



**CITY OF LAKE WORTH BEACH
2025
10-YEAR WATER SUPPLY
FACILITIES WORK PLAN**

prepared by



Adopted: Ordinance xx-_____

City of Lake Worth Beach

10-Year Water Supply Facilities Work Plan

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Section 1

Introduction

1.1 Project Background

Adopted by the 1985 Florida Legislature, the "Local Government Comprehensive Planning and Land Development Regulation Act" (reference Chapter 163, Part 11, F.S., also known as Florida's "Growth Management Act") requires all of Florida's 67 counties and 410 municipalities to adopt Local Government Comprehensive Plans that guide future growth and development. Comprehensive plans contain chapters or "elements" that address future land use, housing, transportation, infrastructure, coastal management, conservation, recreation and open space, intergovernmental coordination, and capital improvements.

Water Supply Facilities Work Plans (Work Plans) are required to be developed by local governments in order to identify specific water supply planning needs. The Work Plans are subsequently coordinated with the Local Government's Comprehensive Plan amendments, and these Work Plans are required to be updated every five (5) years to coordinate with the 5-year updates to the South Florida Water Management District's (SFWMD) Lower East Coast (LEC) Water Supply Plan. The City of Lake Worth Beach (City) existing Work Plan was adopted in 2020.

1.2 Project Purpose and Scope

The purpose of this report is to serve as the City's 10-Year Water Supply Facilities Work Plan in order to keep the City current with overall planning strategies and projection data. The City's Work Plan will be used to coordinate with SFWMD and their recent update to the LEC Water Supply Plan which was adopted by the SFWMD governing board on September 2024. The City has 18 months from the date of adoption of the LEC, or by March 2026, to revise their Comprehensive Plan to incorporate the Work Plan.

1.3 Statutory Requirements

Each local government must comply with the following requirements:

1. Coordinate appropriate aspects of its Comprehensive Plan with the appropriate water management district's regional water supply plan, [163.3177(4)(a), F.S.]
2. Ensure its future land use plan is based upon availability of adequate water supplies and public facilities and services [s.163.3177(6)(a), F.S.]. Data and analysis demonstrating that adequate water supplies and associated public facilities will be available to meet projected growth demands must accompany all proposed Future Land Use Map amendments submitted for review

3. Ensure adequate water supplies and facilities are available to serve new development no later than the date on which the local government anticipates issuing a certificate of occupancy or its functional equivalent and consult with the applicable water supplier prior to approving building permit, to determine whether adequate water supplies will be available to serve the development by the anticipated issuance date of the certificate of occupancy [s.163.3180 (2), F.S.],

4. For local governments subject to a regional water supply plan, revise the general Sanitary Sewer, Solid Waste, Drainage, Potable Water, and Natural Groundwater Aquifer Recharge Element (the “Infrastructure Element”), within 18 months after the water management district approves an updated regional water supply plan, to:
 - a. Identify and incorporate the alternative water supply project(s) selected by the local government from projects identified in the updated regional water supply plan, or the alternative project proposed by the local government under s.373.0361(7), F.S. [s. 163.3177(6)(c)(3), F.S.];

 - b. Identify the traditional and alternative water supply projects, bulk sales agreements, and the conservation and reuse programs necessary to meet current and future water use demands within the local government’s jurisdiction [s. 163.3177(6)(c)(3), F.S.]; and

 - c. Include a water supply facility work plan for at least a 10-year planning period for constructing the public, private, and regional water supply facilities identified in the element as necessary to serve existing and new development. [s.163.3177(6)(c), F.S.];

5. Revise the Five-Year Schedule of Capital Improvements to include any water supply, reuse, and conservation projects and programs to be implemented during the five-year period.

6. To the extent necessary to maintain internal consistency after making the changes described in Paragraph 1 through 5 above, revise the Conservation Element to assess projected water needs and sources for at least a 10-year planning period, considering the appropriate regional water supply plan, the applicable District Water Management Plan, as well as applicable consumptive use permit(s). [s.163.3177 (6)(d), F.S.] If the established planning period of a comprehensive plan is greater than ten years, the plan must address the water supply sources necessary to meet and achieve the existing and projected water use demand for established planning period, considering the appropriate regional water supply plan. [s.163.3167 (13), F.S.];

7. To the extent necessary to maintain internal consistency after making the changes described in Paragraphs 1 through 5 above, revise the Intergovernmental Coordination Element to ensure coordination of the comprehensive plan with applicable regional water supply plans and regional water supply authorities’ plans. [s.163.3177(6)(h)1.,F.S

8. While an Evaluation and Appraisal Report is not required, local governments are encouraged to comprehensively evaluate, and as necessary, update comprehensive plans to reflect changes in local conditions. The evaluation could address the extent to which the local government has implemented the need to update its Work Plan, including the development of alternative water supplies, and determine whether the identified alternative water supply projects, traditional water supply projects, and conservation and reuse programs are meeting local water use demands [s.163.3181(3), F.S.].

1.4 Relevant Regional Issues

South Florida regional water supply issues are identified and discussed in Chapter 5 Evaluation of Water Source Options of the adopted Lower East Coast (LEC) 2023-2024 Update. The LEC Planning Area traditionally has relied on fresh groundwater from the Surficial Aquifer System, (SAS), and fresh water from Lake Okeechobee as the primary water source for urban, agricultural, and industrial uses. In many areas of the LEC Planning Area, development of these sources has been maximized due to potential impacts on the regional system, wetlands, existing water users, and the potential for saltwater intrusion. As population and water demands increased, the development of other water source options also increased. Therefore, new or increased allocations from these freshwater sources will be reviewed on an application-by-application basis to determine if a project meets the consumptive use permitting criteria. As a result, diversification of water supply sources, such as use of the upper Floridan aquifer, increased storage, reclaimed water, and appropriate water conservation of additional storage systems, i.e. reservoirs, aquifer storage, and recovery systems has been occurring in the LEC Planning Area and is expected to continue to occur in the future. The source options are dependent on location, use type, demand, regulatory requirements, and cost.

Additionally, Southeast Florida is one of the most vulnerable regions to the impacts of climate change and sea level rise as result of our flat topography, porous limestone geology, and dense coastal development. Climate change and sea level rise are expected to present significant challenges relating to water resource planning, management, and infrastructure for the counties located in South Florida, including Broward, Miami-Dade, Palm Beach, and Monroe counties. The primary concern to water supply is saltwater intrusion into the SAS and Biscayne aquifers, which are the primary sources of drinking water in the tri-county region. Local governments and water utilities in the Southeast Florida region have formalized the integration of water supply and climate change considerations as part of coordinated planning efforts, including updates to local government and water utility 10-year Water Supply Facility Work Plans and enhancements to local government's Comprehensive Plans. Key considerations for communities within the four County Compact planning area include:

- 1) sea level rise;
- 2) saltwater intrusion;
- 3) extreme weather; and
- 4) infrastructure investments to support diversification and sustainability of water supply sources, and adaptive storm water and wastewater systems.

Regional issues that affect the Village include minimizing pressure on the Everglades, SAS and Floridan Aquifers. To that end, the Comprehensive Everglades Restoration Plan (CERP) is providing the foundation for one of the largest ecosystem restoration projects in the world. The SFWMD and the US Army Corps of Engineers have partnered to restore, protect, and preserve the water resources of central and southern Florida, including the Everglades. Various projects under CERP help to ensure the proper quantity, quality, timing, and distribution of waters to the Everglades and all South Florida. The goal of CERP is to capture fresh water that now flows unused to the Atlantic Ocean and the Gulf of Mexico to redirect the water to flow through the historic flow path down to Florida Bay.

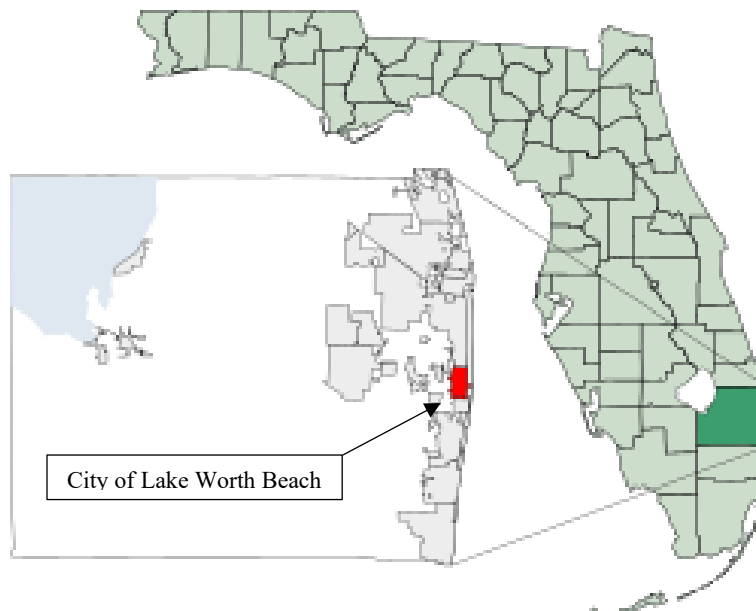
Section 2

Existing Water Supply System

2.0 Overview

The City of Lake Worth Beach is a coastal community located in east central area of Palm Beach County, Florida. The City is bounded by the City of West Palm Beach to the north, Town of Lantana to the south, the Atlantic Ocean to the east and Palm Springs to the west. A location map is shown in **Figure 2-0**.

Figure 2-0
City of Lake Worth Beach Location Map



The City area is approximately 6.81 square miles, which includes 5.89 square miles of land and 0.92 miles of water.

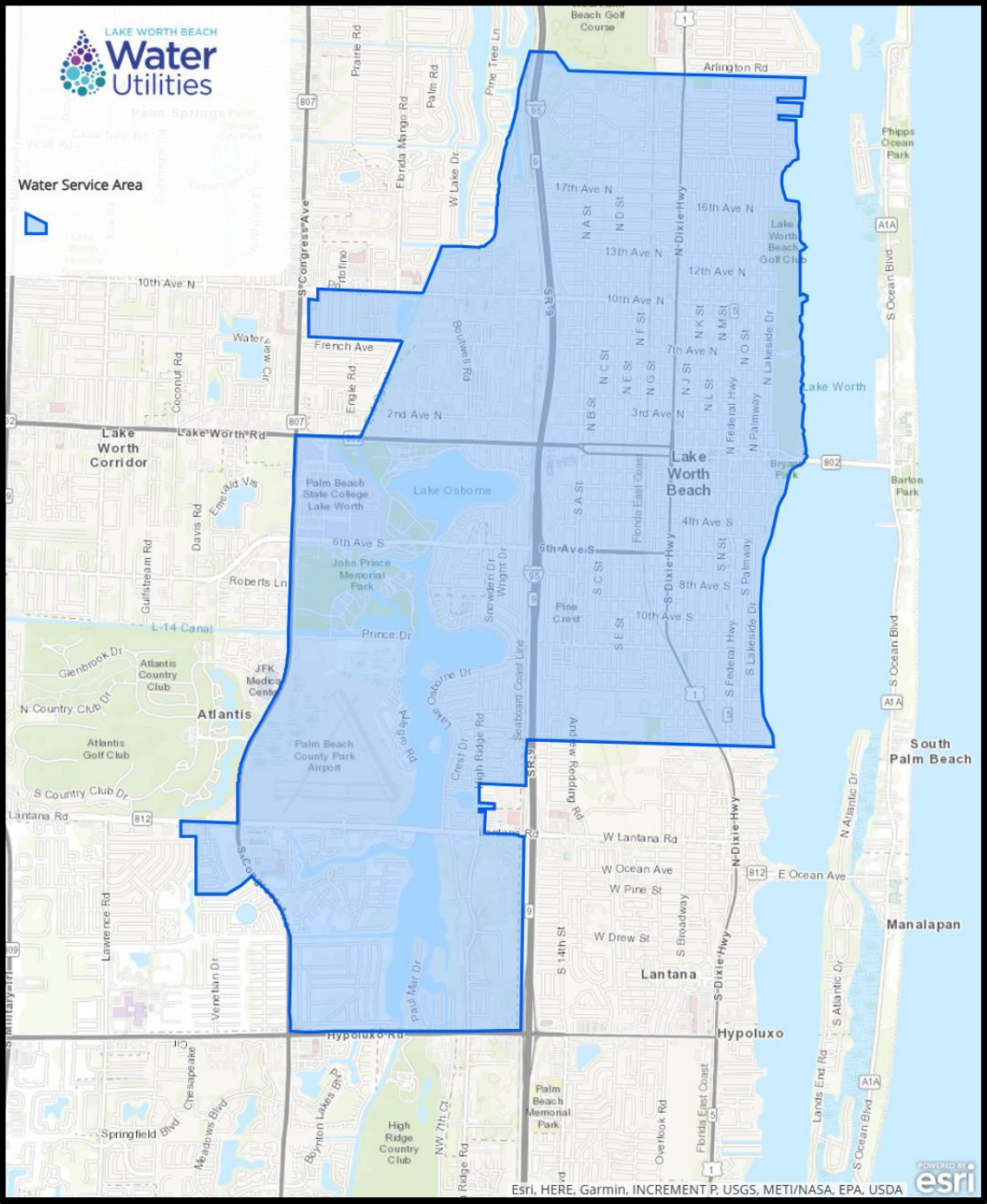
2.1 Service Area

The City's water service area includes approximately 10 square miles of residential and commercial property and serves a population of approximately 46,918 within the City, and a population of approximately 11,647 outside of the municipal boundaries for a total population of approximately 58,565. The City serves approximately 14,233 water accounts as of 2024. The water service area also includes the following:

- The City's municipal boundaries
- Unincorporated areas in Palm Beach County
- Lake Clarke Shores/Hypoluxo Village (bulk water sales agreement) (**refer to Appendix A**).

The City's water service area is shown in **Figure 2-1**.

Figure 2-1
Lake Worth Beach Water Supply Service Area



2.2 SFWMD Water Use Permit

The City's existing Water Use Permit (WUP) No. 50-00234-W was issued by the South Florida Water Management District (SFWMD) on October 29, 2012, and has a 20-year permit duration (through October 29, 2032). A letter modification was issued December 15, 2016, with the same expiration date. The current permit provides for an annual allocation of 4,106 million gallons per year (MGY) (which equates to an equivalent annual average daily flow of 11.25 MGD) and a maximum monthly allocation that shall not exceed 356.6 million gallons. The City's raw water sources are the Surficial Aquifer System and the Floridan Aquifer System. Wetlands and other surface waters may be present within the City of Lake Worth Beach; the City will continue to ensure that all wetlands and surface waters identified and regulated under county, regional, state, or federal statutes and jurisdictions are protected and safeguarded from environmental harm. **Table 2-1** indicates the raw water withdraw limitations for the City of Lake Worth Beach.

The following withdrawal limitations from specified sources are stipulated:

Table 2-1
Lake Worth Beach WUP Raw Water Withdrawal Limitations

Criteria	Surficial Aquifer System	Floridan Aquifer System
Annual Withdrawal, MG (equiv. MGD)	1,916 (5.25)	2,190 (6.0)
Maximum Monthly Withdrawal, MG (equiv. MGD)	180 (5.92)	206 (6.77)
Monthly Average Dry Season (Dec. thru May), MG (equiv. MGD)	152 (5.0)	n/a
Monthly Average Wet Season (Jun. thru Nov.), MG (equiv. MGD)	168(5.5)	n/a
SAS Wells 1-15, Monthly Average Dry Season (Dec. thru May), MG (equiv. MGD)	101 (3.3)	n/a
SAS Wells 1-15 Monthly Average Wet Season (Jun. thru Nov.), MG (equiv. MGD)	112 (3.68)	n/a

Source: SFWMD WUP No. 50-00234-W issued October 29, 2012

2.3 Raw Water Sources

The Surficial Aquifer and the Floridan Aquifer are the sources that are utilized by the City of Lake Worth Beach for its raw water supply. The wells consist of casings that are 12-inch to 16-inch in diameter. The raw water is withdrawn by either submersible turbine pumps (Surficial) or surface mounted horizontal split case pumps (Floridan) that discharge through a raw water collection and transmission system.

Well descriptions and details are included in **Table 2-2**. The total wellfield capacity is approximately 22 MGD but is limited to average annual and maximum monthly withdrawal per the SFWMD water use permit described above in **Section 2.2**.

Existing Water Supply System

Table 2-2
Lake Worth Beach Raw Water Wellfield

Well No.	Status	Diameter (in.)	Depth (feet)	Year Installed	Initial Capacity (gpm)
Surficial Aquifer Wells					
LW-1	Active Primary	12	250	1980	1000
LW-3	Active Standby	14	250	2000	800
LW-4	Active	12	110	1944	750
LW-6	Active Primary	14	175	1988	800
LW-7	Active Primary	14	150	1986	1000
LW-8	Active Primary	14	138	1987	700
LW-9R	Active Primary	12	258	2005	800
LW-11	Active Primary	14	102	1952	750
LW-12	Active Standby	14	160	2003	800
LW-14	Active	12	250	1974	800
LW-15R	Active Primary	14	280	2010	800
LW-16	Active Primary	16	284	2014	*800
LW-17	Proposed Primary	16	TBD	TBD	800
LW-18	Proposed Primary	16	TBD	TBD	800
		Total Active + Proposed Capacity, gpm (MGD):			11,200 (16)
		Total Active + Proposed Firm Capacity, gpm (MGD):			10,200 (14.7)
Floridan Aquifer Wells					
F-1	Active	16	1520	2004	1500
F-2	Active	16	1484	2005	1500
F-3	Active	16	1490	2006	1500
F-4	Proposed	16	1550	TBD	1500
F-5	Proposed	16	1550	TBD	1500
F-6	Proposed	16	1550	TBD	1500
F-7	Proposed	16	1550	TBD	1500
F-8	Proposed	16	1550	TBD	1500
F-9	Proposed	16	1550	TBD	1500
F-10	Proposed	16	1550	TBD	1500
		Total Active Capacity, gpm (MGD):			4,500 (6.48)
		Total Active Firm Capacity, gpm (MGD):			3,000 (4.32)
		Total Active & Proposed Capacity, gpm (MGD):			15,000 (21.6)
		Total Active & Proposed Firm Capacity, gpm (MGD):			13,500 (19.4)

*WELL NO. LW-16 CAN ACCOMMODATE A MAX CAPACITY OF 925 gpm

2.3.1 Surficial Aquifer Source

There are fourteen (14) Surficial Aquifer wells as shown in **Figure 2-2**. Ten (10) wells are active, and two (2) wells are proposed. The Surficial Aquifer wells provide raw water to be treated at the City's Lime Softening Water Treatment Plant.

