

**Curry's Fork Watershed Plan
Technical Committee Meeting**

Thursday, October 7, 2010

9:30 A.M. to 11:30 A.M.

Oldham County Fiscal Courthouse, La Grange, KY

Curry's Fork Warm Water Aquatic Habitat (WAH) Impairment Data

1) Welcome and Introductions

Paul Maron (Strand Associates) welcomed the twelve stakeholders in attendance to the meeting. Agency representatives included La Grange Utilities Commission, University of Louisville, Oldham County Fiscal Court, Oldham County Sewer District, Health Department, and Kentucky Division of Water (KDOW).

2) Project Updates

a) Plan Completion Schedule

A draft plan is scheduled for completion by the end of 2010.

b) Stream Restoration Project

The deed was rewritten and resurveyed but is currently on hold. Beth Stuber (Oldham County Engineer) will contact Nick Ozburn (Fish and Wildlife) for a status update. Ed Basquill (Oldham County Sewer District) was able to provide Beth the Real Properties contact who is working on the easement. Beth will also contact Real Properties for a status update.

c) Website Updates

No website updates.

3) Water Quality Data Analysis Team Summary

Paul reviewed the topics discussed at the Water Quality Data Team Meeting (WQDAT) held on September 23, 2010. The WQDAT discussed the various sources of WAH data, results, and potential impairments and pollutant sources. Overall, the different sources of data agreed with each other. Poor habitat and biological levels appear to be associated with flow issues and lack of riparian buffer. Improving stream functionality and supply more base flow could potential address numerous concerns.

4) WAH Pollutants of Concern and Suspected Sources

a) North Curry's Fork

Upper North Curry's Fork displayed elevated Total Suspended Solids (TSS) levels and slightly elevated ammonia and phosphorus levels, although phosphorus levels were low compared to other watersheds. Although septic systems were listed as potential sources/causes, Todd Lafollette (Oldham County Health Department) noted that the residential community in this area is very tight on failing systems, and it should not be

considered a primary pollutant source. Other potential sources included stream bank erosion, land use changes, poor construction practices, and other residential sources such as fertilizer application. Todd also indicated from his experience that failing septic system flow does not always make it to a stream and that for septic systems to be a source, they would need to be concentrated in residential areas that are developed closer to streams. Wildlife could also be a more significant nutrient contributor due to the amount of wildlife located between interstate I-71.

Lower North Curry's Fork displayed the highest nutrient levels of any subwatershed. TSS levels were also elevated typically during wet weather conditions. Biological assessment indicated the condition as fair to poor and habitat assessment indicated it is a non-supporting stream reach. Potential sources for nutrients are the La Grange WWTP, Buckner WWTP, residential discharges, and septic systems.

b) South Curry's Fork

The primary concern in the Upper South Curry's subwatershed is the low dissolved oxygen (DO) levels. Upper South Curry's Fork had the lowest overall DO level and the most DO measurements below the water quality standard of 5 mg/l. Causes for low DO are channelization and lack of riparian vegetation. Upper South Curry's Fork also had elevated TSS levels typically during wet weather conditions. Channelization and lack of riparian vegetation were considered sources of TSS as well as the high degree of bank entrenchment. It was noted that channelization is a common problem throughout the watershed and should be added as a potential pollutant source watershed wide.

Lower South Curry's Fork also yielded elevated DO levels and TSS during wet weather conditions, as well as elevated ammonia levels. Low DO levels could potentially be caused by the low upstream DO levels. Biology and habitat assessment performed in Lower South Curry's Fork indicated fair biology and a supportive habitat. These conditions were potentially buoyed by condition of the stream near the sampling site and are not factoring in concerns within the upper portion of the watershed. The biology is showing fair metrics but the elevated macroinvertebrates are ones typically found to be less sensitive to pollutants. Macroinvertebrates sensitive to pollutants were lower compared to Curry's Fork and North Curry's Fork.

Potential future stresses in the watershed include the Oldham Reserve, which is roughly a 1,000 acre area that is planned for development.

c) Ashers Run

Upper Ashers Run had minimal WAH concerns, typically having low nutrients, acceptable DO levels, and low TSS peaks typically occurring during wet weather events.

Lower Ashers run displayed elevated slightly elevated phosphorus but was low compared to Curry's Fork and North Curry's Fork, elevated TSS during wet weather events, non-supportive habitat conditions and the worst biology assessment of all subwatersheds. The size of Ashers Run was considered to be an important factor in the poor habitat and biology assessments. Ashers Run is the smallest watershed of Curry's Fork and may not

provide enough base flow to support to support aquatic life, therefore it may be inappropriate to compare its biological results to other subwatersheds. It was also reiterated that the biological survey for Ashers Run was not taken within the recommended time period, which could influence biology results.

d) Curry's Fork - Main Stem

The main stem of Curry's Fork yielded the best biological and habitat assessment results of any subwatershed. Curry's Fork also had elevated nutrients, TSS, and low DO levels. Curry's Fork has very high banks and the highest sediment production rate of any subwatershed based on estimates from the University of Louisville, therefore stream bank erosion is considered a primary source of TSS. Potential sources of nutrients and low DO levels include upstream contributions from North Curry's and South Curry's, respectively.

5) Other Comments

Overall, pollutant sources were considered to be too general and it was requested that they be refined more to better describe sources within each individual subwatershed. Duane Murner (Oldham County Judge Executive) also recommended providing a separate Executive Summary document for the Watershed Based Plan that will provide a more cursory of the results of the studies and the proposed solutions. This may be a more effective approach instead of creating one document to satisfy the needs of the general public, regulators, and scientists reviewing the report.

The proposed Pathogen Solutions Table was also discussed. Margi Jones (DOW) recommended that the table be revised to prioritize solutions based on what is feasible, what will have the most impact, and which watersheds are in need of restoration/protection.

6) Closing

WAH pollutant sources and priority areas will be revised and discussed in further detail at the next Technical Meeting which will be held on October 21, 2010.