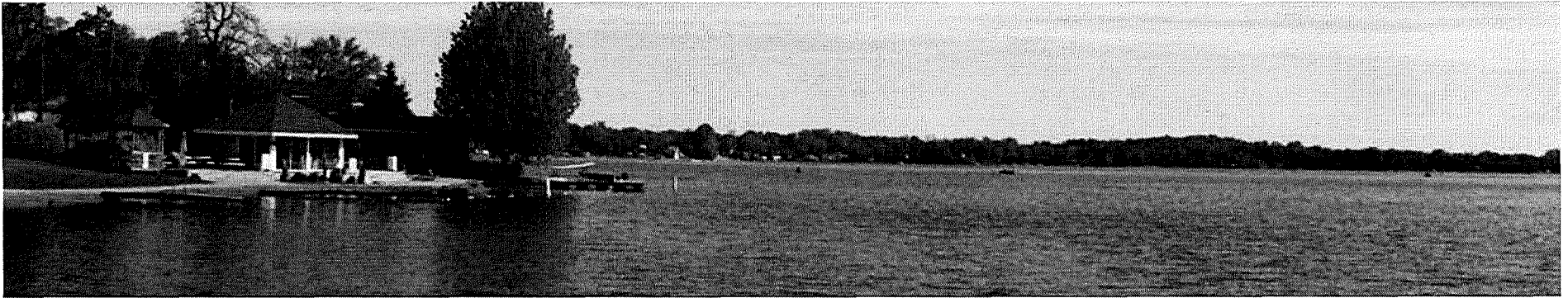


Northfield Township



Sewer Capacity Concerns

February 2017

WWTP Background

- Constructed in 1961 to serve correctional facility
- Expanded numerous times to serve portions of Northfield and Green Oak Townships
- Capacity of 1.3 mgd. Current flows average about 0.7 mgd.
- Plant reliably treats flows during dry weather. During extreme wet weather events, some processes may be bypassed.

Sewer Rates and Connection Fees

RATES

- cover system O&M and can pay debt service
- Study last performed in 2014

CONNECTION FEES

- Payment by new connections for value received in the sewer/treatment system
- 2014 study showed \$5,700 to \$5,900 could be justified for use of existing assets (\$3550 current fee)

Sewer Capacity Considerations

- North Territorial Pump Station
- Gravity Interceptor (near Whitmore Lake)
- WWTP Wet Weather Capacity
- Green Oak Connections

Sewer Capacity Considerations

- North Territorial Pump Station
 - Existing station was paid by SAD on east side of US-23 and sized for that SAD
 - 1998 Plan called for future pump station and force main improvements (\$4 to \$5 million)

Key Questions:

- Allow parcels outside the SAD to connect?
- If so, how does the Township collect funds for future improvements?

Sewer Capacity Conciderations

- Gravity Sewer Near Whitmore Lake
 - Most of Township travel through this reach
 - 2016 Analysis inferred a likely capacity concern and recommended flow monitoring
 - Improvements could run \$3 million
 - Development requests in 7 Mile SAD

Key Questions:

- Confirm capacity through flow monitoring? Should be performed in spring weather.
- Adjust connection fee to start collecting improvement costs?
- Allow new connections in interim?

Sewer Capacity Considerations

- WWTP Wet Weather
 - Flows during wet weather can bypass full treatment
 - New connections (Northfield and Green Oak) will exacerbate this problem
 - WWTP storage tank (1.5 million gallons) conceived to address this concern. \$3 million opinion of cost.

Key Questions:

- When to initiate tank?
- How to collect costs for tank from developers?

Sewer Capacity Considerations

- Green Oak Connections
 - Agreement says Northfield will expand its WWTP to 2.25 mgd
 - Development should pay for cost of sewers needed (Northfield to provide O&M)
 - Connection fees collected by Northfield

Key questions:

-Should Northfield's connection fee be adjusted to account for WWTP expansion or storage costs?

Policy Direction Needed

North Territorial Sewer

- Allow new developments outside SAD?
- How to charge? Revise connection fee?

Gravity Sewer Areas

- Allow new development? Or not?
- How to charge for improvement needed?
- When to initiate sewer improvements (soon)?

Policy Direction Needed

- Wastewater Capacity Concerns (Northfield and Green Oak)
 - Allow new development? Or not?
 - If no, how to honor SAD and Green Oak commitments?
 - If yes, need to initiate tank soon
 - Adjust connection fee to pay for future improvements at WWTP?