The Surficial Aquifer source is a renewable water resource but must be managed to maintain the saltwater interface at a significant distance from the wellfield. The Water Use Permit discussed previously recognized that a higher allocation was appropriate during the rainy season when Surficial Aquifer water resources were more plentiful. In addition, capturing some of the rainy season rainfall can benefit aquifer recharge. The City has implemented multiple approaches to achieve this goal including:

- Installing infiltration trench storm drains on many roadway projects,
- Installing or enlarging dry detention areas for City projects,
- Working with developers to provide dry detention for stormwater, and
- Working with other agencies to provide dry detention for stormwater.

The implementation of these strategies had resulted in increases in the seasonal ground water elevations to the benefit of the Surficial Aquifer.

Figure 2-2
Lake Worth Beach Surficial Aquifer Wellfield

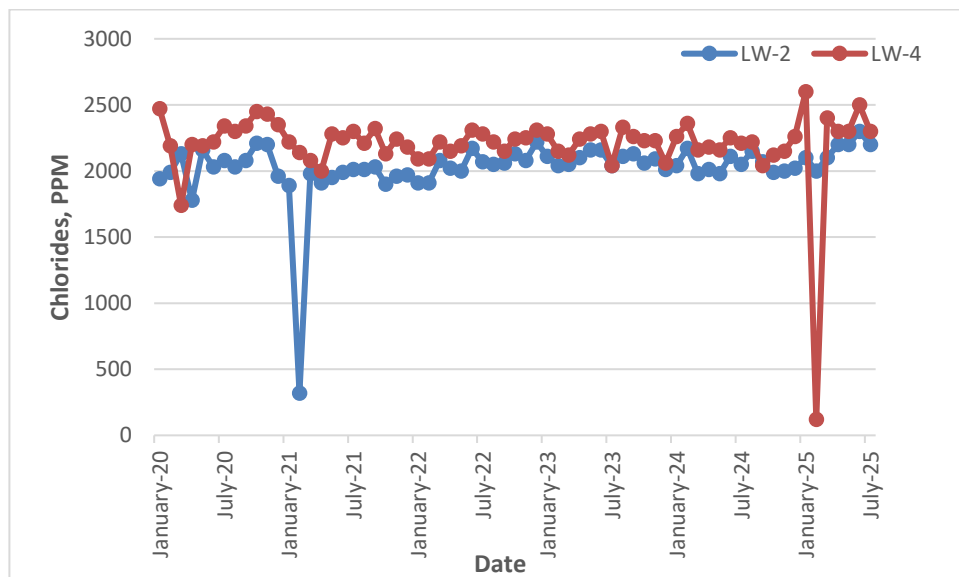


Source: SFWMO WUP No. 50-00234-W issued October 29, 2012. Wells LW-2, LW-5, LW-10 and LW-13 have been abandoned.

2.3.1.1 Saltwater Interference

The City monitors the saltwater interface through a series of eight monitoring wells located along the length of 5th Avenue South as well as other strategically located monitoring wells. **Figure 2-3** is a plot of the chloride levels from 2020 to 2025 for monitoring wells LW-2 and LW-4. Monitoring Well LW-2 is located at Palmway and 5th Avenue South and is located vertically near the face of the saltwater wedge. Monitoring Well LW-4 is located at 'M' Street and 5th Avenue South and is located vertically near the bottom of the freshwater interface with the saltwater zone. A rolling average is utilized to smooth out the data points for the past five years.

Figure 2-3
Lake Worth Beach Chloride Concentration Levels



Source: City of Lake Worth Beach – Chloride Concentration Levels (Lake Worth Beach Water Utility)

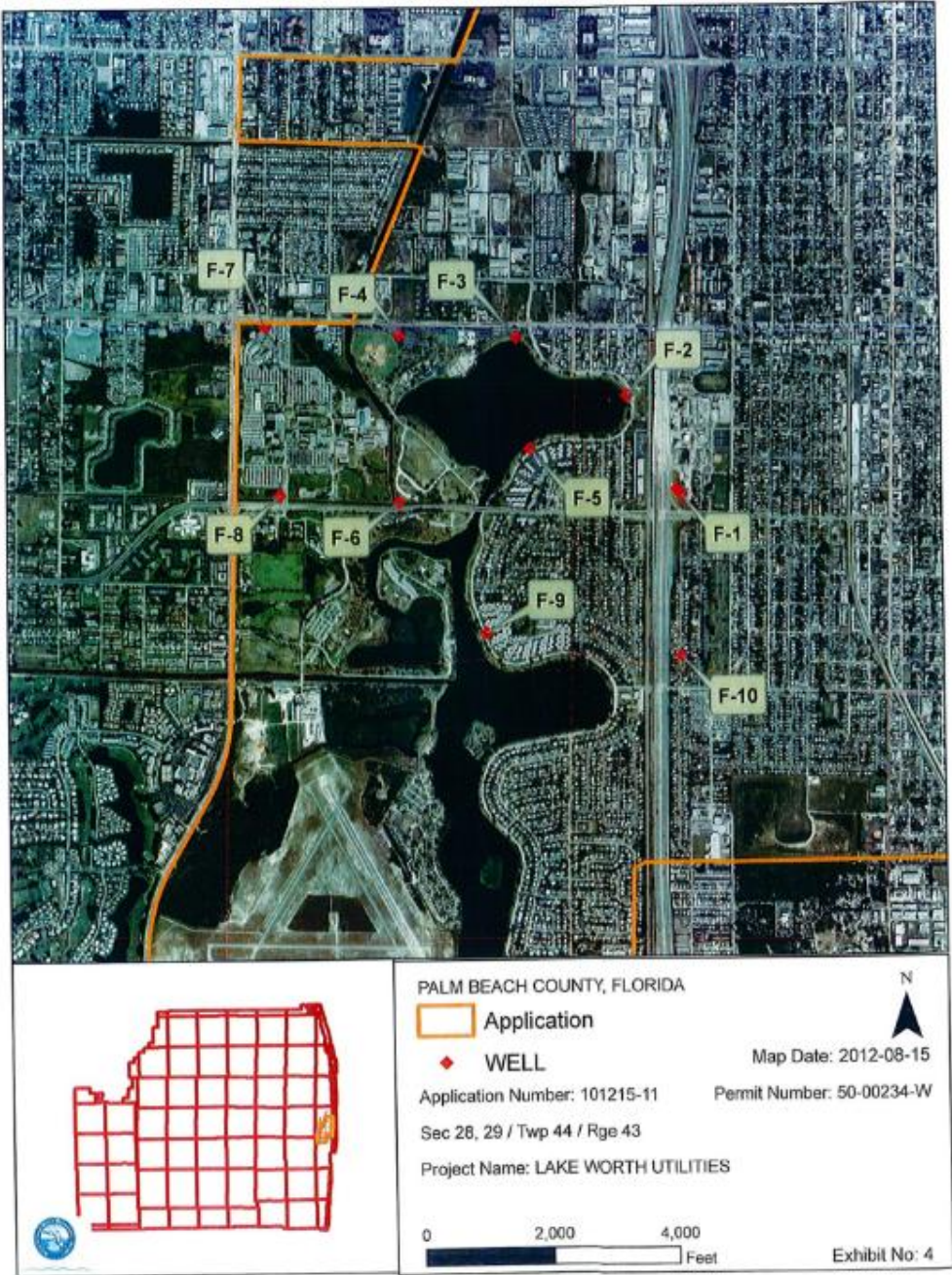
After the RO plant started operation and demands on the surficial aquifer were reduced, the chloride concentration in both of these monitoring wells trended down. Initially Monitoring Well LW-2 trended down more sharply indicating that the saltwater wedge was retreating oceanward. Since 2014 the chloride concentration in this well has been contained in a small range indicating that it is relatively stable. Monitoring Well LW-4 trended lower more slowly until 2016 and then began a gradual rise. In 2019, the well experienced a sharp drop in chlorides continuing to date. This drop in chlorides indicates that the surficial aquifer water table elevation likely increased exerting more pressure to depress the saltwater interface. Monitoring wells LW-2 and LW-4 continue to remain stable from January 2020 until most recently July 2025 and does not appear to drop lower than 1500 PPM with the exception of two outliers, which could be errors.

Overall, the saltwater interface has been retreating since 2012. This is a very positive indication that the City is managing its surficial aquifer withdrawals in a responsible manner.

2.3.2 Floridian Aquifer Source

There are three (3) existing and seven (7) proposed Floridian Aquifer wells as shown in **Figure 2-4**. The Floridian Aquifer wells provide brackish raw water to be treated at the City's Reverse Osmosis (RO) Water Treatment Plant.

Figure 2-4
Lake Worth Beach Floridian Aquifer Wellfield



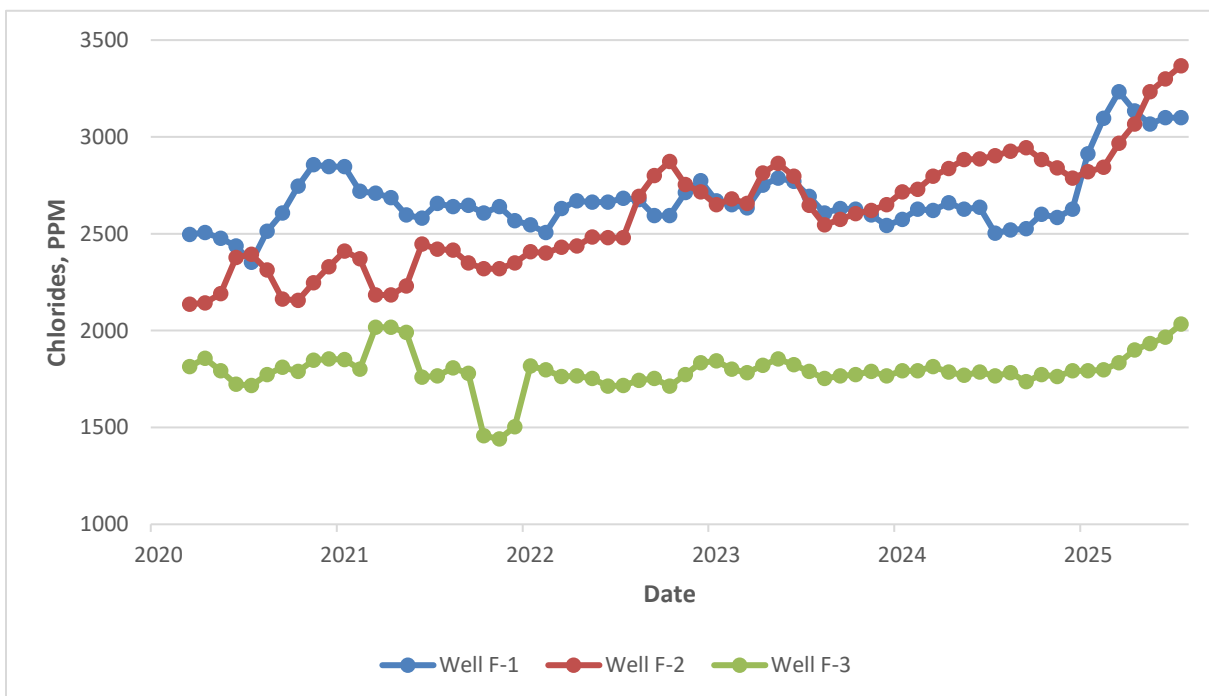
Source: SFWMD WUP No. 50-00234-W issued October 29, 2012.

The Floridan Aquifer wells were first placed in operation in 2011. Therefore, they have been in operation for approximately 14 years. In the operation of a Floridan Aquifer wellfield, it is critically important to rotate operation and rest the wells. While some increase in chloride concentration is anticipated over the life of the well, over pumping the wells can cause undesirable increases in the chloride concentration.

Figure 2-5 shows a plot of the three-month rolling average of the chloride concentration for all three wells starting in 2020. The average starting chloride concentration was 2,148.89 mg/L while the current average concentration is 2,833.33 mg/L. This represents a 24.2-percent increase over the past five years of wellfield operation. This increase in chloride is proof that the City is doing an excellent job operating the Floridan Aquifer wellfield in an appropriate manner of resting and rotating the wells.

For reference the RO plant was designed to treat an average raw water chloride concentration of 3,000 mg/L as a minimum. The variable speed membrane feed pumps adjust their speed and pressure to accommodate an increasing chloride concentration. Based on other Floridan Aquifer well data in the County, the Floridan waters in some wells can increase to 4,000 mg/L chloride while other wells remain at a much lower concentration. Thus, an average blended concentration of 3,000 mg/L chlorides was utilized in the RO WTP Design Assumptions. Based on the current chloride concentrations noted above, the City's Floridan Aquifer wells are substantially below these typical levels and appear that they will remain so for the foreseeable future.

**Figure 2-5 Floridan Aquifer Wells
3-Month Rolling Average Chloride Concentration**



Source: City of Lake Worth Beach – Chloride Concentration Levels (Lake Worth Beach Water Utility)

2.4 Water Treatment Facilities

The City owns and operates the City of Lake Worth Beach Water Treatment Plant (WTP) which provides potable water to the City's water service area. The plant includes two (2) treatment processes: a lime softening treatment plant which utilizes raw water from the Surficial Aquifer, and a Reverse Osmosis (RO) treatment plant which utilizes raw water from the Floridan Aquifer.

The lime softening WTP provides 12.9 MGD capacity, and includes lime softening, filtration, chemical addition and disinfection treatment processes. The lime softening facility consists of a rapid-mix chamber, two (2) horizontal flocculation and sedimentation basins (settling basins), and six (6) multimedia gravity filters. Each gravity filter has a capacity of 3.0 MGD, but is operated at a capacity of 2.5 MGD, yielding a total capacity of 15 MGD. Consequently, the overall capacity of the water treatment facilities is limited only by the 12.9 MGD capacity of the lime softening unit process.

The RO WTP was constructed in 2011 and provides 4.5 MGD total capacity, with three (3) membrane trains each rated at 1.5 MGD. In 2024, The RO WTP is designed to be expanded in the future for a total capacity of 9.0 MGD, with six (6) membrane trains at 1.5 MGD each. Each membrane train has expanded to 15% capacity by the addition of 6 pressure vessels on the top row of the membrane train frame. Based on the expansion, the RO WTP provides 5.2 MGD total capacity with each membrane train at 1.7 MGD.

The RO WTP includes cartridge filtration, membrane feed pumps, chemical addition (acid, scale inhibitor and caustic), degasification/odor control, and disinfection treatment processes. RO concentrate is disposed through a deep injection well. The RO WTP is designed for a recovery rate of 75%.

A raw water bypass blend line and pipeline connection has been provided to allow 5 to 10 percent of the Floridan raw feed water to be blended with the permeate water stream. The purpose of this blend water stream is to add Hardness back to the permeate water flow.

The finished water from the two treatment processes is blended together prior to distribution.

2.5 Water Storage Facilities

The City's water storage facilities include a 1.8 MG clearwell (used for disinfection contact time), a 1.0 MG clearwell, a 1.5 MG ground storage tank and a 0.3 MG elevated storage tank at the water treatment facility. Total water storage volume at the water treatment plant site (not including the 1.8 MG clearwell) is 2.8 MG. (same)

The City's water storage facilities also include several off-site facilities, including a 0.5 MG ground storage tank at the South Booster Station and a 0.5 MG ground storage tank at the North Booster Station. Total water storage volume at the offsite facilities is 1.0 MG.

The City's total water storage volume for the plant and for the offsite facilities combined is 5.6 MG and provides sufficient capacity to meet peak hourly and fire flow demands, and to provide adequate contact time for disinfection prior to distribution.

2.6 Water Distribution System and Interconnects with Other Municipalities

The water distribution system consists of a piping network made up of transmission mains sized 12-inch to 36-inch in diameter, and distribution mains sized 2-inch to 10-inch in diameter. The majority of the distribution piping is 6-inch diameter and smaller. Most of the 2-inch lines are galvanized steel. The 4- inch through 36-inch lines are a combination of cast iron, PVC and ductile iron.

The water distribution system is supplied by five (5) high service water distribution pumps. Two (2) of the pumps (#1 and #2) are rated for 5,000 gpm (300 Hp), one (1) pump (#3) is rated for 3,900 gpm (250 Hp) and two (2) of the pumps (#4 and #5) are rated for 2,500 gpm (150 Hp) at a design system operating pressure of 72 psi. This provides a total pumping capacity of 18,900 gpm, and a total firm pumping capacity of 13,900 gpm with the largest unit as stand by.

The water distribution system includes two (2) booster pumping stations: the North Booster Station and the South Booster Station. The North Booster Station includes two (2) 1,500 gpm pumps, and the South Booster Station has two (2) 1,125 gpm pumps, for a total pumping capacity of 5,250 gpm, and a total firm pumping capacity of 2,625 gpm.

**Table 2-3
Lake Worth Beach Potable Water Interconnects**

Interconnecting Municipality	Type	Interconnect Location	Interconnect Size
Palm Beach County	Emergency	5th Avenue South and Congress Avenue	10-inch
Palm Beach County	Emergency	Lake Worth Road and Congress Avenue	8-inch
West Palm Beach	Emergency	West Palm Beach Canal/ C-51 and Gregory Road	16-inch
Lantana	Emergency	Ridge Road	6-inch
Lantana	Emergency	Dixie Highway	6-inch

These interconnects can be used to maintain water supply within the City during emergency conditions, or to provide emergency water to the neighboring utility from the City of Lake Worth Beach.

The City's water distribution system and interconnects are shown in **Appendix A** of this document.

