TOWN OF CUTLER BAY

10 YEAR WATER SUPPLY FACILITIES WORK PLAN (2020 UPDATE)

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Adoption Hearing XXXX

Acknowledgements

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Introduction

The purpose of the Cutler Bay Water Supply Facilities Work Plan is to identify and plan for the water supply sources and facilities needed to serve existing and new development within the local government's jurisdiction. Chapter 163, Part 11, F.S., requires local governments to prepare and adopt Work Plans into their comprehensive plans within 18 months after the water management district approves a regional water supply plan or its update. The Lower East Coast Water Supply Plan Update was approved by the South Florida Water Management District (SFWMD) on November 8, 2018. Therefore, the deadline for local governments within the Lower East Coast jurisdiction to amend their comprehensive plans to adopt a Work Plan Update is May, 2020. However, due to the State of Emergency resulting from the COVID 19 Pandemic, the deadline has been extended to allow local governments time to determine when it is appropriate to safely hold public hearings.

The Florida Legislature has enacted bills in 2002, 2004, 2005, 2011, 2012, 2015, and 2016 sessions to address the state's water supply needs. These bills, particularly Senate Bills 360 and 444 enacted during the 2005 legislative session, strengthened the statutory links between the regional water supply plans (RWSPs) prepared by water management districts and the Comprehensive Plans prepared by local governments through changes to Chapters 163 and 373, Florida Statutes (F.S.). These changes improved coordination between local land use planning and regional water supply planning. The water management districts adopted a series of water supply initiatives including the update of the Water Supply Plan and identification of Water Resource Development projects and Water Supply Development projects.

According to the Lower East Coast Water Supply Plan, Water Resource Development projects are generally the responsibility of a water management district, and are intended to assure the availability of an adequate supply of water for all competing uses deemed reasonable and beneficial, and to maintain the functions of natural systems. Water Supply Development projects are generally the responsibility of local users, such as utilities. The Water Supply Development projects may include planning, design, construction, operation and maintenance of public and private facilities for water collection, production, treatment, transmission, or distribution for sale, resale or end use (Section 373.019(24) Florida Statutes).

The Town of Cutler Bay (Town) has recognized the importance of water conservation through its Growth Management Plan (comprehensive plan). The Town recognizes that in order to maintain a proactive water conservation program there has to be an effective coordination program with Miami-Dade County Water and Sewer Department (MDWASD) to ensure the success of the program. In addition, the Town maintains an excellent working relationship with WASD as a retail customer to ensure compliance with all applicable regulations and guidelines. As a retail customer, the Town residents' buy their water directly from WASD at a rate determined by the WASD. Under this arrangement, the Town's Public Works Department coordinates with WASD

to ensure that enough capacity is available for existing and future customers and supporting infrastructure such as the water lines are adequately maintained.

The Town of Cutler Bay Water Supply Facilities Work Plan (hereinafter the Work Plan) will reference the initiatives already identified in the Miami-Dade County's 20-year Water Supply Facilities Work Plan Update, which was adopted on February 4, 2015, since the Town is a retail buyer. According to state guidelines, the Work Plan and the Growth Management Plan (GMP) elements must address the development of traditional and alternative water supplies, bulk sales agreements and conservation and reuse programs that are necessary to serve existing and new development for at least a 10-year planning period.

The Town of Cutler Bay 10-year Work Plan will adopt the same planning time schedule as the first ten years of the Miami-Dade County's Water Supply Facilities Work Plan. Note: The Work Plan is updated based on the best available information at this time as Miami-Dade Water and Sewer Department (MDWASD) has not updated their 2015 Work Plan, including population and water demand projections.

The Town's Water Supply Facilities Work Plan is divided into seven sections:

Section 1 - Background Information
Section 2 - Water Supply Facilities Work Plan Goal
Section 3 – Water Supply Facilities Work Plan Objective
Section 4 – Water Supply Facilities Work Plan
Section 5 – Work Plan Projects/Capital Improvement Element/Schedule
Section 6 – Comprehensive Plan Goals, Objectives and Policies
Section 7 – Updates to the Work Plan

Section 1 - Background Information

The intent of this section is to provide an overview of the Town including information on land use and population.

The Town of Cutler Bay was incorporated in 2005, making it the 35th municipality established in Miami-Dade County. The boundaries of the Town encompass an area approximately ten square miles bounded by SW 184 Street to the north, the US-1 busway to the west, SW 232 Street to the south, and Biscayne National Park to the east. The Town is surrounded by unincorporated Miami-Dade County to the south and west, and the Village of Palmetto Bay to the north.

The Town of Cutler Bay is substantially built-out. The Town's population as of 2019 is estimated to be 44,341, with future development potential and population growth limited by the scarcity of vacant and developable land. The potential expansion of the Town's current boundaries through annexations is the only factor which might result in significant population increase during the planning period.

An evaluation of existing gross acreage by land uses revealed that 2,472.6 acres or 38.5% of the total gross acreage in the town is dedicated to residential use. The remaining gross acreages are allocated to non-residential such as retail and office (4.4%); hotels and motels (.06%); institutional

(2%); transportation, communication, utilities (16.1%); undeveloped (21%) and; inland water (.5%). The Town does not anticipate substantial increases in land area in the near future, unless there is policy decision from the Town Council to reconsider their position on annexation. In the meantime, the residential and non-residential growth rate is anticipated to be minimal for the next 10 to 20 years.

Regional issues that affect the Town of Cutler Bay include minimizing pressure on the Everglades ecosystem and Biscayne and Floridian Aquifers. The South Florida Water Management District is the state agency responsible for water supply in the Lower East Coast planning area which includes the jurisdictional boundaries of Cutler Bay. SFWMD plays a pivotal role in resource protection, through criteria used for Consumptive Use Permitting. As pressure increased on the Everglades ecosystem resource, the Governing Board initiated rule making 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 increasing conservation and reuse.

Section 2 - Water Supply Facilities Work Plan Goal

The goal of the Town of Cutler Bay Work Plan is to work with Miami-Dade WASD to ensure that adequate water supplies are available to support existing and future growth within the jurisdictional boundaries of the Town.

Section 3 - Water Supply Facilities Work Plan Objective

The objective of the Town of Cutler Bay Work Plan is to identify and plan for the water supply facilities needs to serve existing and new development within the Town's boundaries. Chapter 163, Part II, F.S., requires that local governments prepare and adopt Work Plans into their comprehensive plans within 18 months after the water management district approves a regional water supply plan or its update. The 2018 *Lower East Coast (LEC) Water Supply Plan Update* was approved by the South Florida Water Management District November 8, 2018. Therefore, the deadline for local governments within the LEC jurisdiction to amend their comprehensive plans to adopt a Work Plan is June 8, 2020.

Section 4 – Water Supply Facilities Work Plan

Data and Analysis

The intent of the data and analysis section of the Work Plan is to describe the information that local governments need to provide to state planning and regulatory agencies as part of their proposed comprehensive plan amendments, particularly those that would change the Future Land Use Map (FLUM) to increase density and intensity.

Presently, the Town does not have any relevant water supply, conservation or reuse issues to report in the work plan.

Statutory History

The Florida Legislature has enacted bills in 2011, 2012, 2015, and 2016 sessions to address the state's water supply needs. These bills, particularly Senate Bills 360 and 444 enacted during the 2005 legislative session, strengthened the statutory links between the regional water supply plans (RWSPs) prepared by water management districts and the Comprehensive Plans prepared by local governments through changes to Chapters 163 and 373, Florida Statutes (F.S.). These changes improved coordination between local land use planning and regional water supply planning. The water management districts adopted a series of water supply initiatives including the update of the Water Supply Plan and identification of Water Resource Development projects and Water Supply Development projects.

