



PROJECT ADDRESS: 513-517 NE 6th Street

Date request was received:1/6/2022

DRC CASE#: USP-S21059

Project Name: Flagler Residences

IF NO DRC CASE NUMBER PROVIDED, WATER & SEWER AVAILABILITY LETTER TO BE PROVIDED UPON PAYMENT OF ENCLOSED A/R INVOICE.

\*\*\*\*\*IMPORTANT INFORMATION\*\*\*\*\*

The following analysis is only VALID FOR A PERIOD OF ONE YEAR FROM THE DATE OF ISSUANCE. After which point, a reanalysis must be conducted to ensure adequate availability for projects.

- Water and Sanitary Sewer Capacity Allocation Letter (Small Project) .....\$960
- Modifications to small project that require capacity re-analysis.....\$960
- Water and Sanitary Sewer Capacity Allocation Letter (Large Project) .....\$2,400
- Modifications to large project that require capacity re-analysis.....\$2,400

PUBLIC WORKS DEPARTMENT

100 N. ANDREWS AVE, FORT LAUDERDALE, FLORIDA 33301  
TELEPHONE (954) 828-5772, FAX (954) 828-5074

WWW.FORTLAUDERDALE.GOV





May 31, 2022

Clifford Loutan  
Sun-Tech Engineering, Inc.  
4577 Nob Hill Road, Suite 102  
Sunrise, FL 33351

Subject: **WATER AND WASTEWATER CAPACITY AVAILABILITY LETTER**  
**Flagler Residences – DRC Case No. USP-S21059**  
**513-517 NE 6th Street, Fort Lauderdale, FL 33304**

Dear Clifford Loutan,

According to the information submitted, the project consists of a 320-unit residential building with 29,607 square feet of Retail space. There are proposed water and sewer connections to City of Fort Lauderdale (City) utilities along NE 5<sup>th</sup> Ave, NE 6<sup>th</sup> Street, and NE 5<sup>th</sup> Terrace. This project lies within the City's Pump Station (PS) A-21 basin and will increase the average day water demand by approximately 0.0632 million gallons per day (MGD) and the average day sewer demand by approximately 0.0479 MGD. The following project is the City's major initiative within this basin:

Project # 12605 – New Pumping Station Flagler Village A-24  
Estimated Construction Completion: Fiscal Year 2024

Currently, the existing sewer infrastructure does not have the capacity to support the proposed development. However, upcoming CIP project # 12605 will create Basin / Pump Station A-24 to handle the committed NAPOT. This project will be within Basin A-24. No improvements are needed to the existing Potable Water infrastructure based on this analysis.

Please be advised that the proposed Flagler Village Pump Station A-24 is estimated to become operational sometime during Fiscal Year 2024 provided unforeseen circumstances are not encountered. Therefore, the timeline of all improvements must be coordinated well in advance with the City. Any Certificate of Occupancy will not be issued until the expanded wastewater system is fully functional.

If there are changes to the proposed development after issuance of this capacity availability letter, the Owner or Owner's authorized representative shall submit a revised request based on the updated plans. Failure to seek approval prior to changing the plans may result in revocation of permit and capacity allocation. 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.

**PUBLIC WORKS DEPARTMENT**

100 N. ANDREWS AVE, FORT LAUDERDALE, FLORIDA 33301  
TELEPHONE (954) 828-5772, FAX (954) 828-5074

[WWW.FORTLAUDERDALE.GOV](http://WWW.FORTLAUDERDALE.GOV)



Should you have any questions or require any additional information, please contact me at (954) 828-6982.

Sincerely,

Roberto I. Betancourt, P.E.  
Project Manager II

Enclosures: Water and Wastewater Capacity Analysis

cc: Alan Dodd, P.E., Public Works Director  
Talal Abi-Karam, P.E., Assistant Public Works Director  
Omar Castellon, P.E., Assistant Public Works Director  
Daniel Rey, P.E., City Engineer  
File: Water and Sewer Capacity Letters

**PUBLIC WORKS DEPARTMENT**

100 N. ANDREWS AVE, FORT LAUDERDALE, FLORIDA 33301  
TELEPHONE (954) 828-5772, FAX (954) 828-5074

[WWW.FORTLAUDERDALE.GOV](http://WWW.FORTLAUDERDALE.GOV)





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

**Flagler Residences – DRC Case No. USP-S21059**  
513-517 NE 6th Street, Fort Lauderdale, FL 33304

**PROJECT AND DESCRIPTION**

The project consists of consists of a 320-unit residential building with 29,607 square feet of Retail space.

