EXHIBIT A



10-YEAR WATER SUPPLY FACILITIES WORK PLAN

Prepared by



and



Adopted May 11, 2020 Ordinance 2020-03

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1.0 INTRODUCTION

The purpose of the City of Westlake's Water Supply Facilities Work Plan (Work Plan) is to identify and plan for the water supply sources and facilities needed to serve existing and new development within the City's jurisdiction. Chapter 163, Part II, Florida Statutes (F.S.), requires local governments to prepare and adopt Work Plans into their comprehensive plans within 18 months after the South Florida Water Management District (District) approves a regional water supply plan or its update. *The 2018 Lower East Coast Water Supply Plan Update* was approved by the District's Governing Board November 8, 2018 and covers a planning horizon from 2016-2040.

Residents of the City of Westlake obtain their water from the Seminole Improvement District (SID), which is responsible for ensuring enough capacity is available for existing and future customers. Water is supplied by Palm Beach County Water Utility Department (PBCWUD). The City has no areas of domestic self- supply.

The Work Plan references the initiatives already identified to ensure adequate water supply for the City of Westlake. According to state guidelines, the Work Plan and the City of Westlake's Comprehensive Plan address the development of traditional and alternative water supplies, service delivery and conservation and reuse programs necessary to serve existing and new development for at least a 10-year planning period. The Work Plan covers a 10-year planning horizon to 2030 and is consistent with the City's Comprehensive Plan (2023 and 2038) and the *2018 Lower East Coast Water Supply Plan Update (2040)* planning horizons.

The Work Plan is divided into six sections:

- Section 1 Introduction
- Section 2 Background Information
- Section 3 Data and Analysis
- Section 4 Work Plan Projects/Capital Improvement Element/Schedule
- Section 5 Goals, Objectives, and Policies
- Section 6 Maps

1.1 Statutory History

The Florida Legislature enacted bills in the 2002, 2004, 2005, 2011,2012, 2015, and 2016 sessions to address the state's water supply needs. These bills, in particular Senate Bills 360 and 444 (2005 legislative session), significantly changed Chapters 163 and 373, F.S. by strengthening the statutory links between the regional water supply plans prepared by the water management districts and the comprehensive plans prepared by local governments. In addition, these bills established the basis for improving coordination between local land use planning and water supply planning.

1.2 Statutory Requirements

The City of Westlake has considered the following statutory provisions when preparing this Water Supply Facilities Work Plan:

- 1. Coordinate appropriate aspects of the Comprehensive Plan with the applicable RWSP [Section 163.3177(4)(a), F.S.].
- Ensure the Future Land Use Plan is based on availability of adequate water supplies and public facilities and services [Section 163.3177(6)(a), F.S.]. Data and analyses demonstrating that adequate water supplies and associated public facilities will be available to meet projected growth demands must accompany all proposed Future Land Use Plan and Plan amendments submitted for review.
- 3. In consultation with the water supplier, ensure adequate water supplies and potable water facilities are available to serve new development no later than the issuance by the local government of a certificate of occupancy or its functional equivalent [Section 163.3180(2), F.S.].
- 4. For local governments subject to an RWSP, revise the General Sanitary Sewer, Solid Waste, Drainage, Potable Water, and Natural Groundwater Aquifer Recharge element (the "Infrastructure element") through a Comprehensive Plan amendment to:
 - a. Identify and incorporate the alternative water supply project(s) selected by the local government from projects identified in the applicable RWSP, or alternative project(s) proposed by the local government under Section 373.709(8)(b), F.S. [Section 163.3177(6)(c), F.S.];
 - b. Identify the traditional and alternative water supply projects and the conservation and reuse programs necessary to meet water needs identified in the applicable RWSP [Section 163.3177(6)(c)3., F.S.]; and
 - c. Update the 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 [Sections 163.3177(6)(c)3. and (5), F.S.].
- 5. Revise the Five-Year Schedule of Capital Improvements to include water supply, reuse, and conservation projects and programs to be implemented during the 5-year period [Section 163.3177(3)(a)4., F.S.].
- 6. To the extent necessary to maintain internal consistency after making 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 applicable RWSP and water use permit(s) [Section 163.3177(6)(d), F.S.]. The comprehensive plan must address the water supply sources necessary to meet the existing and projected water use demand for the

established planning period, considering the applicable RWSP [Section 163.3167(9), F.S.].

- 7. To the extent necessary to maintain internal consistency after making changes described in Paragraphs 1 through 5 above, revise the Intergovernmental Coordination element to ensure consistency between the Comprehensive Plan and the applicable RWSP [Section 163.3177(6)(h)1., F.S.].
- 8. Local governments are required to comprehensively evaluate and update the Comprehensive Plan to reflect changes in local conditions every seven years. The evaluation could address the local government's need to update their 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 [Section 163.3191(3), F.S.].
- 9. Local governments may be exempt from updating their Work Plan if they meet certain criteria. A local government that does not own, operate, or maintain its own water supply facilities and is served by a public water supply entity with a permitted allocation of 300 million gallons per day or greater is not required to amend its Comprehensive Plan when an RWSP is updated if the local government uses less than 1 percent of the public water supply entity's total permitted allocation. However, the local government must cooperate with the public water supply entity that provides service within its jurisdiction and must keep the Sanitary Sewer, Solid Waste, Drainage, Potable Water, and Natural Groundwater Aquifer Recharge element up to date, pursuant to Section 163.3191, F.S. A local government should contact the Florida Department of Economic Opportunity (DEO) to verify its qualifications for the exemption [Section 163.3177(6)(c)4., F.S.].
- 10. Local governments with a Sector Plan adopted in accordance with Section 163.3245, F.S., should incorporate information from the adopted Sector Plan, Master Plan, and Detailed Specific Area Plan into the Work Plan. The focus should be on water needs, water supply and resource development, conservation measures, and intergovernmental coordination activities with the SFWMD and water supply development projects needed to address projected development in the Sector Plan area [Section 163.3245, F.S.].

