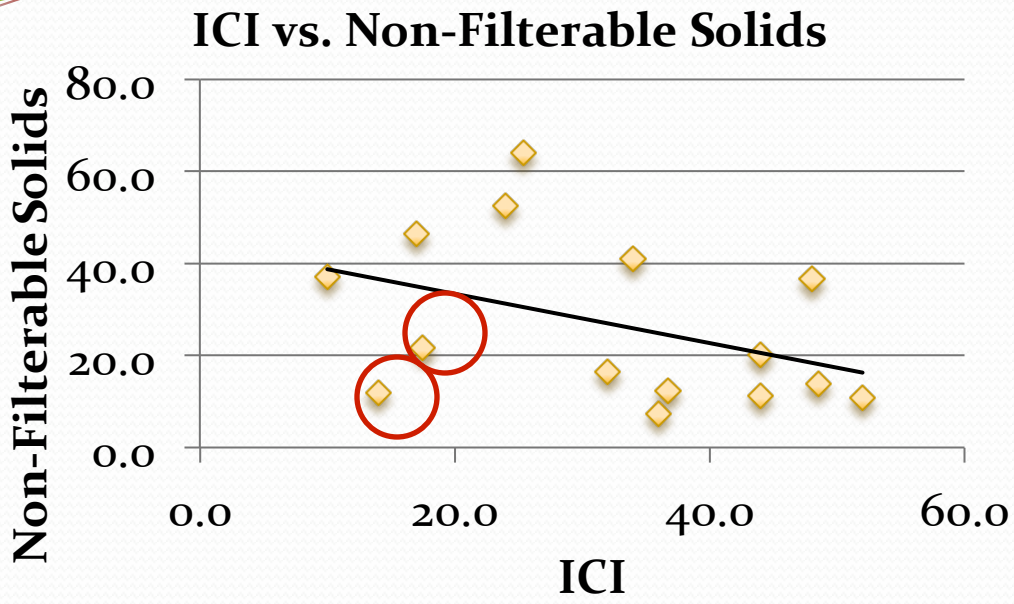


- Primary land use is agricultural, but there are also forest and urban areas
- 320,000 acres
- Harsha lake is man-made and provides flood control, a place for boating and fishing.
- Includes a whole variety of stream habitats including the Exceptional Warm water Fisheries.

Mikayla's Hypothesis and Vocabulary

When there is more sediment in the water, the diversity of the macroinvertebrates decreases.

- **Non-Filterable Solids**- large pieces of sediment in the stream.
- **ICI (Invertebrate Community Index)**- macroinvertebrates
- **Macroinvertebrates**- small creatures such as mussels and insects that live in the substrate of the steam.
- **Substrate**- The bottom of the stream.

