

Monitoring Subcommittee Meeting I

May 13, 2009 9:00-11:00 am

Attendees: Ron Turco, Heather Gall, Jill Brown, Megan Heller, Rae Schnapp, Crystal Joshua, David Little, Laura Bowling, Steve Murray, Julie Speelman, Sara Peel

Monitoring Strategy:

- Ron Turco explained the monitoring strategy which includes collection of weekly grab samples at three tributary locations – Elliot Ditch, Little Pine Creek, Little Wea Creek and the Wabash River upstream and downstream of the cities of Lafayette and West Lafayette; continuous monitoring of stage at the tributary sites; and biological monitoring four times annually. All monitoring will occur over a two year period with monitoring starting approximately 8 weeks ago. A list of parameters was reviewed. These include: temperature, dissolved oxygen, pH, conductivity, turbidity, nitrate, nitrite, ammonia, total phosphorus, total suspended solids, algae, *E. coli*, total potassium, and calculation of the IBI, mIBI, and QHEI (fish, macroinvertebrates, and habitat assessments).
- The long-term goal includes pharmaceutical monitoring, but that assessment is not covered under the current grant. Murray indicated interest in this information as well as an assessment of pesticides and herbicides in both urban and rural areas.
- Source of *E. coli* will not be established as part of this project; however, there will be some attempt to identify whether *E. coli* is coming from the same source population.
 - Rae Schnapp suggested the use of a detergent test kit to assist with this identification and will provide cost and source information to do this assessment.
 - David Little inquired about how this information would be tied to locations of large animal production sites. Turco indicated we will collect information on confined feeding operation locations as part of the watershed management plan, but that human sources are also an issue. We will attempt to identify locations where septic systems are not functioning correctly or where densities are too high and sewer systems should be installed.
 - Schnapp further suggested collection of locations where manure is supposed to be spread but indicated that the IDEM treats these locations as suggested spreading locations and that producers are not held to these locations for actual application. Schnapp suggested calculating loading of *E. coli* based on human and animal populations as well.
- Steve Murray questioned whether we would be using the county's Elliot Ditch site and indicated that there had been some discussion with the USGS re: adding nutrient and field parameter measurements to that gage. This has not yet occurred.
- Murray questioned when the last assessment of PCBs occurred in Elliot Ditch and Wea Creek and whether contact with the water or sediment was still a concern. Peel indicated that the data for the EPA assessment occurred in 1999 and that she would follow-up with them to obtain the data and determine if they planned to sample again.
- Schnapp requested further clarification of the algae assessment as to whether it will target pollution tolerant and intolerant organism identification. Turco indicated that this assessment will include biomass only and will not calculate tolerant/intolerant species. Bowling indicated long-term research efforts along the Wabash will target this information but funding has not yet been obtained to complete this assessment.

- Speelman highlighted volunteer monitoring opportunities and reviewed the training dates – May 23 at Purdue and May 28 at Battle Ground. Peel will forward the registration information email to the monitoring committee so that they can register if interested. Peel stated that all 12 sites were claimed and that additional sites will likely be identified within the watershed; therefore, if others are interested in volunteering, we are happy to have them.
- Schnapp highlighted results of fish sampling from Trent Sutton, a former FNR professor at Purdue, and suggested that we educate the community about diversity and quality of the Wabash River fishery. Peel will forward this suggestion to the education and outreach committee.

Roles:

- Ron Turco requested clarification as to what the monitoring committee wanted to do or accomplish as part of this project, what roles the monitoring committee wanted to play, etc. He indicated that ideally we would be able to use this committee to bounce data and interpretation ideas off of and have them help with identifying sources that may be in the areas of concern.
- Murray requested clarification as to the recent meeting announcements (May 28). Turco outlined the two events which include a morning field trip to the sample gages and fish shocking for the Purdue water faculty (approximately 58 faculty organized approximately 2 months ago to begin focusing on local water issues) and an afternoon meeting with the Wabash River research community or those that are working on projects or investigations along the length of the Wabash River.
- Schnapp inquired as to our ability to modify sample locations as part of this project especially if we identify a hot spot through out monitoring. Turco indicated that there was limited flexibility but that we could apply for additional grant monies to try to identify these issues. Speelman suggested that we use volunteer monitors to move into those locations if we need to spot identify concern areas.
- Joshua indicated that TCPWQ is working to develop BMP recommendations for metals and were hoping obtain information on their concentrations in our watershed. They are currently using 1981 nationwide data and more local lead and zinc data would be more useful. Turco stated that metals would not be analyzed and that Purdue did not have an easy way to accomplish this but that they were working on purchasing equipment. Future funding may be available to add this assessment. Test kit options will also be investigated. Heller will identify what current options are available for metals testing, associated costs, and potential test kit options. Schnapp has some money for test kit purchase and may be able to help with this, if possible. TCPWQ may also have a budget for this assessment and will comment when we have a better idea of cost.

Data Sources:

- Peel noted the posting of information and reports that have already been identified and there status (have/need) was posted to the website. She requested that committee members review it for completeness and provide any additional data that they may have.
- Other ideas of available data were highlighted:
 - Health department data – Turco will lead effort to obtain from all 6 counties
 - Dry weather screening data for all MS4 entities – Murray will provide county data; Turco has West Lafayette data

- Volunteer data (Hoosier Riverwatch) – Peel has this already
- Large application of solids (WWTP and CFO) and nutrient management plans for watershed – Schnapp will begin work on this effort; Peel will provide a large scale map, as necessary
- Wastewater treatment plant data – Schnapp will contact WWTP and review permits for data
- Lilly, Alcoa, other industries
- Gammon's data and other fisheries assessments in the Wabash – Bowling will provide book to Peel
- Hormone, nutrient, pharmaceutical data from ditches, tiles, and streams around PU ag property and constructed wetland downstream – Gall will provide this information
- Bowling also has other constructed wetland data which she will provide
- Peel indicated effort to identify and obtain Little Pine and Indian Creek data from Spacie's efforts in the 1980-1990s. Work will continue on this effort.

Mass monitoring event:

- 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.
- Bowling suggested that individuals sample something on-site as well so that data can be immediately entered into GIS and published in the newspaper and on the 6 pm news the same day. Schnapp suggested using temperature and that she had a source for low-cost thermometers which she would provide to Peel ASAP. Bowling indicated willingness to assist with GIS layer preparation and data entry the day of the event.

Next meeting:

- August (first week) will include:
 - IDEM fixed station data analysis
 - Report on data gathered and what we're missing
 - Mass monitoring event update
 - First set of current data for review purposes