**DESCRIPTION OF EXISTING UTILITIES**

**Water:** The site is currently served by a 6-inch water main along NE 5<sup>th</sup> Terrace, a 10-inch water main along NE 6<sup>th</sup> Street, and an 8-inch water main along NE 5<sup>th</sup> Ave. See Figure 1.

**Wastewater:** The site is currently served by a 12-inch sewer main along NE 5<sup>th</sup> Terrace, NE 6<sup>th</sup> Street, and NE 5<sup>th</sup> Ave. See Figure 2.

**Pumping Station:** The site is served by PS A-21 which is located along NE 2<sup>nd</sup> Ave. The site will eventually be served by PS A-24 which will be tentatively located near the NE 3<sup>rd</sup> Avenue and NE 6<sup>th</sup> Street intersection.

**SUMMARY OF ANALYSIS AND REQUIRED ACTION**

Currently, the existing sewer infrastructure does not have the capacity to support the proposed development. However, upcoming CIP project # 12605 will create Basin / Pump Station A-24 to handle the committed NAPOT. This project will be within Basin A-24. The proposed PS A-24 shall be constructed and on-line prior to the proposed development seeking a Certificate of Occupancy. No improvements are needed to the existing Potable Water infrastructure based on this analysis.

**PUBLIC WORKS DEPARTMENT**

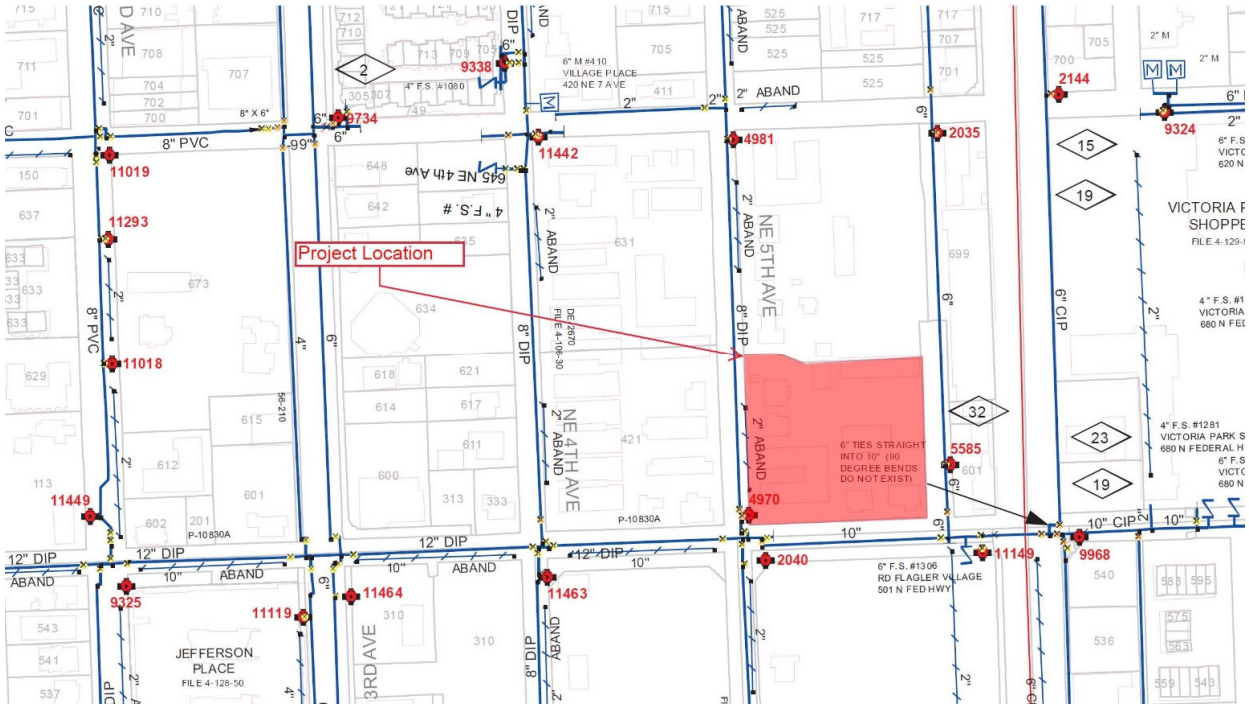
100 N. ANDREWS AVE, FORT LAUDERDALE, FLORIDA 33301  
TELEPHONE (954) 828-5772, FAX (954) 828-5074

[WWW.FORTLAUDERDALE.GOV](http://WWW.FORTLAUDERDALE.GOV)





