



June 3, 2020

Jonathan Hadad
GRAEF - Miami
9400 South Dadeland Boulevard, Suite 601
Miami, Florida 33156

Subject: **WATER AND WASTEWATER CAPACITY AVAILABILITY LETTER
Publix Supermarket – DRC Case No. PLN-SITE-19910004
2985 North Ocean Boulevard, Fort Lauderdale, Florida 33308**

Dear Mr. Hadad,

According to the information submitted, the project consists of a proposed 30,138 SF Publix Supermarket to replace the existing 5,000 SF one-story office and restaurant building and parking lot. There are proposed water and sewer connections to City of Fort Lauderdale (City) utilities along NE 30th Street and NE 33rd Avenue. This project lies within the City's Pump Station (PS) B-14 basin and will increase the average day water demand by approximately 0.002 million gallons per day (MGD) and the average day sewer demand by approximately 0.002 MGD.

We believe that once this project is complete there will be sufficient capacity in the sanitary sewer system to accommodate the proposed development. Currently the existing PS B-14 run times exceed 10 hours per day, however, since the proposed increase is 0.2% of total flow and the impact will be negligible, we are confident that the existing PS B-14 will be able to accommodate the proposed project's calculated demands.

If Public Works staff issues comments on the proposed flow calculations after the issuance of this capacity availability letter, the consultant shall request a revised letter with the correct approved flow calculations. The determination of capacity availability is based upon tools and data analysis as of the date of this letter. Availability of capacities, as calculated in the attached analysis, is not guaranteed and no existing system capacity shall be considered "committed" for this project until a permit has been issued and all fees have been paid. The City reserves the right to re-evaluate the availability of capacities at the time of permit application. If sufficient capacities are not available, the City may deny the permit application or ask the Owner/Developer to submit an alternate design prior to approval. Information contained in this letter will expire one year from the date issued.

Should you have any questions or require any additional information, please contact me at (954) 828-5862.

Sincerely,

Igor Vassiliev, P.E.
Project Manager II

Enclosures: Water and Wastewater Capacity Analysis

cc: Talal Abi-Karam, P.E., Assistant Public Works Director
Omar Castellon, P.E., Chief Engineer
Dennis Girisgen, P.E., City Engineer
File: Water and Sewer Capacity Letters

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City of Fort Lauderdale
Public Works Department
Water and Wastewater Capacity Analysis

Publix Supermarket – DRC Case No. PLN-SITE-19910004
2985 North Ocean Boulevard, Fort Lauderdale, Florida 33308

PROJECT AND DESCRIPTION

Construction of a 30,138 SF Publix Supermarket to replace the existing 5,000 SF one-story office and restaurant building and parking lot.

DESCRIPTION OF EXISTING UTILITIES

Water: The site is currently served by a 12-inch water main along NE 33rd Avenue west of the project site. See Figure 1.

Wastewater: The site is currently served by an 8-inch gravity sewer main along NE 30th Street to the north of the project site and an 8-inch gravity sewer main along NE 33rd Avenue to the west of the project site. See Figure 2.