Statutory Requirements

The following highlights the statutory 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 that 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., effective July 1, 2005.] 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 to the Department for review. The submitted package must also include an amendment to the Capital Improvements Element, if necessary, to demonstrate that adequate public facilities will be available to serve the proposed Future Land Use Map modification.
3. Ensure that 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 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)(a), F.S., effective July 1, 2005.] This "water supply concurrency" is now in effect, and local governments should be complying with the requirement for all new development proposals. In addition, local governments should update their comprehensive plans and land development regulations as soon as possible to address these statutory requirements. The latest point at which the comprehensive plan must be revised to reflect the concurrency requirements is at the time the local government adopts plan amendments to implement the recommendations of the Evaluation and Appraisal Report (EAR).
4. For local government 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), 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), F.S.]; and

c. Include a water supply facilities 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.] Amendments to incorporate the water supply facilities work plan into the comprehensive plan are exempt from the twice-a-year amendment limitation. [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 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 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. Address in the EAR, the extent to which the local government has implemented the 10-year water supply facilities work plan, including the development of alternative water supplies, and determine whether the identified alternative water supply projects, traditional water supply projects, bulk sales agreements, and conservation and reuse programs are meeting local water use demands. [s.163.3191(2)(1), F.S.]

Relevant Water Supply, Conservation, or Reuse Issues

Presently, the Town does not have any relevant water supply, conservation or reuse issues to report in the work plan. If in the future there are issues associated with water supply, conservation or reuse the Town will immediately contact WASD to address the corresponding issue(s). In addition, the Town will follow adopted communication protocols with WASD to communicate and/or prepare an appropriate action plan to address any relevant issue associated with water supply, conservation or reuse.

Population Information

The Town's existing and future population figures are obtained from Miami-Dade WASD for water supply planning consistency. By 2020 the Town's population is anticipated to gradually increase to 44,429 by 2025 to increase to 44,874, and by 2030, to increase to 45,318. This relatively minor population growth is reflective of the fact that the Town is substantially built-out, with future development potential and population growth limited to redevelopment opportunities.

It is important to note that projections are not predictions of the future. The future is essentially dependent on factors beyond the control of any given local government. Projections are figures based on the best available data, an analysis of recent trends, and an understanding of local government growth management goals and policies. The projections link the figures for the Town with those currently adopted by Miami-Dade County for Minor Statistical Area 7.1. Cutler Bay currently accounts for about three of every four housing units in this MSA. The County projections were adopted prior to a recent surge in residential construction in the MSA that has been followed by a significant downturn in construction activity. The population projections for the Town of Cutler Bay, Miami-Dade County, and the MDWASD service area projections can be found below in Table A.

Table A
Population Projection
Comparison for Cutler Bay

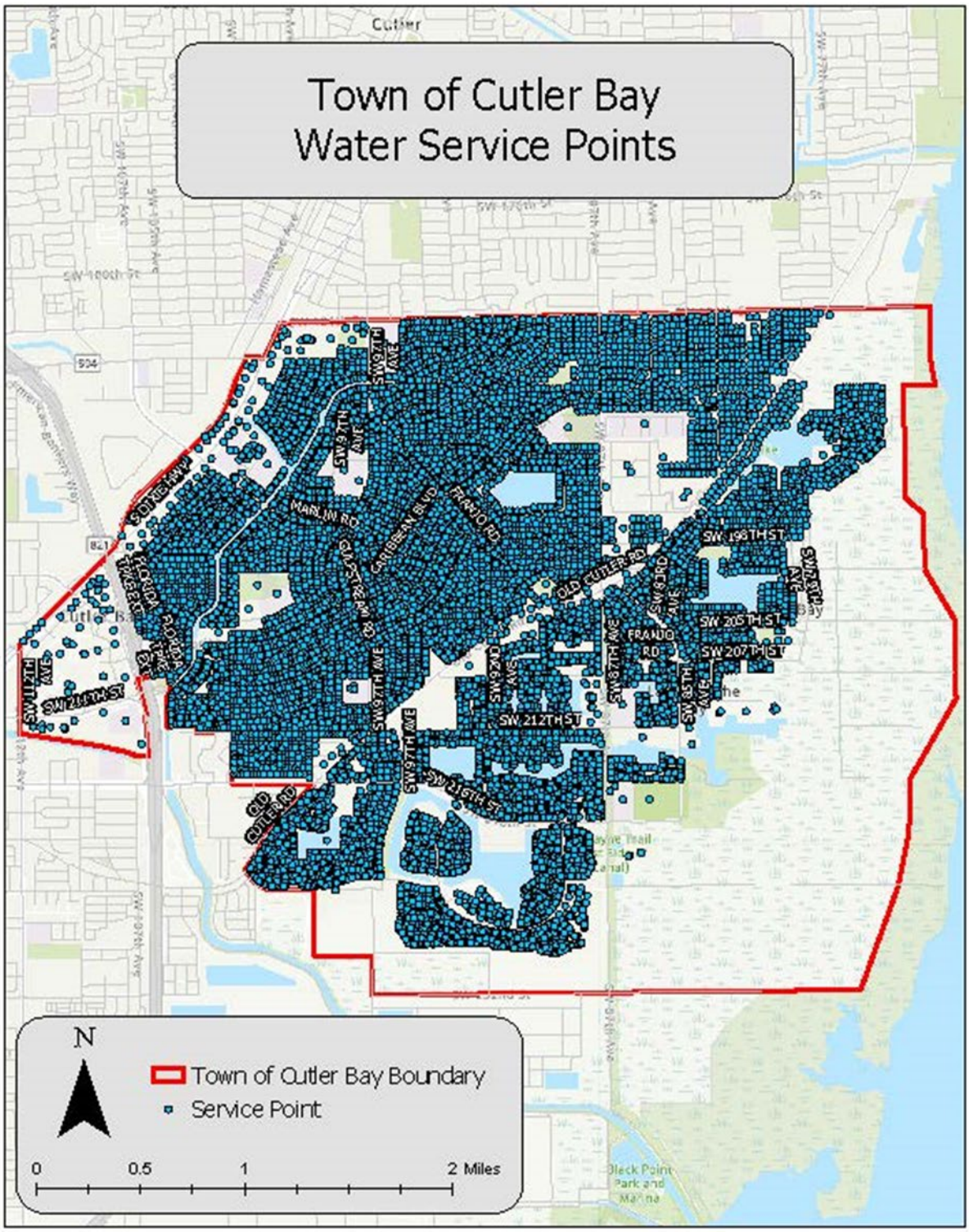
Year	Town of Cutler Bay	Miami-Dade County Total Population	MDWASD Service Area
2019	44,341	2,718,337	2,357,013
2020	44,429	2,777,310	2,407,121
2025	44,874	2,924,743	2,533,548
2030	45,318	3,072,175	2,659,975

Source: MDWASD population projections 2019

Miami-Dade County shows greater growth than MDWASD Service Area. Both Miami-Dade County's total population and MDWASD Service Area projections have a higher projected growth rate than the Town of Cutler Bay.

The Future Land Use Map for Cutler Bay provides for higher density mixed-use districts which were not anticipated on the County's FLUM. The higher density mixed-use districts are located primarily along the US-1 corridor and the existing Southland Mall. These areas are already built-out and anticipated to be redevelopment areas. Redevelopment can take significantly longer than new development, for this reason the Cutler Bay population projections reflect the biggest variance with the County's projections over the long-range planning period

Map of Current Areas Served by Miami-Dade Water and Sewer Department



Source: Miami Dade County

Water Supplier Information

The intent of the County Work Plan is to meet the statutory requirements and to coordinate the Department's water supply initiatives with the Lower East Coast Regional Water Supply Plan, prepared by the South Florida Water Management District. The Miami-Dade County 20-Year Water Supply Facilities Work Plan is attached as Appendix A.

