

## City of Fremont Combined Sewer Overflow Information

The wastewater plant was built in 1949, and many of the existing sewers were extended to convey water and storm water, previously sent to the Sandusky River, to the newly constructed plant. In the early days of pollution control, the widely accepted solution to pollution was dilution. As the City grew and the storm water was mixed with the sanitary water to carry it away from residents, many of the sewers were expanded to carry the extra volume of water with the idea that during storm events the excess water would be bypassed to the Sandusky River through release points, the overflow locations.

The Army Corps of Engineers completed a Flood Protection project along the Sandusky River in Fremont in 1972. This Flood control project consists of several pump stations and a floodwall levee. The purpose of the floodwall levee is to prevent the River from flooding the City, but it also prevents storm water on the landside of the wall from draining to the river naturally. The pump stations were installed to pump this storm water to the river. Unfortunately, many of the sewers, which convey water to the pump stations, are combined sewers, carrying sanitary and storm water. When the levels in the pump station wet wells reach pre-set levels, Combined Sewer Overflows (CSOs) are triggered.

The Fremont Water Pollution Control Center (WPCC, treatment plant) has had several modifications due primarily to increased environmental regulation, 1964 upgrade to advanced secondary treatment, 1978 upgrade for solids handling, 1988 upgrade to tertiary (sand filters) treatment. These improvements were made with all LOCAL MONEY. The WPCC effluent is discharged into the Sandusky River through a submerged outlet. In 2004 a pump station was added at this discharge location to allow continued discharge during high river levels. Prior to this pump station, during high river level periods the WPCC effluent was discharged into the Sand Road pond, mixed with storm water and combined sewage, and then pumped to the river, drastically increasing the CSO volume.

The collection system has had several improvements over the last 20 years, separating storm and sanitary sewers, directing a substantial volume of storm water out of the system. More improvements are planned for the next 20 years as well. The Total Maximum Daily Load (TMDL) study on the Sandusky River, scheduled for late 2009, may require additional thought to

further separation plans. If the TMDL shows that the River is not meeting water quality criteria (warm water habitat, recreational use), the City of Fremont may be mandated to initiate changes to restore the river. If all the sewers are separated and all the storm water is discharged into the river, it may well be that the storm water loading is the root of the non-compliance with the water quality criteria. The dilemma is obvious, extra costs to treat all the storm water previously separated out of the system.

The City of Fremont has 13 permitted (OEPA permitted) CSOs, of which only four are active. The City of Fremont has complied with all the rules and regulations regarding the CSOs, including implementation of the nine minimum CSO controls, installation of signs and alarm lights, sampling and analysis, and regular monthly reporting of CSO activities. Further, the City of Fremont has revised the Long Term Combined Sewer Overflow Elimination plan, originally submitted in February 2005, which when fully implemented, will drastically reduce the CSO volumes and environmental impact through a combination of holding ponds, collection system improvements and improvements at the Water Pollution Control Center. Currently when rain events result in water in excess of the sewer capacity, some of the water is discharged into the two storm holding ponds, Sand Road and Oxbow. As these ponds fill up, Combined Sewer Overflow events are triggered at four or less CSO locations. Each of these locations are equipped with alarm lights and signs warning that a CSO event may be under way and that bacteria may be released into the River.

Combined Sewer Overflows, while unpopular and potentially injurious to the Sandusky River, are legal. Every effort is made to minimize the duration and impact of CSOs on the River. A 1998 fecal coliform bacteriological study on the CSO impact on the Sandusky River demonstrated that the bacteria levels in the River were actually higher up stream of all CSO locations in the Sandusky River.

Complete Sewer Separation is estimated to cost the City in excess of \$80 million dollars, which in an already stressed economy would require substantial sewer rate hikes.