

HEADWORKS UPGRADE & OUTFALL RETROFIT

STATE PROGRAM: Michigan Department of Environment, Great Lakes, and Energy

ASSISTANCE RECIPIENT: City of East Lansing

ASSISTANCE AMOUNT: \$31M



PROJECT DESCRIPTION

The City of East Lansing's collection system was installed almost 100 years ago and includes three interceptor sewers that convey flows to the water resource recovery facility. During high rain events, this collection system experienced overflows in the interceptor sewer immediately upstream of the water resource recovery facility. To reduce this overflow issue, CWSRF financing was used to convert an existing outfall sewer into a relief interceptor. The project also included the construction of a new Headworks Facility including fine mechanical bar screens, raw sewage pumps with variable frequency drives, influent flow monitoring, and a grit removal system. Also included in the project were modifications to the process flow routing, installation of a gravity drain from the equalization basin to influent sewer interceptor, and modifications to the existing raw sewage pump station. These upgrades created an energy efficient collection system which reduced the plant's energy use for this system by an impressive 99.2 percent.

To read more about this case study, please visit https://www.epa.gov/sites/default/files/2018-11/documents/pisces_2018_compendium_0.pdf.