The MDWASD's service area is the entire Miami-Dade County excluding North Miami Beach, Homestead, Florida City, and portions of North Miami. The County has defined an Urban Development Boundary (UDB) to concentrate development and limit sprawl. In addition, the County has planned urban Expansion Areas for future development following build out within the UDB. The areas served are included within the Urban Development Boundary (UDB).

In the 20-Year Work Plan, WASD is committed to meet the water demand for the municipalities within the service area. The Town of Cutler Bay is served by the Alexander Orr, Jr. subarea. This subarea is comprised of a high pressure system with two major piping loops. This is one of the largest subareas in the system because it delivers water to nearly all of Miami-Dade County south of Flagler Street to SW 248th Street, including Virginia Key, Fisher Island, the Village of Key Biscayne and, upon request, to the City of Homestead, and Florida City. The Alexander Orr, Jr. subarea water treatment plant is supplied by four water supply wellfields - Alexander Orr, Jr; Snapper Creek; Southwest; and West. In this subarea, there are also Upper Floridian Aquifer wells at two of the wellfields, West Wellfield and the Southwest Wellfield. WASD anticipates using these wells for storage of fresh Biscayne Aquifer water during the wet season (when operating water levels in canal permit) for extraction and use in the dry season. In order to use the Upper Floridian Aquifer wells, WASD designed an ultra-violet (UV) light disinfection system for each ASR site to treat the Biscayne aquifer water before injecting in the Floridian Aquifer.

The information contained in the Comprehensive Development Master Plan Amendments adopted February 4, 2015 and the Miami-Dade WASD 20-year Water Supply Facilities Work Plan (2014-2033) Support Data (November 2014), the 2013 Lower East Coast Water Supply Plan Update (LEC) approved by the South Florida Water Management District (SFWMD) on October 10, 2013 and additional information found within Water Use Permit 13-00017-W were incorporated by reference in 2015. Miami-Dade County's Water Use Permit Modification Application with the District (Application #14-627-12) was approved by the District on February 9, 2015. The County's Water Use Permit, Permit #13-00017-W will expire on February 9, 2035.

Conservation

Typically, water conservation programs are initiated at the local level, by either municipal water utilities or regional governments. Presently, water utilities are saving substantial amounts of water through strategic water-efficiency programs and Best Management Practices (BMP) included in their Water Use Efficiency Plan. The savings from water conservation often translate into more potable water available for residential and non-residential use, capital and operating savings, which allow systems to defer or avoid significant expenditures for water supply facilities and wastewater facilities.

The Town of Cutler Bay is in full support of the water conservation initiatives adopted by the SFWMD and Miami-Dade County. This Plan identifies the County efforts to promote water conservation including BMPs. The BMPs identified in the Plan are based on population

characteristics and type of service for each municipal service area. The County anticipates that the implementation of all BMPs in MDWASD's service area will result in a reduction in per capita usage. In addition, the County will establish per capita consumption for all municipalities including those in WASD's retail customer service area. Based on this data, WASD will work with the municipalities to address those with higher than average per capita and will target programs for those areas. The County has also developed recommendations for new development to achieve higher use water savings than currently required by code. The Board of County Commissioners adopted the Water Use Efficiency Ordinance 08-14 which created Section 8-31 of the Code of Miami-Dade County on February 5, 2008, and amended by ordinance on September 2, 2008. These water efficiency recommendations represent an additional 30 percent to the water savings identified in the 20-year Water Use Efficiency Plan.

While the Town is not responsible for the Comprehensive Everglades Restoration Project, it is supportive of the regional water conservation efforts related to this regional rehydration of the Florida Everglades. The Town is also supportive of mandating yard water restrictions that have been directed by the South Florida Regional Water Management District. There are no water conservation projects identified in the Town's CIE.

The Town will continue to coordinate future water conservation efforts with WASD and SFWMD to ensure that proper techniques are applied. In addition, the Town will continue to support and expand existing goals, objectives and policies in the GMP that promotes water conservation in a cost-effective and environmentally sensitive manner. The Town will continue to actively support SFWMD and Miami-Dade County in the implementation of new regulations or programs that are designed to conserve water. The Town will provide a link to the County webpage related to conservation and water restriction policies.

Reuse

For the past years, the State of Florida is leading the nation in water reuse. The water reuse effort in the state is primarily led by utilities, local governments, the water management districts and state agencies. The intent of their efforts is to implement water reuse programs that increase the volume of reclaimed water used and promotes public acceptance of reclaimed water. In addition to the public and private efforts, there are two sections of the Florida Statutes (Secs.403.064(1) and 373.250(1) F.S.) that promote water reuse as a formal state objective. "These sections further conclude that water reuse programs designed and operated in compliance with Florida's rules governing reuse are deemed protective of public health and environmental quality." In addition, Section 403.064(1), F.S., concludes that "reuse is a critical component of meeting the state's existing and future water supply needs while sustaining natural systems."

The Town of Cutler Bay is in full support of the water reuse initiatives under consideration by both the SFWMD and Miami-Dade County. In the 20-year Work Plan, the County identified a number of water reuse projects and their respective schedule. According to the Plan, "reuse projects to recharge the aquifer with highly treated reclaimed water will be in place before additional withdrawals over the base condition water use are made from the Alexander Orr and South Dade subarea wellfields. In addition, reuse irrigation projects are anticipated for the North and Central District Wastewater Treatment Plants. These projects will be implemented in the City of North

Miami and North Miami Beach, and currently under construction for Key Biscayne." The Town does not have any applicable regional issues related to water reuse.

The Town will support the SFWMD and Miami-Dade County water reuse projects, and implementation of new regulations or programs designed to increase the volume of reclaimed water used and public acceptance of reclaimed water. There are no water reuse projects identified in the Town's CIE or CIS.

Town Specific Actions, Programs, Regulations, or Opportunities

The Town will coordinate future water conservation efforts with the WASD and the SFWMD to ensure that proper techniques are applied. In addition, the Town will continue to support and expand existing goals, objectives and policies in the comprehensive plan that promote water conservation in a cost-effective and environmentally sensitive manner. The Town will continue to actively support the SFWMD and Miami-Dade County in the implementation of new regulations or programs designed to conserve water during the dry season.

The Town is in support of the existing levels of water conservation, use, protection and the applicable policies and programs maintained by Miami Dade County and provided in the 2018 LEC Water Supply Plan Update. The Town has implemented Florida Friendly Landscape Principles policies in its Land Development Regulations. The Town will adopt the implementation of the District's Mandatory Year-Round Landscape Irrigation Conservation Measures as detailed in Chapter 40E-24, Florida Administrative Code.

MDWASD Specific Regulations

For the past few years, Florida's utilities, local governments, and water management districts have led the nation in implementing water reuse programs that increase the quantity of reclaimed water used and promotes public acceptance of reuse programs. Section 373.250(1), F.S., provides that "water reuse programs designed and operated in compliance with Florida's rules governing reuse are deemed protective of public health and environmental quality." In addition, Section 403.064(1), F.S., provides that "reuse is a critical component of meeting the state's existing and future water supply needs while sustaining natural systems."