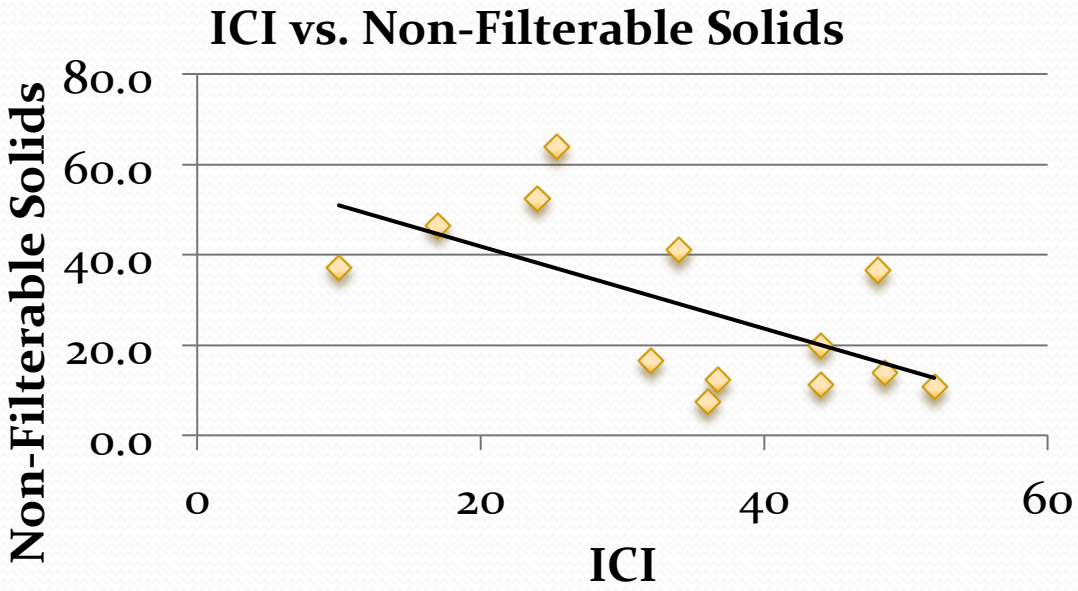


Before

$R^2 = 0.2$

After

$R^2 = 0.4$



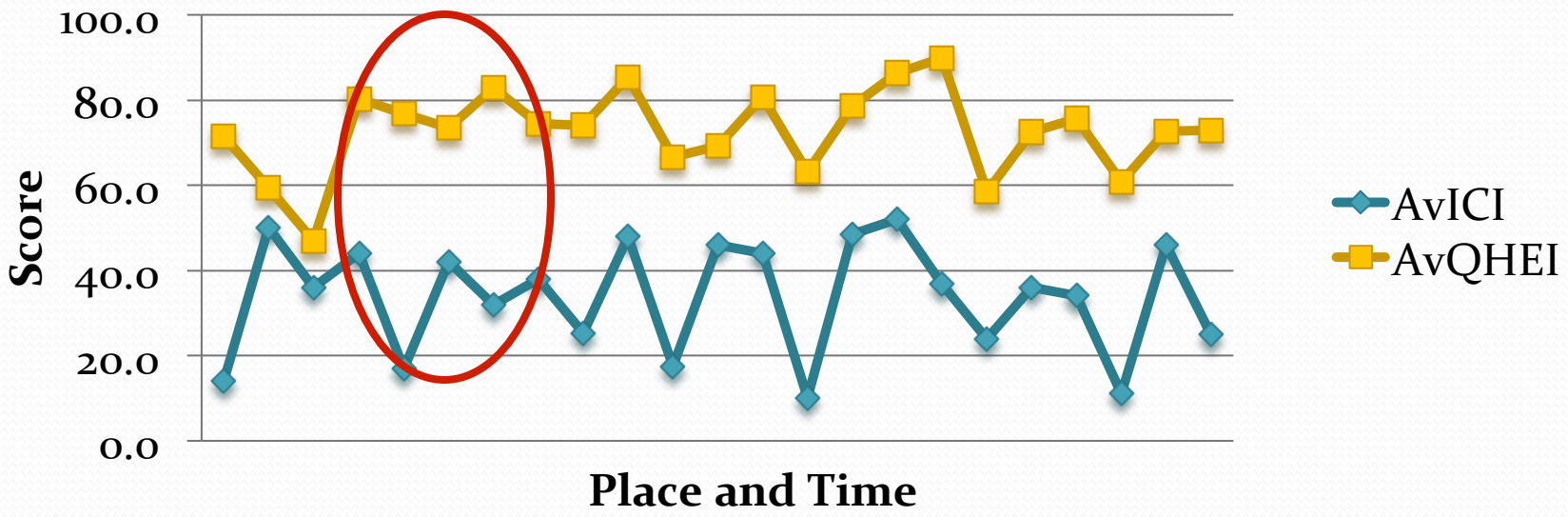
Salmika's Hypothesis

The better the QHEI score of a stream, the healthier the invertebrate community.

- **QHEI**-Qualitative Habitat Evaluation Index; Has range of 0-100 that measures a stream's physical qualities such as:
- **Cover**- Tree canopy; cools water
- **Pool Quality**- Deep area of stream

ICI and QHEI

- This graph shows the relationship between QHEI and ICI. When QHEI increases so does ICI and the same happens with the opposite.