Figure 1 – City Water Atlas



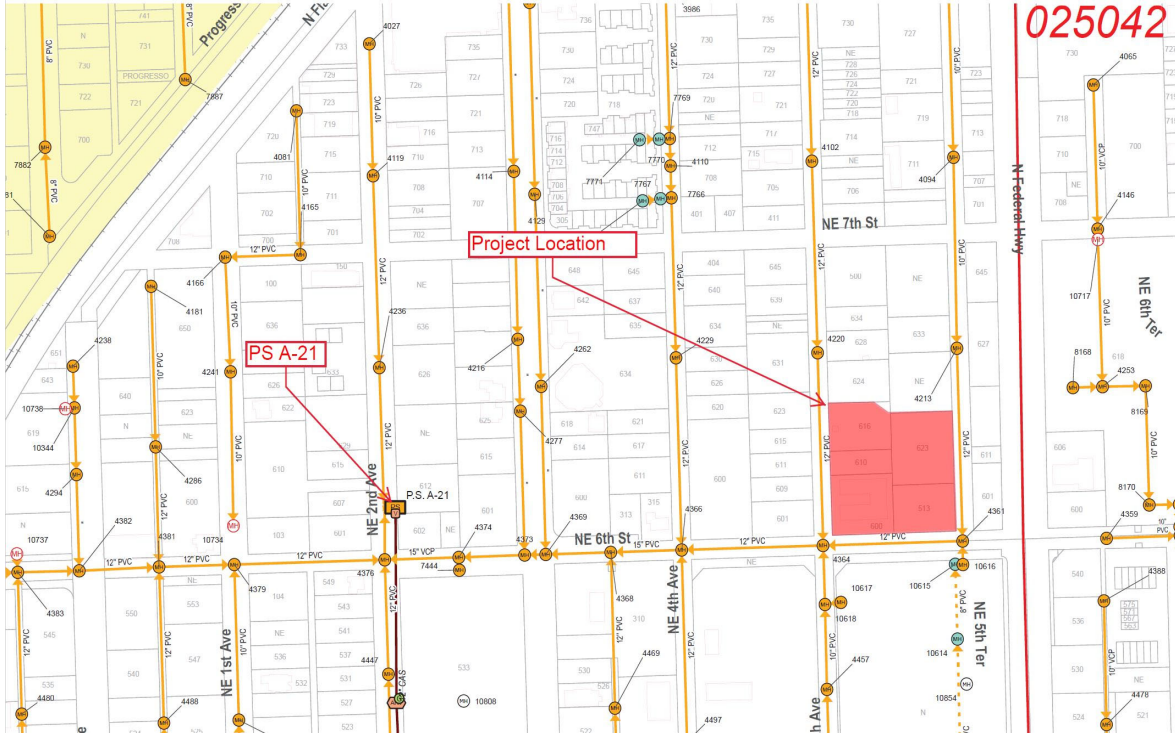
PUBLIC WORKS DEPARTMENT

100 N. ANDREWS AVE, FORT LAUDERDALE, FLORIDA 33301  
TELEPHONE (954) 828-5772, FAX (954) 828-5074

WWW.FORTLAUDERDALE.GOV



Figure 2 – City Sewer Atlas



PUBLIC WORKS DEPARTMENT

100 N. ANDREWS AVE, FORT LAUDERDALE, FLORIDA 33301  
TELEPHONE (954) 828-5772, FAX (954) 828-5074

WWW.FORTLAUDERDALE.GOV



**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 63204 gallons per day (GPD), which equates to 0.0632 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:** According to the site plan, the applicant is proposing to utilize the 6-inch water main along NE 5<sup>th</sup> Terrace, a 10-inch water main along NE 6<sup>th</sup> Street, and an 8-inch water main along NE 5<sup>th</sup> Ave. The InfoWater hydraulic model was analyzed to determine the impact of this project on the existing water main infrastructure.

**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 38.70 MGD. The previously committed demand from development projects in the permitting or the construction stage is 4.78 MGD. Combining these figures with the demand from the proposed project of 0.0632 MGD, the required production would be 43.55 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 3 below.

