State working with city, county to improve water quality protections for Lake Whatcom

The Department of Ecology has denied a petition from the city of Bellingham to temporarily close the Lake Whatcom watershed to new groundwater wells. Instead, Ecology is working with Whatcom County on new development regulations that will prevent further pollution of Lake Whatcom from phosphorus-laden runoff coming from cleared and developed land. Phosphorus has resulted in low oxygen levels and excessive growth of algae blooms in the lake that have clogged water filters and slowed operations at the city's water treatment plant.

Most of the development in the watershed that would depend on groundwater to proceed -- about 500 lots -- are outside the city in Whatcom County and amended development regulations will reduce the amount of phosphorus in stormwater runoff coming from about 5,000 acres.

Ecology believes if amendments to the county's development regulations are adopted and effectively implemented, the goals of the city's petition will be achieved. If the amendments are not adopted or not properly implemented, Ecology may take additional regulatory actions to ensure water quality goals for Lake Whatcom are achieved.

Lake Whatcom does not meet state and federal water quality standards and has been on Washington state's list of impaired water bodies since 1998. Phosphorus, algae and low dissolved oxygen have contributed to water quality problems in Lake Whatcom for many years. But algae growth is getting so excessive that in the summer of 2009, it clogged the filters at the city of Bellingham's water treatment plant for weeks, forcing the city to require restrictions on water use for the first time.

WHY IT MATTERS

Water quality problems in Lake Whatcom have reached a critical threshold due to phosphorus-laden runoff from land development. The pollution is impairing the city of Bellingham's ability to supply water to nearly 100,000 people.

In addition to being the source of Bellingham's municipal water supply, the lake is an important regional natural resource for the habitat it provides for fish, plants, and birds; and its recreational opportunities and aesthetic values.

Ecology is working with the city of Bellingham and Whatcom County to protect the lake from further degradation by pollution from new development, the potential for which is mostly in Whatcom County.

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Scientific studies show that the primary cause of algae blooms and resulting low oxygen levels is phosphorus-laden runoff from cleared and developed land. ("Runoff" is water from rain and snow – stormwater - that doesn't soak into the ground.) The lake can't process enough of the phosphorus in runoff from existing development to meet water quality standards. Whatcom County's agreement to amend its development regulations to prevent more phosphorus contamination of the lake will take the city and county even further toward meeting state and federal requirements.

In addition to being the municipal water supply for nearly 100,000 people, the lake is an important regional natural resource for the habitat it provides for fish, plants, and birds; and its recreational opportunities and aesthetic values. Phosphorus-laden runoff lowers oxygen levels in the lake, affecting fish and other aquatic life.

Action needed this year so things don't get worse

In an effort to protect Bellingham's ability to supply water and Lake Whatcom water quality, and as an alternative to granting the petition from the city of Bellingham, Ecology has accepted a proposal from Whatcom County to amend its development regulations in the Lake Whatcom watershed this year to ensure no additional phosphorus contamination of the lake. The county has agreed in a letter to Ecology from the county executive to:

1) Explicitly state that the county regulation amendments will be designed to ensure no increase in phosphorus.
2) Identify how the county will track building permit applications and agree to report the numbers to Ecology on a weekly basis.

Resolving the lake's water quality issues requires a dramatic reduction in pollution from new and existing development, which requires a significant and immediate shift in development regulations. Ecology is the state water quality and water resource agency. Land-use decisions must be made at the local level.

Existing water quality project not the right tool

Ecology and local governments have been working to solve Lake Whatcom's water quality problems for many years through a water quality improvement project known as a TMDL (Total Maximum Daily Load). Waters placed on the state's 303(d) list of impaired water bodies require a plan to improve water quality by limiting the amount of pollutants.

TMDLs are a key tool in the work to clean up polluted waters. But the TMDL process is not the right tool to produce results quickly enough to counter the ongoing decline in Lake Whatcom's water quality.

Lake Whatcom Watershed

Studies have already provided important information. To meet water quality standards in 2003, it would have been necessary to reduce excess phosphorus going into the lake from surrounding development by more than 85 percent. To do that, land uses would have had to restore the land's natural ability to absorb nearly all stormwater on-site on 85 percent of developed lots.

Since 2003, another 125 wells have been drilled in the watershed, nearly all with one or more new homes attached. Many of those homes were built under regulations that allow an increase in phosphorus-laden runoff to the lake.

Whatcom County's work in cooperation with Ecology to amend its development regulations for the Lake Whatcom watershed before the end of 2011 will protect the lake's water quality from further degradation by future development.

For more information

View the Lake Whatcom Water Quality Improvement Project:

http://www.ecy.wa.gov/programs/wq/tmdl/LkWhatcom/LkWhatcomTMDL.html