

January 2005

Euclid Creek Watershed TMDL

The Watershed

Euclid Creek is a small Lake Erie tributary flowing through Cuyahoga County and a small part of Lake County. Approximately 43 miles of stream are included in the 23 square mile watershed. The watershed is dominated by urban and suburban land use.

Within Euclid Creek's watershed live 68,000 people.

Originating in the communities of Beachwood, Pepper Pike and Willoughby Hills, Euclid Creek changes elevation from 1,200 feet above sea level to 570 feet above sea level at Lake Erie. At a gradient of 55 feet per mile, Euclid Creek is considered a very high-gradient stream. Much of the stream flows over bedrock and has steep valley walls.

Water Quality

Water quality in Euclid Creek has shown improvements during the time Ohio EPA has been monitoring the stream.

Bacteria

Discharges from septic tanks, wastewater treatment plants, combined sewer overflows, and urban runoff contribute bacteria to the watershed. Violations of the water quality standard were common in the 1970s and into the 1980s. Recently, detections of fecal coliform violations have decreased.

Phosphorus

Current data indicate that phosphorus in the stream is above target goals. In Ohio EPA's 2000 watershed survey, 60 percent of the samples were above the target level.

In 2002 and 2003, 30 percent of the samples collected by the Northeast Ohio Regional Sewer District were above the target.

Aquatic Life

Ohio EPA also evaluates streams based on the organisms living in them. By analyzing fish communities and macroinvertebrates (bugs, crayfish and other creatures without backbones) we can determine compliance with water quality standards and identify potential sources and causes of stream impairment.

Euclid Creek currently does not meet Ohio EPA's standards for aquatic life. Fish populations appear to be more impacted than the macroinvertebrates. Fish found above the dam near East 185th Street in our surveys were mostly pollution-tolerant minnows.

Below the dam additional fish species were found including rainbow trout and bass.

The aquatic macroinvertebrates have improved to a point that they generally meet Ohio EPA standards.

Restoring the Watershed

Several methods are used to restore a watershed to meet standards for bacteria, chemicals, and biological communities.

Control of industrial and sanitary wastewater discharges, including septic tank elimination, will improve water quality. Septic tank elimination is an ongoing project. In the case of Euclid Creek, control and elimination of these discharges has not resulted in complete restoration of water quality. Other human induced influences are impacting the stream.

Development and loss of streamside habitat can be a major source and cause of problems. Runoff contained in storm water can contain many of the same pollutants found in industrial and sanitary wastewater. Addressing issues such as habitat alteration and land use patterns requires local government support.

Watershed Action Plans and the Total Maximum Daily Load process are able to achieve restoration, when supported and implemented at a local level.