2.7 Domestic Self-Supply Systems

Domestic self-supply systems are private water wells used by customers for their own domestic water supply source. These private systems are regulated by the Palm Beach County Environmental Control Rule II (ECR II), which is implemented and enforced through the Palm Beach County Health Department. The ECR II requires private water systems to connect to an approved community water system if there is an available water main within 100 feet in a public right-of-way (ROW) or easement abutting the property on which the building(s) are located.

There are a few, isolated individual homes within the City of Lake Worth Beach's service area that use private wells for water supply. Currently, the City does not require connection to the City's water system but encourages connection on a voluntary basis. Due to the few numbers of these private systems, connection of these systems will not affect or impact the City's projected water supply needs.

2.8 Conservation Program

The City of Lake Worth Beach Implemented a Water Conservation Program which includes the following:

- [Irrigation Ordinance \(2022-11\)](#)

The City of Lake Worth Beach implements year-round landscape irrigation conservation measures in accordance with Rule 40E-24, Florida Administrative Code (F.A.C.), as adopted by City Ordinance No. 2022-11. The ordinance establishes permanent, year-round irrigation requirements independent of declared water shortage conditions.

Under the City's ordinance, irrigation of existing landscaping is limited to three (3) days per week based on address designation, with irrigation prohibited between 10:00 a.m. and 4:00 p.m. Rule 40E-24, F.A.C. exemptions adopted by the City allow irrigation outside the normal schedule for specific activities, including low-volume irrigation, micro-irrigation, low-volume hand watering, and the use of rain barrels or other rain-harvesting devices.

Additional irrigation restrictions declared pursuant to Chapter 40E-21, F.A.C. supersede the year-round schedule for the duration of a water shortage.

The City is reviewing its irrigation ordinance for consistency with the SFWMD Local Government Model Ordinances and Codes and informs residents of year-round irrigation requirements and water shortage restrictions through its website, utility notices, and public outreach.

Over the 10-year planning horizon, the City will continue to evaluate and refine water conservation programs to help offset future demand growth, consistent with Section 163.3177(6)(c)3., Florida Statutes.

- [Landscape Regulations](#)

The City's Ordinance Section 23.6 "Landscaping Regulations" focuses on the conservation of potable and non-potable water by setting landscape design standards to promote planting of native species, using shade trees, limiting lawn grass, and designing yard to retain storm runoff.

- [Public Education Programs](#)

The City promotes water conservation through handouts which are distributed at Board Meeting, Commission Meetings, Public Meetings, and with Utility bills. The handouts contain AWWA and SFWMD information which educates the public on the benefits of conserving water, water conservation tips and how to check and replace leaky faucets, shower heads, toilets and irrigation systems. The City also supports the "Florida-Friendly Landscaping" Program.

- [Ultra-Low Volume Plumbing Fixture Ordinance](#)

The City previously adopted the Standard Plumbing Code (1997 ed.) that requires the use of ultra-low volume plumbing fixtures.

- [Water Conservation Rate Structure](#)

The City previously adopted a Water Conservation Rate Structure. The rate structure establishes block rates based on volume of water usage, with increasing rates at higher usage.

- [Leak Detection Program](#)

The City has taken a number of steps to reduce unaccounted-for water losses. A meter replacement program has been in place to improve metered flow accuracy to large users. The City is currently replacing 2-inch galvanized water mains that are 50 years plus old with a 6-year phased program that began in 2015. This program shows benefits since unaccounted water in 2024 is 6.28%.

- [Rain Sensor Device Ordinance](#)

The City has adopted a Rain Sensor Device Ordinance. The Ordinance will require that customers install rain sensors on new irrigation systems. The sensors detect when it is raining and automatically turn the irrigation system off.

- [Automatic Meter Infrastructure](#)

The City has implemented an Automatic Meter Infrastructure (AMI) and is accumulating data for future analysis.

2.9 Reuse

The City of Lake Worth Beach's wastewater treatment is provided by the East Central Regional Water Reclamation Facility (ECRWF) located in West Palm Beach, Florida. The City's wastewater is conveyed to the ECRWF through Lake Worth Beach's and Palm Beach County's wastewater collection and transmission systems. The ECRWF is approximately 10-miles northwest of Lake Worth Beach. The ECRWF has implemented a reuse water program that primarily provides reuse water to FPL under separate contract with PBC. There are no facilities in the vicinity of Lake Worth Beach that provide reuse water from the ERCWRF. Currently, reuse water is not an alternative water supply that is available to the City of Lake Worth Beach from the ERCWRF or any other water reclamation facility.

2.10 Regional Water Supply Issues

The City of Lake Worth Beach shares common goals with the Lower East Coast (LEC) Region, such as decreasing the regions dependency on the Surficial Aquifer, lowering per capita water use, increasing conservation and continuing reclaimed water efforts.

The City constructed a Reverse Osmosis (RO) Treatment Process at their Water Treatment Plant to take in brackish water from the Floridan Aquifer. Currently the RO Treatment Process consists of three treatment trains rated at 1.7 MGD each for a total of 5.2 MGD. The RO Treatment Process is designed to be expandable to over 10.4 MGD. Treating water from the Floridan Aquifer reduces the regional dependency on the Surficial Aquifer. Currently, the City has three (3) Floridan Aquifer wells and plans to add an additional seven (7) Floridan wells to increase withdrawal from the Floridan Aquifer and decrease withdrawal from the Surficial Aquifer.

The City has implemented an extensive CIP and R&R program which included \$32 million dollars' worth of water system improvements between 2014 and 2020. Projects included water main replacement, Water Treatment Plant maintenance, high service pump maintenance, well replacement, and storage tank rehabilitation. These projects increased overall water system efficiency and reduced water loss from the City's water main system.

In order to continually achieve lower per capita water use, the City created a strong conservation program which includes strict irrigation hours, ultra-low volume plumbing fixtures, block rate structure (to decrease demand), leak detection programs, rain sensor devices with automatic irrigation shut-off, and a public education program.

The East Central Regional Water Reclamation Facility (ECRWF) treats wastewater from the City of Lake Worth Beach, the City of West Palm Beach, Palm Beach County and the Town of Palm Beach. A portion of the ECRWF's wastewater is converted to reclaimed water which is used by Florida Power and Light for cooling water for their power plant located on SR 80. Lake Worth Beach participates in this regional group to promote the use of reclaimed water as an alternative water supply source

Section 3

Potable Water Needs Assessment

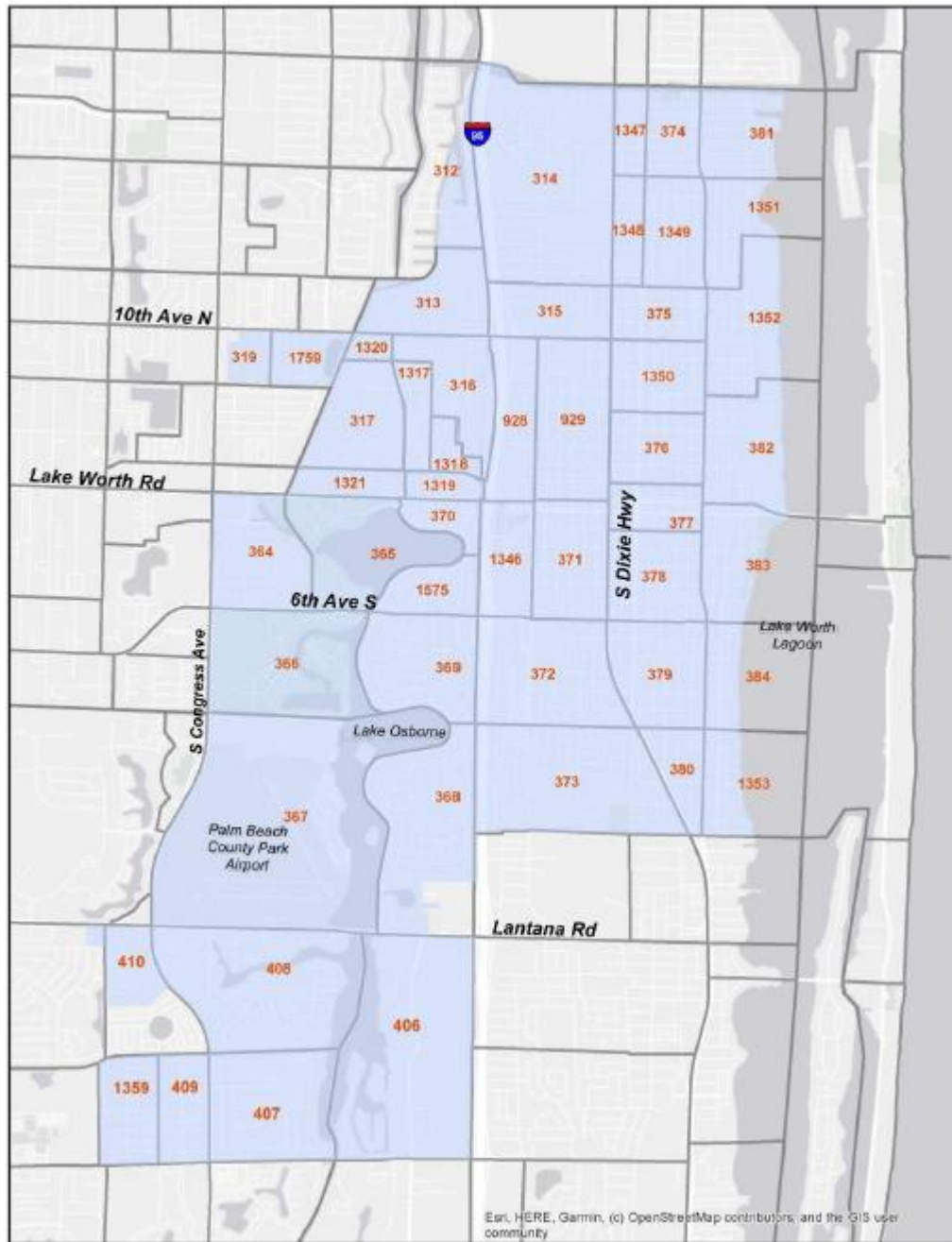
3.1 Population Projections

Each year, the Bureau of Economic and Business Research (BEBR) at the University of Florida prepares the official population projections, in five-year intervals, for each Florida County. Since BEBR issues only a single countywide figure for each county, the Planning Division of the Palm Beach County (PBC) Planning Department annually allocates these figures to smaller geographies for localized planning efforts.

PBC prepares the Population Allocation Model every other year as a tool for long-range service delivery planning in Palm Beach County. Ch. 163.3177(1)(D3, F.S., requires that each comprehensive plan be based upon population projections published by the Office of Economic and Demographic Research (OEDR) or generated by the local government based upon professionally acceptable methodology. The OEDR publishes the projections prepared by BEBR. PBC utilizes the OEDR/BEBR medium range projections for the County's Population Allocation Model.

The population projections developed for the City of Lake Worth Beach are based on the PBC Planning Departments' 2025 Population Allocation Model. The projected population for the City of Lake Worth Beach water service area was estimated by overlaying a map of Lake Worth Beach's service area onto PBC's GIS base map containing population segregated into Traffic Analysis Zones (TAZ) (**refer to Figure 3-1**). Population projections for the City were developed by assessing a percentage of service area located within each TAZ and summing the population projections of the individual TAZs within the overall service area. A summary of the final population projections is included in **Table 3-1**.

Figure 3-1
Lake Worth Beach Water Service Area and TAZ Map



**Table 3-1
Lake Worth Beach Water Service Area
Population Projections through 2050**

TAZ	% of TAZ Population in	2025	2030	2035	2040	2045	2050	Percent Growth 2025-2050
Incorporated Lake Worth Beach								
312	30%	865	889	900	911	914	918	6.1%
313	100%	228	231	312	404	484	668	192.98%
314	100%	3195	3249	3300	3346	3360	3362	5.22%
315	100%	964	968	973	973	976	978	1.45%
316	100%	9	88	240	257	310	382	4144.44%
317	100%	646	851	1029	1130	1205	1372	112.38%
368	30%	2075	2088	2104	2116	2123	2129	2.60%
369	95%	1652	1670	1681	1683	1688	1692	2.42%
370	90%	776	781	785	785	787	791	1.93%
371	100%	3082	3112	3128	3130	3139	3141	1.91%
372	100%	3702	3737	3757	3757	3790	3840	3.73%
373	100%	2769	2800	2815	2815	2861	2873	3.76%
374	100%	662	667	670	670	683	685	3.47%
375	100%	829	834	838	838	855	857	3.38%
376	100%	1397	1492	1662	1749	1789	1799	28.78%
377	100%	746	823	841	880	938	990	32.71%
378	100%	1677	1801	1817	1885	1928	1938	15.56%
379	100%	2473	2502	2516	2533	2556	2558	3.44%
380	100%	930	944	949	949	958	960	3.23%
381	100%	652	659	666	679	681	683	4.75%
382	100%	796	800	803	818	820	822	3.27%
383	100%	1158	1164	1171	1198	1203	1205	4.06%
384	100%	271	300	316	337	339	341	25.83%
928	100%	1703	1713	1723	1815	1851	1861	9.28%
929	100%	3906	3925	3945	3945	3957	3959	1.36%
1317	100%	969	978	981	999	1020	1040	7.33%
1318	100%	0	0	0	0	0	0	0
1319	80%	19	19	19	19	96	166	773.68%
1320	100%	0	0	0	0	0	0	0
1321	30%	1437	1445	1452	1452	1456	1460	1.60%
1346	100%	44	47	48	49	49	51	15.91%
1347	100%	340	350	357	359	366	368	8.24%
1348	100%	987	1003	1008	1008	1065	1090	10.44%
1349	100%	1300	1317	1325	1325	1352	1354	4.15%
1350	100%	1592	1620	1699	1764	1804	1806	13.44%
1351	100%	743	755	766	781	783	785	5.65%
1352	100%	668	684	691	707	709	711	6.44%
1353	100%	607	633	643	669	672	674	11.04%
1575	100%	1049	1055	1060	1060	1063	1065	1.53%
Total		46,918	47,994	48,990	49,795	50,630	51,374	9.50%

Table 3-1 (Cont'd)
Lake Worth Beach Water Service Area
Population Projections through 2050

TAZ	% of TAZ Population in Service Area	2025	2030	2035	2040	2045	2050	Percent Growth 2025-2050
Unincorporated Palm Beach County								
319	100%	558	598	605	626	629	631	13.08%
364-PBSC	100%	0	0	0	0	0	0	0
365-Park	100%	0	0	0	0	0	0	0
366-Park	100%	0	0	0	0	0	0	0
367-Airport	100%	0	0	0	0	0	0	0
368	60%	1312	1319	1326	1332	1336	1338	1.98%
369	5%	101	109	112	113	113	115	13.86%
370	10%	150	150	151	151	151	153	2.00%
406	100%	835	869	924	938	1016	1040	24.55%
407	100%	1302	1309	1309	1320	1324	1326	1.84%
408	100%	3450	3525	3548	3591	3615	3630	5.22%
410	30%	622	640	646	666	669	671	7.88%
1319	20%	17	17	17	17	17	19	11.76%
1321	70%	660	665	668	668	670	672	1.82%
1759	100%	1145	1175	1178	1185	1189	1191	4.02%
Total		10,152	10,376	10,484	10,607	10,729	10,786	6.25%
Lake Clarke Shores/Hypoluxo Village								
409	100%	622	640	646	666	669	671	14%
1359	100%	873	880	886	891	894	896	17%
Total		1,495	1,520	1,532	1,557	1,563	1,567	16%
Total		58,565	59,890	61,006	61,959	62,922	63,727	8.81%
Source: PBC Planning Department 2025 Population Allocation Model								

3.2 Historical Potable Water Demands and Levels of Service

Table 3-2 indicates the historic treated water by the City’s WTP from 2020 to 2024. Table 3-2 was developed by gathering monthly operating reports from the City’s WTP and determining the average amount of water treated in gallons per day (gpd) for each month based on the City’s Level of Service and service area population from 2020 to 2024.

**Table 3-2
Historic Treated Water
City of Lake Worth Beach WTP**

Month	Average per Day Treated Water (gpd)	Serve Area Population	Per Capita Demand (gpcd)
2020	5,540,640	52,768	101.2
2021	5,681,025	54,105	96.1
2022	5,794,635	55,187	96.8
2023	5,910,555	56,291	94.9
2024	6,028,785	57,417	93.2

Based upon the historical demand evaluation, **Table 3-3** shows the Levels of Service that are established for the City:

**Table 3-3
Lake Worth Beach Potable Water Levels of Service**

Service Item	Value
Average Per Capita Finished Water Demand	105 gal/capita/day
Average Person per Household ¹	2.74
Max. Month: Average Day Demand Factor	1.16
Max. Day: Average Day Demand Factor	1.5
Peak Hour: Max Day Demand Factor ²	2.0
Minimum Water Distribution System Pressure at Peak / Fire Flow Conditions ²	30 psi
Minimum Fire Flow Requirements ²	1,000 gpm Residential 2,000 gpm Multi-Family, Commercial, and Industrial

(1) Source: U.S. Census 2024 American Community Survey.

(2) Source: Lake Worth Beach Water Distribution System Hydraulic Model, by Mock Roos

3.3 Water Demand Projections and Capacity Evaluation

The population projections established under Section 3.1 were coupled with the projected Levels of Service established under **Section 3.2** to develop water demand projections for the City. The water demand projections are provided in **Table 3-4**.

Based on the projections, in the next 10 years, the City is anticipated to have a total finished water demand (average day) of 6.41 MGD and a maximum day demand of 9.62 MGD in the Year 2035. The water treatment plant currently has a permitted capacity of 17.4 MGD, which provides for sufficient capacity to meet the City's water demand needs over the next 10-year planning period.

However, the plant capacity is limited by the volume of raw water which is permitted to be withdrawn by the South Florida Water Management District (SFWMD) through the City's Water Use Permit (WUP). The current WUP allows for withdrawal of 4,106 million gallons per year, which is equivalent to an average daily withdrawal of 11.25 MGD, with a maximum monthly allocation of 356.5 million gallons (equivalent to 11.72 MGD maximum month average daily flow). The projected raw water needs in 2035 are 5.61 MGD average daily flow, and 9.54 MGD maximum month average daily flow. Based on the projections, the current permit is sufficient to meet the 10-year water supply needs of the City (through Year 2035).

