

Monitoring Subcommittee Meeting II

August 6, 2009 4:30-6:15 p.m.

Attendees: Ron Turco, Sara Peel, Reuben Goforth, Megan Heller, Linda Schmidt, Melissa Baldwin, Julie Speelman, Angela Myracle, Steve Murray, Jill Brown

Mass monitoring event aka Wabash Sampling Blitz:

- Turco highlighted the watershed-wide sampling event which is in the works. Sampling will occur on September 18th (Friday) and will include analysis of water sample for nitrate, nitrite, orthophosphorus, and ammonia in the laboratory and pH, temperature, nitrate, nitrite, orthophosphate, and copper in the field. Approximately 200 sites will be sampled. Baldwin volunteered to assist with map-making.

Historic sample sites map:

- A map of historic sample sites by type was distributed. A brief discussion of sample events and by whom they were conducted occurred. No additional studies were identified.

Current sampling – biological:

- Goforth introduced the sampling program detailing the 4 samples annually for fish and macroinvertebrates at 12 sites. Currently, two sample events have been completed with 10 of the 12 sites sampled during each event. Jordan and Lost creeks were not sampled due to the sites being dry or almost dry. Goforth and his students are working to identify two additional sites with similar drainage areas as the hope is to have four groups of three sites of similar stream size and drainage.
- Bug sample picking will occur over the winter with sample results available in the spring.
- Goforth discussed initial sample results as follows:
 - Goal of relative abundance review is to allow comparison of good vs bad assemblages. Ideally, you will see relatively similar numbers between species at different sites.
 - Good indicators of quality habitat do not necessarily indicate good water quality. For example, bluntnose minnows are omnivores and are very tolerant and very ubiquitous. Central stonerollers are common in the Midwest especially in fast-moving, cobble dominated streams. At Flint Creek, central stonerollers account for 53% of the population, which is not good.
 - Goldfish were collected in Elliot Ditch.
 - Mississippi silvery minnow were collected in low numbers as we are at the southern edge of their range.
 - Hornyhead chub, northern hogsucker, and suckermouth minnows are good indicators of water quality.
 - Green sunfish are typically very aggressive and can dominate a community. Hybrid sunfish are not considered favorable and are considered typical of lower quality stream systems.

Current sampling – water chemistry:

- Turco noted that this was the first data distribution from the project and as such some items may change. No load calculations or weighted mean calculations have occurred at

this time. Database development is on-going and stats are being worked on as well as relationships (ie TSS vs. TP).

- Three sondes were installed to measure conductivity, dissolved oxygen, temperature, pH, and turbidity. These are located at the three stream gages on Little Pine, Little Wea, and Elliot Ditch. A nitrate analyzer will also be installed in the near future as one will be on loan from the USGS.
- Initial notes about data are as follows:
 - Nitrate+nitrite at Elliot Ditch is really low while the same samples were elevated in Little Pine Creek (<2 mg/L vs. >8 mg/L). Little Wea nitrate+nitrite concentrations were also elevated (4-8 mg/L) while concentrations in the Wabash River were relatively low (<4 mg/L).
 - Elliot Ditch TP concentrations were relatively low (<0.1 mg/L), while those measured in Little Wea were elevated (>0.5 mg/L).
 - Total coliform and *E. coli* concentrations were elevated at all sites during most sample events.