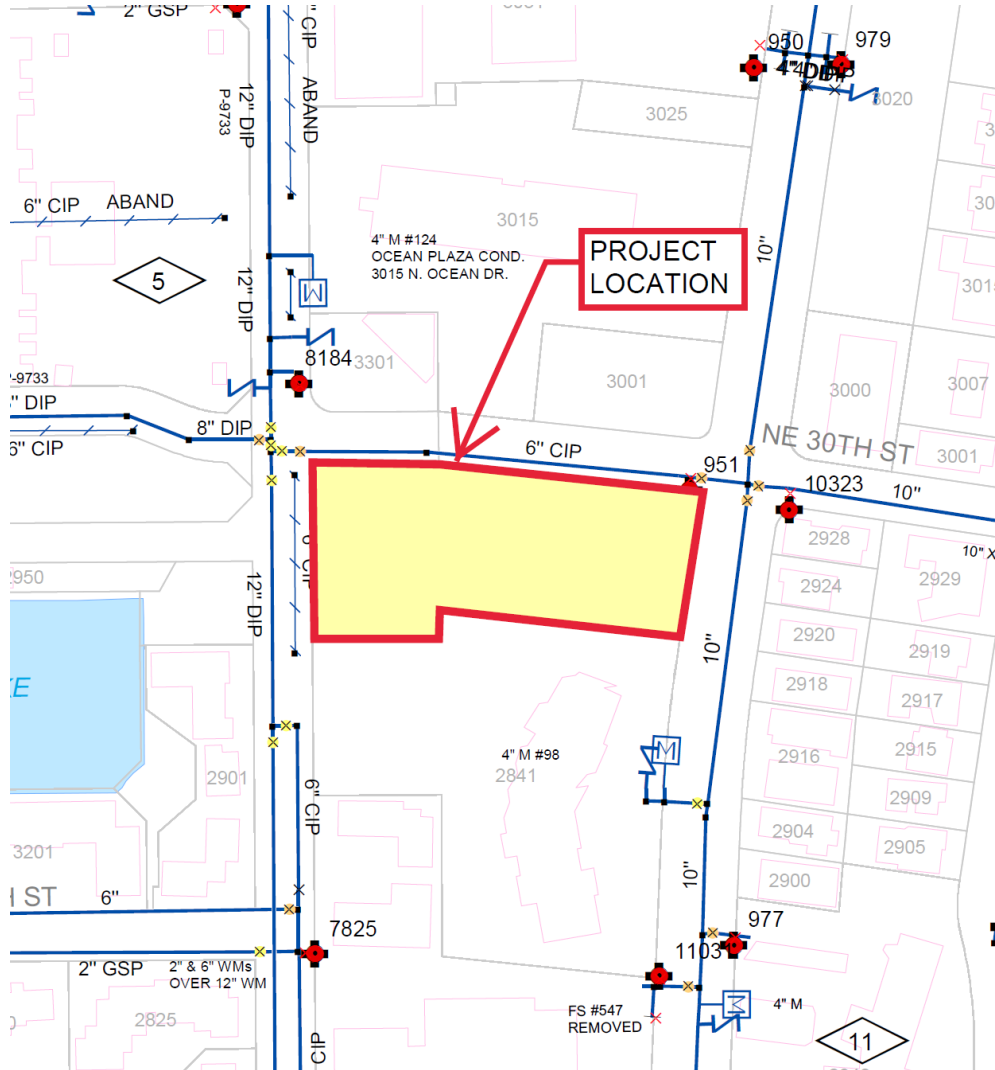
Pumping Station: The site is served by PS B-14, which is located south of the project site along NE 23rd Street. See Figure 3.

SUMMARY OF ANALYSIS AND REQUIRED ACTION

The existing water and sewer infrastructure will have sufficient capacity to serve the project.