1.3 Relevant Regional Issues

As the State agency responsible for water supply in the Upper and Lower East Coast planning areas, the SFWMD plays a pivotal role in resource protection, through criteria used for Consumptive Use Permitting. As pressure increased on the Everglades ecosystem resource, the SFWMD Governing Board initiated rulemaking to limit increased allocations dependent on the Everglades system. As a result, the Regional Water Availability Rule was adopted by the Governing Board on February 15, 2007 as part of the SFWMD's water use permit program. This reduced reliance on the regional system for future water supply needs, mandates the development of alternative water supplies, and increased water conservation and reuse.

The following are the regional issues identified for 2040 in the Lower East Coast Planning Region with potential impacts to water supply planning in Palm Beach County and includes Palm Beach County Water Utility Department responses:

1. Fresh surface water and groundwater are limited; further withdrawals could have impacts on the regional system, wetlands, existing legal uses, and saltwater intrusion. As a result, additional alternative water supplies need to be developed.

o Palm Beach County Water Utilities Department (PBCWUD) has a valid consumptive use permit (50-00135-W) through March 2023. The County has already embarked on a schedule to renew and modify this permit to meet future water supply demands over the planning period. Palm Beach County has an extensive reclaimed water system and will continue to aggressively expand its reclaimed water program. Reclaimed water may be used to replace existing consumptive use permits or act as an offset to increased consumptive use withdrawals. Additional identified sources include the Floridan aquifer system for either direct withdrawals, blending, or aquifer storage and recovery (ASR) and the C-51 Reservoir (Chapter 9).

2. Surface water allocations from Lake Okeechobee and the Water Conservation Areas are limited in accordance with the Lake Okeechobee Service Area RAA criteria.

o PBCWUD is not located within the Lake Okeechobee Service Area. It does not currently withdraw water from Lake Okeechobee or the Water Conservation Areas and is not planning on seeking an allocation from these sources in the future.

3. Construction of additional storage systems (e.g., reservoirs, aquifer storage and recovery systems) to capture wet season flow volumes will be necessary to increase water availability during dry conditions and attenuate damaging peak flow events from Lake Okeechobee.

o PBCWUD is not located within the Lake Okeechobee Service Area. The County is an active participant in Everglades restoration efforts as well the U.S. Army Corps of Engineers' Lake Okeechobee System Operating Manual (LOSOM) update. As discussed in Chapter 9, ASR is a potential option for future water supply.

4. Expanded use of reclaimed water is necessary to meet future water supply demands and the Ocean Outfall Law.

o As discussed in Chapter 8 of their Water Supply Plan, PBCWUD has an extensive reclaimed water program and has aggressively sought to expand it. A

planned Regional Reclaimed Water System Project with Broward County will help Broward eliminate ocean outfalls and provide reclaimed water to users in South Palm Beach County. PBCWUD has no ocean outfalls.

5. Expanded use of brackish groundwater from the Floridan aquifer system requires careful planning and wellfield management to prevent undesirable changes in water quality.

o PBCWUD has modified its current consumptive use permit to utilize the Floridan aquifer system for blending with its surficial withdrawals and supplement its allocation.

Additionally, the City, in coordination with the SID, will work to conserve water consumption by implementing Comprehensive Plan policies detailed later in this Plan, which support conservation of potable water and implementation of reuse water.

2.0 BACKGROUND INFORMATION

Included in this section is a brief overview of the City of Westlake, including information on land use and population.

2.1 Overview

The City of Westlake is located in Central Western Palm Beach County and was incorporated in 2016 pursuant to Section 165.0615, Florida Statutes.



Figure 2.1 City of Westlake Location Map

The City boundaries are coextensive with the jurisdiction of the Seminole Improvement District (SID), which was established in 1970 pursuant to Chapter 70-854, Laws of Florida, codified pursuant to Chapter 2000-431, Laws of Florida. SID is an independent special purpose government formerly known as the Seminole Water Control District, which consists of approximately 4,142 acres of land.

SID is empowered to construct and maintain a number of public works and utilities including water, sewer, drainage, irrigation, water management, parks, recreation facilities, roads and/or related activities. The majority of the property located within the SID boundary is comprised of the former Callery-Judge Groves property (CJG), which includes roughly 3,788 acres that was used for active agriculture for over 50 years. The SID service area also includes a utility site and a packing plant, and a separate agricultural area known as Silverlake. In addition, three school sites and a small shopping center site lie within the SID boundary.

2.2 Current and Future Service Area

See attached Map 4.1, Utility Service Area Map, depicting current and future City boundaries served by SID.

Seminole Improvement District (City of Westlake): In June 2006 an Interlocal Agreement was executed between the County and SID (R2006-0732). The Agreement resolved the service area disputes by defining clear utility service area boundaries between SID and the County. Pursuant to Chapter 298, Laws of Florida, SID has the exclusive right to provide utility services within SID's legislative boundaries. Under the Agreement, SID will continue serving all of its existing customers but will be precluded from connecting any new customers outside of its legislative boundaries. Existing pipelines and customers located outside SID's boundaries will be transferred to the County over time. In addition to delineating service area territories, the Agreement named the County as SID's exclusive bulk utility service provider. The Agreement allows SID to reserve and purchase up to five (5) million gallons per day of bulk water and wastewater capacity over thirty (30) years. Other considerations afforded the County with this Agreement include: 1) the right of first refusal to acquire SID's retail Utility System, based upon a pre-determined valuation formula; and 2) the right to utilize existing road right-of-way along Seminole Pratt-Whitney Road for construction, operation, maintenance, and replacement of potable water, waste water, and reclaimed water pipelines. In May 2016, Seminole Improvement District abandoned their water treatment facilities and has continued to purchase bulk water from Palm Beach County Water Utilities Department.