The Town supports water reuse initiatives under consideration by both the SFWMD and Miami-Dade County. The latter has committed to implement a total of 170 mgd of water reuse as noted in the County's 20-year water use permit. In the 20-Year Work Plan, the County identified a number of water reuse projects and their respective schedule. According to the Plan, reuse projects to recharge the aquifer with highly treated reclaimed water will be in place before additional withdrawals over the base condition water use are made from the Alexander Orr and South Dade sub-area wellfields. In addition, reuse irrigation projects are anticipated for the North and Central District Wastewater Treatment Plants. These projects will be implemented in the Cities of North Miami and North Miami Beach, and are currently under construction for Key Biscayne.

The Town will support SFWMD and Miami-Dade County water reuse projects, and implementation of new regulations or programs designed to increase the volume of reclaimed water used as well as public acceptance of reclaimed water.

_____ Landscape Regulations of the Town promote Florida-friendly landscaping by encouraging the use of drought tolerant landscape materials, provides for the preservation of the existing natural forest communities, and contributes to the ground water recharge.

MDWASD, and therefore the Town, implement water conservation through the Miami-Dade County Code Requirements as follows:
• Sect. 8-31 – Plumbing fixtures
• Sect. 8A-381 Remetering
• Sect. 32-84 Water Use Efficiency Manual
• Landscape Irrigation 18-A and 18-B of the Miami Dade County Code.

Potable Water Level of Service Standard

The Town's LOS Standard for potable water is as follows:

Regional Treatment- The System shall operate with a rated maximum daily capacity that is no less than 2% above maximum daily flow for the preceding year, and an average daily capacity 2% above the average daily system for the preceding 5 years.

User LOS- Maintain Capacity to produce and deliver 155 gallons per capita per day (gpcd).

Water Quality- Meet all County, State and federal primary potable water standards.

Countywide Storage- Storage capacity for finished water shall equal no less than 15% of countywide average daily demand.

Minimum Fire-Flow LOS - Single Family Residential Estate – 500 gal/min
Single Family Residential (min. 7,500 SF lots) – 750 gal/min
Multi-Family Residential – 1,500 gal/min
Semi-professional offices – 1,500 gal/min
Hospital/Schools – 2,000 gal/min
Business/Industry – 3,000 gal/min

The Town shall coordinate with WASD on an ongoing basis in the delivery of potable services within its boundaries, and with the South Florida Water Management District in the management of the regional water supply.

Note: The County projects the baseline consumption per capita (GPD) will be 68gpd from 2019 to 2040. However for planning projection purposes, the Town's adopted LOS of 155 is used.

Table B

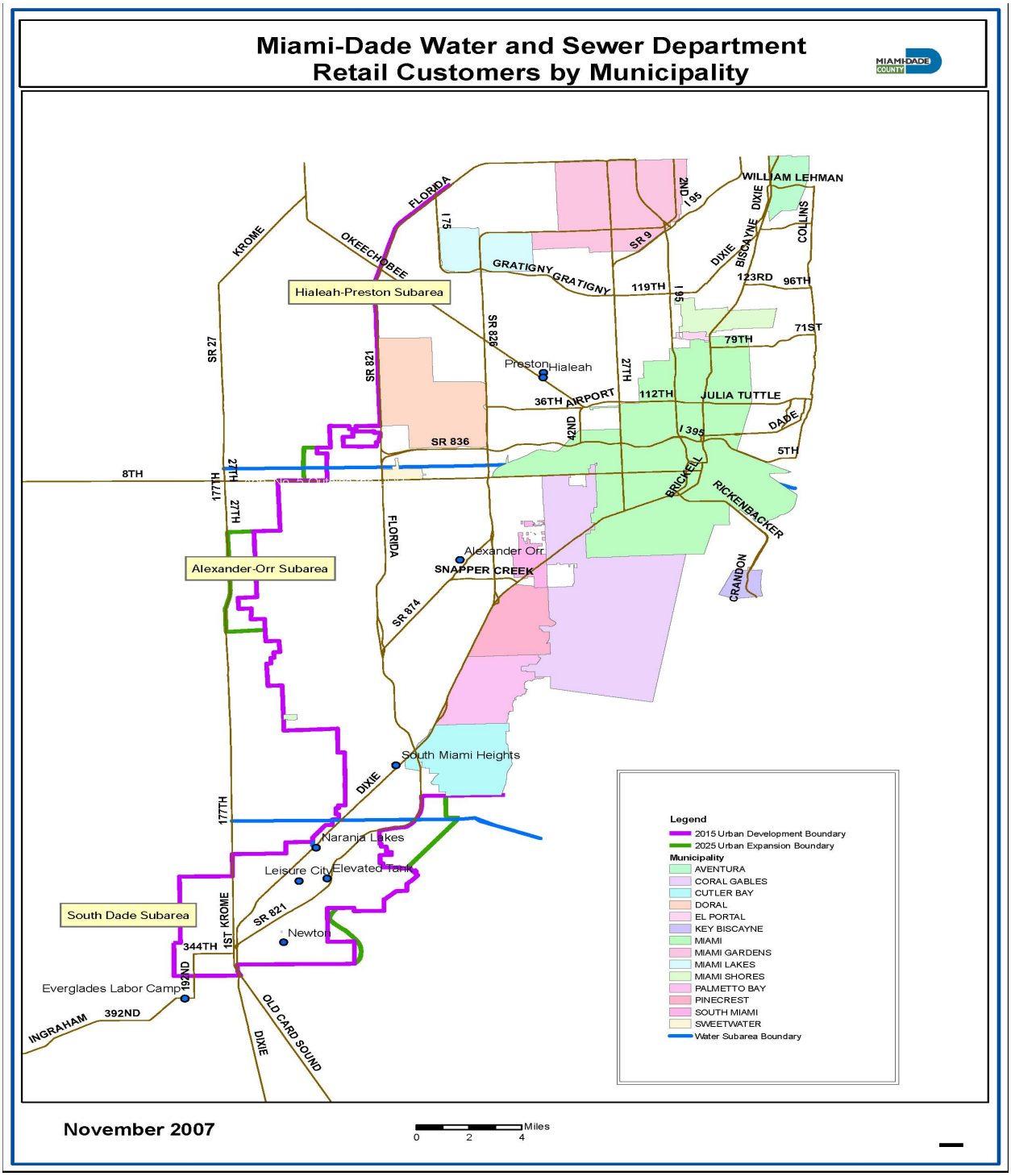
Existing and Projected Potable Water Demand for the Town of Cutler Bay

Source: Miami-Dade County WASD Projections 2019

The Town currently maintains the adopted LOS of 155 gallons per capita per day which is higher than the County's projected 68 gallons per capita per day.

Water Supply Demands			
Million Gallons/Day (MGD)			
Year	**Cutler Bay Population Served**	**Gallons/Capita/Day**	**Cutler Bay Average Demand (MGD)**
2019	44,341	155	6.87
2020	44,429	155	6.88
2025	44,874	155	6.95
2030	45,318	155	7.02

Source: Miami-Dade County Water Supply Facilities Work Plan, 2008, Appendix C, Exhibit C-5



Section 5 – Work Plan Projects/Capital Improvement Element/Schedule

The Town is within Miami-Dade County WASD service area which provides potable water and sanitary sewer services. As discussed, the potable water and sanitary sewer systems have adequate capacity to meet the needs of current and future residents. The Town of Cutler Bay has no water facility projects planned. The projects listed below are from the Miami-Dade County Work Plan, the Miami-Dade Capital Improvement Element/Schedule and Alternate Water Supply and Wastewater Reuse Projects Table.

The projects listed below are from the Miami-Dade County Adopted FY 2018-2024 Capital Budget and Multi-Year Capital Plan Work Plan approved September 20, 2018.

