CITY OF
FORT LAUDERDALE

March 27, 2025

Shane Grabski
Flynn Engineering Services, P.A.
241 Commercial Blvd.
Lauderdale-By-The-Sea, FL 33308

Subject: **WATER AND WASTEWATER CAPACITY AVAILABILITY LETTER**
The YMCA – DRC Case No. UDP-S24057
840 N. Federal Highway, Fort Lauderdale, FL 33304

Dear Shane Grabski,

According to the information submitted, the project consists of the construction of a 49,548 SF YMCA Community Center and a 12,842 Emergency Department building for a total of 62,390 SF of office space (C-12) on a currently vacant lot. There are proposed water and sewer connections to City of Fort Lauderdale (City) utilities along Federal Highway (S.R. No. 5) and NE 9th Street. This project lies within the City's Pump Station (PS) A-17 basin and will increase the average day water demand by approximately 0.0101 million gallons per day (MGD) and the average day sewer demand by approximately 0.0069 MGD. The sewer infrastructure will require improvements to meet the increased demand of the proposed project. The sewer improvements shall be constructed, certified, and in operation prior to issuance of any Certification of Occupancy.

The determination of capacity availability is based upon an analysis of the City's water and sewer system models, average daily flows at the treatment plants, and previously committed flows, as of the date of this letter, in conjunction with the demand created by the proposed subject project. Availability of capacities, as calculated in the attached analysis, is not guaranteed and no existing system capacity shall be considered "reserved" for this project until development permit approval has been achieved and all fees have been paid. Once the development permit has been received for this project, the city shall reserve the necessary capacity to serve the development.

If there are changes to the proposed development after issuance of this capacity availability letter, and/or before development permit approval has been received, the Owner or Owner's authorized representative for the subject project must submit a revised request based on the updated plans.

If, at the time of building permit application, there are changes to the proposed development that require a new development permit or an amendment to an existing development permit which result in a change of the water and sewer demand, the City shall re-evaluate the availability of capacities and a new letter shall be obtained. If sufficient capacities for the increased demand are not available at that time, the City may deny the permit application or ask the Owner/Developer to submit an alternate design for consideration prior to approval. If a development permit is not approved within one year of this letter being issued, the information contained in this letter will expire and a new letter shall be required prior to development approval.

If a development permit is not approved within one year of this letter being issued, the information contained in this letter will expire and a new letter shall be required prior to development approval.

Should you have any questions or require any additional information, please contact me at (954) 828-6073.

Sincerely,

John D. Fernandez
Project Manager II

Enclosures: Water and Wastewater Capacity Analysis
cc: Talal Abi-Karam, P.E., Acting Director/Assistant Utilities Director
Omar Castellon, P.E., Assistant Public Works Director – Engineering
Benjamin Restrepo, P.E., City Engineer
Orlando Arrom, Land Development Manager
File: Water and Sewer Capacity Letters

CITY OF FORT LAUDERDALE

All-America City

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

The YMCA – DRC Case No. UDP-S24057
840 N. Federal Highway, Fort Lauderdale, FL 33304

PROJECT AND DESCRIPTION

The project consists of an addition of 62,390 SF of office space to a currently vacant parcel.

DESCRIPTION OF EXISTING UTILITIES

Water: The site is currently served by a 6-inch water main along Federal Highway (S.R. No. 5), west of the project site. See Figure 1.

Wastewater: The site is currently served by a 10-inch gravity sewer main to the east of the project site along NE 6th Ter. See Figure 2.

Pumping Station: The site is served by PS A-17 which is located along NE 5th Street.

SUMMARY OF ANALYSIS AND REQUIRED ACTION

The proposed water infrastructure has the capacity to support the proposed development, however the sewer infrastructure requires improvements to meet the increased demand of the proposed project. See Figure 3 – Required Improvements. The master permit will not be issued for this site until the sanitary sewer system improvements are constructed, certified, and in service.