3.0 DATA AND ANALYSIS

The intent of the data and analysis section of the Work Plan is to describe information the City needs shall provide to state planning and regulatory agencies as part of future proposed comprehensive plan amendments, particularly those changing the Future Land Use Map (FLUM) to increase density and intensity.

3.1 **Population Information**

This section excerpts the population information population projections from the Future Land Use Element data and analysis supporting the City's comprehensive plan and the Seminole Improvement District. Additionally, updated population projections utilized by Palm Beach County in their Water Supply Facilities Plan update for the 10-year planning horizon are provided as well as population figures from the SFWMD 2018 LEC Water Supply Facilities Plan Update.

Population Projections Utilized for the City's Comprehensive Plan

Chapter 163.3177(1)(f)3, F.S., requires local government comprehensive plans to be based upon permanent and seasonal population estimates and projections, which shall either be those published by the Office of Economic and Demographic Research (OEDR) or generated by the local government based upon a professionally acceptable methodology. The OEDR issues the projections generated by the Bureau of Economic and Business Research (BEBR.) BEBR makes permanent population projections for counties, but not for municipalities or unincorporated areas. Neither OEDR nor BEBR make seasonal population projections.

Palm Beach County uses the BEBR medium permanent population projection to compute a projection for the unincorporated county. The total county BEBR projection is geographically divided and allocated to small geographic areas called Traffic Analysis Zones (TAZs). There are over 1,700 TAZs in Palm Beach County. The TAZs in each municipality and in the unincorporated area are then combined to make projections for each municipality and the unincorporated area. The allocation of population to each TAZ is based upon projections of dwelling units in each TAZ as well as other demographic factors such as vacancy and seasonal rates. The latest population projection and allocation for Palm Beach County was conducted in 2015 prior to the incorporation of the City (2015 Palm Beach County Population Allocation Model (2015-PBC-PAM).)

Palm Beach County's population grew from 1,131,184 in 2000 to 1,320,134 in 2010 (U.S. Census 2000 DP-1 and 2010 DP-1). The population change during this decade was very uneven, reflecting both population booms and busts due to both local and national economic conditions. BEBR's latest population estimate for 2017 is 1,414,246, representing an increase of 94,010 persons since 2010 which included an estimated increase of about 22,400 persons from 2016 to 2017. The county's population has grown each year since 2010. The County is projected to increase its population by 345,856 persons between 2017 and 2040, a 24.5% increase (BEBR FPS 180). Table 2.1 shows the latest BEBR projections through 2040 as well as the projections used in the 2015-PBC-PAM. The latest BEBR medium projections published in 2018 for the year 2035 is 25,000 persons higher than the previous BEBR medium projections relied upon by Palm Beach County in the 2015-PBC-PAM. The 2018 BEBR medium population projection is higher for every five-year increment from 2020 to 2045 than the previous year's BEBR projection. This substantially higher medium projection increases the projected demand for housing units in Palm Beach County over the course of the Westlake long term planning period.

| | 2010 Census | 2017 | 2020 | 2025 | 2030 | 2035 | 2040 |
|---------------------------------|----------------|-----------|-----------|-----------|-----------|-----------|------------------|
| BEBR FPS- 180 | 1,320,134 | 1,414,144 | 1,473,000 | 1,559,600 | 1,636,400 | 1,703,700 | 1,760,000 |
| 2015-PBC- PAM Projections | | | 1,463,900 | 1,543,200 | 1,615,100 | 1,678,700 | Not Available |

Table 3.1: Palm Beach County Population Projections

Source: University of Florida Bureau of Economic and Business Research, Population Projections (FPS 177), U.S. Census Bureau, 2010 Decennial Census, DP-1, 2015-PBC-PAM

The TAZs associated with the City and the surrounding areas are shown in Figure 3.1. The 2015-PBC-PAM allocated 4,546 dwelling units associated with the Minto West plan amendment to four TAZs (#1593, #864, #1058, and #1079) for year 2030. As these dwelling units were associated with a specific development approval, no dwelling units were allocated to those portions of the City that are outside of the Minto West development area. The areas within the City that received no allocation of dwelling units include the 119-acre Silverlake property, the 10-acre Grove Marketplace, and the 27acre packing plant parcel. The Plan allows residential development to occur in each of these areas. The larger geographic area where residential development may now occur, the longer extended planning timeframe to 2038 instead of 2030, and the increased 2018 BEBR medium county population projections, which shows 25,000 more persons than assumed in the 2015-PBC-PAM, supports additional development opportunities for dwelling units and associated population. Therefore, the City projects 6,500 units by the year 2038, which corresponds to the long-term planning period. This reflects a generally steady growth rate and considers growth trends in nearby cities. The densities established in the Future Land Use Element will accommodate the increase in dwelling units.

The 6,500 dwelling units are converted to permanent household population as follows. First, the total number of housing units is converted to an estimate of occupied housing units by subtracting units anticipated to be vacant or used for seasonal residents. Second, occupied housing units are converted to household population by applying an average population per household rate (PPH). PPH, vacancy rates, and seasonal housing rates are based upon the surrounding Census County Divisions (CCDs) which have population characteristics expected to be more comparable to the City than the county as a whole. Figure 3.2 shows the boundaries of the CCDs. These CCDs are located in the central portion of Palm Beach County between the eastern coastal communities and the western areas. Specifically, the City PPH, vacancy rate and seasonal rate are averages derived from the Royal Palm Beach-West Jupiter, Western Community, and Sunshine Parkway CCDs from the 2010 US Census. The vacancy rate used for the City is 7.45 percent. The seasonal rate is 5.85 percent. The PPH is 2.65. These rates are kept constant for the planning periods.

