



TOWN OF WARRENTON

Department of Public Works & Utilities

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MEMORANDUM

TO: Brandie Schaeffer, Town Manager

FROM: Frank Cassidy, Director Public Works and Utilities

DATE: March 9, 2022

SUBJECT: I&I Information

Please accept this as information regarding I&I:

Council member Sean Polster requested information on our system and the effects of I&I (Infiltration and Inflow). Infiltration and Inflow is clean storm and/or groundwater that enters the sanitary sewer system through holes, breaks, joint failures, connection failures, illegal connections (sump pumps, down spouts/gutters, and footing drains), and from cross-connections with storm sewers. Most inflow comes from stormwater and most infiltration comes from groundwater. High groundwater levels and storm events can contribute to excessive sewer flows.

Over the past several years, we have been taking measures to reduce the I&I in our system. We have been working with contractors and assessing fluctuations in our WWTP. These efforts are showing signs of progress.

In short, the areas we have completed rehab work to our system are showing signs of reduced I&I. for example, the area around Rady Park is completed. During heavy rains, the pump station remains consistent. On the other hand, during the same rain event, the pump station at Cedar Run will show a large increase in volume. This area is our next target area for rehab.

As an overall effect, the WWTP does have an increase of processing during large rain events. Our monthly averages of MGD's remain consistent and in the range of 1.7 to 2.0; however, when we break this down to daily and examine the periods of heavy rainfall, we see a direct correlation with rising flow rates and the amount of rain.

In conclusion, it is obvious our efforts to reduce I&I through our rehab program is working and we have work still to do. I have included the progress report submitted by our Engineer Paul Bernard as well as a recent daily tracking report to provide additional details.

Please let me know if you require additional information.

Attachment: Memo and supporting documents on the status of our rehab program
Composite Flow Chart and spread sheet for MGD and rain amounts