

The City of Manistee is subject to several regulatory programs regarding the operations of its [wastewater treatment plant and sewer collection system](#). These programs ensure compliance with various rules and regulations and ensure that public health is protected.

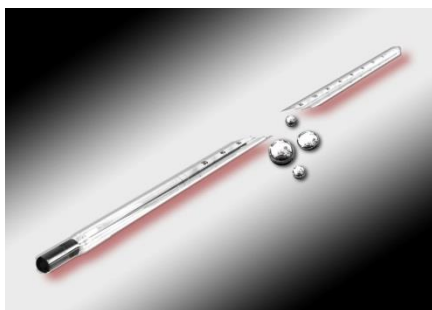
INDUSTRIAL PRETREATMENT PROGRAM

The City of Manistee Industrial Pretreatment Program (IIP) was developed to protect the city's wastewater treatment plant (WWTP) and the environment from an adverse impact that may occur from waste discharges into the city's sewer system. To achieve this goal, the IPP is the vehicle used to regulate non-domestic users. Significant non-domestic users are monitored by the WWTP to ensure they meet the discharge requirements imposed in the IPP and Sewer Use Ordinance.



MERCURY MINIMIZATION PROGRAM

Mercury Tests - The goal of the Pollutant Minimization Program for Total Mercury is to maintain the effluent concentration of total mercury at or below 1.3 ng/L (nanograms per liter). As part of this program the wastewater treatment plant (WWTP) tests its effluent on a monthly basis for low-level mercury. The primary sludge and influent waste stream are also tested on a quarterly basis.



Sources of Mercury Pollution - Residential customers may unknowingly wash mercury products such as cosmetics, household cleaners and broken thermometers down the drain. Commercial facilities may also conduct activities that have the potential to discharge mercury, such as: dental offices that remove amalgams, medical and veterinary offices, hospitals, laboratories, automotive shops, car washes, dry cleaners and funeral homes. Since most fish contain high levels of mercury, fish cleaning stations discharging into the sewer system can also be a source of mercury pollution.

The City of Manistee conducts an annual sampling of dental offices and other significant users. The WWTP currently meets the goal limit of 1.3 ng/L.

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEMS (NPDES)

Permits - In compliance with the provisions of the Federal Water Pollution Control Act, Michigan Act 451 and Michigan Executive Orders the City of Manistee is authorized to discharge the effluent from the wastewater treatment plant (WWTP) to the receiving waters of Manistee Lake. The permit is currently being renegotiated and the plant is operating under the old permit ([link to permit](#)).

The WWTP discharge is monitored in accordance with effluent limitations for the following parameters:

Ammonia Nitrogen

Carbonaceous Biochemical Oxygen Demand - CBOD

CBOD Removal %

Dissolved Oxygen

Fecal Coliform Bacteria

pH

Total Phosphorus

Total Suspended Solids

Report - The City of Manistee WWTP submits a monthly Discharge Monitoring Report to the Michigan Department of Environmental Quality (MDEQ) to ensure compliance with the regulations imposed in the NPDES permit.

RESIDUAL MANAGEMENT PROGRAM

Biosolids Program - The Michigan Biosolids Program establishes standards for the land application and beneficial recycling of biosolids in the state. Any treatment works that is treating domestic sewage and proposing to land apply biosolids in the state shall prepare a Residuals Management Program to obtain authorization. Authorization is required under the city's National Pollutant Discharge Elimination System (NPDES) permit. The City of Manistee wastewater treatment plant (WWTP) land applies approximately 1.2 million gallons of digested sludge each year. The city is authorized to land apply biosolids and has an updated Residuals Management Plan.