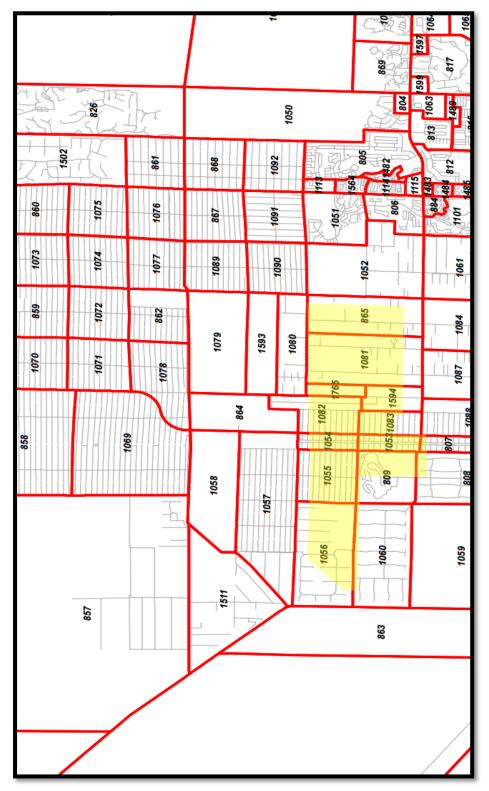


Figure 3.1: Traffic Analysis Zones Map

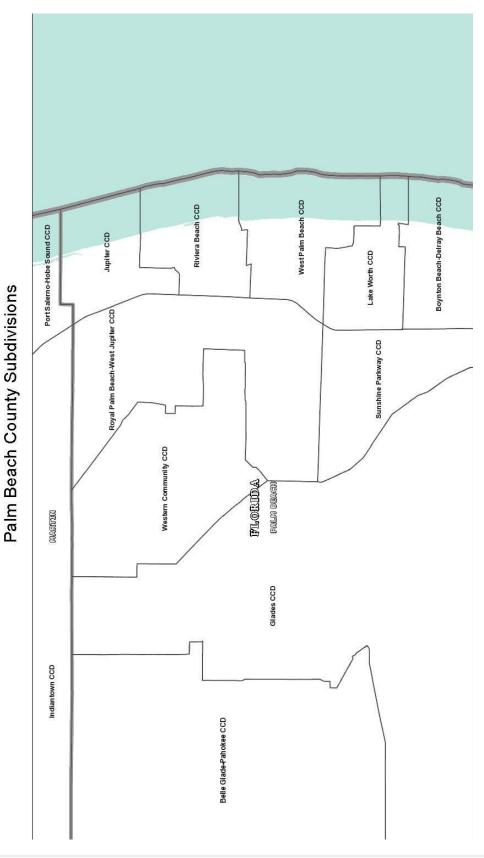


Figure 3.2: 2010 Census County Divisions (CCDs)

In addition to the permanent household population, some persons may live in group quarters (e.g. nursing homes.) The percent of permanent population expected to live in group quarters is zero in year 2023. However, a group quarters population is projected for 2038 by using the average group quarters rate from the same surrounding CCDs. The average group quarters rate is 0.642% which equates to 96 persons in 2038.

The permanent population estimate for 2018 and projections for years 2023 and 2038 are provided in Table 3.2A based on the anticipated development of housing units and assumptions for group quarters populations.

| Year | Total Housing Units | Permanent Population | Group Quarters Population | Population |
|------|---------------------------|-------------------------|---------------------------------|------------|
| 2018 | 150 | 298 | 0 | 298 |
| 2023 | 1,575 | 3,619 | 0 | 3,619 |
| 2038 | 6,500 | 14,934 | 96 | 15,030 |

Table 3.2A: City Permanent Population Projections

The seasonal population projection for 2023 and 2038 is based on the seasonal housing rate of 5.85% of projected housing units as well as the plan for a 150-room hotel. An estimate of 2 persons per seasonal house or hotel room is assumed. The seasonal projection is shown in Table 3.2B below.

| Year | Housing Population | Hotel Population | Total Seasonal |
|------|-----------------------|---------------------|-------------------|
| 2018 | 0 | 0 | 0 |
| 2023 | 184 | 300 | 484 |
| 2038 | 761 | 300 | 1,061 |

Table 3.2B: City Seasonal Population Projections

The total population projection for 2023 and 2038, consisting of both permanent and seasonal residents is shown in Table 3.2C.

| | 2C: City Total | Population Pr | ojection |
|------|-------------------------|------------------------|---------------------|
| Year | Permanent Population | Seasonal Population | Total Population |
| 2018 | • | • | 298 |
| 2023 | 3,619 | 484 | 4,103 |
| 2038 | 15,030 | 1061 | 16,091 |

Table 3.2C: City Total Population Projection

<u>Population Projections Utilized for the PBC 10-Year Water Supply Facilities Work Plan</u> The following provides the 10-year population forecast for the City of Westlake as outlined in yellow below per Table 5.2 – Population Forecast for PBCWUD prepared by Palm Beach County Water Utility Department (PBCWUD) and Planning Division of the Planning, Zoning and Building Department (PBCPZ&B).