Figure 1 – City Water Atlas

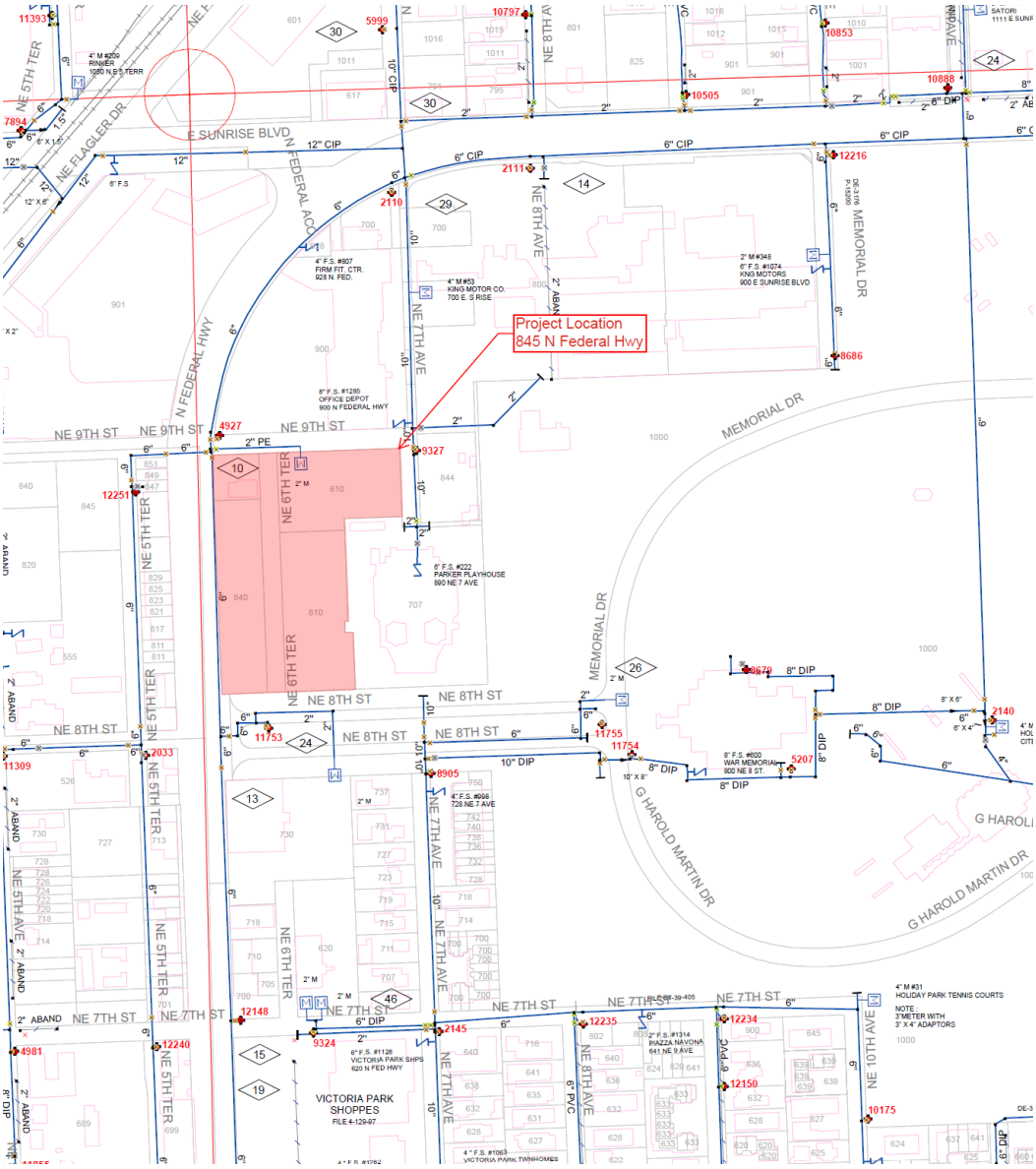


