

Total Maximum Daily Load (TMDL) Fact Sheet

Streams in the Lake Anna Watershed

What is a TMDL? Total Maximum Daily Load (TMDL) is a term used to describe the amount of a pollutant that a stream can receive and still meet Water Quality Standards. A TMDL Study identifies sources of pollution and reductions needed to attain standards. A TMDL Study considers both **point sources**, such as residential, municipal or industrial discharges, and **nonpoint sources**, such as residential, urban or agricultural activities.

Why is a TMDL being prepared? The goal of the Clean Water Act is that all streams should be suitable for recreational uses, including swimming and fishing. **Fecal coliform and Escherichia coli (E. coli) bacteria** are used to indicate the presence of pathogens in streams supporting the **swimmable use goal**. Bacteria in several streams in the Lake Anna watershed have been found to exceed the fecal coliform criterion. These include: Goldmine Creek, Beaver Creek, Mountain Run, Pamunkey Creek, Terrys Run and Plentiful Creek.

How often does Virginia list “Impaired Waters”? Virginia submits a list of impaired waters to the Environmental Protection Agency (EPA) in even-numbered years. A list was not submitted in 2000. Statewide, there were 6,948 linear miles of streams impaired by one or more pollutants on the 2004 list of impaired waters. A TMDL and Implementation Plan must be developed for each impaired stream segment and pollutant. The 2004 list is available on the DEQ website at <http://www.deq.state.va.us/wqa/ir2004.html>

What portion of the watershed is to be addressed in the TMDL Study? The impaired stream segments are located in Louisa, Orange, and Spotsylvania Counties. The first impairment is a 7.16-mile segment of Goldmine Creek extending from the headwaters of the Creek, near the intersection of Routes 22 and 625, downstream to the confluence with Lake Anna, about 1 mile north of Route 613. The second impairment is a 2.51-mile segment of Beaver Creek extending from the confluence of Cooks Creek and Beaver Creek, approximately 0.68 rivermiles upstream from the Route 638 bridge, downstream to its confluence with the North Anna River, about 1 mile west of Route 669. The third impairment is a 2.52-mile segment of Mountain Run beginning at the confluence of Madison Run and Mountain Run, about 1.5 miles east of Route 15, downstream to its confluence with the North Anna River, about 1 mile south of Route 643. The fourth impairment is a 12.14-mile segment of Pamunkey Creek extending from the confluence of Tomahawk Creek and Church Creek (where Pamunkey Creek begins), near the intersection of Routes 612 and 631, downstream to the confluence with Lake Anna, about 1 mile east of Route 651. The fifth impairment is a 5.45-mile segment of Terrys Run extending from confluence of Horsepen Branch to Terrys Run, near Route 619, downstream to the confluence with Lake Anna, near Route 651. The sixth impairment is a 3.15-mile segment of Plentiful Creek extending from the confluence of an unnamed tributary to Plentiful Creek, near Route 601, downstream to the confluence with Lake Anna, about 1 mile south of Route 653.

What happens after the TMDL is completed? The Lake Anna Watershed TMDL will be submitted to EPA in Spring 2005. Upon EPA approval, a **TMDL Implementation Plan** can be developed to bring the impaired streams in the watershed into compliance with Water Quality Standards. Implementation Plans include a schedule of actions, costs, and monitoring. Implementation Plan development may begin at any time after EPA approval of the TMDL.

How will the public participate in TMDL development? Three formal public meetings are planned as part of the TMDL development process. The first meeting was held on September 28, 2004 to inform the public about the impairment and the TMDL process, and to obtain public comment. A second meeting will be held January 25, 2005, to present the potential sources of bacteria in the watershed and the hydrology calibration. The draft TMDL report, including reduction targets, will be presented at a third and final public meeting and comments on the report will be solicited prior to submittal to EPA. Additional small meetings can be held with stakeholders, upon request, to ensure the information used in the study is accurate. Public meetings will be advertised in local newspapers, through direct mailings, and in the Virginia Register.

What are the expected benefits of the TMDL and Implementation efforts? Implementation will work towards restoring the beneficial use of the stream, making it fishable and swimmable in accordance with the goals of the Clean Water Act, and cost-effective management practices will be identified and implemented first.

What are the roles of DEQ and DCR in developing TMDLs? TMDL development is a collaborative effort between the Virginia Departments of Environmental Quality (DEQ) and Conservation and Recreation (DCR.) DEQ develops water quality standards, monitors water quality, identifies impaired waters, and develops TMDLs. DCR is Virginia's lead non-point source pollution management agency, helps develop TMDLs, and develops implementation plans. Information on DEQ and DCR programs, including information on TMDLs, may be found at www.deq.virginia.gov and www.dcr.virginia.gov.

Whom may I contact to comment on or learn more about the York Basin/Lake Anna Watershed TMDLs? Mr. Bryant Thomas, Department of Environmental Quality, 13901 Crown Court, Woodbridge, Virginia, 22193, telephone (703) 583-3843, Fax (703) 583-3841, or e-mail bhthomas@deq.virginia.gov.