Dix River Watershed Council
May 8, 2007

Meeting Notes

Participants: Malissa McAlister, John Webb, Jerry Nicholson, Josh Morgan, David Jewett, Heath Stone, Mary Ann Sharp, Preston Miles, Amanda Gumbert, Jerry Little, Tony White, Lee Colten, Jim Roe, Andrea Fredenburg, Brooke Shireman

After a welcome and introductions, participants mentioned several watershed-related activities that had occurred since the last Council meeting.

- Several area residents completed Kentucky River Watershed Watch training and have added 10 new sampling sites for 2007. The group of volunteers is considering conducting some focused pathogen sampling on the lake during the summer.
- The City of Danville's Planning and Zoning Comprehensive Plan is expected to be available for public review and comment in mid-May. The Dix Watershed Council members may want to review it for potential impacts to the creek and provide suggestions on ways to minimize those impacts.
- The CREEC (Clark's Run Environmental and Educational Corp.) organization is planning to refocus its efforts on the extension of the existing one-mile recreational trail beside the Clark's Run.

Watershed Planning (continued)
Lee Colten, of the Kentucky Division of Water, reviewed the basis for developing the watershed plan. The intention of the planning document is to highlight water quality issues and outline potential solutions and associated partners. A formal watershed plan addresses EPA-specified criteria that are required when applying to receive federal watershed improvement grants. The final watershed plan for the Dix River Watershed must be completed by the end of 2009 (but should be done by mid-2008).

After revisiting the Goals section of the plan that was developed during the previous meeting, the group discussed current activities in the watershed intended to improve water quality. The following sections recaps the topics covered during this discussion. These responses will be compiled to draft the introduction to the Dix River Watershed Plan.

What activities are currently addressing watershed issues?

- New sewer line installation (Northpoint connection to Danville STP along KY33, Junction City connection to Danville along Gose Pike) – Josh Morgan, City of Danville
- Model Dock Ordinance for Herrington Lake, co-developed by Herrington Lake Conservation League, county solid waste coordinators and EON/KU – Dave Jewett, HLCL
- HLCL and Kentucky Fish & Wildlife Department agreement to enforce solid waste laws on Herrington Lake – Dave Jewett, HLCL
- Ongoing debris removal from Herrington Lake – Dave Jewett, HLCL
- Riparian buffer enhancement along Clark's run – Malissa McAlister, CREEC
- Water Watch sampling through schools (Boyle, Garrard)
- Kentucky River Watershed Watch sampling

- Erosion & Sediment Control and Illicit Discharge ordinances in Danville – Josh Morgan, City of Danville
- EQIP contracts for agricultural Best Management Practices, mainly alternative watering sources and rotational grazing practices – Mary Ann Sharp, Boyle County NRCS

What are the critical protection areas in the Dix River Watershed?

- Herrington Lake – drinking water and recreation
- Clark's Run – recreational trail
- Hanging Fork – canoeing, whitewater recreation
- Garrard County State Park on Herrington Lake
- Any threatened or endangered species? (F&W)

Basics of TMDLs

Through this Dix River Watershed Clean Water Action Plan, TMDLs will be developed for Herrington Lake, Clark's Run and Hanging Fork. The USEPA will be developing the TMDL for high nutrient levels in Herrington Lake. The Kentucky Division of Water will develop the TMDL for pathogens in Hanging Fork. And, Third Rock Consultants is developing the TMDL for organic enrichment and nutrients in Clark's Run.

Andrea Fredenburg, of the Kentucky Division of Water, provided a presentation explaining TMDLs, or Total Maximum Daily Loads. The state of Kentucky develops water quality standards for waterbodies, based on their designated uses. Through explicit narrative or numeric criteria, these standards protect the designated use (i.e., drinking water source, primary contact recreation, aquatic habitat). Every two years, the Kentucky Division of Water must submit a 305b Assessment Report to Congress on the status of the state's waters. This report describes the streams and river segments that were assessed and lists pollutants causing water quality impairments. If a waterbody is found to be impaired, meaning that is doesn't satisfy the criteria to support its designated use, it is also included on the state's 303d list of impaired waters.

Once a waterbody is included on the 303d list, a TMDL report must be developed for it. This report must be submitted to the USEPA within 13 years. The TMDL states the maximum amount of a pollutant that a waterbody can handle and still meet its water quality standards. In order to reduce the existing pollutant load to this level, limitations are placed on different pollutant sources. These limitations are stated in units of amount per unit time, e.g. pounds/day. The TMDL report specifies two types of limits: Waste Load Allocations (WLA) from permitted, point sources and Load Allocations (LA) from non-permitted, runoff sources. A Margin of Safety (MOS) accounts for uncertainty in the TMDL development process, and a Future Growth variable can be added to protect the waterbody while accounting for expected future growth pressures. The equation for a TMDL is:

TMDL = WLA + LA + MOS + Future Growth

In order to develop a TMDL, water quality data is collected to determine the current pollutant load. Then, limits (WLA and LA) are calculated and assigned to different sources of the pollutant, or segments of the watershed. For instance, Waste Load Allocations may be assigned to a sewage treatment plant and industry, while Load Allocations are assigned to urban runoff,

agricultural, and failing septic system sources. Then, the reduction in pollutant load required by each type of source is determined.

Following a 30-day public comment period, the state sends the TMDL to the USEPA for approval. Once approved, wastewater discharge permits are amended according to the TMDL plan and best management practices are selected to reduce nonpoint source, or runoff, sources.

These TMDLs will provide information that will be used to complete the Dix River Watershed Plan—especially Item #6 on the Watershed Planning Checklist, which addresses goals, implementation measures and technical assistance. There is also the possibility that the Division of Water will use water sampling data from this effort to develop TMDLs on previously unlisted streams now found to be impaired.

General Discussion

Although pathogen levels in Herrington Lake are currently within limits for safe boating and swimming, concern was expressed that the high pathogen values found in its tributaries may eventually impact the lake. For instance, Hanging Fork has been found to have exceptionally high E coli levels. Is there any way to protect the lake from these upstream impairments? Yes, hopefully, the watershed plan will reduce pathogen levels within these feeder streams to the lake.

Will the Load Allocations specified in the TMDL reports affect the City of Danville's stormwater permit in the future? Yes, probably in future permitting cycles.

Next Meeting

The next Dix River Watershed Council meeting was tentatively scheduled for Tuesday, June 12th at 6:00 p.m. at the Danville City Hall.