Figure 1 – City Water Atlas



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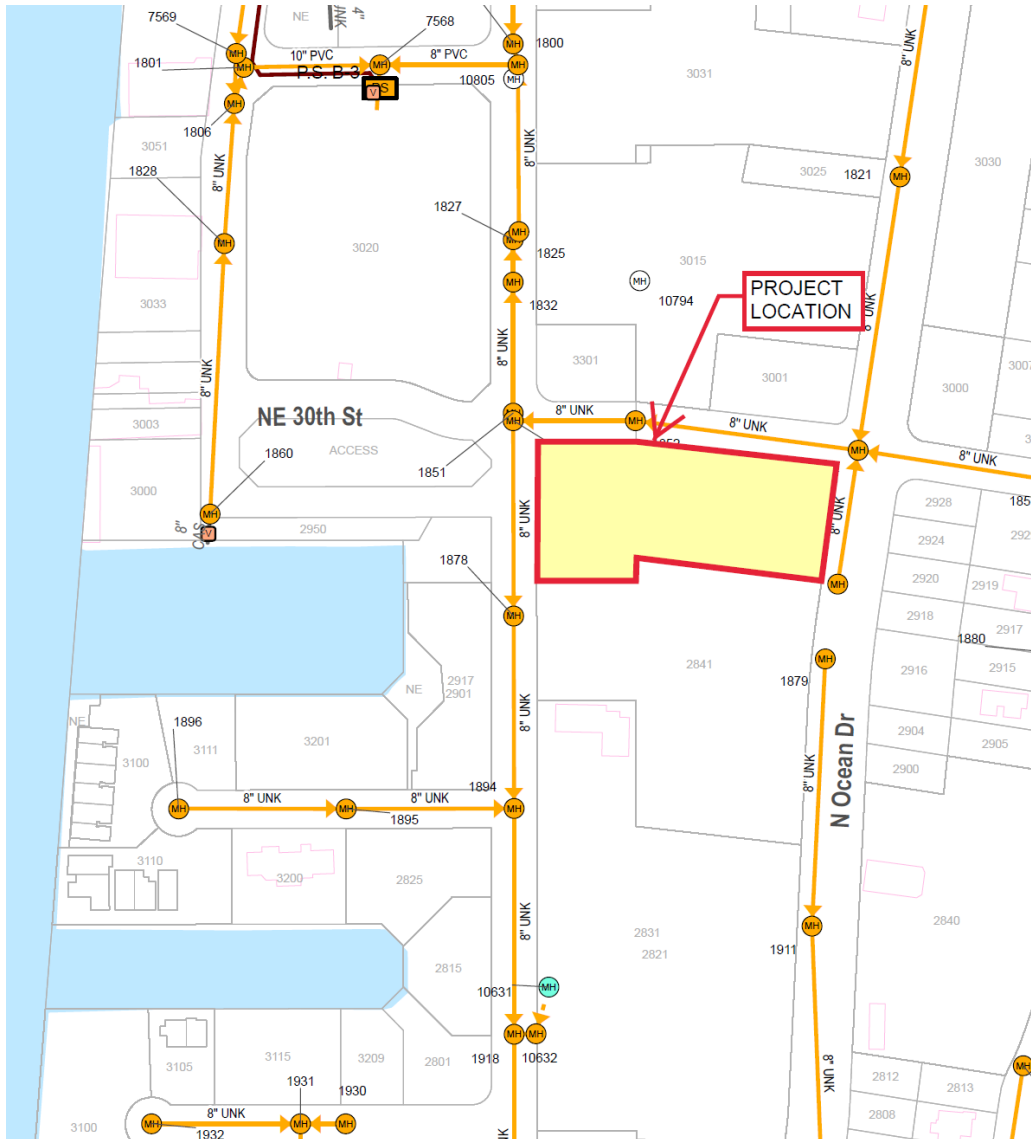
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Figure 2 – City Sewer Atlas



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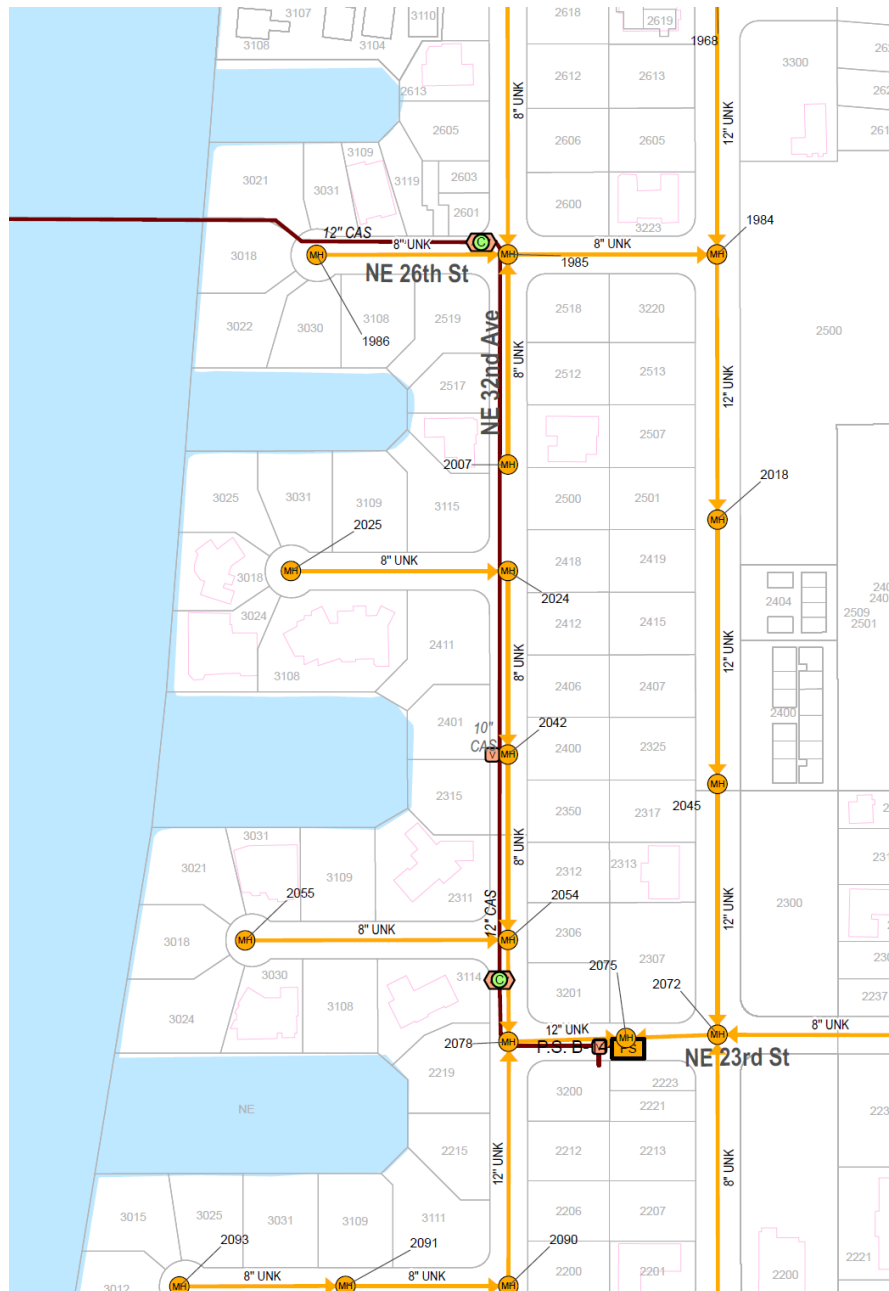
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Figure 3 – City Sewer Atlas, PS B-14