- Low Dissolved Oxygen.
- Temperatures higher then 22 degrees C.
- Non- Filterable solids higher than 100.

Kayla's Hypothesis

- When the Dissolved Oxygen is lower than 6ppm the fish diversity decreases.

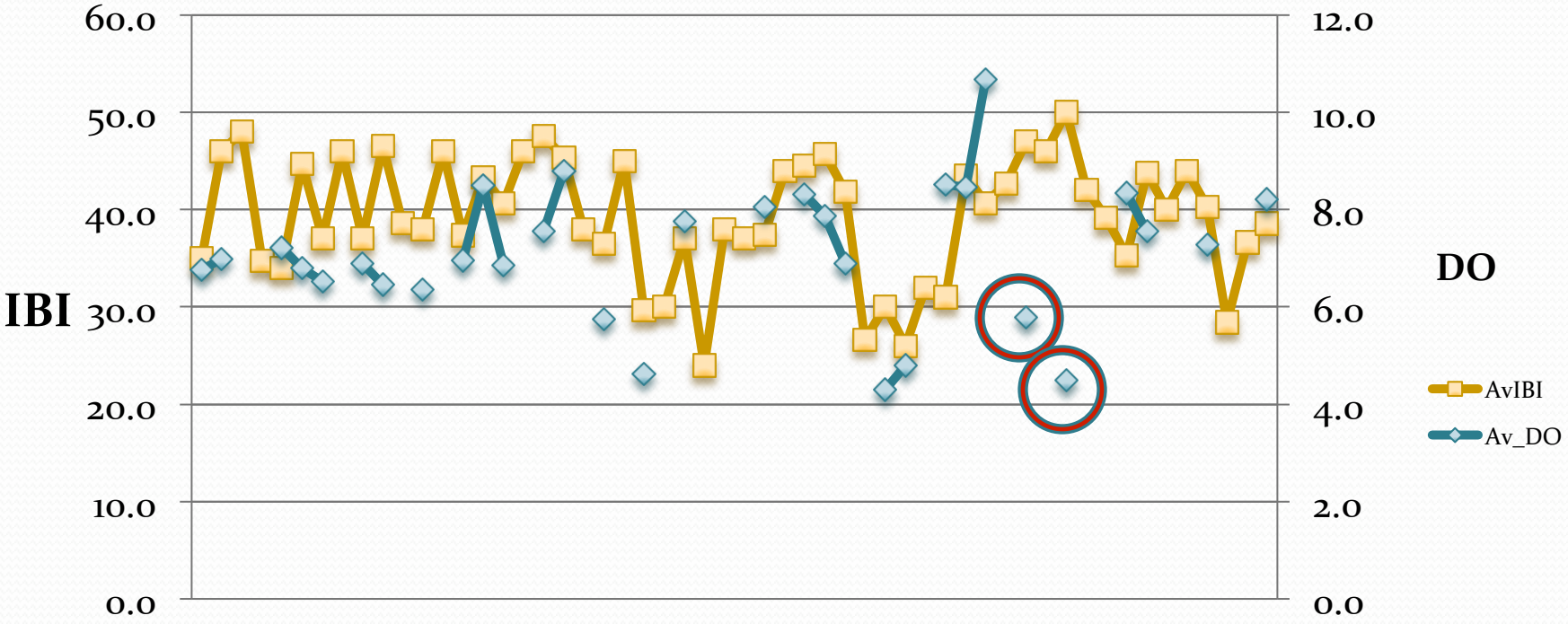
Dissolved Oxygen- It is a chemical element necessary for organisms to survive.

IBI- A measure of the diversity and health of the fish population.

PPM- Stands for parts per million.

Diversity- The variety of different species.

Fish Diversity and Dissolved Oxygen



Both of the exceptions have high quality habitat and one data point was really close to 6ppm.

Why does this Matter?

- Clean drinking water.
- Maintain a diversity of fish.
- Natural scenery and recreation.

How Can You Help?

- Plant native and beneficial plants, like trees, along rivers and streams.
- Use silt fences around construction sites.
- Use the soil wisely by growing plants.

Special Thanks!

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