



JCIB Stormwater Management Action Research Team

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Supervised by Ryan Reardon

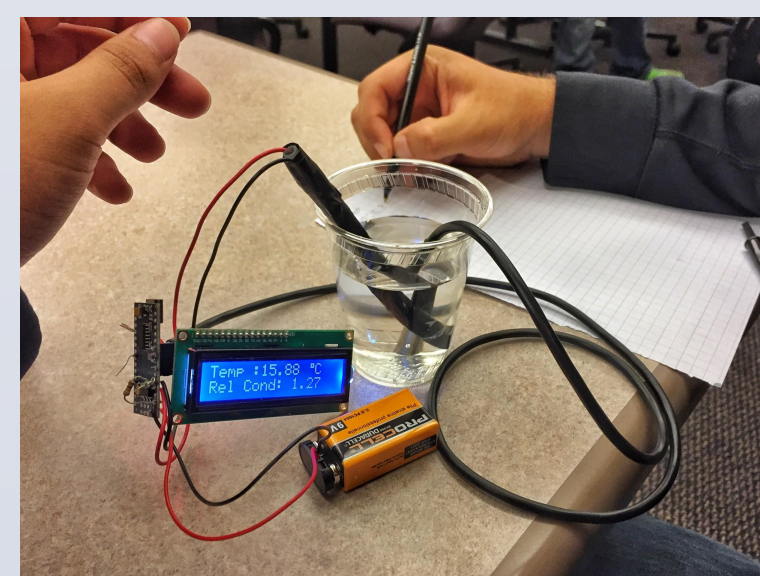


U of Maine Summer Program

The University of Maine's SMART program brings students from across the United States together in the common cause of learning more about stormwater management. We spent a week in Orono, Maine, performing field work; analyzing water quality data; designing, wiring, and optimizing sensors; and discussing stormwater issues and the challenges freshwater resource managers face.

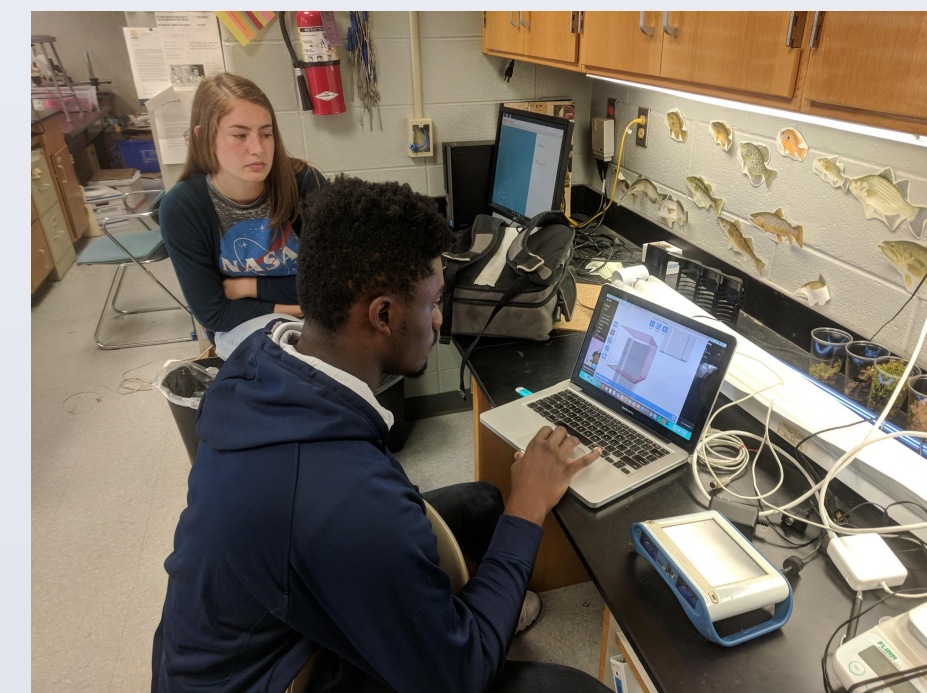


Data Collection on the Penobscot River in Maine



Building our own temperature and conductivity sensors. Thanks to PASCO Scientific!

JCIB SMART Team Data Collection on the Cahaba



Figures 1 and 2: Hazel and Andre at FWLT; Will helping Hazel design and 3-D print a biofiltration system.