**Recommended Water Infrastructure Improvements:** No improvements required.

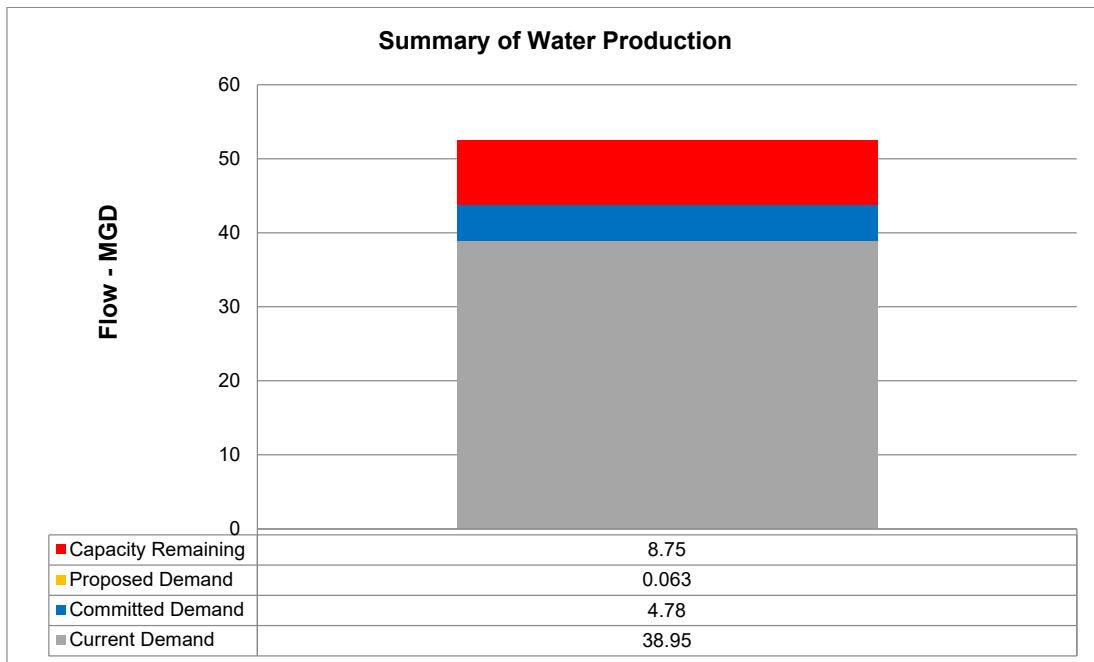


Figure 3

**PUBLIC WORKS DEPARTMENT**

100 N. ANDREWS AVE, FORT LAUDERDALE, FLORIDA 33301  
TELEPHONE (954) 828-5772, FAX (954) 828-5074

[WWW.FORTLAUDERDALE.GOV](http://WWW.FORTLAUDERDALE.GOV)



**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 47930 GPD, which equates to 0.0479 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 12-inch sewer main along NE 5<sup>th</sup> Terrace, NE 6<sup>th</sup> Street, and NE 5<sup>th</sup> Ave. 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 pipes downstream of the proposed development will flow less than the ASCE-recommended 70% during peak flows. Therefore, the pipes downstream of the developments are adequate to serve the project.

**Evaluation of impact on pumping station:** PS A-21 has a duty point of 978 gallons per minute (GPM) and has a Nominal Average Pumping Operating Time (NAPOT) of approximately 5.89 hours per day. Based on projected sewage flows, the pumping run times would increase approximately 49 minutes per day. Additionally, there are other committed flows from proposed developments within the PS A-21 basin resulting in 1232.32 minutes of additional runtime. PS A-21 will have a NAPOT of 27.25 hours once the proposed developments are complete, more than the recommended average of 10 hours per day. See Figure 4.

The City's Pump Station Flagler Village A-24 is a major initiative within this basin to reduce the amount of flow handled by the existing PS A-21 and to provide additional capacity within this area. Once PS A-24 is constructed and on-line, there will be sufficient capacity at this new pump station to convey the estimated wastewater demand from the development to the treatment plant.

