

Presentation to City Council  
on  
2022 Wastewater Treatment Master Plan

By

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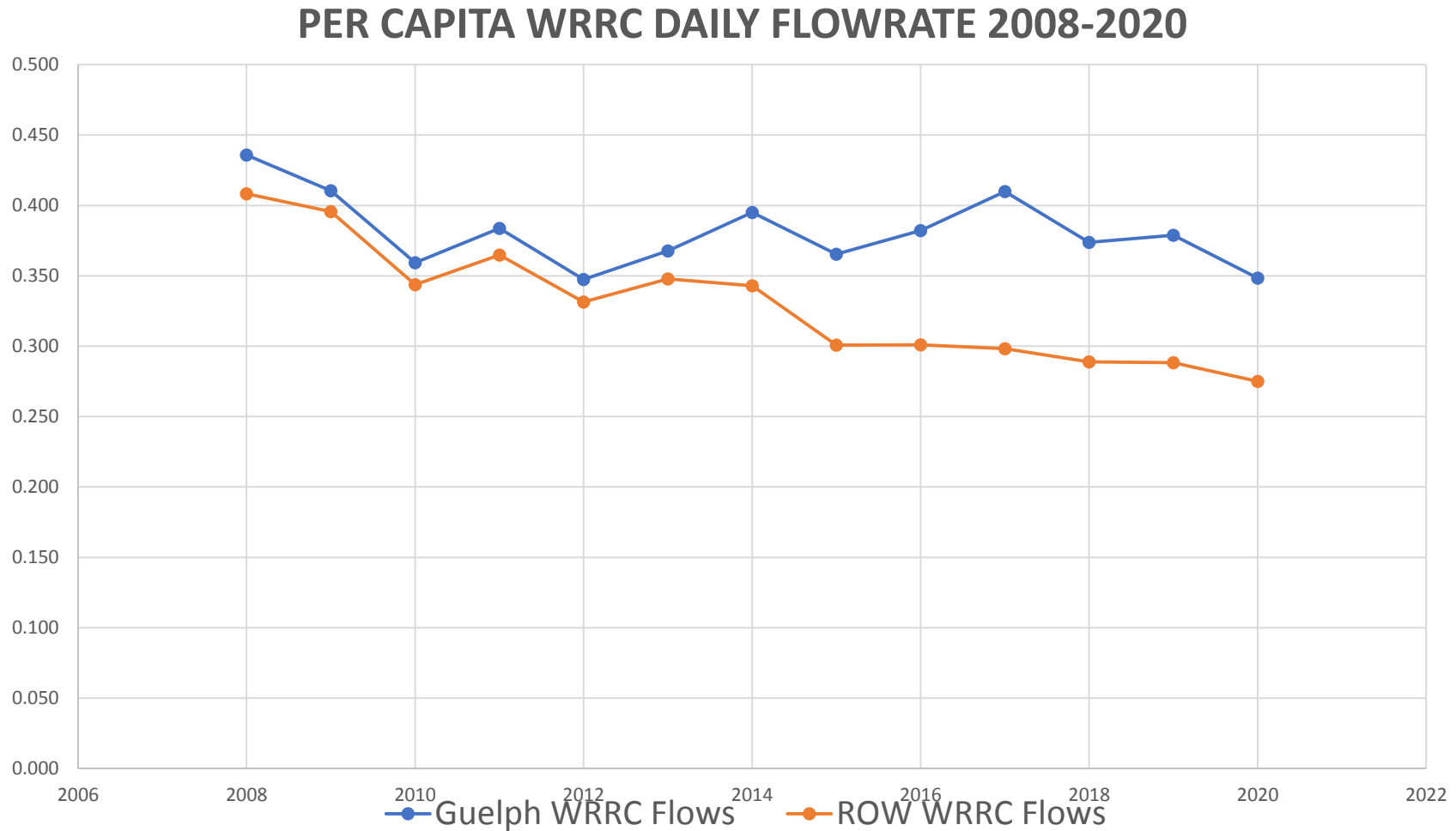
# Deficiencies in 2022 Master Plan

- No consideration of future savings in operating costs possible through reductions of Inflow and Infiltration.
- Design flowrate of 390 L/(cap. day) much higher than ROW  
Cambridge (330 L/(cap. d))  
Kitchener (270 L/(cap. d))  
Waterloo (280 L/cap. d)
- Results in premature forecasts of exceedance of capacity

# What is I&I ?

- Inflow and Infiltration is water that leaks into the sanitary sewer system through cracks in the piping system and at maintenance hatches.
- Inflow and infiltration water does not require the high-cost treatment provided at the WRRC.
- Including I&I in the effluent flow to the WRRC creates extra operating costs and capital costs
- Reducing I&I is an essential component in Water Conservation .

# Differing approaches to I&I in Guelph and ROW



# Differing approaches to I&I in Guelph and ROW

- Guelph has undertaken a study of I&I possible I&I reduction options
- ROW has completed their study and implemented I&I reductions
- Results are a continuing reduction in ROW per capita flows since 2008 while Guelph per capita flows have increased since 2011
- For example Cambridge, which had 9% higher per capita flows than Guelph in 2011 reduced I&I from 32% to 20 % of flows and now has per capita flows 14% lower than Guelph

# Conclusion

- Implementation of I&I reductions in ROW has produced large reductions in per capita flows with resulting cost savings in operation and capital expenditures.
- Guelph, with increasing I&I flows, needs to give priority to I&I reductions as a Water Conservation measure.
- The 2022 Wastewater Treatment Master Plan should be revised to include I&I reduction targets before approval.