Based on the projections, the raw water capacity of the current WUP meets the water supply needs for the City. However, due to the 2032 expiration of the WUP permit, the City will need to evaluate its water supply plan within the 10-year planning period (2035).

Potable Water Needs Assessment

**Table 3-4
Lake Worth Beach Water Demand Projections**

Year	Service Area Population				Water Demand					Water Treatment Capacity, MGD	WTP Capacity Surplus/ (Deficit), AADF MGD	WTP Capacity Surplus/ (Deficit) MDF MGD	Permitted Wellfield Allocation, MDF MGD ⁵	Permitted Wellfield Allocation, Surplus/ (Deficit), MDF MGD
	Incorp. Lake Worth Beach	Unincorp. Palm Beach County	Lake Clarke Shores/ Hypoluxo Village	Total	Average Raw Water, MGD	Average Finished + Bulk Water, MGD ¹	Average Consumed / Billed Water, MGD ²	Gallons per Capita per Day, GPCD ³	Projected Max. Day Finished Water, MGD ⁴					
2020	42,219	9,195	1,354	52,768	6.92	5.64	5.34	101.2		17.4				
2021	43,345	9,379	1,381	54,105	7.2	5.66	5.2	96.1		17.4				
2022	44,212	9,566	1,409	55,187	7.24	5.75	5.34	96.8		17.4				
2023	45,096	9,758	1,437	56,291	7.24	5.72	5.34	94.9		17.4				
2024	45,998	9,953	1,466	57,417	7.46	5.75	5.35	93.2		17.4				
2025	46,918	10,152	1,495	58,565	7.55	6.54	6.15	105.0	9.22	17.4	9.85	6.08	11.25	3.70
2030	47,994	10,376	1,520	59,890	7.72	6.69	6.29	105.0	9.43	17.4	9.68	5.82	11.25	3.53
2035	48,990	10,484	1,532	61,006	7.86	6.81	6.41	105.0	9.61	17.4	9.54	5.61	11.25	3.39
2040	49,795	10,607	1,557	61,959	7.98	6.92	6.51	105.0	9.76	17.4	9.42	5.42	11.25	3.27
2045	50,630	10,729	1,563	62,922	8.11	7.03	6.61	105.0	9.91	17.4	9.29	5.24	11.25	3.14

Legend and Notes:

= Historical Data

= Projected Data

AADF = Annual Average Design Flow MDF

= Maximum Day Flow

(1) Average Treatment Plant Water Loss= 20.13%

(2) Average Distribution System Water Loss = 7.35%

(3) Comprehensive Plan Level of Service Standard of 105 GPCD used for future projections.

(4) Maximum Day/Average Day Demand = 1.5

(5) Wellfield capacity based on SFWMD WUP AADF withdrawal allocation for Surficial + Floridan Aquifer systems.

Regarding the City's water distribution system, a "Water Distribution System Hydraulic Model" was developed by the City's Engineering Consultant, Mock•Roos, in December 2005. The hydraulic model evaluated the City's water distribution system under future water demand and fire flow conditions.

The Hydraulic Model uses assumptions for the future flow conditions by utilizing the following methodology to determine the average water demand, future average water demand, future maximum day demand and future peak hour demand:

- Average Water Demand (existing)
- Future Average Water Demand = (current demand x 1.2 peak factor)
- Future Maximum Day Demand = (future average demand x 1.5 peak factor)
- Future Peak Hour Demand = (future maximum day demand x 2.0 peak factor)

The future water demands for this Work Plan to the year 2035 are based on the population projections and per capita demand from the 2024 LEC WSP. The water demand forecast was completed by multiplying the per capita water use of 105 gpcd by the Population Projections for the years 2025, 2035 and 2045. **Table 3-5** shows the future treated water demand projections for the City of Lake Worth Beach through the Work Plan planning horizon of 2035. Although, the City appears to have adequate water to plan until 2045, this will be need to be reevaluated upon receipt of the new WUP permit after the expiration of the existing 2012 WUP valid until 2032.

**Table 3-5
Future Treated Water Demand Projections
City of Lake Worth Beach**

Year	Population	Per Capita Demand (gpcd)	Future Water Demand (gpd)
2025	58,565	105	6,149,325
2035	61,006	105	6,405,630
2045	62,922	105	6,606,810

The data from Table 3-3 shows that the projected water demand for the Work Plan planning horizon 2035 is 6,405,630 gallons per day (6.41 MGD) which is less than the 11.25 MGD permitted in the October 2012 CUP issued by the SFWMD. Therefore, water demands can be met.

Regarding the City's water distribution high service pumps and booster pump stations, it was previously noted in **Section 2.6** that the City has a firm pumping capacity of 13,900 gpm. The 10-year water demand projections estimate a Maximum Daily Flow of 9.62 MGD in 2035, with a Peak Hour Flow of 17.4 MGD (12,083 gpm). Since the firm pumping capacity of 13,900 gpm exceeds the projected peak hour demand of 12,083 gpm, the water distribution high service pumps and booster pump stations have adequate capacity to serve the City's 10-year peak hour water demands.

Section 4

Capital Improvement Program

4.1 Capital Improvement Program (CIP) Summary

The City of Lake Worth Beach Water Utility Department creates a Capital Improvement Program (CIP) to outline the necessary capital improvement and renewal & replacement upgrades that are required for the water distribution system and Water Treatment Plant. The City's 5-Year CIP is listed in **Table 4-1** and consists of \$35.8 million of water system improvements between 2025 and 2030.

The City is continuing an extensive water main replacement program which includes replacing 2-inch lines and upgrading pipes to provide improved fire protection. The Water Treatment Plant replaced one (1) High Service Pump and rehabilitated the ground storage tanks. The City also plans to complete construction of well LW-17, LW-18, F-4, **Table 4-1**.

Table 4-1
Lake Worth Beach Water System
5-Year Capital Improvement Program

Lake Worth Beach Water Department CIP						
Water Fund	FY 2025 Requested	FY 2026 Forecast	FY 2027 Forecast	FY 2028 Forecast	FY 2029 Forecast	Cumulative Requests
Fiscal Year 2025						
Chief Electrician Vehicle	65,027	-	-	-	-	65,027
Water Quality Improvement Vehicle	50,330	-	-	-	-	50,330
Water Treatment Plant Supply and Compliance	4,660,000	5,700,000	3,800,000	3,500,000	-	17,660,000
Water Treatment Plant Improvements/Facility	200,000	-	-	-	-	200,000
Water Distribution Mains	2,400,000	2,850,000	4,450,000	2,250,000	-	11,950,000
Dual Zone Monitoring Well	2,850,000	2,850,000	-	-	-	5,700,000
Monitoring Well 9 Replacement	200,000	-	-	-	-	200,000
Total Water Fund	10,425,357	11,400,000	8,250,000	5,750,000	-	35,825,357

Section 5

Comprehensive Plan Goals, Objectives and Policies (GOP)

5.1 Comprehensive Plan GOP

As noted in 163.3177(6)(c)3, F.S., local governments are required to update their Water Supply Facilities Work Plan through an amendment to their Comprehensive Plan within 18 months of the SFWMD Governing Board's adoption of the regional Water Supply Plan.

The most recent update to the LEC Water Supply Plan was adopted by the SFWMD governing board in September 2024. Therefore, by March 2026, the City is required to revise their Comprehensive Plan to incorporate the updated 10-Year Water Supply Facilities Work Plan.

The City's Goals, Objectives and Policies are amended as follows:

INFRASTRUCTURE ELEMENT

Policy 4.1.7.3: The City will maintain a water supply facilities work plan that is coordinated with SFWMD's ~~2018~~ 2024 Lower East Coast Regional Water Supply Plan and Palm Beach County by updating its own work plan within 18 months of an update to SFWMD's ~~2018~~ 2024 Lower East Coast Regional Water Supply Plan.

Policy 4.1.7.4: By March ~~2027~~2026, the City shall coordinate with SFWMD and update the City's 10-year water supply facilities work plan considering the Lower East Coast (LEC) Regional Water Supply Plan. The City hereby adopts by reference the "City of Lake Worth Beach ~~2020~~ 2026 10-Year Water Supply Facilities Work Plan." The City shall send a letter to SFWMD which identifies projects for future water supply needs of the City. Projects must be selected from the LEC Regional Water Supply Plan or must be prior approved by SFWMD.

APPENDIX A



City of Lake Worth Beach Lake Worth Beach Water Distribution System



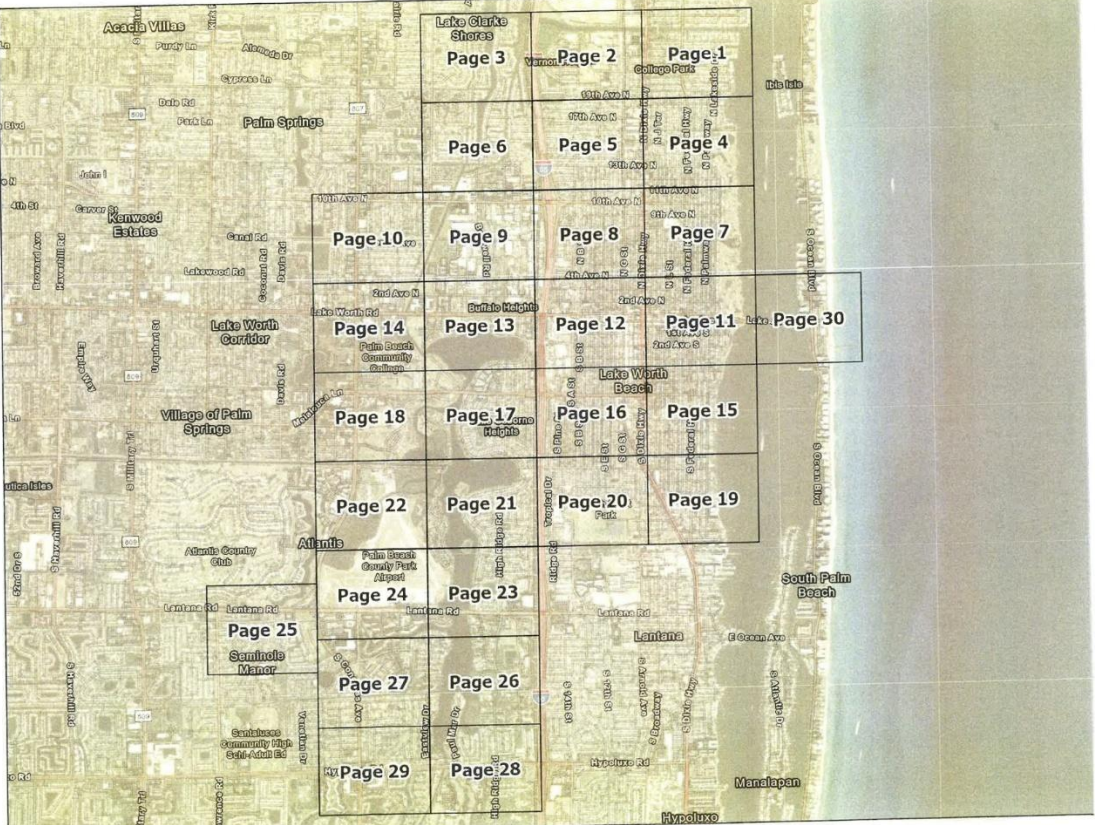
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Potable Watermain and Valve Atlas

Key Sheet

August 2025

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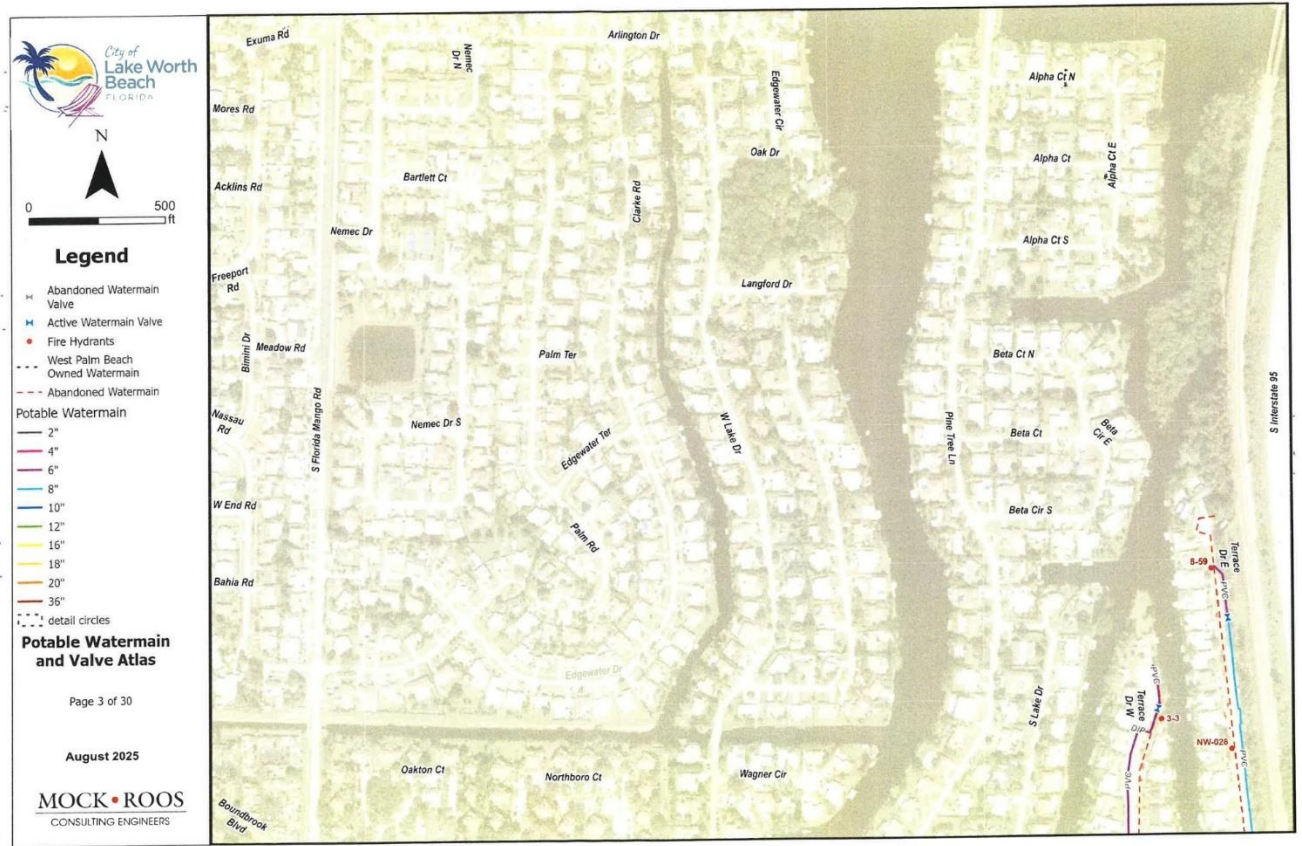
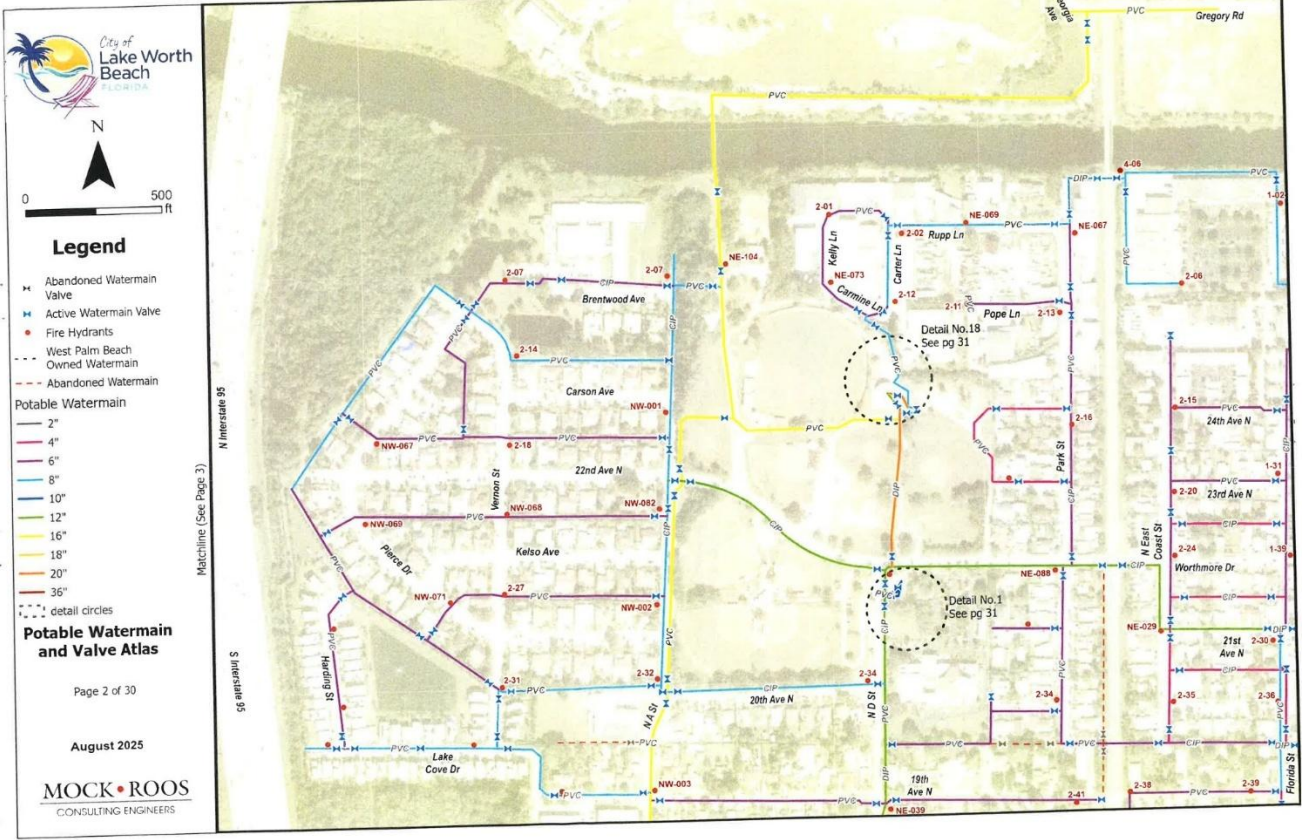
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- Active Watermain Valve
- Fire Hydrants
- West Palm Beach Owned Watermain
- Abandoned Watermain
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- Potable Watermain and Valve Atlas