Figure 2 – City Sewer Atlas

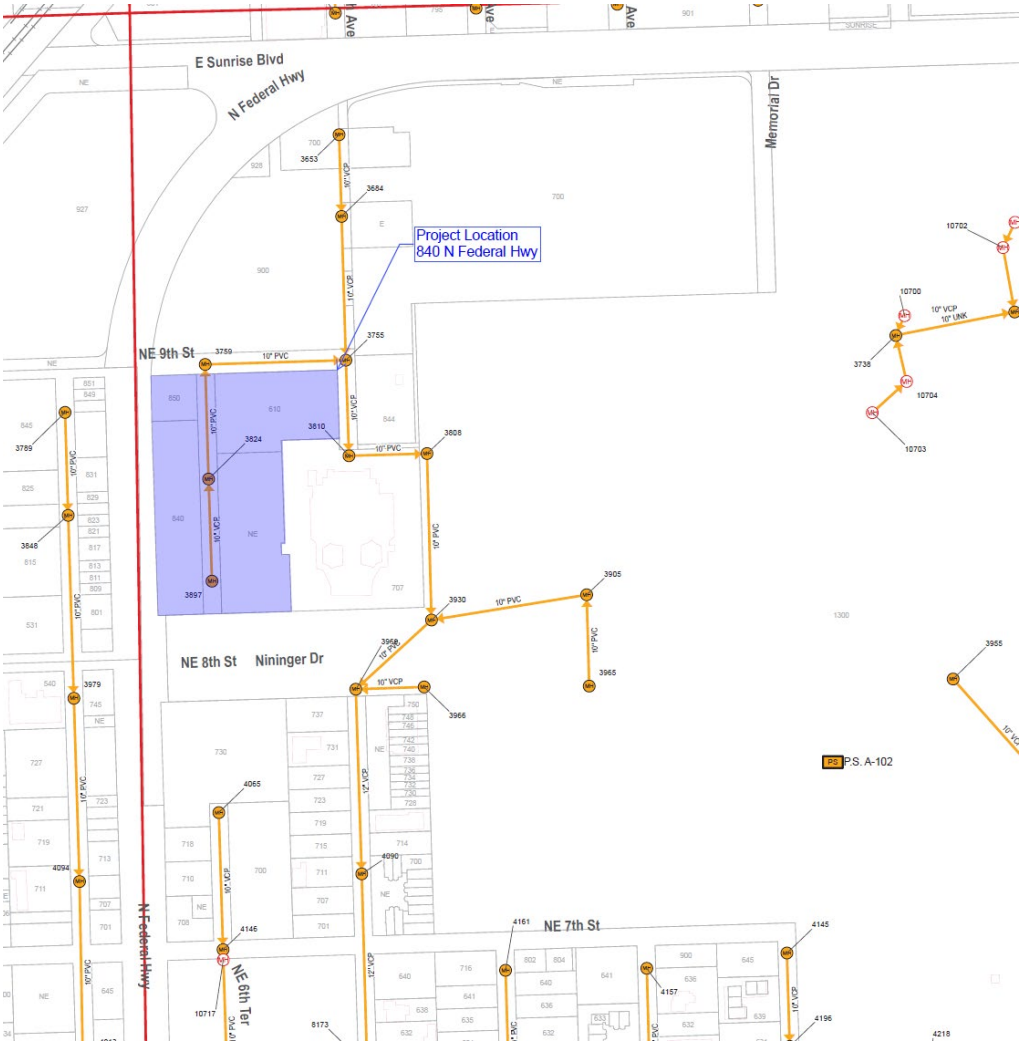
