



MISG SUMMER RESEARCH 2020

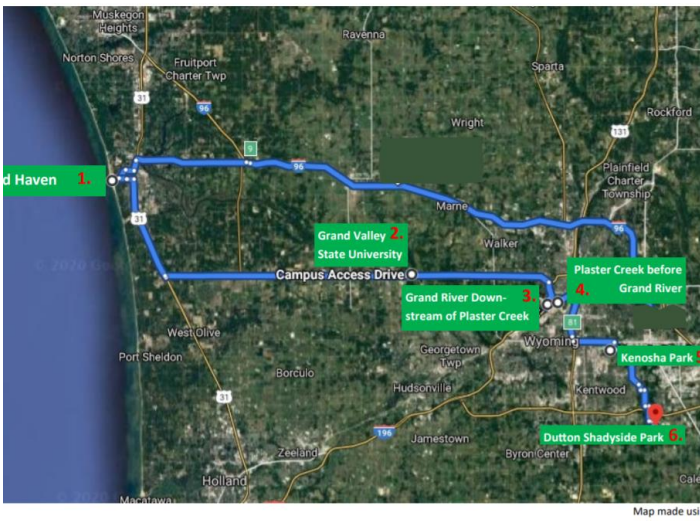
Ana Singh



The project

- ❖ Plaster Creek Watershed → “One of **most** polluted watersheds in the state”
- ❖ Plaster Creek Stewards Initiative: Research, Education and Restoration
- ❖ Improvements on Urban Green Infrastructure
- ❖ Mentoring and educating area high school students about upstream-downstream connections

Top photo courtesy of PCS Facebook



Methods

Transpiration Data Collection:

- ❖ Leaf porometer
- ❖ 4 collection dates
- ❖ Sunny conditions and 10:00 AM- 2:00 PM

Regional Sampling Trip:

- ❖ 6 Sampling sites on Grand River and Plaster Creek
- ❖ pH, Conductivity, and temperature measurements.
- ❖ Sample Collection for E. coli plating
- ❖ Report values to LGROW data repository

Results

Native Plant Transpiration
(mmol/m²s)