| PBC WUD Served Population | 2018 | 2020 | 2025 | 2030 |
|--|------------------------|---------------------|----------------------|-----------|
| Unincorporated County | 433,391 | 441,961 | 464,807 | 487,675 |
| Atlantis | 2,055 | 2,104 | 2,138 | 2,168 |
| Belle Glade | 17,654 | 17,983 | 18,477 | 19,172 |
| Boca Raton | 170 | 226 | 372 | 530 |
| Cloud Lake | 128 | 133 | 139 | 152 |
| Glen Ridge | 213 | 217 | 228 | 239 |
| Greenacres | 39,550 | 40,148 | 41,116 | 42,306 |
| Haverhill | 2,116 | 2,232 | 2,394 | 2,530 |
| Lake Clarke Shores | 340 | 352 | 355 | 361 |
| Loxahatchee Groves | 91 | 235 | 774 | 1,333 |
| Pahokee | 5,805 | 5,927 | 6,218 | 6,433 |
| Palm Beach Gardens | 1,356 | 1,421 | 3,296 | 5,283 |
| Palm Springs | 1,309 | 1,364 | 1,772 | 2,939 |
| Royal Palm Beach | 33,897 | 34,372 | 34,784 | 36,390 |
| South Bay | 5,197 | 5,251 | 5,415 | 5,703 |
| Wellington | 9,362 | 9,461 | 9,575 | 9,698 |
| Westlake | 372 | 1,906 | 5,476 | 9,678 |
| West Palm Beach | 517 | 527 | 834 | 892 |
| Total Population Served by PBC WUD | 553,523 | 565,820 | 598,170 | 633,482 |
| The following values represent the population throu have the potential to request utility service from PBI plants are sized to be able to serve all the self-server service area. | C WUD at any given tir | me. For conservativ | ve facility planning | purposes, |
| Self Served Population | 2018 | 2020 | 2025 | 2030 |
| Loxahatchee Groves | 3,202 | 3,180 | 2,980 | 2,780 |
| Unincorporated PBC/Glades | 42,437 | 42,143 | 41,811 | 41,344 |
| Total Self-Served Population | 45,639 | 45,323 | 44,791 | 44,124 |

Table 3.3: PBC WUD Population Forecast

Source: PBC WUD'S Water Supply Facilities Plan Update Table 5.2

As indicated above in Table 3.3 and compared with the LEC figures in Table 3.4, the population projections utilized in the PBC Water Supply Facilities Work Plan are aligned with and acceptable as representative of Westlake's projected population.

Population Projections Utilized in the 2018 LEC Water Supply Plan Update

Population projections in Table 3.4 for Total Population Served by PBCWUD are slightly higher (632,482) than the Population projections utilized in the Lower East Coast Regional Water Supply Plan update (613,513) per the Palm Beach County Water Utilities Department Utility Summary Table (See below), Appendix E Public Water Supply Utilities Summaries, page E-18. Palm Beach County indicates there is adequate capacity to maintain the adopted level of service standard for potable water supply for these population projections.

Table 3.4: 2018 LEC Plan UpdatePalm Beach County Water Utilities Department Utility Summary(Appendix E Public Water Supply Utilities Summaries, page E-18)

| | | Population a | nd Finished Water D | emand | | | |
|--|--------------------|--------------------|----------------------|--------------------|--------------------|---------------|--------------------|
| | | | //s | Existing | | Projected | 10 |
| | | | | 2016 | 2020 | 2030 | 2040 |
| Population | | | | 498,848 | 534,857 | 613,513 | 677,834 |
| Average 2012-2016 Per Ca | apita (gallons p | per day finished v | water) | | 1 | 11 | 2 |
| Potable Water Dem | ands (daily av | erage annual fin | ished water in mgd) | 55.37 | 59.37 | 68.10 | 75.24 |
| | | SFWMD Water U | Jse Permitted Alloca | tion (mgd) | | | 0 |
| | Potable Wate | er Source | | Permit N | umber 50-00 |)135-W (expi | res 2023) |
| SAS | | | | | 79 | .99 | |
| FAS (ASR wells for blendin | g with SAS) | | 7.8 | | 7. | 00 | |
| Bulk Raw Water (finished | water sale to r | nultiple municip | alities in 2016) | | (2.) | 51)* | |
| | | 0.0012 | Total Allocation | · | 86 | .99 | |
| | FDEP P | otable Water Tr | eatment Capacity (P\ | NS ID # 450 | 4393) | | |
| | | | 1 | Cumulat | ive Facility & | Project Capac | city (mgd) |
| Pe | rmitted Capac | ity by Source | | Existing | | Projected | |
| | | 22, 34, | | 2016 | 2020 | 2030 | 2040 |
| SAS | | | 8 | 103.28 | 103.28 | 103.28 | 103.28 |
| FAS | | 141.545 | | 0.00 | 0.00 | 0.00 | 0.00 |
| | | Tot | tal Potable Capacity | 103,28 | 103.28 | 103.28 | 103.28 |
| | No | npotable Alterna | tive Water Source C | | | 4 | |
| Reclaimed Water | | - 10 | | 25.00 ^b | 25.00 ^b | 35.50b | 35.50 ^b |
| | | Total N | onpotable Capacity | 25.00 | 25.00 | 35.50 | 35.50 |
| | a | P | roject Summary | | - | 2 | 69) |
| Water Supply Projects | Source | Completion | Total Capital Cost | Projecte | d Cumulative | Design Capac | city (mgd) |
| Water supply Projects | Jource | Date | (\$ million) | 2020 | 20 | 30 | 2040 |
| | | | Potable Water | | | | |
| No Projects | | | | | | | (10.0 M (10.0) |
| | Tota | Potable Water | \$0.00 | 0.00 | 0. | 00 | 0.00 |
| | | Ne | onpotable Water | | | | |
| South County Reclaimed Phase I ^c | Reclaimed Water | 2021 | \$22.00 | 0.00 | 10 | .50 | 10.50 |
| | Total No | npotable Water | \$22.00 | 0.00 | 10 | .50 | 10.50 |
| | T | otal New Water | \$22.00 | 0.00 | 10 | .50 | 10.50 |

* The amount of raw water needed to produce 2.36 mgd of finished water, which is the amount of bulk water the PBCWUD provided to municipalities in 2016.