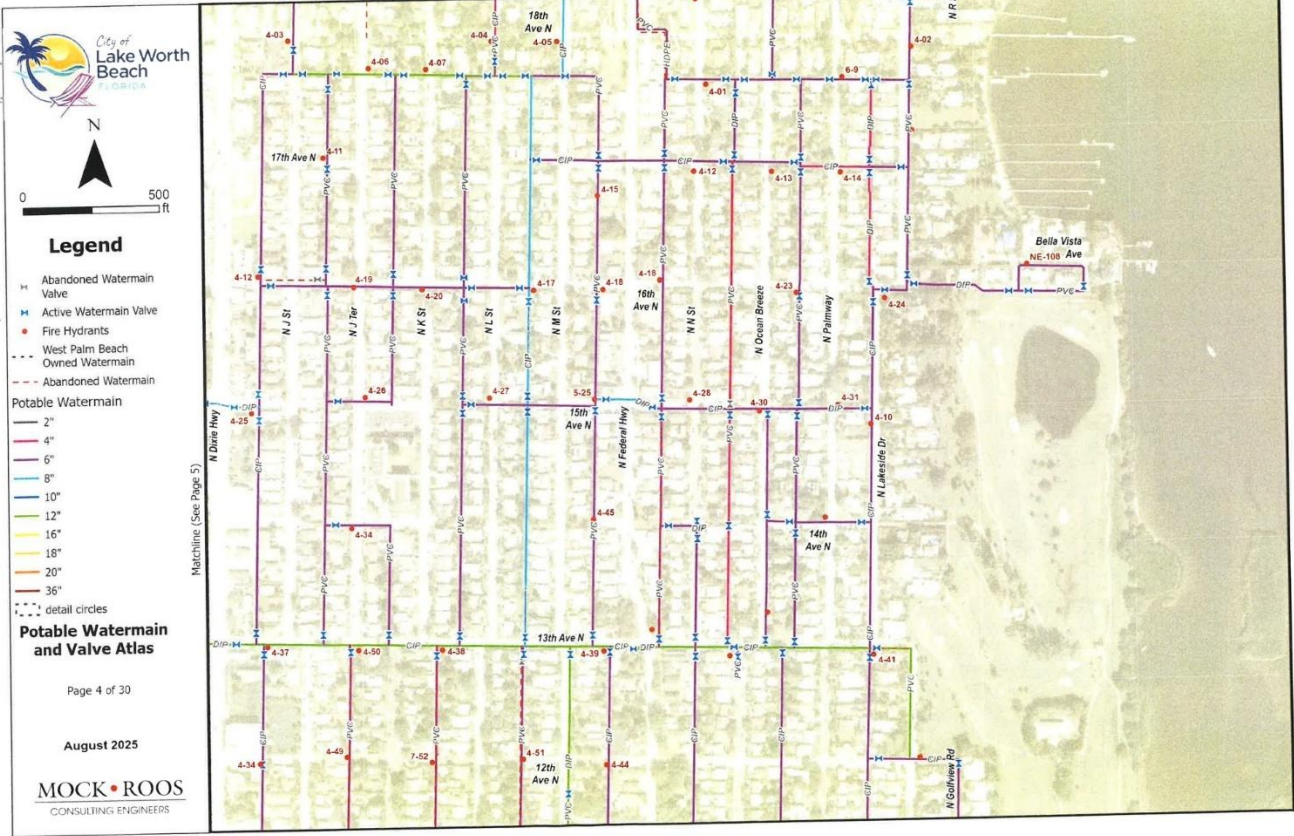
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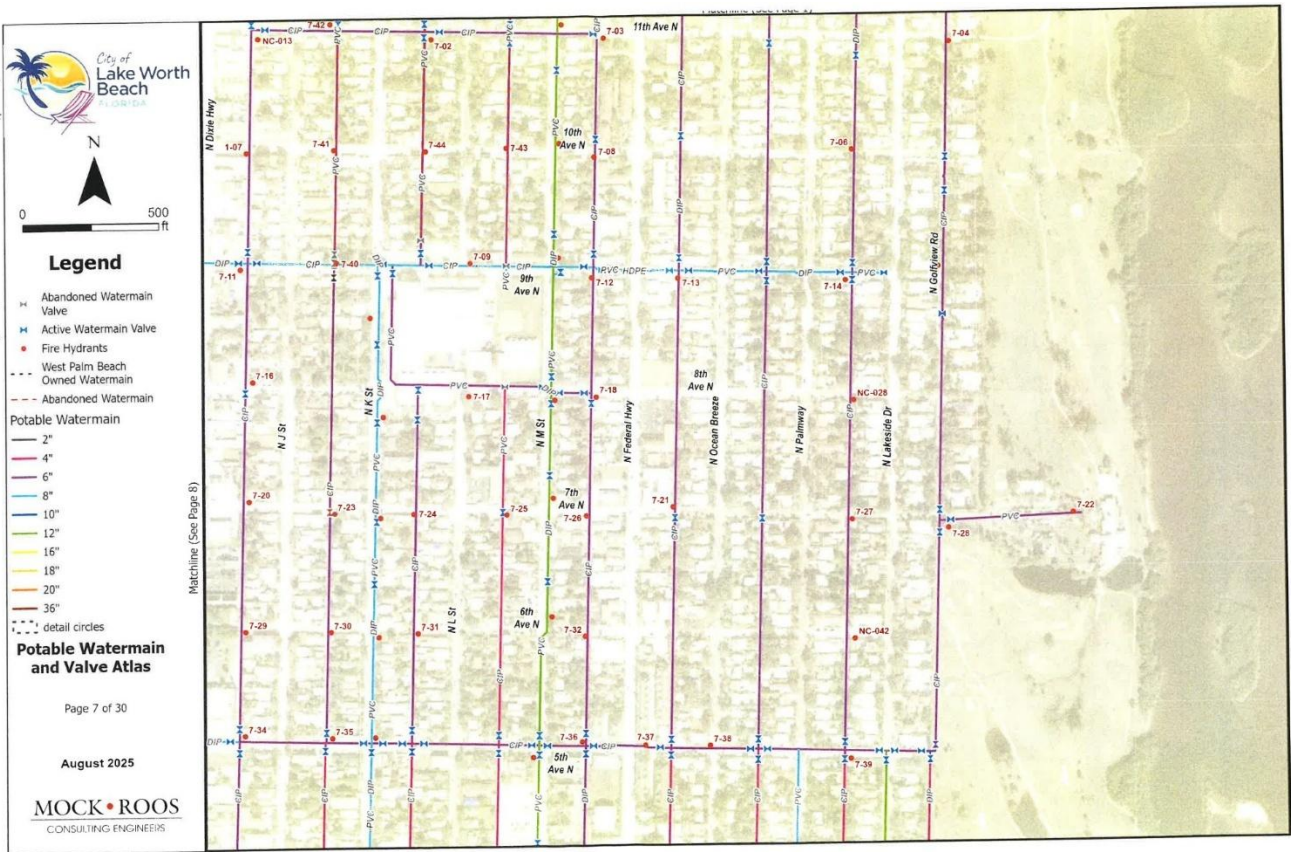
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City of Lake Worth Beach
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- Active Watermain Valve
- Fire Hydrants
- West Palm Beach Owned Watermain
- Abandoned Watermain

Potable Watermain

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Potable Watermain and Valve Atlas

Page 8 of 30

August 2025

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City of Lake Worth Beach
FLORIDA

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Legend

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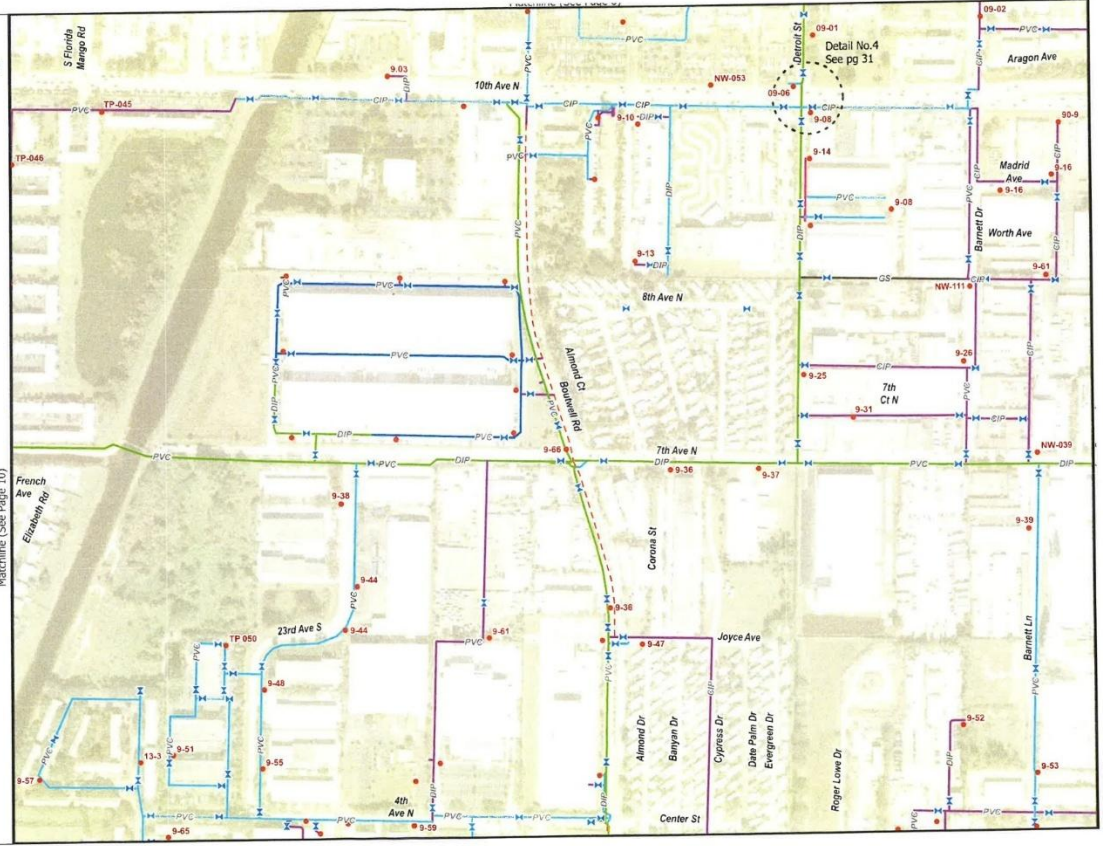
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Potable Watermain and Valve Atlas

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August 2025

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Legend

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- Active Watermain Valve
- Fire Hydrants
- West Palm Beach Owned Watermain
- Abandoned Watermain

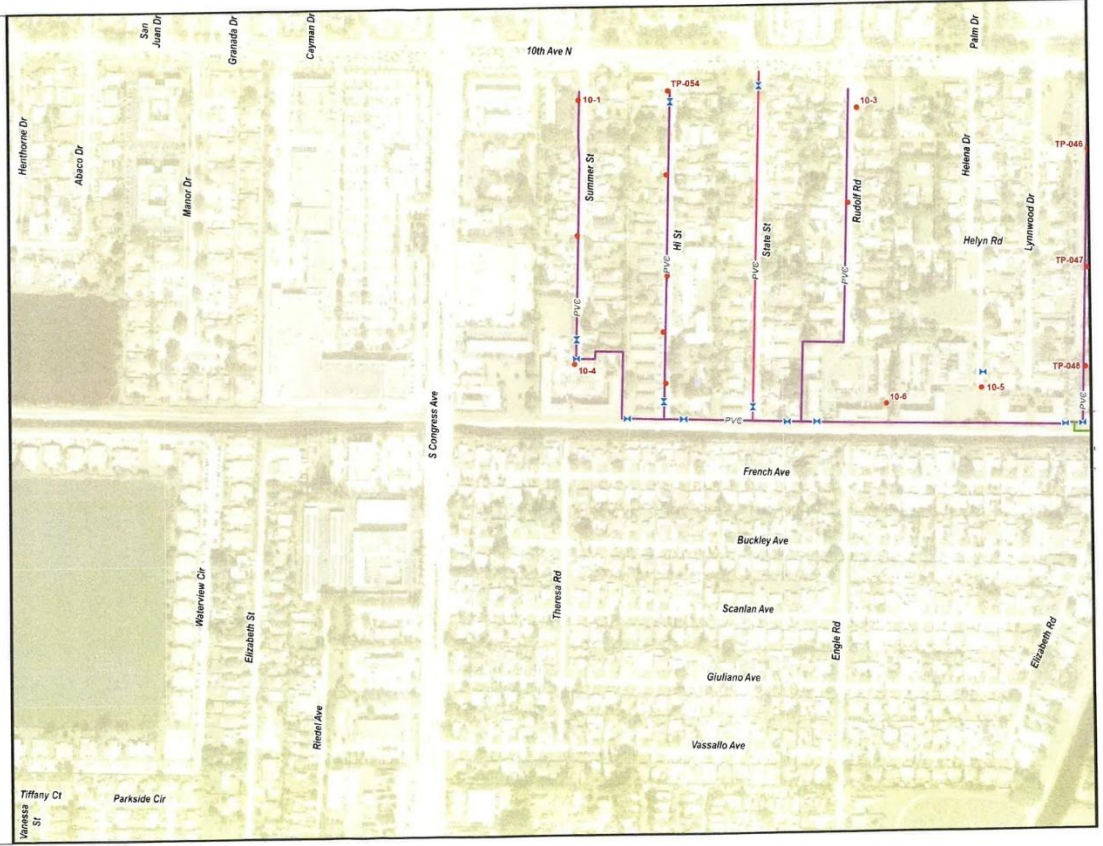
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Potable Watermain and Valve Atlas

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August 2025



Legend

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- Active Watermain Valve
- Fire Hydrants
- West Palm Beach Owned Watermain
- Abandoned Watermain

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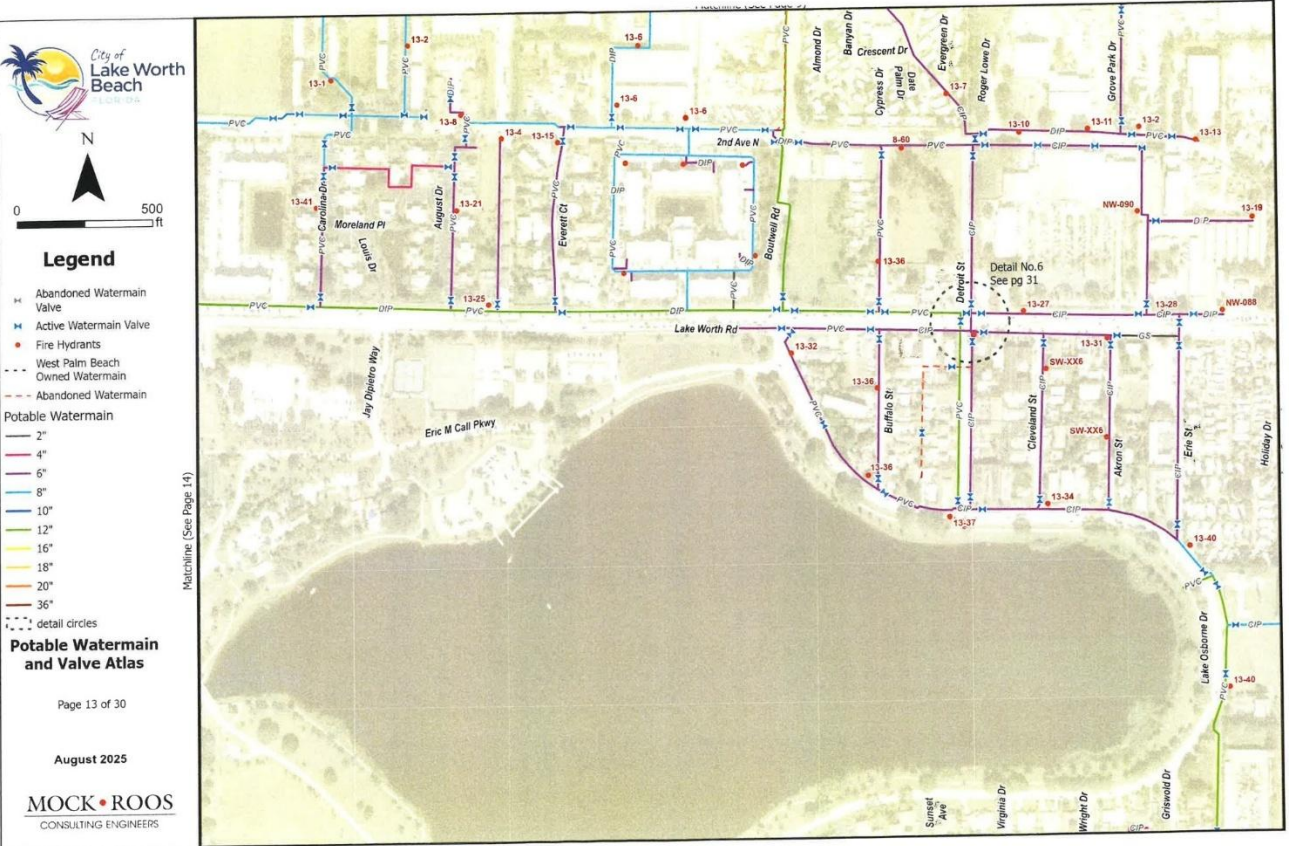
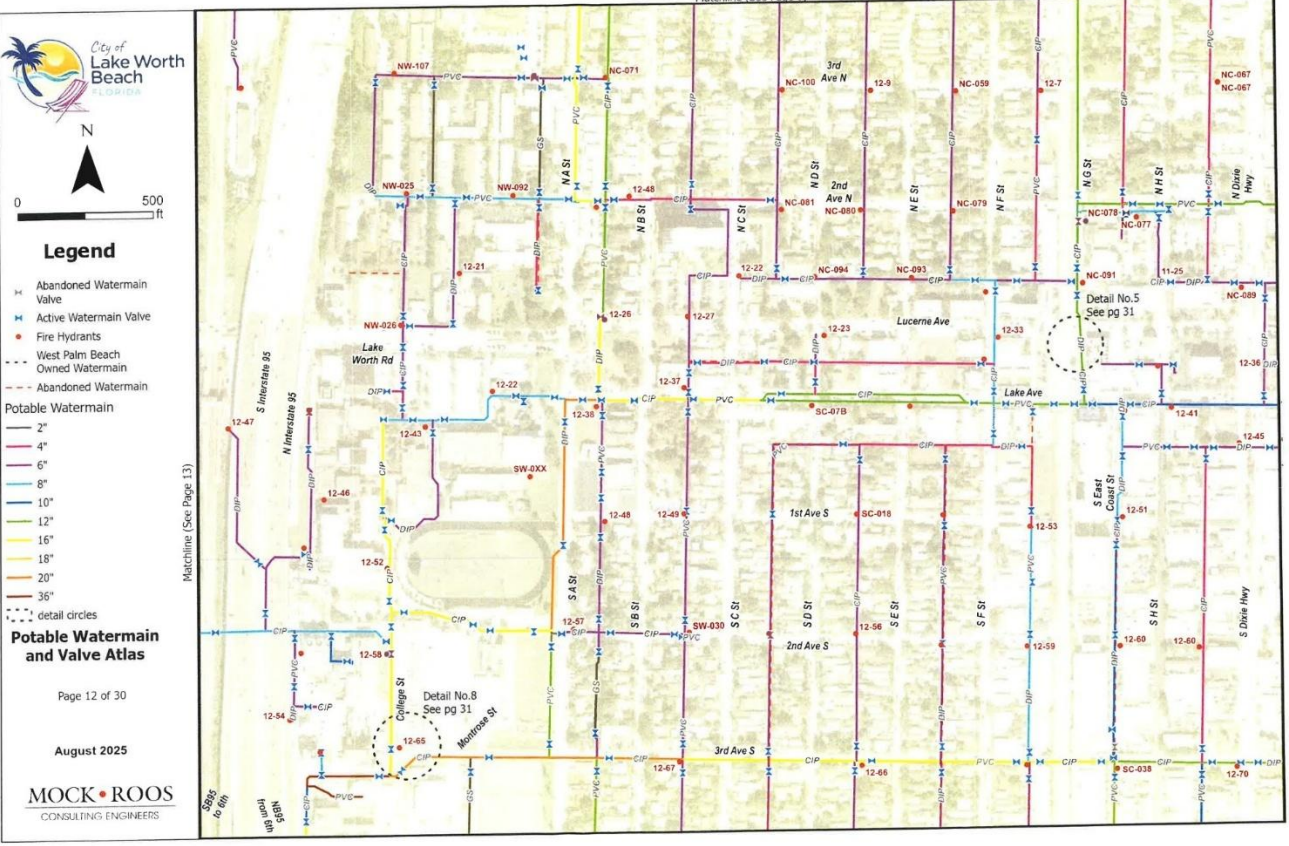
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Potable Watermain and Valve Atlas