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WATER CAPACITY ANALYSIS

Requested Demand: Based on the applicant's site plan and building use information, the estimated average day potable water demand is approximately 2,019 gallons per day (GPD), which equates to 0.002 MGD. Average day water use demands are calculated by reducing the calculated max day water use demands by a factor of 1.3 as determined in the City's *Comprehensive Utility Strategic Master Plan*. The max day water use demands are calculated using the City's *Guidelines for the Calculations of Sanitary Sewer Connection Fees* and are based on City Ordinance No. C-19-29.

Evaluation of impact on existing distribution pipe (condition & capacity): According to the site plan, the applicant is proposing to utilize the 12-inch water main along NE 33rd Avenue. The InfoWater hydraulic model was analyzed to determine the impact of this project on the existing 12-inch water main and it was determined that it has capacity to serve the project.

Evaluation of impact of Permitted Water Plant Capacity: The Fiveash and the Peele Dixie Water Treatment Plants are designed to treat 70 MGD and 12 MGD of raw water respectively (82 MGD total). The total permitted Biscayne aquifer water withdrawals for these plants is limited to 52.55 MGD per the South Florida Water Management District (SFWMD) permit number 06-00123-W.

The current twelve-month rolling average production at the two plants is 39.22 MGD. The previously committed demand from development projects in the permitting or the construction stage is 4.982 MGD. Combining these figures with the demand from the proposed project of 0.002 MGD, the required production would be 44.20 MGD. This is less than the allowable withdrawal limit of 52.55 MGD. Therefore, the water plants have sufficient capacity to serve this project. See Figure 4 below.

Recommended Water Infrastructure Improvements: No improvements required.