- Systemwide Wellfield Improvements;
- Systemwide Water Main Extensions;
- Central M-D Water Transmission Main Improvements; and
- Alexander Orr, Jr. Water Treatment Plant Expansion.

MDWASD is planning four projects:

- A 2.50 MGD expansion of its Hialeah ROWTP;
- A two-phase project for the South Miami Heights FAS and SAS wellfields with an RO WTP plant that will provide 17.50 mgd of treatment for FAS water and 2.55 mgd for SAS water (which still will be treated via lime softening);
- A new South Dade Regional SAS wellfield, which will provide 10.00 mgd of additional water; and
- The proposed SAS Facilities Optimization project to maximize use of wet and dry season non-regional flows throughout Miami-Dade County. The project will incorporate operation flexibility between the utility's WTPs and wellfields.

Miami Dade Water and Sewer Department
Adopted 2018-2024 Capital Budget and Multi-Year Capital Plan
Projection by Project Sub-project by Year- Water as of 9/30/2017
See Appendix A for detailed project sheets

Project Name	Project #	Current Bond/Fund Allocation	Projections									
			2017-2018	2018-2019	2019-2020	2020-2021	2021-2022	2022-2023	2023-2024	2024-2025	2025-2026	2026-2027
Hialeah/Preston WTP	1050	44,470,014	8,692,838	18,223,875	12,949,547	2,190,947	489,208	1,010,792				
Alexander Orr Jr. Water Treatment Plant	1051	129,326,340	5,556,148	20,665,359	16,842,595	8,126,245	6,472,041	7,955,123	4,793,639	6,834,304	7,165,695	35,000,000
South Miami Heights- FA Wells and Hydro Test Plan	1077	41,768,544	3,426,038	2,730,312	1,229,336	1,100,000	1,075,083	1,000,000	1,000,000	10,300,000		
South Miami Heights Area Water Main Replacement & Service Conversions Project- Phase A	1084-102137	35,906,497	3,535,429	4,457,563	5,144,835	6,000,000	3,000,000	3,000,000	3,000,000	7,000,000		
South Miami Heights Area Water Main Replacement & Service Conversions Project – Phase B	1084-102142	41,158,502	2,086,036	2,172,164	4,332,771	10,000,000	9,000,000	6,000,000	4,500,000	2,578,073		

Regional issues that affect the Town of Cutler Bay include minimizing pressure on the Everglades and Biscayne Bay ecosystems and, Biscayne 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 in order to restore, protect and preserve the water resources of central and southern Florida, including the Everglades. Various projects under CERP help ensure the proper quantity, quality, timing, and distribution of waters to the Everglades and all of South Florida. The goal of CERP is to capture fresh water that now flows unused to the Atlantic Ocean and the Gulf of Mexico redirect it to areas that need it most.

Recently, the SFWMD's priorities have focused on creating Water Reservation rules to facilitate construction of CERP project components. The Town is in support of CERP and other restoration projects in the LEC area that support the Northern/Southern Everglades 20-year commitment to Everglades restoration, including the C-111 South Dade, C-111 Spreader, Biscayne Bay Coastal Wetland BBCW L-31 East Floway, BBCW Deering Estate, BBCW Cutler Wetlands projects.

The Town is within the Alexander Orr, Jr. Subarea which comprises of a high pressure system with two major piping loops. The following major Capital Improvements Projects may impact the Town and are as further described in the Miami-Dade WASD 20-year Water Supply Facilities Work Plan (2014-2033) Support Data (November 2014) and the Adopted FY 2018-2024 Capital Budget and Multi-Year Capital Plan approved September 20, 2018:

- Systemwide Wellfield Improvements;
- Systemwide Water Main Extensions;
- Central M-D Water Transmission Mains Improvements; and,
- Alexander Orr, Jr. Water Treatment Plan Expansion.

In addition, MDWASD is planning four projects:

• A 2.50 MGD expansion of its Hialeah ROWTP;
• A two-phase project for the South Miami Heights FAS and SAS wellfields with an RO WTP plant that will provide 17.50 mgd of treatment for FAS water and 2.55 mgd for SAS water (which still will be treated via lime softening);
• A new South Dade Regional SAS wellfield, which will provide 10.00 mgd of additional water; and
•The proposed SAS Facilities Optimization project to maximize use of wet and dry season non-regional flows throughout Miami-Dade County. The project will incorporate operation flexibility between the utility's WTPs and wellfields.

Section 6 – Comprehensive Plan Goals, Objectives and Policies

The following Goals, Objectives and Policies are included in the Town's adopted Growth Management Plan to ensure consistency between the elements in the Growth Management plan and the Water Supply Facilities Work Plan.

Future Land Use Element

Policy FLU-7E The Town, through the Land Development Regulations will coordinate the land uses and future land use changes with the availability of water supplies and water supply facilities.

Infrastructure Element

Goal 1 WORK WITH THE TOWN-WIDE SERVICE PROVIDER, MIAMI-DADE COUNTY WATER AND SEWER DEPARTMENT (WASD), TO ASSURE A SUFFICIENT, DEPENDABLE, AND HIGH QUALITY POTABLE WATER SUPPLY TO MEET THE NEEDS OF CUTLER BAY RESIDENTS AND BUSINESSES ON A TIMELY BASIS, AT A REASONABLE COST AND IN COMPLIANCE WITH ALL STATE AND FEDERAL REQUIREMENTS TO PROTECT THE HEALTH AND SAFETY OF THE PUBLIC

Policy I1-1A

The adopted Cutler Bay LOS standard for potable water is: Regional Treatment. System shall operate with rated capacity that is no less than 2% above maximum daily flow for the preceding year. User LOS. Maintain capacity to produce and deliver 155 gallons per capita per day. Water Quality. Shall meet all county, state and federal primary potable water standards. Countywide Storage. Storage capacity for finished water shall equal no less than 15% of countywide average daily demand (County).

Policy I1-1B The Town will monitor the planning, capital programming and construction programs of the Miami-Dade County WASD to help ensure that Cutler Bay residents, businesses and other Town users are provided with potable water services in compliance with the adopted LOS standard throughout the planning period.

Policy I1-1D: The Town will work closely with Miami-Dade County WASD to ensure treatment capacity of potable water for all existing and future development in the Town to maintain the adopted LOS standard.

Policy I1-1E The Town will urge Miami-Dade County WASD to provide looped water lines and water lines of an adequate size for fire suppression purposes.

Objective I1-2 The Town will coordinate with the Miami-Dade WASD to help ensure the cost-efficient use of existing facilities and coordinate prudent future expansion plans consistent with projected needs to accommodate development at the densities and intensities proscribed in the Future Land Use Element.

Monitoring Measure I1-2

The Town requests development reviews from Miami-Dade County WASD.

Policy I1-2A The Town will encourage future development into areas that are already served, or programmed to be served, by County WASD potable water facilities.

Policy I1-2B: The Town will coordinate future public and private land use plans of the Town with the Miami-Dade County WASD to assist that agency in effectively planning for Cutler Bays' future growth.

Policy I1-2C: The Town will include the review and comment of Miami-Dade County's WASD in the development review process for Comprehensive Plan

amendments, rezonings, site plan and plat approvals to help ensure the cost-efficient use of existing County water facilities and extension of new water service

Policy I1-3F: Where feasible, the Town will assist Miami-Dade County WASD in the installation of treated re-used (grey) water lines in Cutler Bay for use in parks, on road Rights-of-Way and other appropriate landscaped areas with the Town limits.