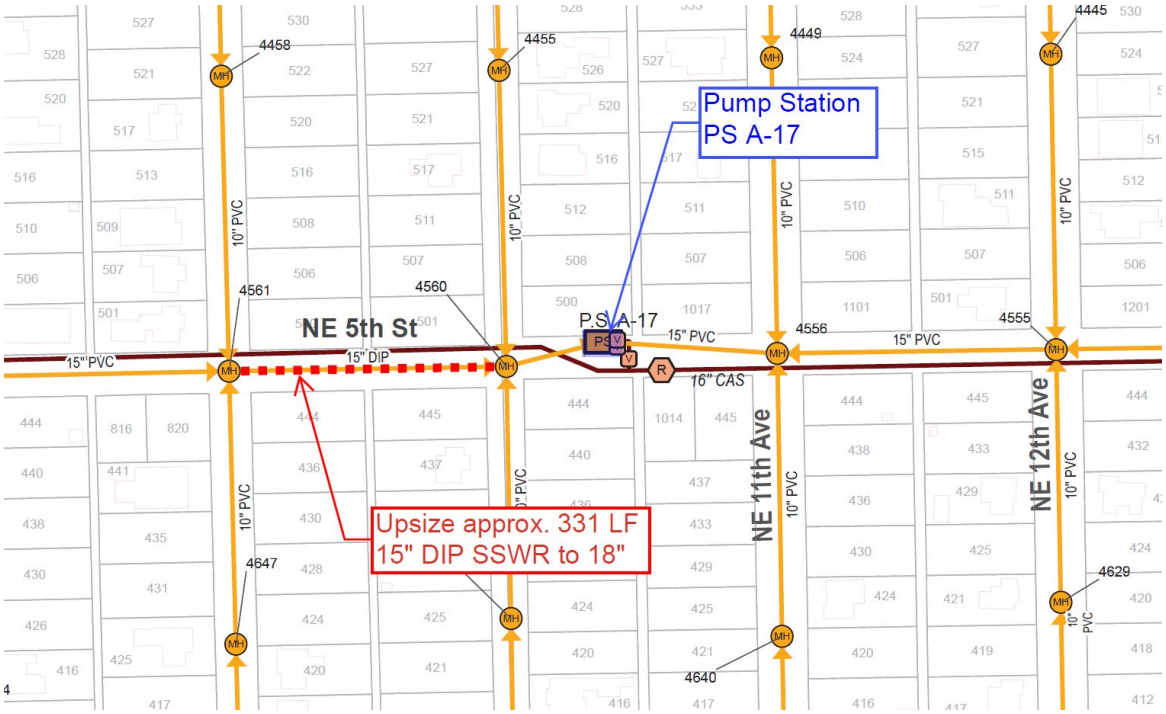


