OHIO: CSO LOADINGS

The Ohio Environmental Protection Agency and Northeast Ohio Regional Sewer District, along with other local partners, conduct monitoring of nutrient discharge levels from priority combined sewer overflows (CSOs) to evaluate seasonal and annual loads.

The Ohio’s 2018 Nutrient Mass Balance Study utilized CSO monitoring data to develop a method to calculate these loadings. The study reports that CSOs accounted for between 0.1 – 3.7 percent of the total phosphorus load exported from several Lake Erie watersheds from water years 2013-2017. For these years, the average CSO percentage of the total phosphorus load was 0.5% in the Maumee River, 1.0% in the Portage River, 1.1% in the Sandusky River, 0.1% in the Vermillion River and 3.7% in the Cuyahoga River watersheds.

The figure below shows the proportion of total phosphorus from the various NPDES permitted loads for all Lake Erie watershed plants in Ohio. CSOs contribute about 9% of the total NPDES load. As noted above however, CSOs contribute a much smaller percentage of the total load of all sources.

Relative TP loads to Lake Erie from NPDES permitted facilities

- CSO – Combined Sewer Overflows and wet weather bypasses: 9%
- Industrial Facilities: 3%
- Package Plants <0.1 MGD: 4%
- Municipal 0.1 to 1.0 MGD: 8%
- Municipal >1.0 million gallon day design flow (MGD): 76%

Relative total phosphorus loads from NPDES permitted facilities grouped by type in the Lake Erie watersheds from the Ohio EPA 2018 Nutrient Mass Balance Study.

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