Objective I1-4

Town of Cutler Bay shall comply with its 10-year Water Supply Facilities Work Plan, as required by section 163.3177(6)(c), F.S. within 18 months after the governing board of the South Florida Water Management District approves its Lower East Coast Water Supply Plan Update. The Work Plan will be updated, at a minimum, every 5 years. The Town of Cutler Bay Water Supply Facilities Work Plan is designed to: assess current and projected potable water demands; evaluate the sources and capacities of available water supplies; and, identify those water supply projects, using all available technologies, necessary to meet the Town's water demands for a 10-year period.

Monitoring Measure I1-4

The Work Plan shall remain consistent with the County's 20-Year Supply Facilities Work Plan, which is compatible with the Miami Dade County Water Use Permit renewals and with projects as listed in the South Florida Water Management District's Lower East Coast Regional Water Supply Plan. The Work Plan will be updated, at a minimum, every 5 years and within 18 months after the South Florida Water Management District's approval of an updated Lower East Coast Regional Water Supply Plan.

Policy I1-4A: Comply with the 10-year Water Supply Facilities Work Plan and incorporate such work plan into the Town of Cutler Bay Growth Management Plan.

Policy I1-4B: Coordinate appropriate aspects of its comprehensive plan (GMP) with the appropriate water management district's regional water supply plan.

Policy I1-4C: The Miami-Dade County Water Supply Facilities Work Plan, as prepared by the Miami-Dade County Department of Water and Sewer, dated July, 2007 and Revised April 2008 is incorporated by reference into the Town of Cutler Bay Growth Management Plan.

Policy I2-2B: The Town will coordinate future land use plan amendments of the Town with the Miami-Dade County WASD to assist that agency in effectively planning for Cutler Bays' future infrastructure growth.

Policy I2-2C: The Town will include the review and comment of Miami-Dade County WASD in the development review process for Comprehensive Plan amendments, rezonings, site plan and plat approvals to help ensure the cost-efficient use of existing County sanitary sewer facilities and extension of new central sewer service.

Objective I2-3 The Town will coordinate with Miami-Dade County WASD to promote the reuse of treated wastewater for aquifer recharge and development of viable products and services.

Policy I2-3A: Town will assist Miami-Dade County WASD any way possible to install treated re-used (grey) water lines in Cutler Bay for use in parks, on road Rights-of-Way and other appropriate landscaped areas within the Town limits

Conservation Element

Policy C-2B: The Town will coordinate with Miami-Dade County Water and Sewer Department (WASD) to encourage the creation and expansion of storage and distribution facilities for reclaimed water to institutional, commercial and residential properties in an effort to reduce the use of potable water for irrigation purposes.

Policy C-2C: The Town Policy will cooperate with local, regional, state and federal agencies concerning the proper management of fresh water resources in order to conserve and maintain sufficient fresh water supplies, especially during dry periods, including cooperation with the Miami-Dade County WASD and SFWMD for implementation of water demand management policies and programs.

Policy C-2D: The Town will cooperate with emergency water conservation measures mandated by the Miami-Dade County WASD and SFWMD.

Policy C-2E: The Town will communicate the projected water demands for potable water, agriculture use, and industrial use to the Miami-Dade County WASD to ensure for a ten year period demand is reflected in WASD's water supply reports and licenses with SFWMD and other State and Federal agencies.

Policy C-2H: Implementation of the 2015 20-year water supply facilities work plan update will ensure that adequate water supplies and public facilities are available to serve the water supply demands of the Town's growing population.

Policy C-2I: Since the potable water network is an interconnected, Countywide System, the Town's Planning Department will cooperate with Miami-Dade County Water and Sewer Department to jointly develop methodologies and procedures for biannually updating estimates of system demand and capacity, and ensure that sufficient capacity to serve development exists

Policy C-2J: If in the future there are issues associated with water supply, conservation or reuse the Town will immediately contact WASD to address the corresponding issue(s). In addition, the Town will follow adopted communication protocols with WASD to communicate and/or prepare an appropriate action plan to address any relevant issue associated with water supply, conservation or reuse.

Policy C-2K: The Town will enforce Miami-Dade County's Water Use Efficiency Standards Ordinance adopted on February 5, 2008.

Policy C-2L: The Town will require the use of High Efficiency Toilets; High Efficiency Showerheads; High Efficiency Faucets; High Efficiency Clothes Washers; and Dishwashers that are Energy Star rated and WaterSense certified in all new and redeveloped residential projects.

Policy C-2M: The Town will encourage the use of sub-metering for all multi-unit residential development which will include: separate meter and monthly records kept of all major water-using functions such as cooling towers and individual buildings in all new and redeveloped multi-family residential projects.

Policy C-2N: The Town will encourage the use of Florida Friendly Landscapes guidelines and principles; gutter downspouts, roof runoff, and rain harvesting through the use of rain barrels and directing runoff to landscaped areas; drip irrigation or micro-sprinklers; and the use of porous surface materials (bricks, gravel, turf block, mulch, pervious concrete, etc) on walkways, driveways and patios.

Intergovernmental Element

Policy IC-3C: The Town shall coordinate the planning of potable water and sanitary sewer facilities and services and level-of-service standards within the Miami-Dade

County Water and Sewer Department, DERM, the South Florida Water Management District, and the Lower East Coast Water Supply Plan Update.

Capital Improvements Element

Policy C11-1M: Appropriate mechanisms will be developed and adopted consistent with Miami-Dade County in order to assure that adequate water supplies are available to all water users and to ensure that prior to approval of a building permit. Furthermore, Miami-Dade County Water and Sewer Department will be responsible for monitoring the availability of water supplies for all water users of the Miami-Dade County Water and Sewer Department, which includes the Town of Cutler Bay, and for implementing a system that links water supplies to the permitting of new development.

Section 7 – Updates to the Work Plan

The Town of Cutler Bay Water Supply Facilities Work Plan is a 10-year plan, which will be updated on a five year basis, within 18-months of an adopted update to the regional water supply plan, alongside the Miami-Dade County 20-year plan. The Town's CIE will be updated on an annual basis accordingly to include any water supply projects within its jurisdiction.

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Proj	Sub-Proj	Sub-Proj Description	Current Bond/Fund Allocation	Expenditures As of 9/30/2017	Remaining Bond/Fund Allocation	PROJECTIONS 2017-2018	2018-2019	2019-2020	2020-2021	2021-2022	2022-2023	2023-2024	2024-2025	2025-2026	2026-2027	Future	Total
1050	101711	HIALEAH/PRESTON WTP - DESIGN AND ENGINEERING ON REDUNDANT 72-INCH WATER MAIN	6,721,094	2,100	6,718,994	400,000	3,000,000	2,041,742	1,277,252	0	0	0	0	0	0	0	6,718,994
	102104	FILTER BACKWASH ELEVATED TANK REPLACEMENT SYSTEM FOR HIALEAH WTP	3,000,000	0	3,000,000	293,210	1,528,850	1,177,940	0	0	0	0	0	0	0	0	3,000,000
	102106	HYPOCHLORITE FEED/STORAGE AT PRESTON/HIALEAH WTP	6,515,896	471,736	6,044,160	146,719	1,149,438	3,834,309	913,695	0	0	0	0	0	0	0	6,044,161
	102127	REPLACEMENT/UPGRADE OF LIME FEED SYSTEM	4,967,243	110,811	4,856,432	1,856,432	1,704,444	1,295,556	0	0	0	0	0	0	0	0	4,856,432
	102134	PURCHASE OF LAKE PROPERTY ADJACENT TO NORTHWEST WELLFIELD	10,328,738	87,595	10,241,143	100,000	10,141,143	0	0	0	0	0	0	0	0	0	10,241,143
	102170	HIALEAH/PRESTON WTP FEEDER/MOTOR EAST & WEST CONTROL CENTER	2,000,000	0	2,000,000	0	500,000	1,500,000	0	0	0	0	0	0	0	0	2,000,000
	102171	HIALEAH/PRESTON WTP TRANSFORMER	1,500,000	0	1,500,000	0	0	0	0	489,208	1,010,792	0	0	0	0	0	1,500,000
	102173	PRESTON WTP HS PUMP ROOM SWITCHGEAR	3,500,000	0	3,500,000	200,000	200,000	3,100,000	0	0	0	0	0	0	0	0	3,500,000
	102230	LIME SLAKERS/HIALEAH CHEMICAL BUILDING	5,937,043	240,566	5,696,477	5,696,477	0	0	0	0	0	0	0	0	0	0	5,696,477
		TOTAL - 1050	**44,470,014**	**912,808**	**43,557,206**	**8,692,838**	**18,223,875**	**12,949,547**	**2,190,947**	**489,208**	**1,010,792**	**0**	**0**	**0**	**0**	**0**	**43,557,207**
1051	101577	ORR WTP - 48" FINISHED WATER LINE (AREA M)	64,470,576	499,774	63,970,802	0	0	0	1,000,000	2,693,744	6,483,420	4,793,639	6,834,304	7,165,695	35,000,000	0	63,970,802