Figure 3 – Required Improvements (City Sewer)



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 10088 gallons per day (GPD), which equates to 0.0101 MGD. Average day water use demands are calculated by reducing the calculated max day water use demands by a factor of 1.18. 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: According to the site plan, the applicant is proposing to utilize the 6-inch water main along N. Federal Hwy. The InfoWater hydraulic model was analyzed to determine the impact of this project on the existing 6-inch water main.

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 38.72 MGD. The previously committed demand from development projects in the permitting or the construction stage is 5.96 MGD. Combining these figures with the demand from the proposed project of 0.0101 MGD, the required production would be 44.69 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.

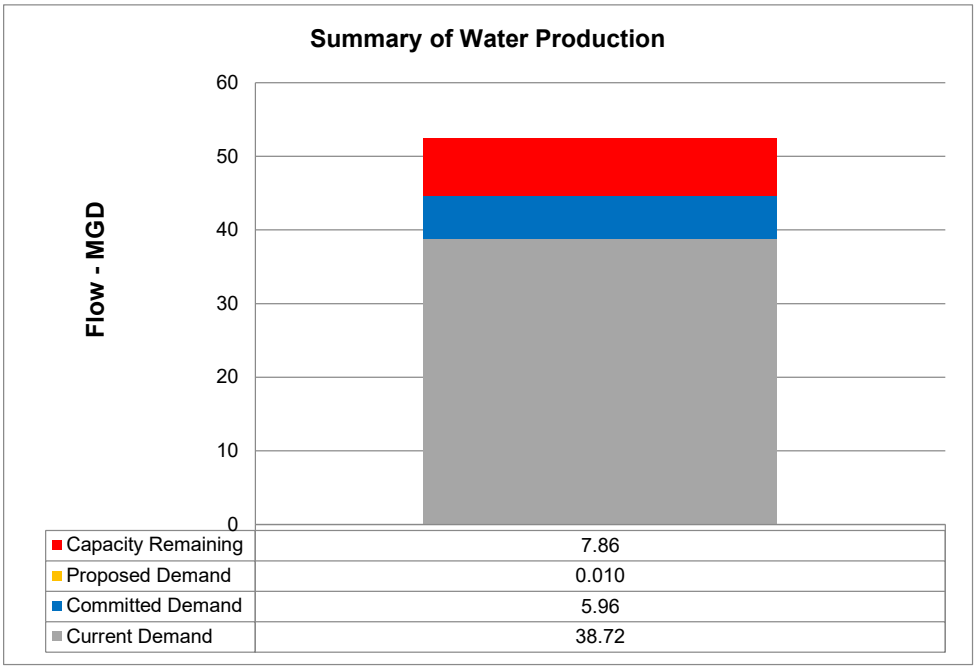


Figure 4

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 6944 GPD, which equates to 0.0069 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: According to the site plan, the applicant is proposing to utilize the 10-inch PVC gravity sewer main to the north of the project site along NE 9th St via connection to the existing manhole SSMH-3759. Accounting for existing flows and based on the tools and information available to the City staff, it has been calculated that approximately 331 LF of 15-inch piping (pipe ID No. SSGM-635) will flow higher than the City's governance plan threshold of 70% during peak flows, resulting in the pipe run being surcharged. This length of pipe must be upsized to 18-inch pipe which is estimated to lower the pipe's peak flow to 52.23%.

Evaluation of impact on pumping station: PS A-17 has a duty point of 843 gallons per minute (GPM) and has a Nominal Average Pumping Operating Time (NAPOT) of approximately 5.08 hours per day. Based on projected sewage flows, the pumping run times would increase approximately 8 minutes per day. Additionally, there are other committed flows from proposed developments within the PS A-17 basin resulting in 28.29 minutes of additional runtime. PS A-17 will have a NAPOT of 5.69 hours once the proposed developments are complete, less than the recommended average of 10 hours per day. See Figure 5 below.

