

## Memorandum

**To:** Dave Bacak II, WWTP Superintendent

**From:** Julia Lazar, PhD

**Subject:** City of Port Clinton Website CSO Educational Material

**Date:** June 17, 2019

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### Purpose

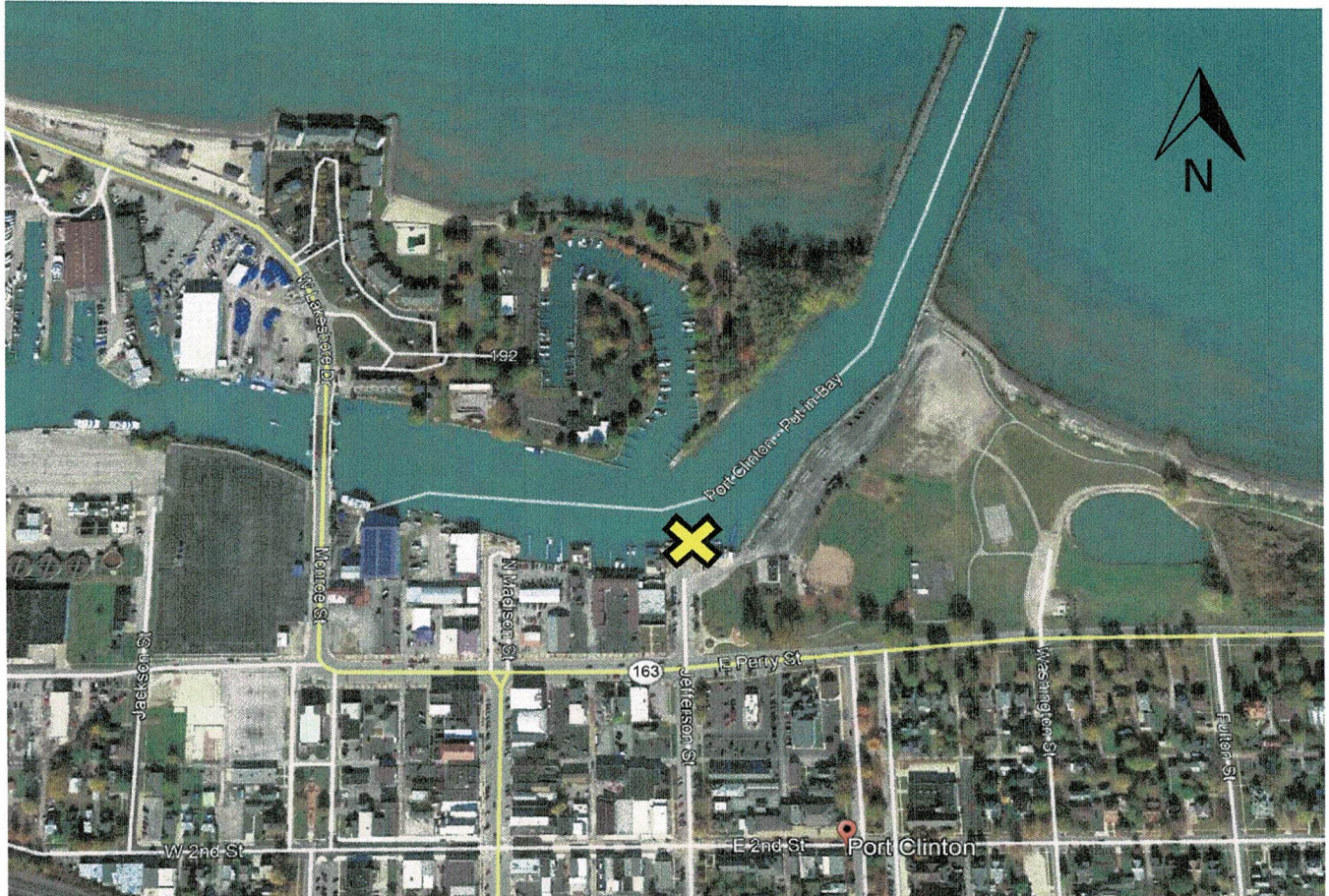
The City of Port Clinton is interested in providing combined sewer overflow (CSO) education material on their website. Below is drafted material that can be used for public consumption. Feedback is most welcome! Please don't hesitate to reach out.

- What is a CSO?  
CSO stands for combined sewer overflow. When sewers collect both rainwater runoff and sewage in a single pipe they are referred to as combined sewers. Combined sewers send their flow to our treatment plant; however, during periods of heavy rain, the volume of water can exceed the sewer pipe capacity. An overflow, or relief pipe, allows the combined sewer to discharge untreated wastewater directly into a water body.
- Advantages/Disadvantages of CSOs  
CSOs act as relief pipes, or safety valves, when pipes get too full to handle high volumes of water during heavy rain. Historically, overflows were viewed as a necessary way to manage excess water. The advantage of a combined sewer system is that most of the time both stormwater and wastewater are treated to meet water quality standards. The disadvantage of a combined sewer system is that untreated wastewater may be discharged to a waterbody. Untreated wastewater can contain excess pathogens, nutrients, and solids and therefore represent a public and environmental health concern.
- What is Port Clinton doing about the CSOs?  
Over the last 20 years the City of Port Clinton eliminated numerous CSOs and today there is only a single CSO left in our system, located on Adams Street (map below). Eliminating CSOs has been achieved via significant investment in a high-rate treatment system and many upgrades at our wastewater treatment plant. Port Clinton has invested in separating combined sewers into separate storm and sanitary sewers throughout downtown.  
  
Due to Port Clinton being situated near lake water levels, investments have also been made to prevent Portage River flow from entering the sewer system.
- Where is the CSO located?



# Memorandum

Below is a map showing the City of Port Clinton's only combined sewer overflow (CSO) at the end of Adams Street.



- Why is there a CSO still remaining—discussing that removing a CSO is not a quick or easy process

Sewer separation projects are expensive and can be complex to coordinate. The fixes to remove combined sewer overflows are not fast and involve significant construction and investment. Additionally, you need to ensure that you will not increase risk of basement flooding before eliminating a CSO.

## Resources:

<https://www.epa.gov/npdes/combined-sewer-overflows-csos>

<https://www.epa.ohio.gov/dsw/cso/csindex>

[https://www.ct.gov/deep/cwp/view.asp?a=2719&q=525758&deepNav\\_GID=1654](https://www.ct.gov/deep/cwp/view.asp?a=2719&q=525758&deepNav_GID=1654)