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Proj	Sub-Proj	Sub-Proj Description	Current Bond/Fund Allocation	Expenditures As of 9/30/2017	Remaining Bond/Fund Allocation	PROJECTIONS 2017-2018	2018-2019	2019-2020	2020-2021	2021-2022	2022-2023	2023-2024	2024-2025	2025-2026	2026-2027	Future	Total
1051	101579	ORR WTP - PUMPING UNIT No. 6 HIGH SERVICE PUMP - EAST PUMP ROOM	5,967,519	462,677	5,504,842	2,171,358	3,333,484	0	0	0	0	0	0	0	0	0	5,504,842
	101694	ORR WTP - SWITCHGEAR BUILDING AND TRANSFORMER	14,312,699	7,333,944	6,978,755	1,178,036	3,342,765	1,457,954	1,000,000	0	0	0	0	0	0	0	6,978,755
	101882	3 LIME SLAKERS FOR ALEXANDER ORR, JR. WTP	4,483,542	823,515	3,660,027	215,885	1,633,534	1,810,608	0	0	0	0	0	0	0	0	3,660,027
	101883	ALEXANDER ORR, JR. LIME PLANT REHABILITATION	459,873	0	459,873	459,873	0	0	0	0	0	0	0	0	0	0	459,873
	101945	HGIH SERVICE PUMP AND MOTOR IMPROVEMENTS EAST & WEST ROOM - VFD	7,000,000	0	7,000,000	0	800,000	200,000	1,450,000	3,550,000	1,000,000	0	0	0	0	0	7,000,000
	101946	HYDROTREATOR DRIVES ASSEMBLES AND MOTORS	1,500,000	584,413	915,587	68,205	808,686	38,696	0	0	0	0	0	0	0	0	915,587
	101978	ORR WTP - UPGRADES TO IN-PLANT WATER USE ACCOUNTING	133,431	0	133,431	133,431	0	0	0	0	0	0	0	0	0	0	133,431
	102103	ELECTRICAL UPGADES FOR ALEXANDER ORR LIME PLANT	1,386,016	0	1,386,016	318,895	750,000	317,121	0	0	0	0	0	0	0	0	1,386,016
	102107	HYPOCHLORITE FEED/STORAGE AT ORR WTP	4,377,368	127,368	4,250,000	0	1,500,000	2,750,000	0	0	0	0	0	0	0	0	4,250,000
	102109	REPLACEMENT/UPGRADE OF LIME FEED SYSTEM AT CHEMICAL BLDG. #1 AT ORR WTP	3,000,000	0	3,000,000	199,998	1,163,465	1,636,537	0	0	0	0	0	0	0	0	3,000,000
	102110	REPLACEMENT/UPGRADE OF LIME FEED SYSTEM AT CHEMICAL BLDG. #2 AT ORR WTP	3,200,000	0	3,200,000	40,197	319,959	2,839,844	0	0	0	0	0	0	0	0	3,200,000

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Proj	Sub-Proj	Sub-Proj Description	Current Bond/Fund Allocation	Expenditures As of 9/30/2017	Remaining Bond/Fund Allocation	PROJECTIONS 2017-2018	2018-2019	2019-2020	2020-2021	2021-2022	2022-2023	2023-2024	2024-2025	2025-2026	2026-2027	Future	Total
1051	102166	A. ORR WTP ELECTRICAL DUCT BANK FOR GENERATOR SWITCH GEAR	3,500,000	0	3,500,000	72,850	306,922	1,978,592	1,141,636	0	0	0	0	0	0	0	3,500,000
	102167	A. ORR WTP LIME KILN SWITCH GEAR BUILDING AND FEEDERS	3,976,862	0	3,976,862	0	3,976,862	0	0	0	0	0	0	0	0	0	3,976,862
	102169	A. ORR WTP PUMP ROOM FOR SOFTENER CLUSTERS 1-8 AND 11-14	700,000	0	700,000	0	0	0	0	228,297	471,703	0	0	0	0	0	700,000
	102175	ALEXANDER ORR WATER TESTING LABORATORY	10,858,454	83,499	10,774,955	697,420	2,729,682	3,813,243	3,534,609	0	0	0	0	0	0	0	10,774,954
		TOTAL - 1051	**129,326,340**	**9,915,190**	**119,411,150**	**5,556,148**	**20,665,359**	**16,842,595**	**8,126,245**	**6,472,041**	**7,955,123**	**4,793,639**	**6,834,304**	**7,165,695**	**35,000,000**	**0**	**119,411,149**
1053	101540	WATER MAIN CONNECTION - PORT OF MIAMI WATER SUPPLY - AREA A	14,567,359	2,172,875	12,394,484	4,580,449	5,386,796	2,427,239	0	0	0	0	0	0	0	0	12,394,484
	102116	20-INCH WATER MAIN - BISCAYNE BLVD - AREA L	1,006,555	59,752	946,803	500	18,310	551,494	376,499	0	0	0	0	0	0	0	946,803
	102197	PORT OF MIAMI WATER SUPPLY LINE	45,152,046	780,710	44,371,336	3,306,721	5,064,615	6,355,616	12,916,622	9,727,762	7,000,000	0	0	0	0	0	44,371,336
	102227	INSTALL OF 54-INCH WM ALONG RED ROAD (W 4TH AVE), FROM W 21ST ST TO W 53RD ST	42,612,324	155	42,612,169	19,831	671,117	6,197,219	10,300,747	17,423,255	5,500,000	2,500,000	0	0	0	0	42,612,169
		TOTAL - 1053	**103,338,284**	**3,013,492**	**100,324,792**	**7,907,501**	**11,140,838**	**15,531,568**	**23,593,868**	**27,151,017**	**12,500,000**	**2,500,000**	**0**	**0**	**0**	**0**	**100,324,792**
1054	101441	54" REPLACEMENT OF LOW PRESSURE WATER MAIN IN NW 62 ST (NW 37 AVE - 10 AVE)	10,710,779	133,227	10,577,552	0	0	0	0	254,069	699,823	1,000,000	4,219,985	4,403,675	0	0	10,577,552