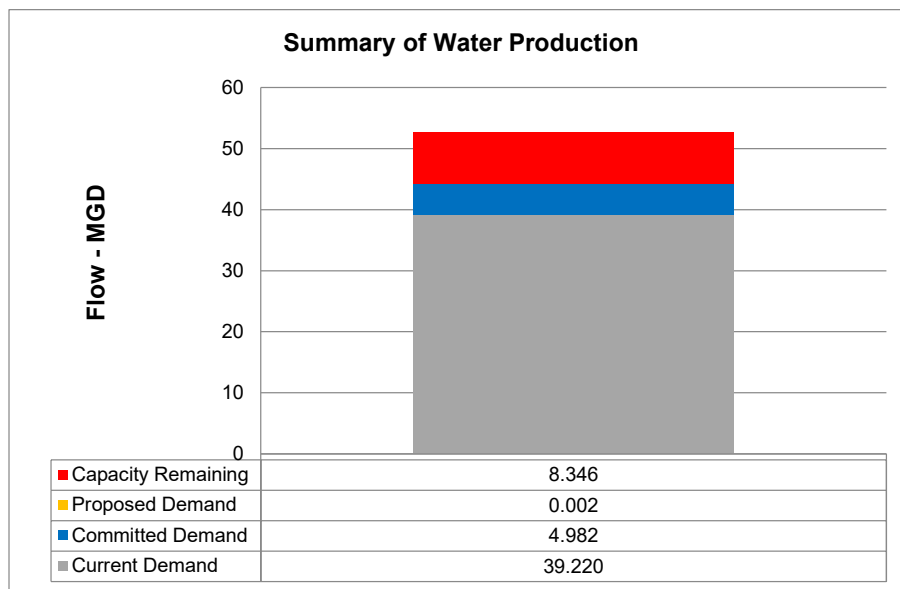


Figure 4

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WASTEWATER CAPACITY ANALYSIS

Requested Demand: Based on the applicant's site plan and building use information, the estimated average day sewer use demand is approximately 1,531 GPD, which equates to 0.002 MGD. Average day sewer use demands are calculated using the City's *Guidelines for the Calculations of Sanitary Sewer Connection Fees* and are based on City Ordinance No. C-19-29.

Evaluation of impact on existing collection pipe (condition and capacity): According to the site plan, the applicant is proposing to utilize the 8-inch gravity sewer main along NE 30th Street to the north of the project site and the 8-inch gravity sewer main along NE 33rd Avenue to the west of the project site. Manual of Practice (MOP) 60, published by American Society of Civil Engineers (ASCE) for the gravity sewer design and used by the City staff, recommends that pipe diameters 15-inch or less be designed to flow half full during peak flows. The City uses a peak hourly flow factor of 3.0. Accounting for existing flows and based on the tools and information available to the City staff, it has been calculated that the 8-inch diameter pipes downstream of the proposed development will flow less than the ASCE-recommended 50% during peak flows.

Evaluation of impact on pumping station: PS B-14 has a duty point of 843 gallons per minute (GPM) and has a Nominal Average Pumping Operating Time (NAPOT) of approximately 15.8 hours per day. Based on projected sewage flows, the pumping run times would increase approximately 1.8 minute per day. Additionally, there are other committed flows from proposed developments within the PS B-14 basin resulting in 26 minutes of additional runtime. PS B-14 will have a NAPOT of 16.26 hours once the proposed developments are complete, more than the recommended average of 10 hours per day (see Figure 5 on the next page). However, since the proposed increase is 0.2% of total flow and the impact will be negligible, we are confident that the existing PS B-14 will be able to accommodate the proposed project's calculated demands.