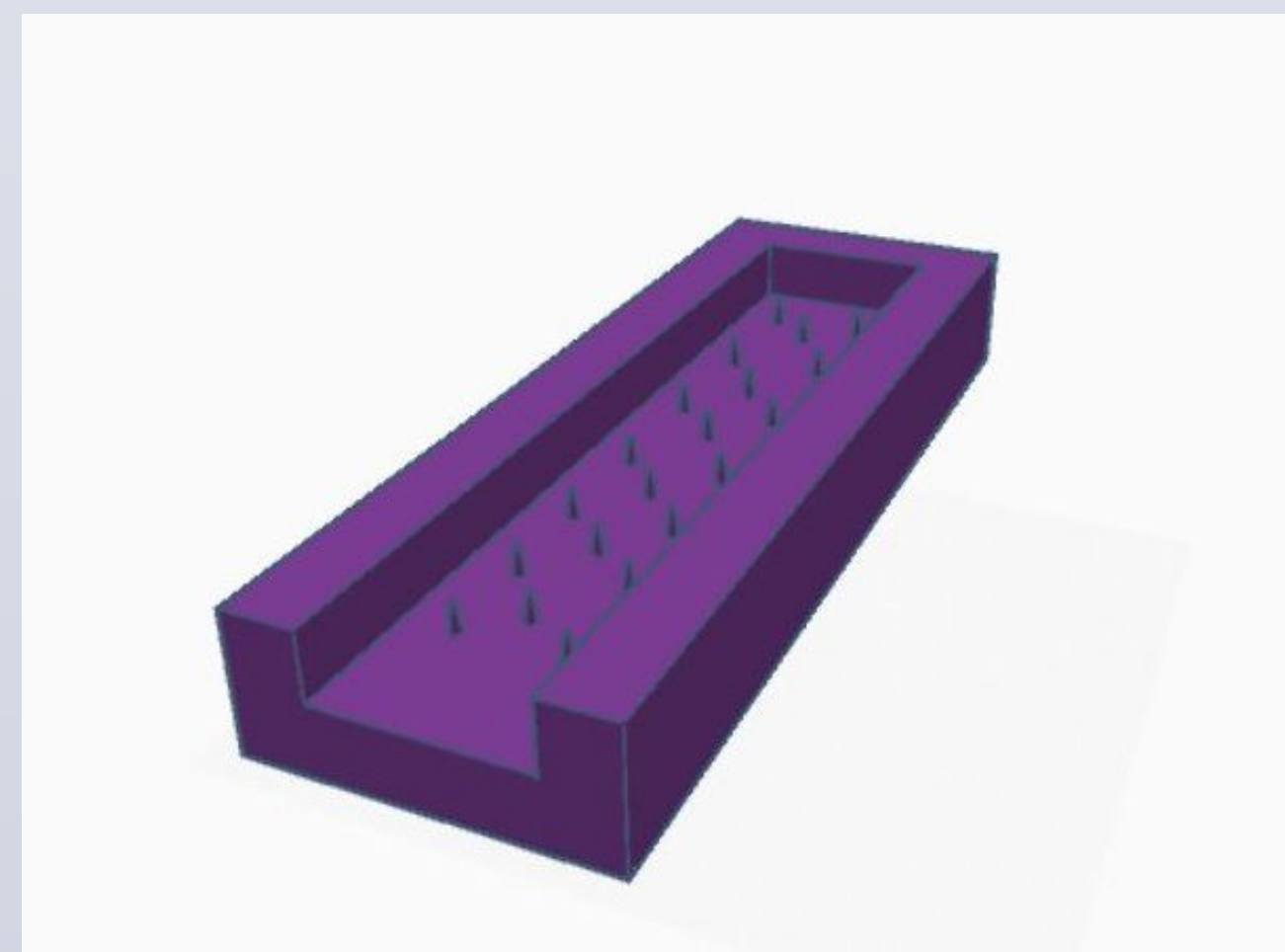
Water Quality on the Cahaba River at Irondale Riverwalk					
	September	October	November	December	January
Temperature (C)	23.04	23.06	12.53	10.3	9.87
pH	7.92	7.62	7.81	7.23	7.56
Turbidity (NTU)	6.93	7.08	6.2	6.4	6.8
Flow Rate (m/s)	0.43	0.57	0.23	0.8	0.6
Conductivity (μ ms)	19.67	21.1	14.67	15	15
DO (mg/l)	8.14	8.22	8.48	9.03	7.45

Table 1: Typical mean monthly water quality metrics during fall 2017, and winter 2018 (n = 4).



Figure 3: Our sampling sites along the Cahaba River in Irondale, AL.

Current Projects



This is a model for a 3D printed design of a replication of a trough, in which allows stormwater to run into local waterways; this model is being used to test the effectiveness moss has on reducing the physical impact of stormwater running into waterways.

Future Plans

Spring 2018: Stormwater Management tours at schools in the following districts: Birmingham City Schools, Trussville City Schools, Jefferson County Schools, Homewood City Schools, and Alabama School of Fine Arts.

Summer 2018: Five more JCIB and SVHS students will participate in a local SMART workshop in June 2018.

Want to Get Involved?

Email or call our supervisor: Mr. Ryan Reardon

Email: rreardon@jcboe.k12.al.us
Phone: 205.243.8795

Work with us on Wednesday afternoons! We meet from 1-5 pm every Wednesday at JCIB. We meet and collect data on the Cahaba River from three different locations. We love hearing from guest speakers, and we're interested in visiting businesses or municipal entities invested in smart storm water management practices. Let us know how we can partner.