^b The PBCWUD is contracted to provide FPL with up to 22.00 mgd of reclaimed water for cooling purposes at the West County Energy Center. FPL currently uses approximately 14.00 mgd of that amount. This is in addition to the reclaimed capacity listed (25.00 mgd).

The PBCWUD is contracted to receive up to 10.50 mgd of reclaimed water from BCWWS.

3.2 Potable Water Level of Service Standard Population and Potable Water Demand Projections

SID is the retail provider of potable water within the City. The relationship between the City and SID for provision of those services and facilities is detailed in the Interlocal Agreement between the City of Westlake and the Seminole Improvement District Regarding the Provision of Certain Services, Infrastructure, and Public Facilities in the City of Westlake and for Assurance of Non-Duplication of Services dated March 2018 ("SID-Westlake Interlocal"). There is an Interlocal Agreement between SID and Palm Beach County, dated April 18, 2006, which provides that SID can purchase bulk water

from the County at a rate of up to 5.0 MGD for the next thirty (30) years with provisions to extend the agreement for 50 or more years. SID and Palm Beach County have invested in significant infrastructure in the City's area to provide potable water service. The development of the City will not require additional capacity to provide potable water to the City; rather it utilizes existing excess capacity from existing infrastructure. SID maintains water distribution facilities for service within the City and will expand internal potable water distribution lines concurrent with development within the City.

The City's level of service standard for potable water is 110 gallons per capita per day (gpd) for residential uses and 150 gallons per 1,000 sq. ft. per day for non-residential uses with the following exceptions. Schools have a level of service standard of 18 gpd per student. Hotels have a level of service standard of 100 gpd per room. Parks have a level of service standard of 10 gpd per visitor. The per-capita level of service standard will be applied to dwelling units using a 2.65 average population per household (PPH) unless it can be demonstrated that a different PPH is applicable. The City will continue to coordinate with SID to monitor and evaluate future operating demands as the City increases utility users and to adjust the level of service standard if needed through the planning periods.

Table 3.5 below provides an analysis of potable water demand over the 2023 and 2038 planning periods. The first section identifies the level of service standards used for the planning analysis. The second section identifies existing and projected population and uses that require potable water. Existing non-residential square footages include the Grove Market commercial area and the packing house parcel which includes industrial and office uses. Square footage numbers are from the Palm Beach County property appraiser parcel database. Existing student numbers are based on school capacity numbers from the Palm Beach County School District 2016/17 Work Plan and anticipated students from a potential new school. New development square footage, hotel rooms, and college students are based on the existing development within the City. Projections of recreation and park day time visitors are based on averages derived from the National Recreation and Park Association 2016 study of park usage entitled "NRPA Americans' Engagement with Parks Survey." The third section computes the current and projected demand for the 2023 and 2038 planning periods.

The anticipated facilities needed for the 2023 and 2038 planning periods are identified in Table 4.2 and are also depicted on attached INF. Map 4.2 and INF. Map 4.3.

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Table 3.5: Potable Water Analysis

| Potable Water Level of Service | | | |
|---|----------------|---------|-----------|
| | Gallons Per Da | | |
| Per Person | 110 | | |
| Per square foot for Commercial, Civic, and | | | |
| Industrial | 0.15 | | |
| Per Student | 18 | | |
| Per Hotel Room | 100 | | |
| Per visitor of park and recreation facilities | 10 | | |
| | | | |
| Demand | Generators | | |
| | 2018 | 2023 | 2038 |
| Population (excluding hotel population) | 298 | 3,803 | 15,791 |
| Existing Commercial, Civic, and Industrial S.F. | 180,581 | 180,581 | 180,581 |
| New Commercial, Civic, and Industrial S.F. | 75,000 | 650,000 | 2,200,000 |
| Total Commercial, Civic, and Industrial S.F. | 255,581 | 830,581 | 2,380,581 |
| K-12 Students | 4,463 | 4,463 | 5,433 |
| College Students | 0 | 0 | 3,000 |
| Total Students | 4,463 | 4,463 | 8,433 |
| Hotel Rooms | 0 | 150 | 150 |
| Recreation and Park Daytime Visitors | 0 | 650 | 2,600 |
| | | | |
| Demand | Projections | 2022 | |
| | 2018 | 2023 | 2038 |
| Population (excluding hotel population) | 32,780 | 418,330 | 1,737,010 |
| Total Commercial, Civic, and Industrial | 38,337 | 124,587 | 357,087 |
| Total Students | 80,334 | 80,334 | 151,794 |
| Hotel Rooms | 0 | 15,000 | 15,000 |
| Recreation and Park Day Time Visitors | 0 | 6,500 | 26,000 |
| Total Demand (Gallons Per Day) | 151,451 | 644,751 | 2,286,891 |

In accordance with the 2006 Service Agreement between SID and County, the Agreement allows SID to reserve and purchase up to five (5) million gallons per day of bulk water and wastewater capacity over thirty (30) years. This amount is adequate to meet the projected demands over the 10-year Water Supply Plan planning horizon.

3.3 Water Supply Provided by Local Government

The City does not own or maintain any water supply facilities. SID purchases potable and reuse water from Palm Beach County, and will distribute that potable and reuse water as the exclusive retail provider of potable and reuse water within the City.

In accordance with the 2006 Service Agreement between SID and County, the Agreement allows SID to reserve and purchase up to five (5) million gallons per day of bulk water and wastewater capacity over thirty (30) years. This amount is adequate to meet the projected demands.

3.4 Conservation

Neither the County nor the 2018 Lower East Coast Water Supply Plan Update identify specific programs within the City. However, as detailed below, the City includes conservation measures in its comprehensive plan and land development regulations to support the goals and address the issues identified in the LECWSP.