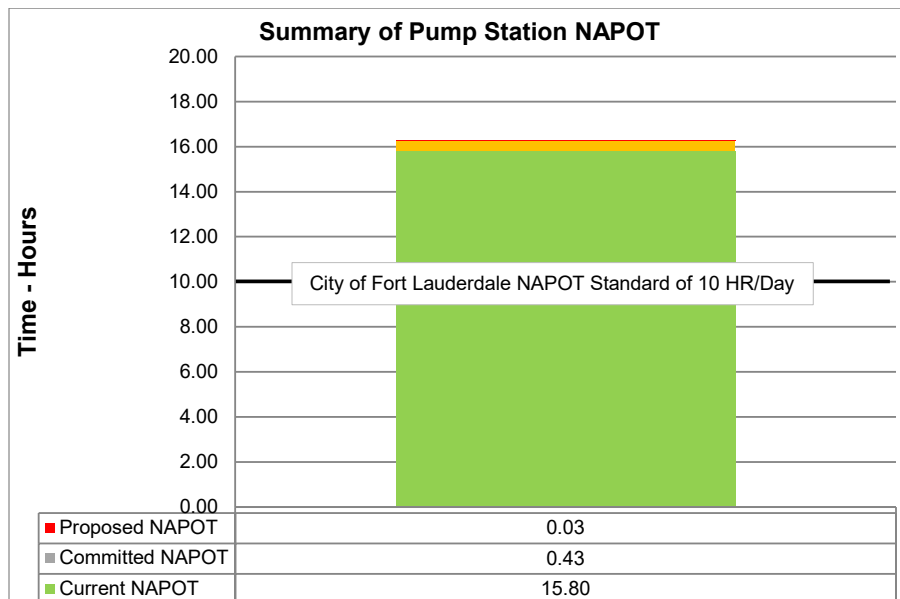


Figure 5

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Evaluation of impact of Permitted Wastewater Plant Capacity: The City of Fort Lauderdale owns and operates the George T. Lohmeyer Regional Wastewater Treatment Plant (GTL), which provides wastewater treatment for the City of Fort Lauderdale. The Broward County's Environmental Protection and Growth Management Department's (EPGMD) Environmental Licensing & Building Permitting Division's licensed capacity for GTL is 48 MGD-AADF (Million Gallons per Day – Annual Average Daily Flow). The annual average daily flow (AADF) to the plant is 37.799 MGD. Combining the committed flows for previously approved projects of 4.983 MGD plus the 0.002 MGD net contribution from the project results in a total projected flow of 42.78 MGD. This is less than the permitted treatment plant capacity of 48 MGD. Therefore, the treatment plant has sufficient capacity to serve this project. See Figure 6 below.

Recommended Wastewater Infrastructure Improvements: No improvements required.

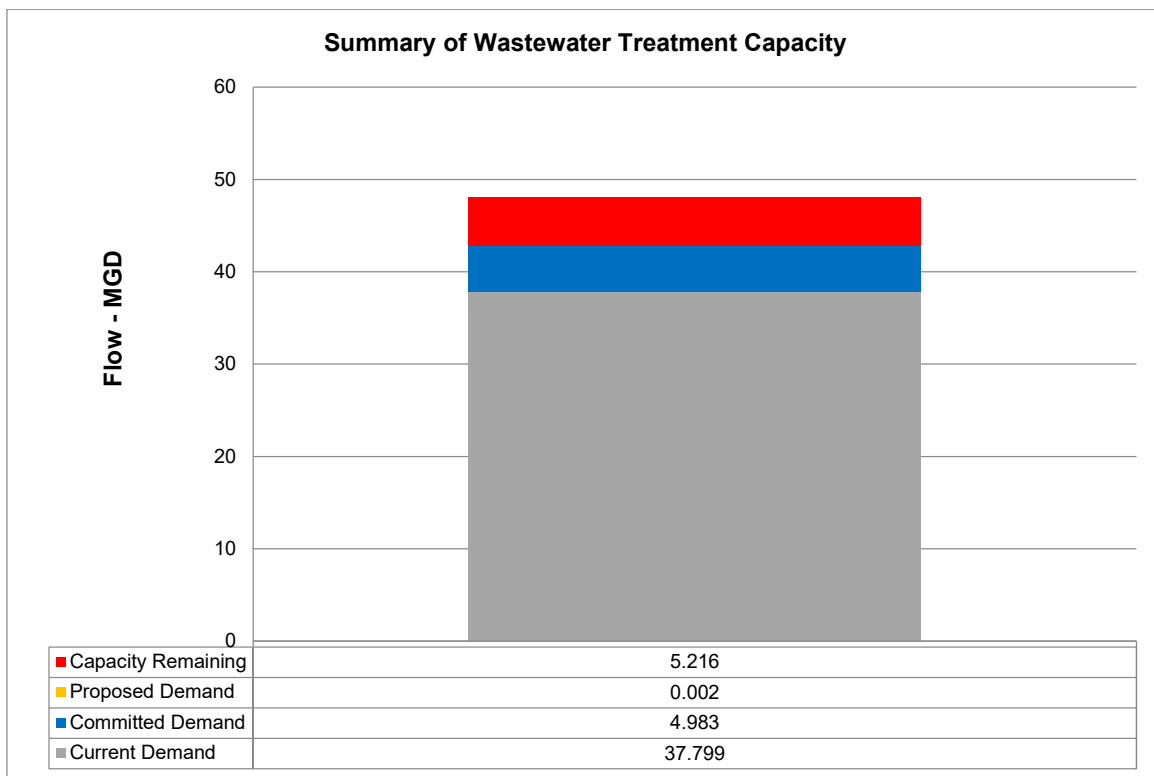


Figure 6