Asclepias tuberosa - 449.85

Rudbeckia triloba - 316.76

Solidago speciosa - 251.93

Penstemon hirsutus - 251.82

Liatrix spicata - 242.18

Packera obovata - 241.89

Lobelia siphilitica - 214.14

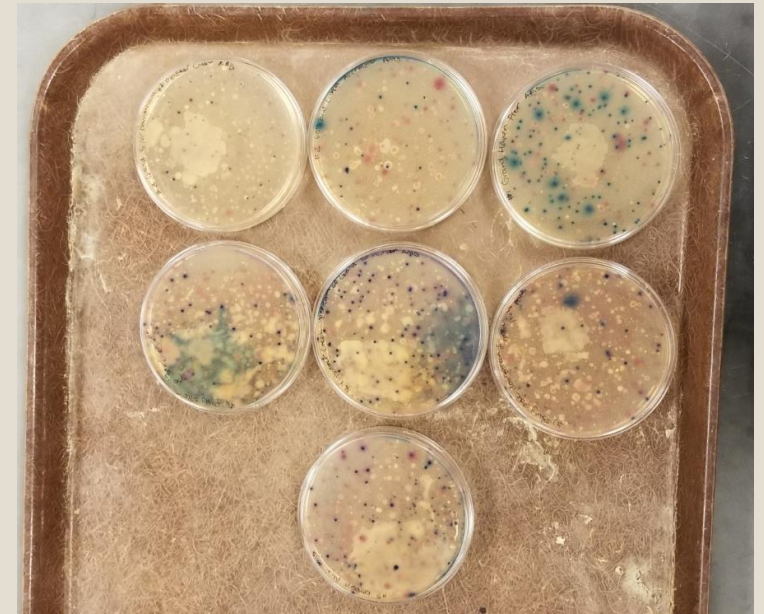
Penstemon digitalis - 209.53

Monarda fistulosa - 200.43

Allium cernuum - 37.56

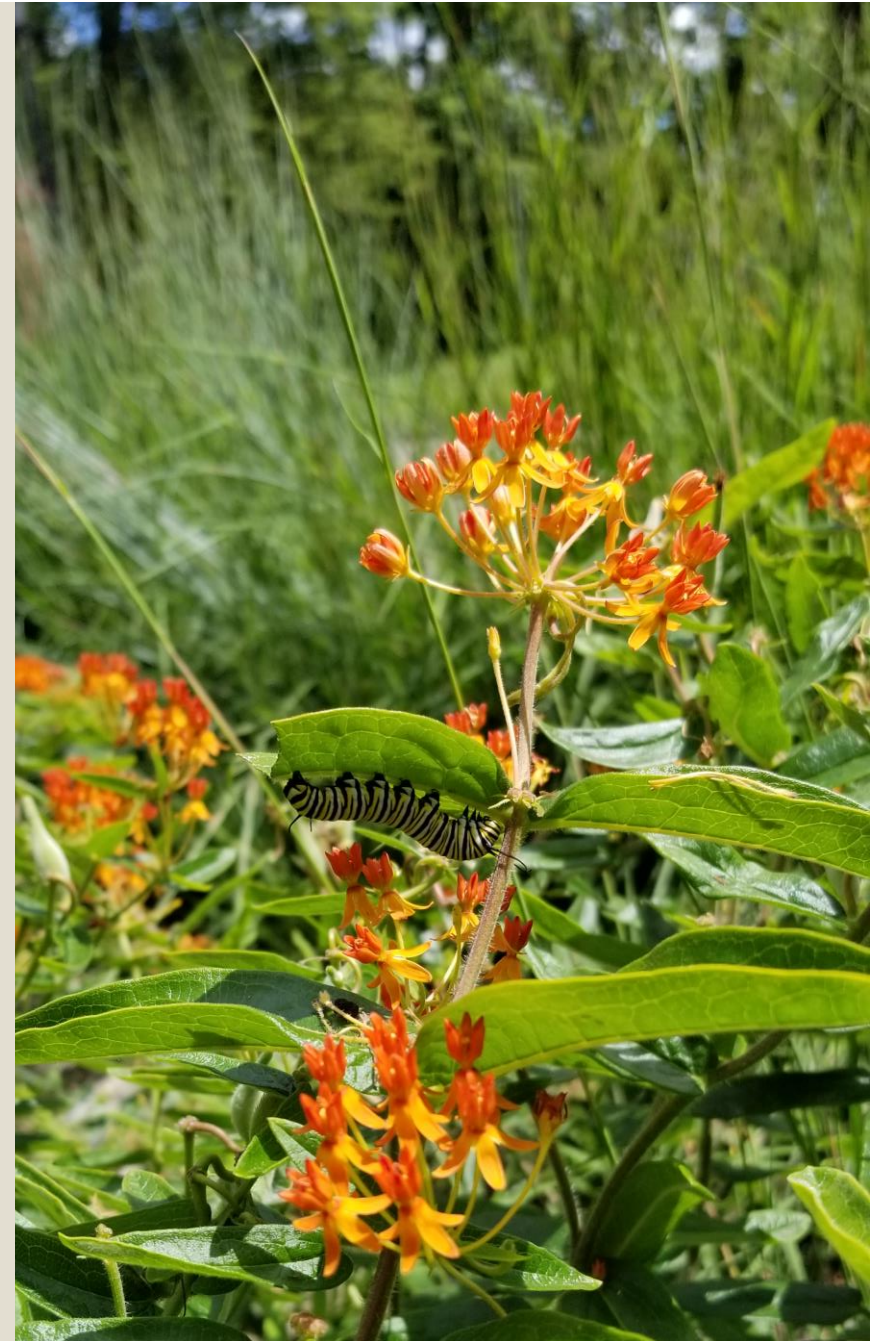
Regional Water Sampling

- ❖ High levels of *E. coli* in both sampling trips
- ❖ Created an educational video to share with Green Team Students
- ❖ Data shared with LGROW Data Repository



Challenges Faced

- ❖ COVID-19 obstacles
- ❖ Data analysis/processing
- ❖ Future plans for publication





LESSONS LEARNED