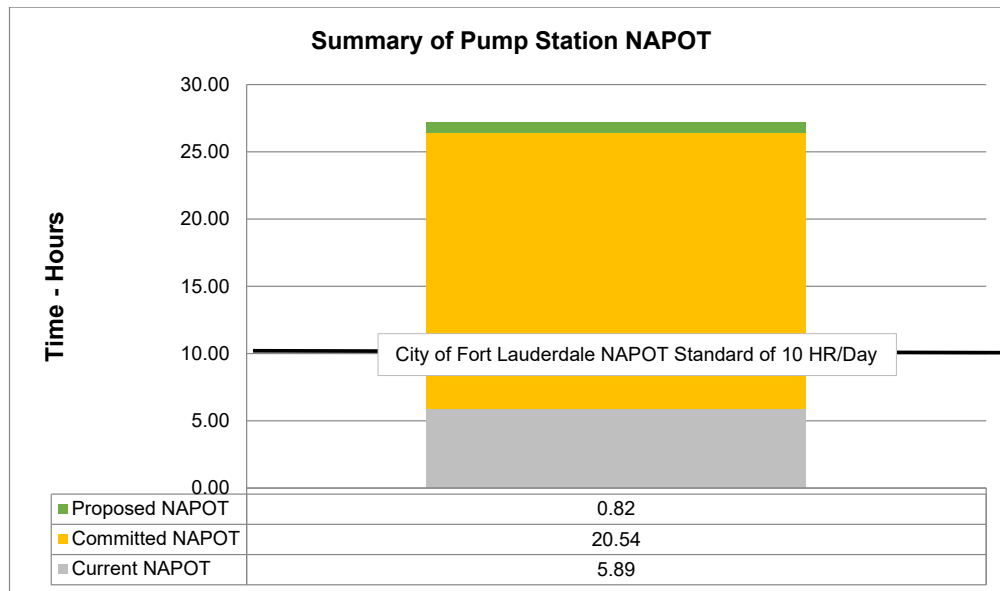


Figure 4

**PUBLIC WORKS DEPARTMENT**

100 N. ANDREWS AVE, FORT LAUDERDALE, FLORIDA 33301  
TELEPHONE (954) 828-5772, FAX (954) 828-5074

[WWW.FORTLAUDERDALE.GOV](http://WWW.FORTLAUDERDALE.GOV)





**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 41.39 MGD. Combining the committed flows for previously approved projects of 4.62 MGD plus the 0.0479 MGD net contribution from the project results in a total projected flow of 46.06 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 5 below.

**Recommended Wastewater Infrastructure Improvements:** PS A-21 does not have sufficient capacity to handle the proposed development. The proposed PS A-24 shall be constructed and on-line prior to the proposed development seeking a Certificate of Occupancy.

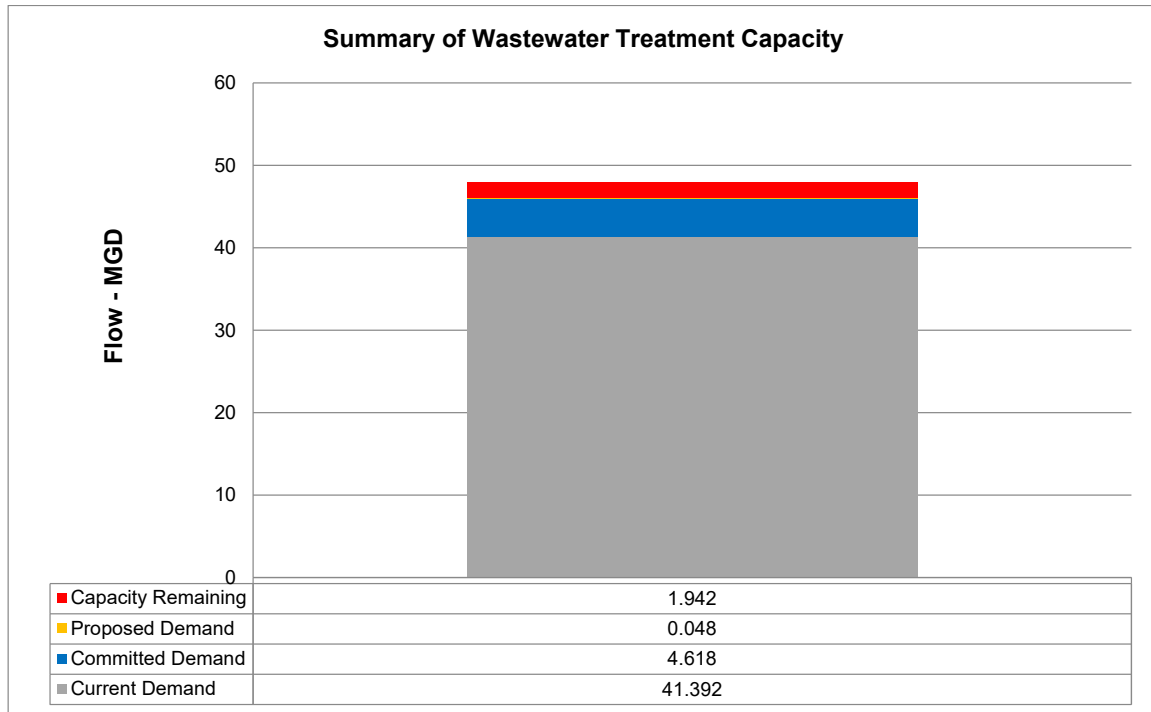


Figure 5

**PUBLIC WORKS DEPARTMENT**

100 N. ANDREWS AVE, FORT LAUDERDALE, FLORIDA 33301  
TELEPHONE (954) 828-5772, FAX (954) 828-5074

[WWW.FORTLAUDERDALE.GOV](http://WWW.FORTLAUDERDALE.GOV)