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Proj	Sub-Proj	Sub-Proj Description	Current Bond/Fund Allocation	Expenditures As of 9/30/2017	Remaining Bond/Fund Allocation	PROJECTIONS 2017-2018	2018-2019	2019-2020	2020-2021	2021-2022	2022-2023	2023-2024	2024-2025	2025-2026	2026-2027	Future	Total
1077	102021	SOUTH MIAMI HEIGHTS - FA WELLS AND HYDROGEOLOGIC TEST PLAN	41,768,544	19,907,775	21,860,769	3,426,038	2,730,312	1,229,336	1,100,000	1,075,083	1,000,000	1,000,000	10,300,000	0	0	0	21,860,769
		TOTAL - 1077	**41,768,544**	**19,907,775**	**21,860,769**	**3,426,038**	**2,730,312**	**1,229,336**	**1,100,000**	**1,075,083**	**1,000,000**	**1,000,000**	**10,300,000**	**0**	**0**	**0**	**21,860,769**
1078	101368	TELEMETERING SYSTEM - WATER	3,423,475	1,014,409	2,409,066	291,566	317,500	300,000	300,000	300,000	300,000	300,000	300,000	0	0	0	2,409,066
		TOTAL - 1078	**3,423,475**	**1,014,409**	**2,409,066**	**291,566**	**317,500**	**300,000**	**300,000**	**300,000**	**300,000**	**300,000**	**300,000**	**0**	**0**	**0**	**2,409,066**
1080	101879	INSTALLATION OF 36 INCH DI WATER MAIN IN NW 87TH AVE. FROM NW 170 ST. TO 102 AVE.	3,377,370	2,431,544	945,826	248,489	697,337	0	0	0	0	0	0	0	0	0	945,826
	102182	CONSTRUCTION OF 4 ADDITIONAL WELLS FOR HIALEAH RO WTP	4,000,000	0	4,000,000	4,000,000	0	0	0	0	0	0	0	0	0	0	4,000,000
		TOTAL - 1080	**7,377,370**	**2,431,544**	**4,945,826**	**4,248,489**	**697,337**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**4,945,826**
1081	101966	INSTALLATION OF 12-INCH DIWM ON EAST DRIVE FROM NW 36 ST. TO LABARON DR.	9,496,221	1,336,689	8,159,532	2,893,448	3,043,872	1,971,182	251,030	0	0	0	0	0	0	0	8,159,532
		TOTAL - 1081	**9,496,221**	**1,336,689**	**8,159,532**	**2,893,448**	**3,043,872**	**1,971,182**	**251,030**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**8,159,532**
1082	101969	WATER - PIPES AND INFRASTRUCTURE PROJECTS	106,845,349	34,845,349	72,000,000	11,500,000	12,500,000	8,000,000	8,000,000	8,000,000	8,000,000	8,000,000	8,000,000	0	0	0	72,000,000
	102178	36-INCH WATER MAIN NW 106 STREET	8,085,470	432,241	7,653,229	241,101	1,915,633	3,275,495	2,221,000	0	0	0	0	0	0	0	7,653,229

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1082	102179	36-INCH WATER MAIN NW 135 STREET	11,434,009	312,014	11,121,995	619,509	2,339,476	4,163,010	3,000,000	1,000,000	0	0	0	0	0	0	11,121,995
		TOTAL - 1082	**126,364,828**	**35,589,603**	**90,775,225**	**12,360,610**	**16,755,109**	**15,438,505**	**13,221,000**	**9,000,000**	**8,000,000**	**8,000,000**	**8,000,000**	**0**	**0**	**0**	**90,775,224**
1084	101678	SMALL DIAMETER WATER MAINS ENHANCEMENTS PROGRAM	28,071,345	10,607,592	17,463,753	3,669,428	5,139,793	3,869,174	3,054,128	1,731,231	0	0	0	0	0	0	17,463,754
	102136	REPLACEMENT OF 82,612 LF OF WATER MAINS IN SHENANDOAH AREA - PHASE A	15,806,243	9,739,379	6,066,864	6,066,865	0	0	0	0	0	0	0	0	0	0	6,066,865
	102137	SOUTH MIAMI HEIGHTS AREA WATER MAIN REPLACEMENT & SERVICE CONVERSIONS PROJECT - PHASE A	35,906,497	768,670	35,137,827	3,535,429	4,457,563	5,144,835	6,000,000	3,000,000	3,000,000	3,000,000	7,000,000	0	0	0	35,137,827
	102139	INSTALLATION OF 8-INCH DUCTILE IRON WATER MAIN PHASE I IN SW 147th AVE AND SW 157th AVE BETWEEN SW 288th ST & SW 297th ST	5,339,626	0	5,339,626	1,656,070	2,112,346	1,571,210	0	0	0	0	0	0	0	0	5,339,626
	102141	REPLACEMENT OF 82,612 LF OF WATER MAINS IN SHENANDOAH AREA - PHASE B	13,821,725	8,231,830	5,589,895	5,589,895	0	0	0	0	0	0	0	0	0	0	5,589,895
	102142	SOUTH MIAMI HEIGHTS AREA WATER MAIN REPLACEMENT & SERVICE CONVERSIONS PROJECT - PHASE B	41,158,502	489,459	40,669,043	2,086,036	2,172,164	4,332,771	10,000,000	9,000,000	6,000,000	4,500,000	2,578,073	0	0	0	40,669,044
	102143	REPLACE UNDERSIZED WATER MAINS DOUGHNUT HOLE	12,734,025	0	12,734,025	7,393,299	3,340,726	2,000,000	0	0	0	0	0	0	0	0	12,734,025
	102144	WATER COMMERCIAL CORRIDORS ECONOMIC DEVELOPMENT - REPLACEMENT OF SMALL DIAMETER PIPE PHASE 1	4,000,000	0	4,000,000	0	0	0	0	0	0	1,000,000	1,000,000	1,000,000	1,000,000	0	4,000,000

Prepared by Capital Planning and Coordination Section

MIAMI-DADE WATER AND SEWER DEPARTMENT
ADOPTED 2018-2024 CAPITAL BUDGET AND MULTI-YEAR CAPITAL PLAN

Projection by Project Sub-project by Year - Water

As of: 9/30/2017

Proj	Sub-Proj	Sub-Proj Description	Current Bond/Fund Allocation	Expenditures As of 9/30/2017	Remaining Bond/Fund Allocation	PROJECTIONS 2017-2018	2018-2019	2019-2020	2020-2021	2021-2022	2022-2023	2023-2024	2024-2025	2025-2026	2026-2027	Future	Total
1084	102193	WATER MASTER PLAN	3,000,000	0	3,000,000	0	575,000	2,000,000	425,000	0	0	0	0	0	0	0	3,000,000
	102198	INSTALLATION OF 8-INCH DUCTILE IRON WATER MAIN PHASE II IN SW 147th AVE AND SW 152nd AVE BETWEEN SW 288th ST & SW 296th ST	2,959,573	0	2,959,573	570,572	1,843,209	545,792	0	0	0	0	0	0	0	0	2,959,573
	102243	WATER COMMERCIAL CORRIDORS ECONOMIC DEVELOPMENT - PHASE 1	96,115,935	0	96,115,935	500,000	1,907,133	3,846,071	7,163,823	10,676,395	15,814,030	19,107,714	22,000,000	15,100,769	0	0	96,115,935
		TOTAL - 1084	**258,913,471**	**29,836,929**	**229,076,542**	**31,067,594**	**21,547,934**	**23,309,863**	**26,642,951**	**24,407,626**	**24,814,030**	**27,607,714**	**32,578,073**	**16,100,769**	**1,000,000**	**0**	**229,076,544**
		TOTAL - Water	**1,519,677,977**	**259,006,067**	**1,260,671,910**	**169,721,709**	**176,659,397**	**157,058,602**	**138,091,225**	**142,181,284**	**119,423,953**	**125,457,082**	**145,158,523**	**50,920,139**	**36,000,000**	**0**	**1,260,671,914**

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