3.4.1 Local Government Specific Actions, Programs, Regulations, or Opportunities

The City's Comprehensive Plan includes a number of policies, as detailed later in the Plan, that encourage conservation measures and the use of reuse water within the City. The City shall implement these polices through its Land Development Regulations and other programs in coordination with SID.

Restrictions in Permitted Water Use

- The City shall implement the Mandatory Year-Round Irrigation Conservation Measures as detailed in 40E-24 Florida Administrative Code.
- The City's Code of Ordinances shall include requirements for restrictions on water use during times an "emergency situation" is declared by SFWMD or when the City Commission determines a reduction in water consumption is necessary to alleviate a local water shortage within the City's water system. Water restrictions may include reduction of hours and days allowed for irrigation, washing of vehicles, washing of outdoor surfaces, operation of ornamental fountains, operation of air conditioning without a recirculation system, limitations on filling and use of swimming pools, limitations on escapement of water through defective plumbing, restrictions on hotels and restaurants as to the minimum amount of water necessary to conduct operations and other restrictions as necessary.

Use of Florida-Friendly Landscape Principles

• The City's Land Development Code provides for the use of Florida-friendly landscaping materials including the minimum percent of required pervious area that must follow the principles of Florida Friendly Landscape provisions as set forth in *the South Florida Water Management District's Xeriscape Plant Guide II.*

Requirement of Ultra-Low Volume Plumbing in New Construction

 The City has adopted the Florida Building Code (FBC) which contains plumbing flow restriction requirements. The County Code prohibits a City within its jurisdiction from enacting standards less stringent from the FBC. The City's Building and Inspection Services Division also includes in their procedures provisions for new construction to have water conservation control devices installed per the Florida Plumbing Code, as a condition for granting certificates of occupancy. Water Conservation Based Rate Structure

• SID has a conservation-based water rate structure, which includes an increasing rate with increasing use, as a means of reducing demand.

Meter Replacement Program

• Unaccounted for water summaries shall be submitted to the District annually, within one year of adoption of this Work Plan.

Rain Sensor Overrides for New Lawn Sprinkler System

• The City shall adopt the FBC, which requires the installation of rain sensors on new irrigation systems. Additionally, the City shall include provisions regarding rain sensors on automatic lawn sprinkler systems in its Land Development Code.

Public Information Program

- The City shall coordinate with SID to develop a program to provide water conservation information and practices to the City's residents and SID customers through the City and SID webpages and an annual Water Quality Report.
- The City will coordinate future water conservation efforts with SID and the SFWMD. In addition, City will continue to support and expand existing goals, objectives and policies in the comprehensive plan promoting water conservation in a cost-effective and environmentally sensitive manner. City will continue to actively support the SFWMD and its water supplier(s) in the implementation of new regulations or programs designed to conserve water during the dry season.

3.5 Reuse

State law supports reuse efforts. Florida's utilities, local governments, and water management districts have led the nation in the quantity of reclaimed water reused and public acceptance of reuse programs. Section 373.250(1) F.S. provides "the encouragement and promotion of water conservation and reuse of reclaimed water, as defined by the department, are state objectives and considered to be in the public interest." In addition, Section 403.064(1), F.S., states "reuse is a critical component of meeting the state's existing and future water supply needs while sustaining natural systems."

3.5.1 Local Government Specific Actions, Programs, Regulations, or Opportunities

The City supports water reuse initiatives under consideration by both the SFWMD and Palm Beach County and the implementation of new regulations or programs designed to increase the volume of reclaimed water used and public acceptance of reclaimed water. The City's comprehensive plan encourages both conservation of water and use of alternative water supplies, such as reclaimed water for irrigation.

4.0 CAPITAL IMPROVEMENTS

This section provides a brief description of the City's Capital Improvements Program and Policies for Water Supply.

4.1 Work Plan Projects

Based on the population projections and a capacity analysis for the short-term planning period there is adequate facility capacity to maintain the adopted level of service standard for potable water supply as provided through interlocal agreements between SID and Palm Beach County. SID plans on expanding distribution lines for potable water and beginning the interconnection process of water with the County's lines within the 2023 planning period. SID's planned improvements for potable water are listed in the Capital Improvement Schedule and are shown on attached INF Maps 4.2 and 4.3. Pursuant to the Westlake/SID Interlocal, these improvements have and will continue to be provided in order to ensure the achievement and maintenance of the adopted level of service standards for potable water and wastewater. SID is constructing facilities and otherwise facilitating these improvements using non-ad valorem assessments, developer contributions, and other sources of revenue.

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Capital Improvements Element/Schedule regarding Potable Water City of Westlake Capital Improvements Schedule, Fiscal Years 2017-18 - 2022-23