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August 2025







 City of Lake Worth Beach

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Legend

 Abandoned Watermain Valve

 Active Watermain Valve

 Fire Hydrants

 West Palm Beach Owned Watermain

 Abandoned Watermain

 Potable Watermain

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 detail circles

Potable Watermain and Valve Atlas

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 August 2025

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 City of Lake Worth Beach

 L.W.B.E.S.

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Legend

 Abandoned Watermain Valve

 Active Watermain Valve

 Fire Hydrants

 West Palm Beach Owned Watermain

 Abandoned Watermain

 Potable Watermain

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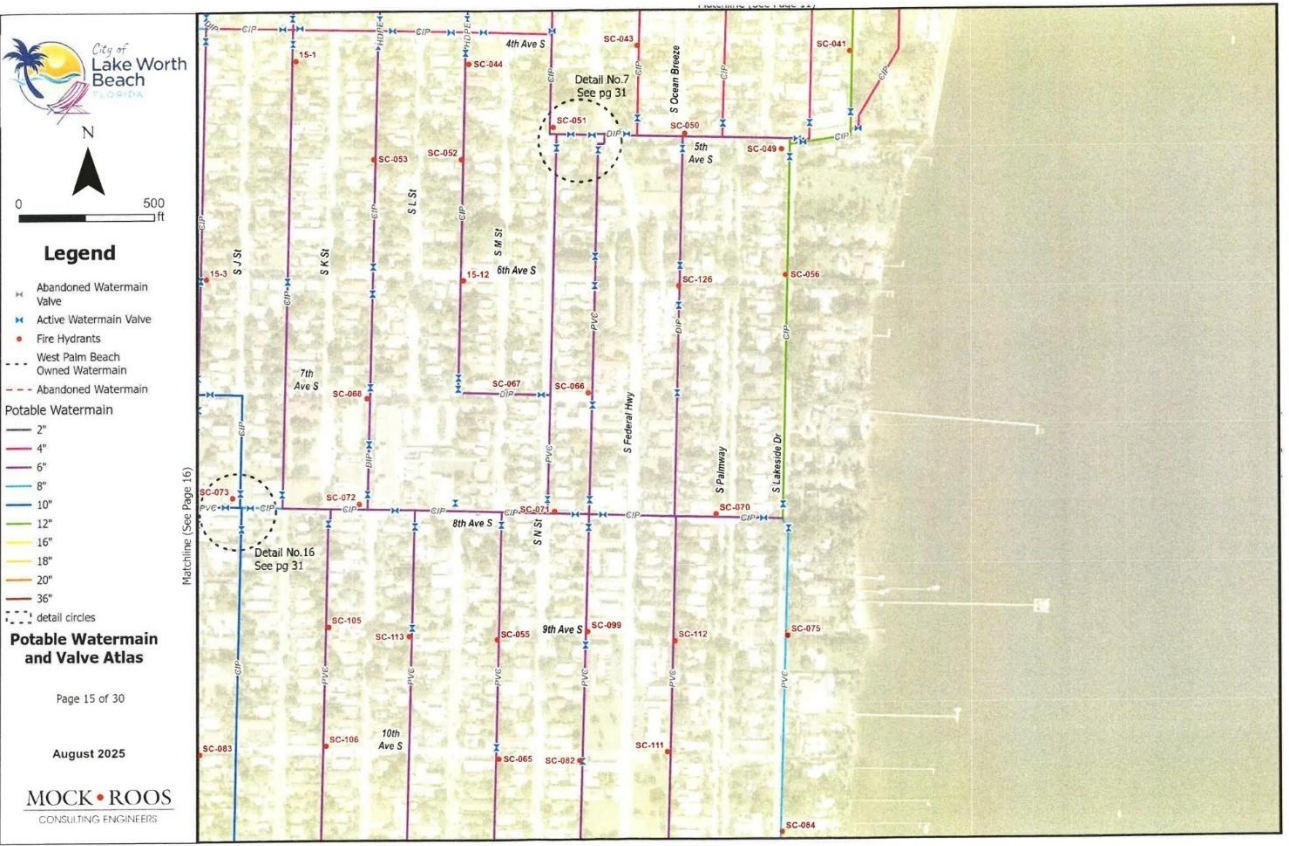
Potable Watermain and Valve Atlas

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 August 2025

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Legend

- Abandoned Watermain Valve
 - Active Watermain Valve
 - Fire Hydrants
 - West Palm Beach Owned Watermain
 - Abandoned Watermain
- Potable Watermain
- 2"
 - 4"
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 - 10"
 - 12"
 - 16"
 - 18"
 - 20"
 - 36"
- detail circles

Potable Watermain and Valve Atlas

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August 2025

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Legend

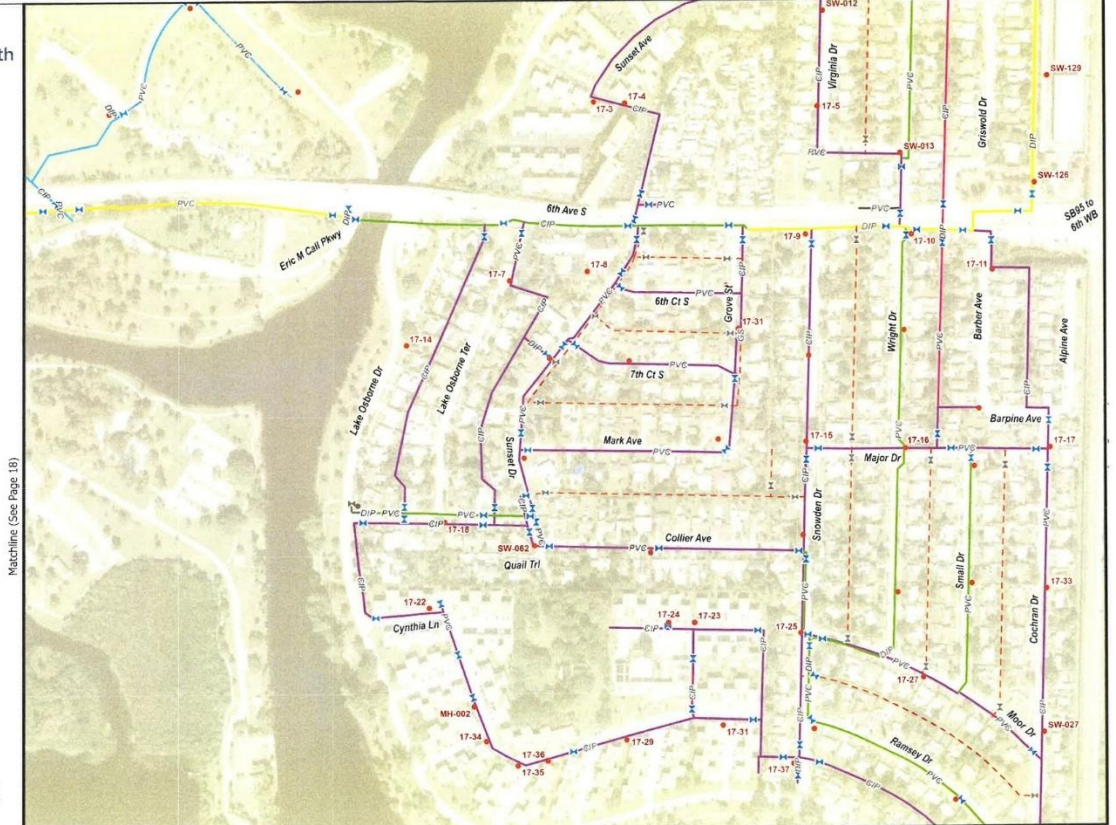
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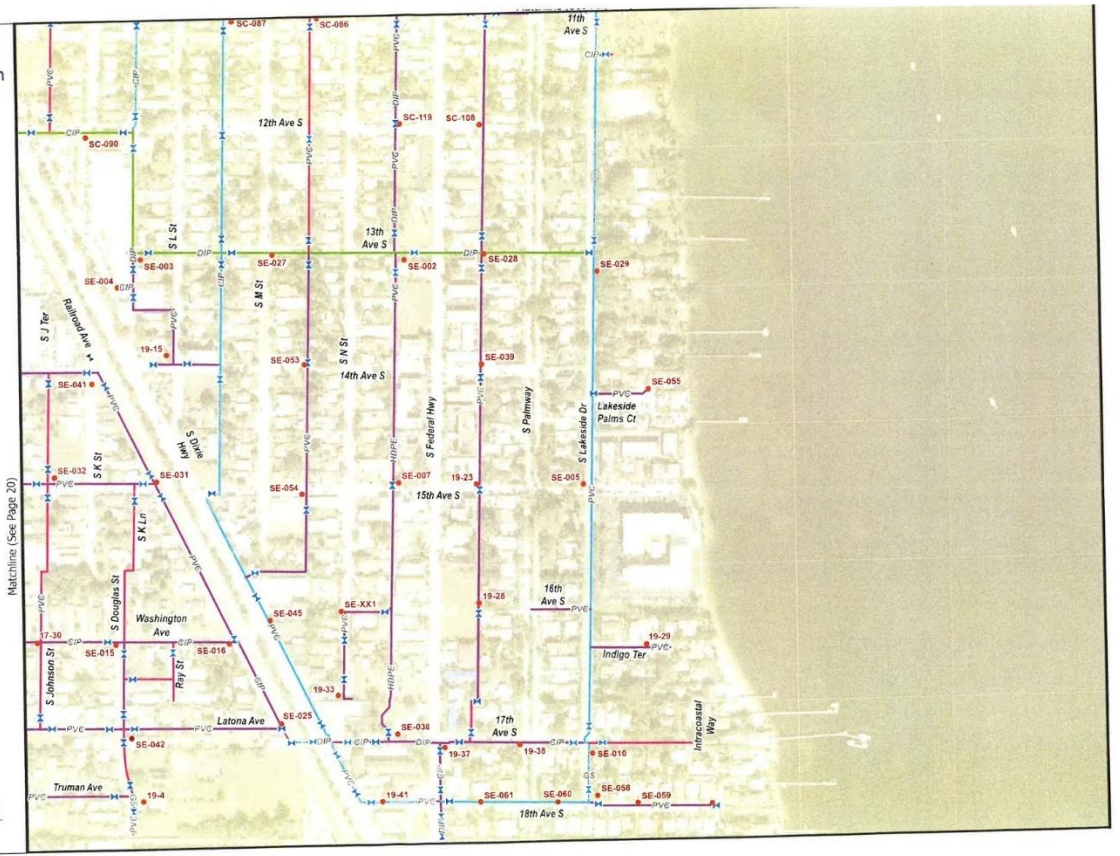
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Potable Watermain and Valve Atlas

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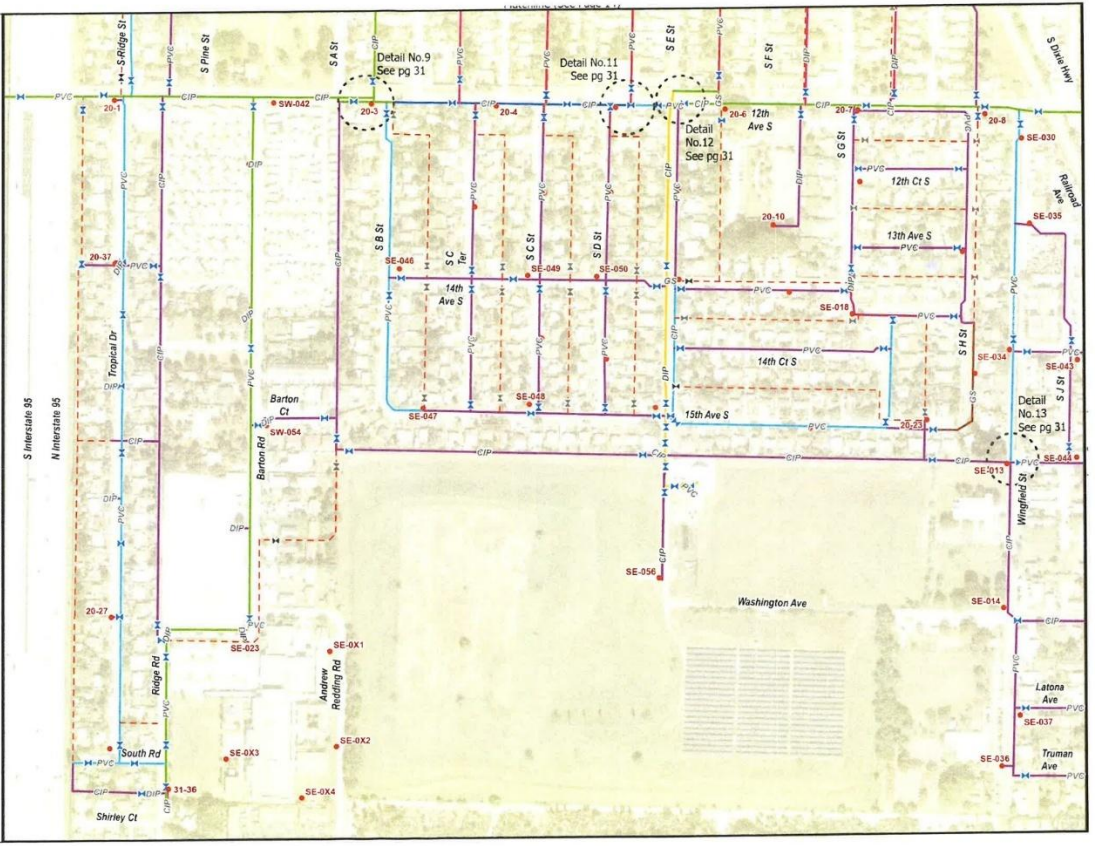
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Potable Watermain and Valve Atlas

