

Cuyahoga County General Health District

Bay Village
Beachwood
Bedford
Bedford Heights
Berea
Bentleyville
Bratenahl
Brecksville
Broadview Heights
Brook Park
Brooklyn
Brooklyn Heights
Chagrin Falls Township
Chagrin Falls Village
Cleveland Heights
Cuyahoga Heights
East Cleveland
Euclid
Fairview Park
Garfield Heights
Gates Mills
Glenwillow
Highland Heights
Highland Hills
Hunting Valley
Independence
Linndale
Lyndhurst

Maple Heights
Mayfield Heights
Mayfield Village
Middleburg Heights
Moreland Hills
Newburgh Heights
North Olmsted
North Randall
North Royalton
Oakwood Village
Olmsted Falls
Olmsted Township
Orange Village
Parma
Parma Heights
Pepper Pike
Richmond Heights
Rocky River
Seven Hills
Solon
South Euclid
Strongsville
University Heights
Valley View
Walton Hills
Warrensville Heights
Westlake
Woodmere



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Water Quality Programs

CUYAHOGA COUNTY BOARD OF HEALTH



WATER QUALITY PROGRAM

Water Quality is essential to public health, our natural environment, and economic development. A water quality monitoring program allows for the assessment of the overall “health” of our surface waters.

The Cuyahoga County Board of Health conducts an extensive water quality program. The focus of this program is an overall watershed based approach when dealing with water quality issues. Activities within this program include:

- Identifying and eliminating public health nuisances and hazards in our surface waters
- Surveying the various watersheds throughout the county
- Collecting water quality samples from permanent sites throughout our watersheds
- Conducting biological, chemical and physical assessments of stream segments
- Supporting the Household Sewage, Storm Water, Semi-public Sewage, Bathing Beach and Parks & Recreation Programs
- Educating the public on Non-Point Source Pollution issues
- Participating in local watershed protection groups and meetings



bathing beach program

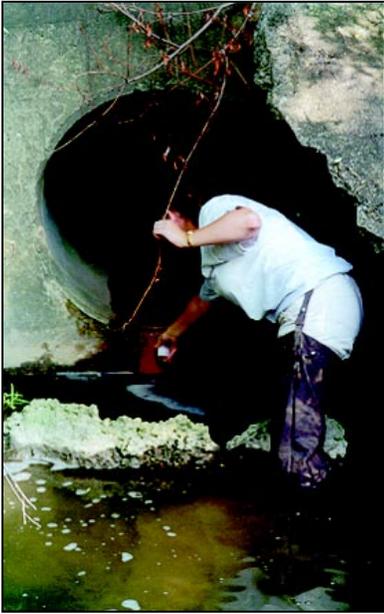
In May of 1993, the Cuyahoga County Board of Health adopted its current Bathing Beach Water Quality Regulations, which help protect the public from potential health risks associated with swimming in recreational waters. It was deemed necessary to inform bathing beach operators of issues concerning the health and safety of bathing beach users.

The Board of Health routinely conducts a survey of all existing bathing beaches. A key component of the survey is the identification of potential sources of pollution and natural and man-made hazards in the area. Other potential influences on bathing waters, such as wind, rain, and water currents are taken into account. Storm Sewer outfall sampling in or near beaches is also a vital component of the surveillance of these beaches.

The Board of Health conducts water quality sampling during the recreational season, which is Memorial Day through Labor Day. The two public bathing beaches, Huntington Beach and Wallace Lake, are sampled four times a week, Monday through Thursday. The 14 community bathing beaches are sampled twice a month. In addition to water quality sampling, all of the beaches are inspected a minimum of two times during the recreational season to identify any safety or sanitation concerns. The results of this sampling are posted daily on the CCBH Website.



storm water program



In the Cuyahoga County Board of Health's jurisdiction, 55 communities are designated as US EPA's Phase II communities. Regulations require designated communities to develop and implement a storm water management plan. The CCBH's overall water quality program has enabled our department to develop Memorandums of Understanding (MOU) with our Phase II designated communities to perform required outfall sampling during dry

weather flows as part of their Storm Water Management Plans. This data will be used to prioritize areas within each community for the detection and elimination of their illicit discharges. The source of these discharges may be sanitary cross connections, discharging sewage systems or other sources. This sampling data will allow communities to prioritize those areas that must be addressed first within their Storm Water Management Plan. Likewise, several communities have contracted with the Board of Health to locate and map all of their Municipal Separate Storm Sewer System (MS4) Outfall locations. With the experience and relationships we have developed with our communities, it was a natural fit for our office to perform these activities.

permanent sampling program



The Board of Health established a stream monitoring program in the late 1980's. This program has allowed for the chemical and biological monitoring of water quality in our health jurisdiction. The

information collected from this program has documented the need for the Board of Health's Operation and Maintenance Program for Household Sewage Treatment Systems (HSTS). To date, thousands of water quality samples have been collected. Likewise, over 50 permanent water quality monitoring sites have been established within the various watersheds in Cuyahoga County. The sampling data collected is used to obtain general baseline conditions and to identify problem areas potentially being impacted by sources of water pollution. These locations are sampled five times per year, during dry weather conditions. Likewise, chemical sampling occurs throughout streams, storm sewers, and ditches in Cuyahoga County. This information is used to assess and prioritize areas within watersheds that need to be addressed for specific pollutant reductions.

“. . . thousands of water quality samples have been collected.”



biological, chemical and physical assessments

water quality program and the work that is performed within it. This includes the training of interns and staff on water quality procedures and policies.

The Board of Health conducts intensive surveys of specific watersheds.

Activities include:

- Bacteriological analysis
- Chemical analysis
- Macroinvertebrate sampling
- Qualitative Habitat Evaluation Index (QHEI) analysis
- Headwater Habitat Evaluation Index (HHEI) analysis

Biological monitoring is an effective means of identifying water quality problems. Aquatic biological communities reflect overall ecological integrity (i.e., chemical, physical, and biological integrity). These communities change in response to a wide variety of pollutants and to the cumulative impacts of those pollutants. Biological monitoring is utilized for detecting the health of aquatic environments and assessing the relative severity of the pollution impacts.

Another component of the water quality program includes conducting Physical Assessments. This includes Qualitative Habitat Evaluation Index and Headwater Habitat Evaluation Index studies. Some of this work is performed through a summer internship program. Specific project areas are chosen each year and studied by an intern. A report is then created for each specific location. This data is then combined with our existing water quality data and shared with other appropriate agencies. We have also developed a quality assurance management plan for the

Headwater streams are the small swales, creeks and streams that are the origin of most rivers. These small creeks join together to form larger streams and rivers or run directly into larger streams and lakes. The Headwater Habitat Evaluation Index (HHEI) is a method of studying the smallest swales and streams that are the origin of larger water bodies in the state. The chemical, physical and biological quality of larger streams and lakes have a close connection to the overall health of headwater streams and their watersheds. The Qualitative Habitat Evaluation Index (QHEI) is designed to provide a measure of habitat that generally corresponds to those physical factors that affect fish communities and other aquatic life.

