

Walnut Creek Watershed Assessment

Environmental Quality Report

Department of Environmental Protection
Northwest Regional Office
Watershed Management Program
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EXECUTIVE SUMMARY

Walnut Creek is arguably one of the best steelhead fisheries in the Great Lakes region, contributing \$10.6 million to the Erie community each year. It is tributary to Lake Erie, part of the nation's biggest freshwater resources providing public drinking water, recreation opportunities and commerce to northwestern Pennsylvania. This great resource gets significant pressure from urban stormwater runoff, commercial and residential development, and agricultural activities. For these reasons, in 2006 Walnut Creek was selected as the priority watershed for the DEP's Northwest Region.

DEP's Watershed Management Program conducted a comprehensive, watershed-based assessment to determine if the environmental conditions in the watershed were supporting public health and safety, economic stability, and quality of life for Erie County residents. The assessment involved a detailed look at: watershed features and characteristics; conditions affecting public health and safety; habitat and biological diversity; water use and sustainability; and community efforts to reduce pollution and conserve resources.

The results of the assessment identified activities that both encourage support of, and conflict with, resource protection. The watershed provides citizens with good air quality, safe drinking water, outstanding recreational and economic opportunities and available land. But the health of the watershed is at risk; land development and related activities are in conflict with environmental quality. The most significant findings are:

- The City of Erie Water Authority provides reliable, sustainable and good quality drinking water from Lake Erie to the majority of the watershed. Groundwater sources used for small public water supplies and private wells has limited quantity and is generally fair to poor quality. The regional groundwater will not likely sustain progressive development.
- *E. coli* bacteria, an indicator of pathogens, has been found at high levels in Walnut Creek and its tributaries. The source of the bacteria is from both human and animal waste.
- No human cases of West Nile Virus have been reported within the watershed, but surveillance shows that the threat to public health exists.

- Water quality degradation from urban storm water runoff has adversely impacted the aquatic community.
- Walnut Creek and its tributaries have been notably impacted by stream channel modifications, stream encroachments, stream bank erosion and a loss of riparian buffer zones. These conditions increase the potential for flooding, are contributing to water pollution and have resulted in a loss of habitat for fish, plants and terrestrial species.
- The Erie County Comprehensive Plan identifies efforts needed to promote future development while preserving environmentally sensitive areas, establishing green space and conserving agricultural lands. The County plan is non-binding and not promoted and endorsed by all watershed municipalities.
- There is a strong effort in Erie County towards environmental education. Well-established groups are providing quality education to the watershed community.

Comprehensive watershed planning is recommended to protect and sustain the Walnut Creek watershed resources. The plan should include clear benchmarks for surface water quality based on Total Maximum Daily Load design, a regional approach to provide for the future water supply needs, land use that allows for growth while protecting resources, and ongoing monitoring of the watershed conditions.

Achieving environmental quality that supports public health and safety, economic stability and quality of life cannot be accomplished by one individual organization. It requires a combined effort of regulatory agencies, county planners, municipal decision makers, private business and volunteer groups. Each group must set an agenda of environmental improvement, take stock of its programs and align resources to drive the agenda. Collectively, the parties need to support mutual initiatives towards environmental improvement, provide checks and balances on mandated programs, and share information on known problems and improvements.

Most importantly, the community must support the efforts for environmental improvement. Public participation has been a key component of the environmental assessment process, as the best information about the conditions of the watershed often comes from individuals that live and work there. Knowledge of the environmental condition of the watershed and how impacts to it can influence public health and safety, economic stability and quality of life are expected to change behaviors. An informed and engaged public is the foundation for sound environmental planning decisions within the Walnut Creek Watershed. For these reason, DEP presents the *Walnut Creek Watershed Environmental Quality Assessment Report*.