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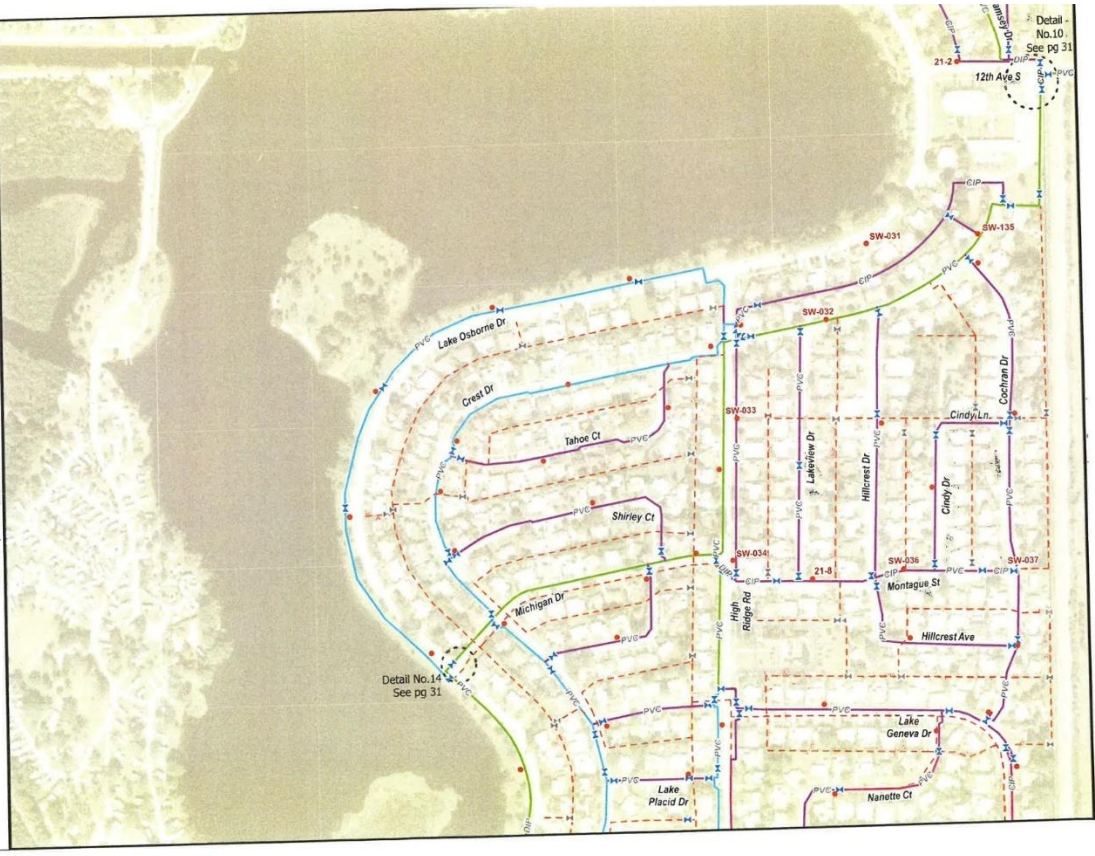
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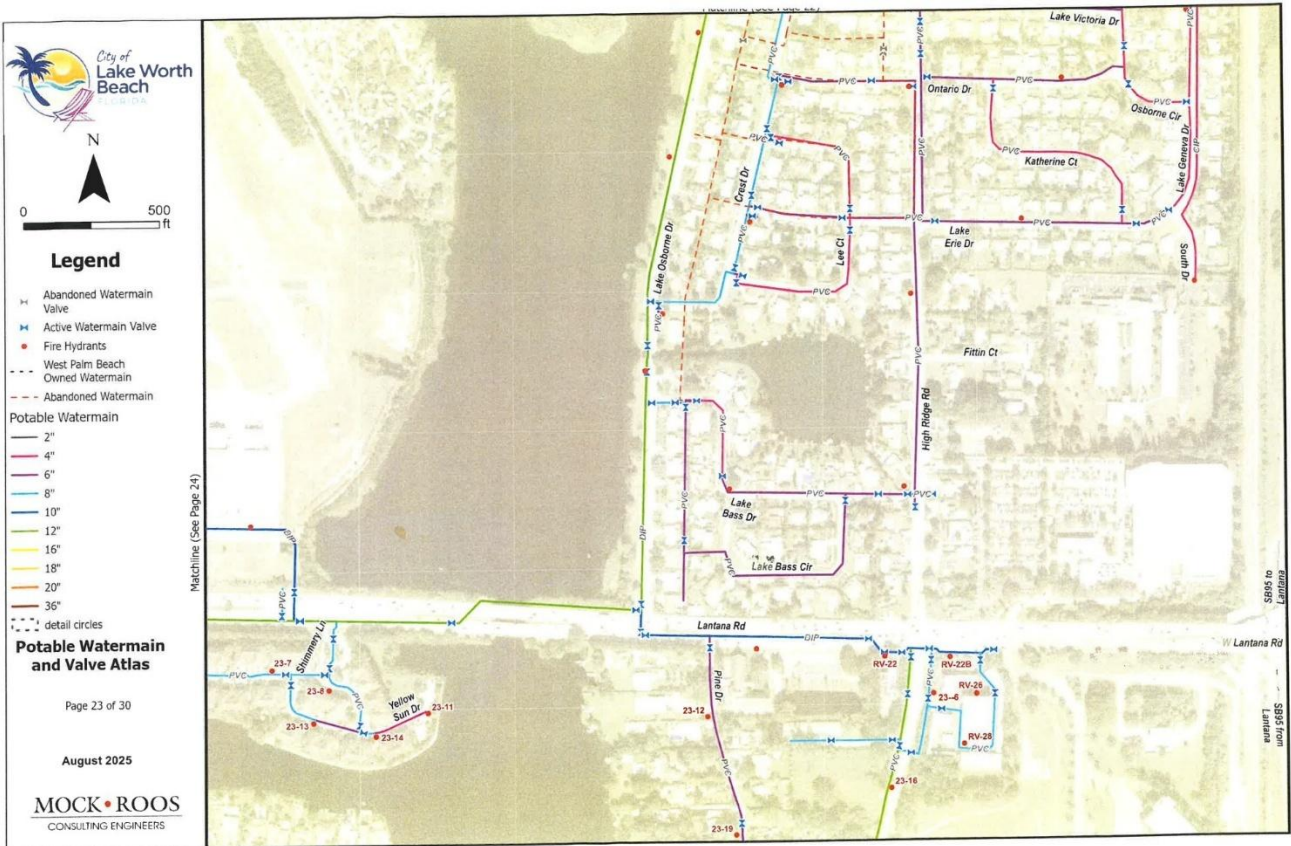
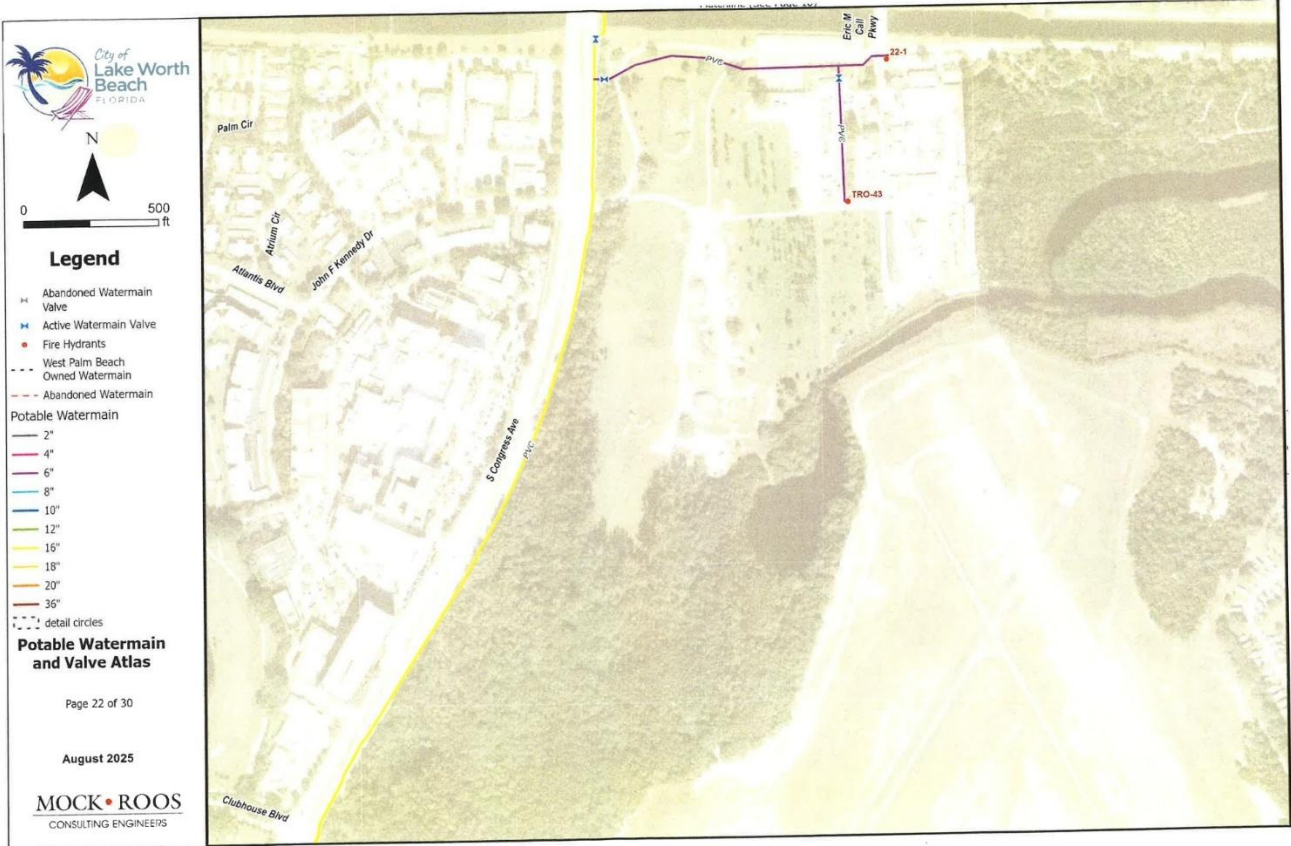
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Potable Watermain and Valve Atlas

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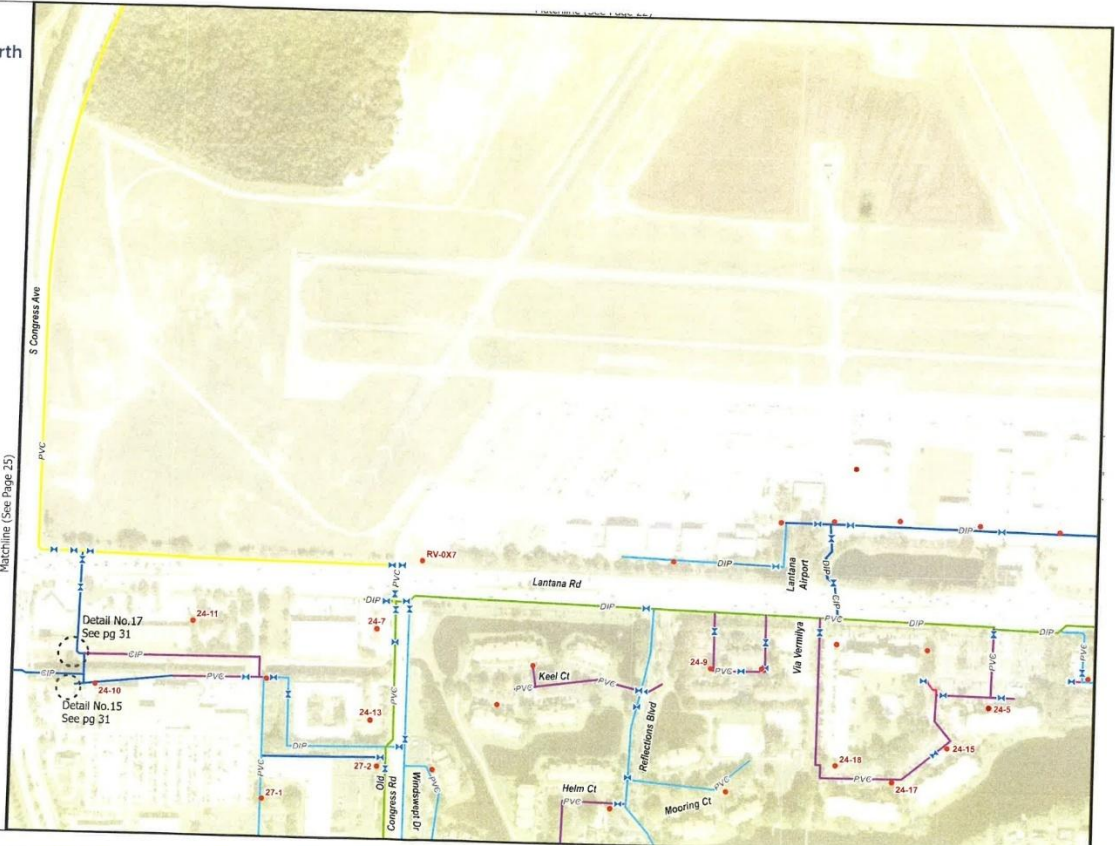
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Potable Watermain and Valve Atlas

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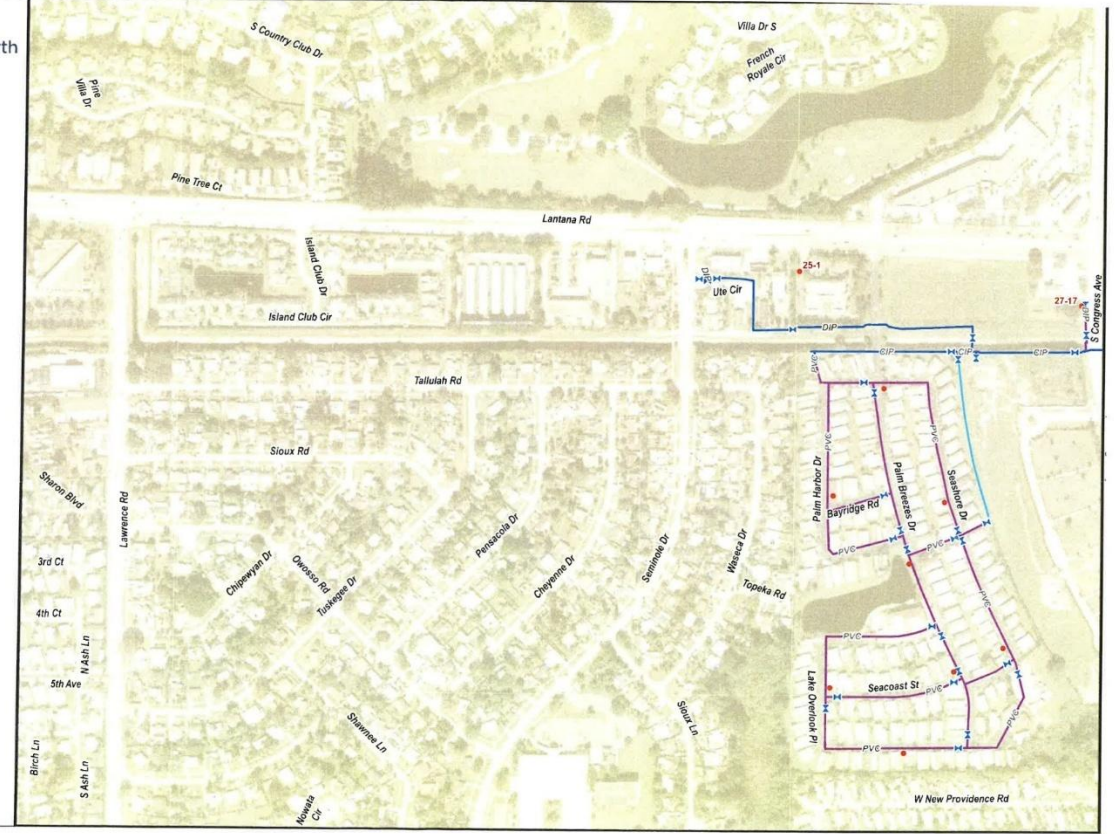
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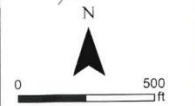
Potable Watermain and Valve Atlas

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August 2025

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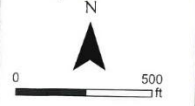
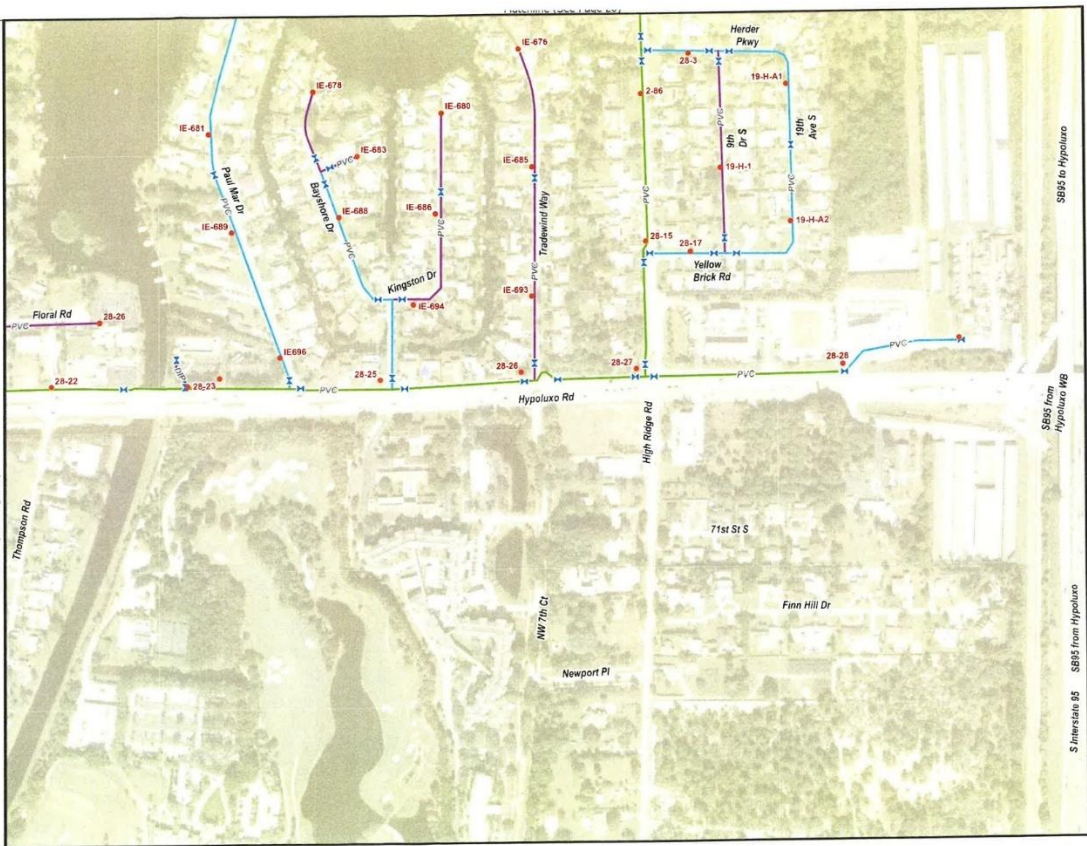
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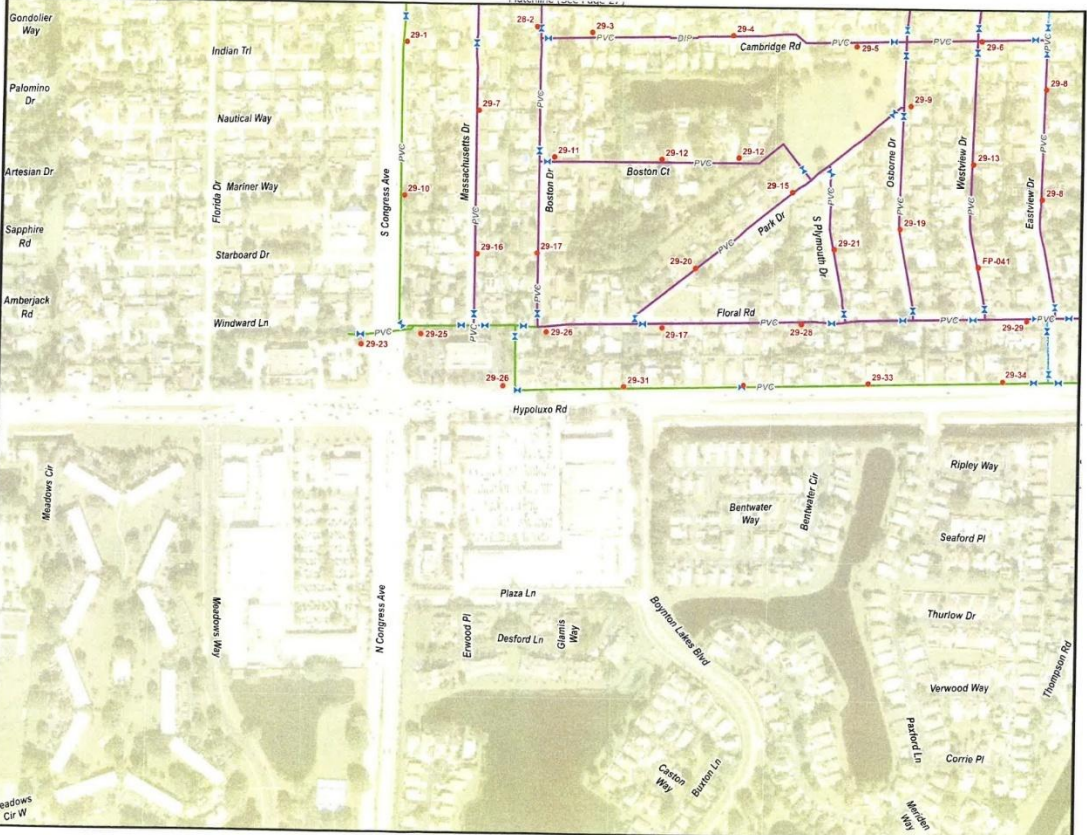
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Matchline (See Page 11)



