



CITY OF NAPOLEON

WASTEWATER TREATMENT

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In response to the EQ Basin (Equalization Basin) comment posted on the Henry County Health Department Facebook page.

The City of Napoleon has a collection system that was designed to convey raw sewage to the wastewater treatment plant. It is also designed with several relief points along the way, those are the CSO (combined sewer overflows) and SSO's (sanitary sewer overflows). During wet weather events the capacity of the collection system could be reached at some point during an event and the relief points were designed to reduce the system from backing up into basements. At the point, the treatment plant has reached its peak flow capacity and the collection system is full the systems relief points could have active CSO or SSO's. We then must start with the Design of the Wastewater Treatment Plant. The wastewater treatment plant is designed to treat 2.5 MGD (million gallons per day) with an instantaneous peak flow of 4.5MG. The peak flow is a short duration to capture the first flush from the collection system. Once the treatment plant reaches its capacity to treat incoming flow it is then diverted to the EQ Basin.

The capital improvement project for the 2.5 MG EQ Basin is designed to increase capacity for **peak flows during wet weather events**, this was the first of many projects listed in the Long-Term Control Plan. The design of the EQ Basin is to continue to capture more of the first flush from the collection system. Once the EQ is full it has a design aspect to act as a settling basin to help prevent floatable unwanted waste from entering the Maumee River. The design also has an overflow structure to send excess flow from the basin through the UV units for disinfection of the partially treated flows. Since the EQ Basin went online, the City of Napoleon with all the improvements it has taken on over the years the CSO & SSO activity has been reduced to a 98 percent capture rate of all wet weather events.

In summary when all the systems are completely operating at capacity during a wet weather event, the CSO, SSO's are in place to alleviate and help prevent water in basements. Currently all CSO & SSO are permitted through the Ohio EPA up to 4 events per year for each of the outfalls.

Please let me know if you have any questions.

Sincerely,

David Pike
City of Napoleon
Wastewater Superintendent
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