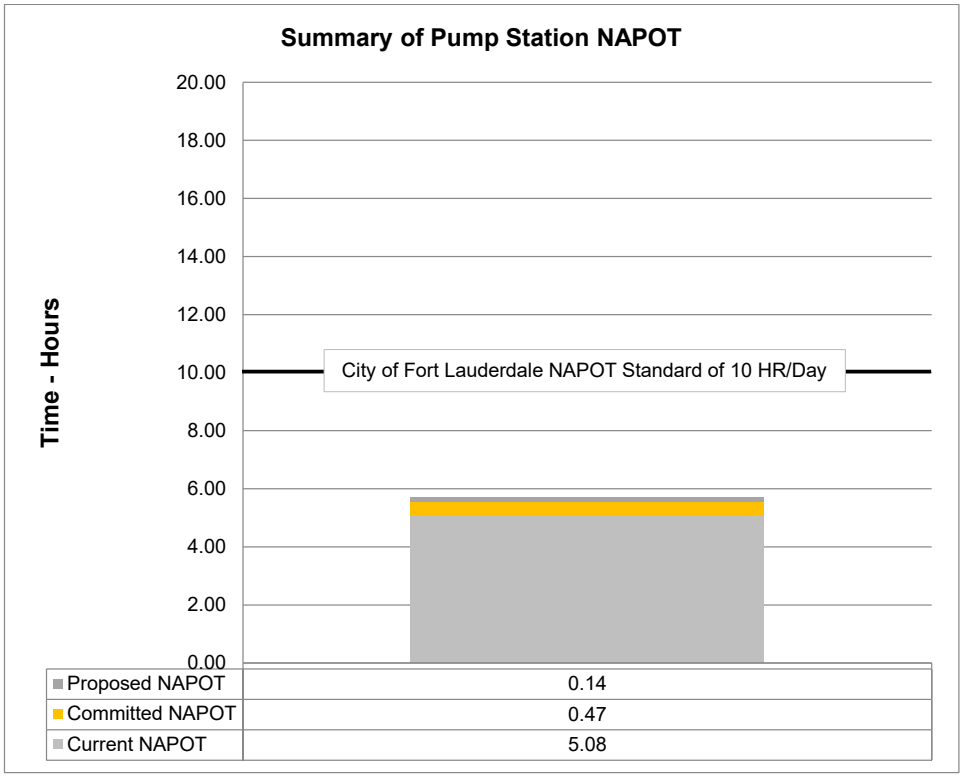


Figure 5

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 Florida Department of Environmental Protection's (FDEP) permitted capacity for GTL is 56.6 MGD-TMADF (Million Gallons per Day – Three Month Average Daily Flow). The three-month average daily flow (TMADF) to the plant is 39.45 MGD. Combining the committed flows for previously approved projects of 4.65 MGD plus the 0.0069 MGD net contribution from the project results in a total projected flow of 44.11 MGD. This is less than the permitted treatment plant capacity of 56.6 MGD. Therefore, the treatment plant has sufficient capacity to serve this project. See Figure 6 below.

Recommended Wastewater Plant Improvements: No improvements required.

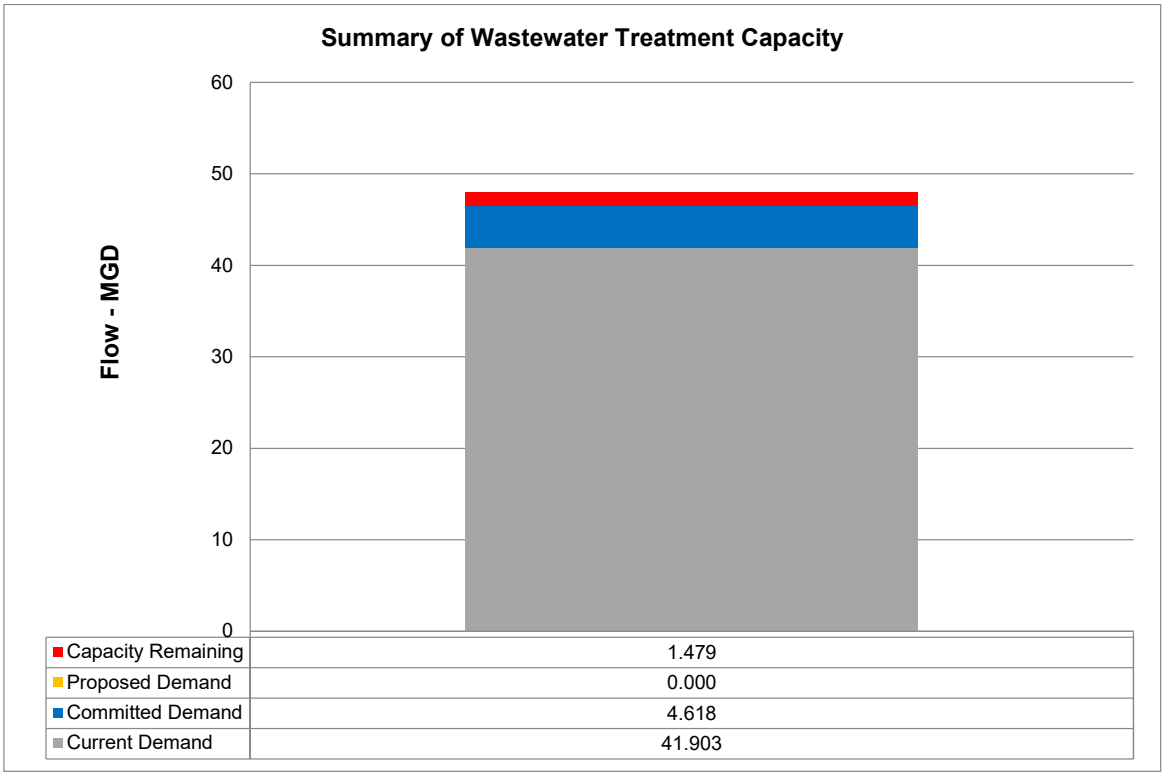


Figure 6