APPENDIX B



City of Lake Worth Beach

Historical Water Flows

line #	Utility Name:	City of Lake Worth												
	Permit Name:	Lake Worth Utilities												
	Reporting Period:	2020												
	Water Use Permit #:	50-00234-W												
	Name of Person Completing Form:	Timothy Sloan												
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
1.0	Total Raw Water Withdrawn (should match pumpage reports submitted to SFWMD) RO Plant operates at 75% recovery	184,577,855	185,399,293	204,861,192	219,181,656	224,487,196	223,738,736	234,445,704	227,926,392	213,468,470	208,375,728	205,325,520	192,289,984	2,524,077,726
2.0	Volume of Finished Water Produced	158,566,200	151,747,200	175,503,600	174,713,700	180,704,200	180,067,800	197,189,000	181,421,300	172,941,000	165,728,100	160,888,500	161,794,400	2,061,265,000
3.0	Treatment Losses (subtract line 2 from line 1)	26,011,655	33,652,093	29,357,592	44,467,956	43,782,996	43,670,936	37,256,704	46,505,092	40,527,470	42,647,628	44,437,020	30,495,584	462,812,726
4.0	% Treatment Loss (divide line 3 by line 1)	14.09%	18.15%	14.33%	20.29%	19.50%	19.52%	15.89%	20.40%	18.99%	20.47%	21.64%	15.86%	18.34%
5.0	Total Volume of Water Imported (if applicable) Bulk PBC purchase													0
6.0	System Input (Finished Water Produced plus Total Water Imported) (line 2 plus line 5)	158,566,200	151,747,200	175,503,600	174,713,700	180,704,200	180,067,800	197,189,000	181,421,300	172,941,000	165,728,100	160,888,500	161,794,400	2,061,265,000
7.0	Billed Authorized Consumption (total volume of water billed including Exports-if applicable)	132,950,900	125,116,100	133,592,700	144,051,200	131,982,900	131,521,000	136,989,500	123,580,300	128,783,300	124,622,900	123,139,000	129,916,900	1,566,246,700
8.0	Unbilled Authorized Consumption (include estimates of fire protection, line flushing, and other utility-authorized non-billed uses). An estimate of 1.25% of the System Input can be used if no other data is available.	16,363,900	13,314,226	11,919,640	24,050,074	45,480,600	47,236,360	50,970,355	42,232,460	41,761,675	38,543,500	36,593,100	14,904,500	383,370,390
9.0	Total Authorized Consumption (Billed Authorized Consumption plus Unbilled Authorized Consumption) (line 7 plus line 8)	149,314,800	138,430,326	145,512,340	168,101,274	177,463,500	178,757,360	187,959,855	165,812,760	170,544,975	163,166,400	159,732,100	144,821,400	1,949,617,090
10.0	Total Water Losses (Line 6 minus line 9)	9,251,400	13,316,874	29,991,260	6,612,426	3,240,700	1,310,440	9,229,145	15,608,540	2,396,025	2,561,700	1,156,400	16,973,000	111,647,910
11.0	% Water Loss (line 10 divided by line 6)	5.83%	8.78%	17.09%	3.78%	1.79%	0.73%	4.68%	8.60%	1.39%	1.55%	0.72%	10.49%	5.42%

line #	Utility Name:	City of Lake Worth												
	Permit Name:	Lake Worth Utilities												
	Reporting Period:	2021												
	Water Use Permit #:	50-00234-W												
	Name of Person Completing Form:	Garry Baker II												
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
1.0	Total Raw Water Withdrawn (should match pumpage reports submitted to SFWMD) RO Plant operates at 75% recovery	196,102,063	193,548,578	243,525,363	207,816,329	222,709,766	234,505,496	225,902,082	235,331,696	232,215,123	236,800,749	203,757,832	194,701,860	2,626,916,937
2.0	Volume of Finished Water Produced	160,030,900	146,547,200	173,723,400	170,296,900	191,917,200	181,921,900	180,561,200	190,139,700	182,527,800	180,108,600	152,403,700	154,337,000	2,064,515,500
3.0	Treatment Losses (subtract line 2 from line 1)	36,071,163	47,001,378	69,801,963	37,519,429	30,792,566	52,583,596	45,340,882	45,191,996	49,687,323	56,692,149	51,354,132	40,364,860	562,401,437
4.0	% Treatment Loss (divide line 3 by line 1)	18.39%	24.28%	28.66%	18.05%	13.83%	22.42%	20.07%	19.20%	21.40%	23.94%	25.20%	20.73%	21.41%
5.0	Total Volume of Water Imported (if applicable) Bulk PBC purchase													0
6.0	System Input (Finished Water Produced plus Total Water Imported) (line 2 plus line 5)	160,030,900	146,547,200	173,723,400	170,296,900	191,917,200	181,921,900	180,561,200	190,139,700	182,527,800	180,108,600	152,403,700	154,337,000	2,064,515,500
7.0	Billed Authorized Consumption (total volume of water billed including Exports-if applicable)	133,939,900	126,381,700	130,701,700	146,292,500	142,757,900	151,222,400	136,328,900	128,206,200	144,095,700	136,298,100	127,462,500	138,025,800	1,641,713,300
8.0	Unbilled Authorized Consumption (include estimates of fire protection, line flushing, and other utility-authorized non-billed uses). An estimate of 1.25% of the System Input can be used if no other data is available.	9,695,400	12,473,450	11,434,025	19,656,550	22,624,375	29,679,558	38,595,225	31,218,275	36,117,442	18,329,100	15,095,700	14,101,900	259,021,000
9.0	Total Authorized Consumption (Billed Authorized Consumption plus Unbilled Authorized Consumption) (line 7 plus line 8)	143,635,300	138,855,150	142,135,725	165,949,050	165,382,275	180,901,958	174,924,125	159,424,475	180,213,142	154,627,200	142,558,200	152,127,700	1,900,734,300
10.0	Total Water Losses (Line 6 minus line 9)	16,395,600	7,692,050	31,587,675	4,347,850	26,534,925	1,019,942	5,637,075	30,715,225	2,314,658	25,481,400	9,845,500	2,209,300	163,781,200
11.0	% Water Loss (line 10 divided by line 6)	10.25%	5.25%	18.18%	2.55%	13.83%	0.56%	3.12%	16.15%	1.27%	14.15%	6.46%	1.43%	7.93%

line #	Utility Name:	City of Lake Worth												
	Permit Name:	Lake Worth Utilities												
	Reporting Period:	2022												
	Water Use Permit #:	50-00234-W												
	Name of Person Completing Form:	Garry Baker II												
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
1.0	Total Raw Water Withdrawn (should match pumpage reports submitted to SFWMD) RO Plant operates at 75% recovery	197,452,360	193,795,072	224,634,184	230,450,236	261,884,302	233,463,340	244,984,828	222,756,436	205,055,448	189,230,552	244,724,880	218,343,656	2,666,775,294
2.0	Volume of Finished Water Produced	156,400,600	156,093,800	177,173,400	191,710,304	232,569,432	199,108,304	208,763,040	194,242,848	171,851,968	178,305,496	173,331,800	176,143,712	2,215,694,704
3.0	Treatment Losses (subtract line 2 from line 1)	41,051,760	37,701,272	47,460,784	38,739,932	29,314,870	34,355,036	36,221,788	28,513,588	33,203,480	10,925,056	71,393,080	42,199,944	451,080,590
4.0	% Treatment Loss (divide line 3 by line 1)	20.79%	19.45%	21.13%	16.81%	11.19%	14.72%	14.79%	12.80%	16.19%	5.77%	29.17%	19.33%	16.91%
5.0	Total Volume of Water Imported (if applicable)													0
6.0	System Input (Finished Water Produced plus Total Water Imported) (line 2 plus line 5)	156,400,600	156,093,800	177,173,400	191,710,304	232,569,432	199,108,304	208,763,040	194,242,848	171,851,968	178,305,496	173,331,800	176,143,712	2,215,694,704
7.0	Billed Authorized Consumption (total volume of water billed including Exports-if applicable)	135,135,500	129,717,600	134,536,600	143,067,900	143,925,600	153,481,200	150,481,800	163,863,500	159,244,200	173,801,400	131,922,000	143,041,100	1,762,218,400
8.0	Unbilled Authorized Consumption (include estimates of fire protection, line flushing, and other utility-authorized non-billed uses). An estimate of 1.25% of the System Input can be used if no other data is available.	17,445,600	18,047,297	18,033,697	24,108,400	34,670,225	28,724,100	20,641,000	18,983,100	6,327,000	2,916,300	17,923,900	21,682,000	229,502,619
9.0	Total Authorized Consumption (Billed Authorized Consumption plus Unbilled Authorized Consumption) (line 7 plus line 8)	152,581,100	147,764,897	152,570,297	167,176,300	178,595,825	182,205,300	171,122,800	182,846,600	165,571,200	176,717,700	149,845,900	164,723,100	1,991,721,019
10.0	Total Water Losses (Line 6 minus line 9)	3,819,500	8,328,903	24,603,103	24,534,004	53,973,607	16,903,004	37,640,240	11,396,248	6,280,768	1,587,796	23,485,900	11,420,612	223,973,685
11.0	% Water Loss (line 10 divided by line 6)	2.44%	5.34%	13.89%	12.80%	23.21%	8.49%	18.03%	5.87%	3.65%	0.89%	13.55%	6.48%	10.11%

line #	Utility Name:	City of Lake Worth												
	Permit Name:	Lake Worth Utilities												
	Reporting Period:	2023												
	Water Use Permit #:	50-00234-W												
	Name of Person Completing Form:	Garry Baker II												
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
1.0	Total Raw Water Withdrawn (should match pumpage reports submitted to SFWMD)RO Plant operates at 75% recovery	227,176,168	226,277,445	230,976,183	210,364,874	241,815,208	224,673,296	219,352,960	214,512,467	211,309,792	212,122,021	217,709,808	205,296,848	2,641,587,070
2.0	Volume of Finished Water Produced	182,152,200	175,817,700	189,874,200	174,424,300	181,894,200	166,806,600	176,207,000	170,790,300	169,331,900	175,240,700	170,633,300	164,538,200	2,097,710,600
3.0	Treatment Losses (subtract line 2 from line 1)	45,023,968	50,459,745	41,101,983	35,940,574	59,921,008	57,866,696	43,145,960	43,722,167	41,977,892	36,881,321	47,076,508	40,758,648	543,876,470
4.0	% Treatment Loss (divide line 3 by line 1)	19.82%	22.30%	17.79%	17.08%	24.78%	25.76%	19.67%	20.38%	19.87%	17.39%	21.62%	19.85%	20.59%
5.0	Total Volume of Water Imported (if applicable)													0
6.0	System Input (Finished Water Produced plus Total Water Imported) (line 2 plus line 5)	182,152,200	175,817,700	189,874,200	174,424,300	181,894,200	166,806,600	176,207,000	170,790,300	169,331,900	175,240,700	170,633,300	164,538,200	2,097,710,600
7.0	Billed Authorized Consumption (total volume of water billed including Exports-if applicable)	145,461,500	137,634,900	144,962,900	151,707,500	137,818,100	143,057,600	133,792,500	138,168,400	132,875,700	134,175,500	145,220,100	146,984,400	1,691,859,100
8.0	Unbilled Authorized Consumption (include estimates of fire protection, line flushing, and other utility-authorized non-billed uses). An estimate of 1.25% of the System Input can be used if no other data is available.	24,538,900	36,387,400	17,264,233	15,614,260	32,340,700	15,099,100	22,676,400	18,109,600	16,500,100	23,945,300	20,173,400	15,981,200	258,630,593
9.0	Total Authorized Consumption (Billed Authorized Consumption plus Unbilled Authorized Consumption) (line 7 plus line 8)	170,000,400	174,022,300	162,227,133	167,321,760	170,158,800	158,156,700	156,468,900	156,278,000	149,375,800	158,120,800	165,393,500	162,965,600	1,950,489,693
10.0	Total Water Losses (Line 6 minus line 9)	12,151,800	1,795,400	27,647,067	7,102,540	11,735,400	8,649,900	19,738,100	14,512,300	19,956,100	17,119,900	5,239,800	1,572,600	147,220,907
11.0	% Water Loss (line 10 divided by line 6)	6.67%	1.02%	14.56%	4.07%	6.45%	5.19%	11.20%	8.50%	11.79%	9.77%	3.07%	0.96%	7.02%

line #	Utility Name:	City of Lake Worth												
	Permit Name:	Lake Worth Utilities												
	Reporting Period:	2024												
	Water Use Permit #:	50-00234-W												
	Name of Person Completing Form:	Michael Suarez												
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
1.0	Total Raw Water Withdrawn (should match pumpage reports submitted to SFWMD) RO Plant operates at 75% recovery	214,715,192	202,254,144	218,739,021	222,478,816	263,194,824	236,066,892	249,854,608	237,152,776	213,207,296	207,317,416	228,082,128	230,494,448	2,723,557,561
2.0	Volume of Finished Water Produced	170,537,000	175,817,700	189,874,200	174,424,300	181,894,200	166,806,600	176,207,000	170,790,300	169,331,900	175,240,700	170,633,300	164,538,200	2,086,095,400
3.0	Treatment Losses (subtract line 2 from line 1)	44,178,192	26,436,444	28,864,821	48,054,516	81,300,624	69,260,292	73,647,608	66,362,476	43,875,396	32,076,716	57,448,828	65,956,248	637,462,161
4.0	% Treatment Loss (divide line 3 by line 1)	20.58%	13.07%	13.20%	21.60%	30.89%	29.34%	29.48%	27.98%	20.58%	15.47%	25.19%	28.62%	23.41%
5.0	Total Volume of Water Imported (if applicable)													0
6.0	System Input (Finished Water Produced plus Total Water Imported) (line 2 plus line 5)	170,537,000	175,817,700	189,874,200	174,424,300	181,894,200	166,806,600	176,207,000	170,790,300	169,331,900	175,240,700	170,633,300	164,538,200	2,086,095,400
7.0	Billed Authorized Consumption (total volume of water billed including Exports-if applicable)	141,784,288	137,650,294	144,986,030	151,723,759	137,840,516	143,075,911	133,807,295	138,183,665	132,890,431	134,188,177	145,234,016	147,008,211	1,688,372,593
8.0	Unbilled Authorized Consumption (include estimates of fire protection, line flushing, and other utility-authorized non-billed uses). An estimate of 1.25% of the System Input can be used if no other data is available.	14,754,800	22,567,100	14,621,300	17,570,900	27,573,300	20,158,600	35,975,734	19,565,600	22,958,600	26,539,700	28,218,017	16,226,200	266,729,851
9.0	Total Authorized Consumption (Billed Authorized Consumption plus Unbilled Authorized Consumption) (line 7 plus line 8)	156,539,088	160,217,394	159,607,330	169,294,659	165,413,816	163,234,511	169,783,029	157,749,265	155,849,031	160,727,877	173,452,033	163,234,411	1,955,102,444
10.0	Total Water Losses (Line 6 minus line 9)	13,997,912	15,600,306	30,266,870	5,129,641	16,480,384	3,572,089	6,423,971	13,041,035	13,482,869	14,512,823	-2,818,733	1,303,789	130,992,956
11.0	% Water Loss (line 10 divided by line 6)	8.21%	8.87%	15.94%	2.94%	9.06%	2.14%	3.65%	7.64%	7.96%	8.28%	-1.65%	0.79%	6.28%