| 2-Tear Upital Improvements schedule: Potable Water Component | nents sone nent | aule: | | | | | | | |
|---|--------------------|--------------|--------------|--------------|--------------|-------------|--------------|----------------------------|----------------------|
| Project Description | Priority | FY 2017-18 | FY 2018-19 | FY 2019-20 | FY 2020-21 | FY 2021-22 | FY 2022-23 | Total Funding Amount | Funding Source* |
| Town Center Parkway Phase 1A (TCP-E2) | High | \$135,781.00 | | | | | | \$135,781.00 | Developer / Bonds |
| Town Center Parkway Phase 2 (TCP-E3) | High | \$130,149.26 | | | | | | \$130,149.26 | Developer / Bonds |
| Town Center Parkway South (TCP-E1) | High | \$233,477.33 | | | | | | \$233,477.33 | Developer / Bonds |
| llex Way Phase 1 (CS-E1) | High | | \$108,160.11 | | | | | \$108,160.11 | Developer / Bonds |
| Kingfisher (CS-E5) | High | | | \$92,404.19 | | | | \$92,404.19 | Developer / Bonds |
| Waters Edge (CS-E4) | High | | | \$91,127.20 | | | | \$91,127.20 | Developer / Bonds |
| Persimmon Phase 2a (PSM-E1a) | High | | | \$236,926.37 | | | | \$236,926.37 | Developer / Bonds |
| llex Way Phase 2 (CS-E2) | High | | | | \$162,009.25 | | | \$162,009.25 | Developer / Bonds |
| llex Way Phase 3 (CS-P) | High | | | | \$524,899.15 | | | \$524,899.15 | Developer / Bonds |
| Persimmon West Phase 1A (CS-W2) | High | | | | \$131,785.50 | | | \$191,214.00 | Developer / Bonds |
| Road KK (NE1) | High | | | | \$231,770.00 | | | \$231,770.00 | Developer / Bonds |
| Town Center Parkway (E-4) | High | | | | \$238,758.84 | | | \$238,758.84 | Developer / Bonds |
| Persimmon Phase 2b (PSM-E1b) | High | | | | \$100,113.85 | | | \$100,113.85 | Developer / Bonds |
| Saddle Bay Drive | High | | | | | \$91,000.00 | | \$91,000.00 | Developer / Bonds |
| Persimmon West Phase 1B (CS-W2) | High | | | | | \$59,428.50 | | \$59,428.50 | Developer / Bonds |
| Town Center Parkway (E-5) | High | | | | | | \$120,257.63 | \$120,257.62 | Developer / Bonds |
| Persimmon Phase 3a (PSM-E3a) | High | | | | | | \$138,465.83 | \$138,465.83 | Developer / Bonds |

4.2

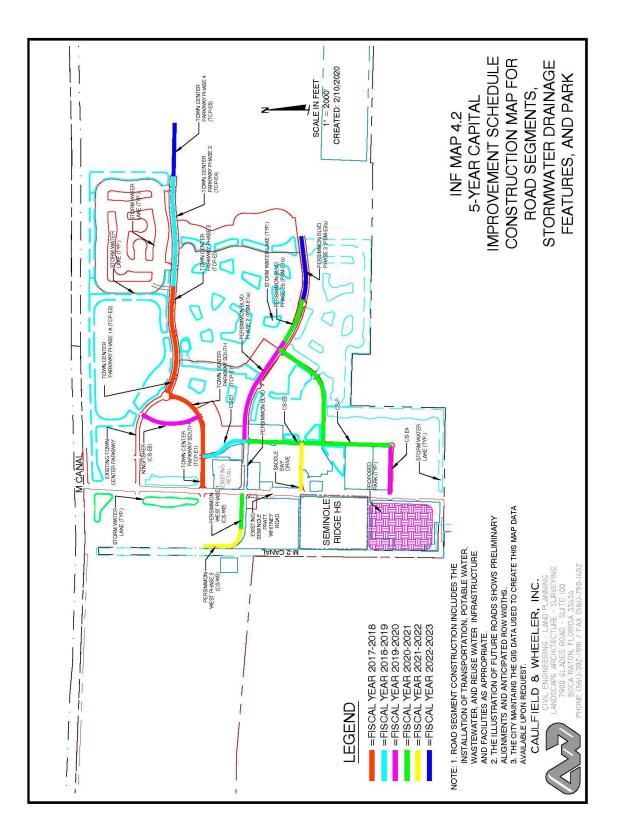
5.0 GOALS, OBJECTIVES AND POLICIES

Comprehensive Plan Goals, Objectives, and Policies (GOPs) are included in the Elements to ensure implementation and future updates of the 10 Year Water Supply Facilities Work Plan as required by Section 163.3177 (6) (c), F.S. As GOPs are often amended outside of the cycle for Water Supply Facilities Work Plan amendments (i.e. Evaluation and Appraisal Report amendments every seven (7) years), the GOPs are contained in the Comprehensive Plan and are not part of the officially adopted Water Supply Plan. Associated Comprehensive Plan amendments to relevant GOPs will be adopted concurrently with the Work Plan update.

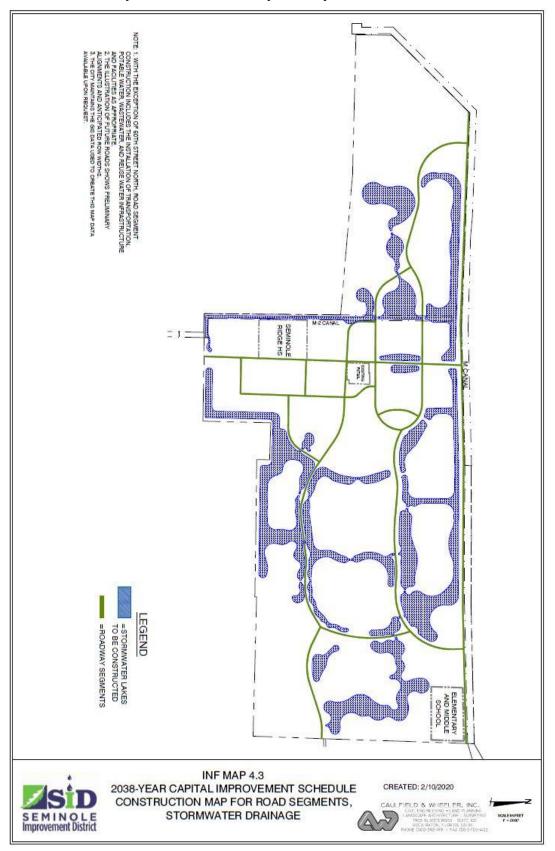
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INF Map 4.2 Capital Improvement Schedule



INF Map 4.3 2038-Year Capital Improvement Schedule