

1 REASONABLE COST AND IN COMPLIANCE WITH UTILITY
2 REGULATORY STANDARDS; CONTINUE TO SUPPORT AN
3 MONITOR STATE, COUNTY, AND SOUTH FLORIDA WATER
4 MANAGEMENT DISTRICT EFFORTS TO PROTECT, CONSERVE,
5 AND MANAGE THE QUALITY AND QUANTITY OF NATURAL
6 GROUNDWATER RESOURCES.
7

8 Objective 11.1 Potable Water Level of Service

9 Coordinate effectively with the Village's water service provider Miami-Dade County
10 Water and Sewer Department (WASD), to ensure that potable water service to the
11 Village will meet to exceed the adopted level-of-service (LOS) standard throughout
12 the planning period.
13

14 Policy 11.1.1 The adopted level-of-service standard established by WASD for potable water
15 service within the Village:

- 16 a. Regional Treatment. System shall operate with rated capacity that is no less than
17 two (2) percent above the maximum daily flow for preceding year.
18 b. User LOS, Maintain capacity to produce and deliver ~~155-97.54~~ 93.45 gallons/per
19 capita/per day.
20 c. Water Quality. Meet all federal, state, and county primary potable water
21 standards.
22 d. Countywide Storage. Storage capacity for finished water shall equal no less than
23 15 percent of countywide average daily demand.
24

25 * * *

26
27 Objective 11.2 Existing and Efficient Expansion of Water Facilities

28 Coordinate with WASD to help ensure cost-efficient use of existing facilities and
29 coordinate prudent future expansion plan consistent with projected needs to
30 accommodate development at the densities and intensities proscribed In the Future
31 Land Use Element.
32

33 * * *

34
35 Policy 11.2.5 ~~Reserved.~~ The Village adopts, as part of the Water Supply Facilities Element of its
36 Comprehensive Plan, the Village's Water Supply Facilities Work Plan. ~~Continue to~~
37 ~~monitor and maintain potable water infrastructure improvements targeted for the~~
38 ~~area bounded by SW 168th Street to the north, the Miami Dade County Busway to~~
39 ~~the west, SW 184th Street to the south, and SW 97th Avenue and US-1 northbound~~
40 ~~to the east as part of the project entitled "Perrine Park-Cutler Ridge Water and Sewer~~
41 ~~Improvements" included in the Building Better Communities Bond Program~~
42 ~~approved by the Miami Dade County voters in November 2004.~~
43

44 * * *

45
46 Objective 11.5 Future Growth Needs

Page 7 of 13

Additions shown by underlining and deletions shown by ~~overstriking~~. Additions since first reading shown by double
underlining and deletions since first reading shown by ~~double overstriking~~.

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Accommodate the future growth needs of the Village through proper planning and effective coordination with the appropriate water management agencies.

* * *

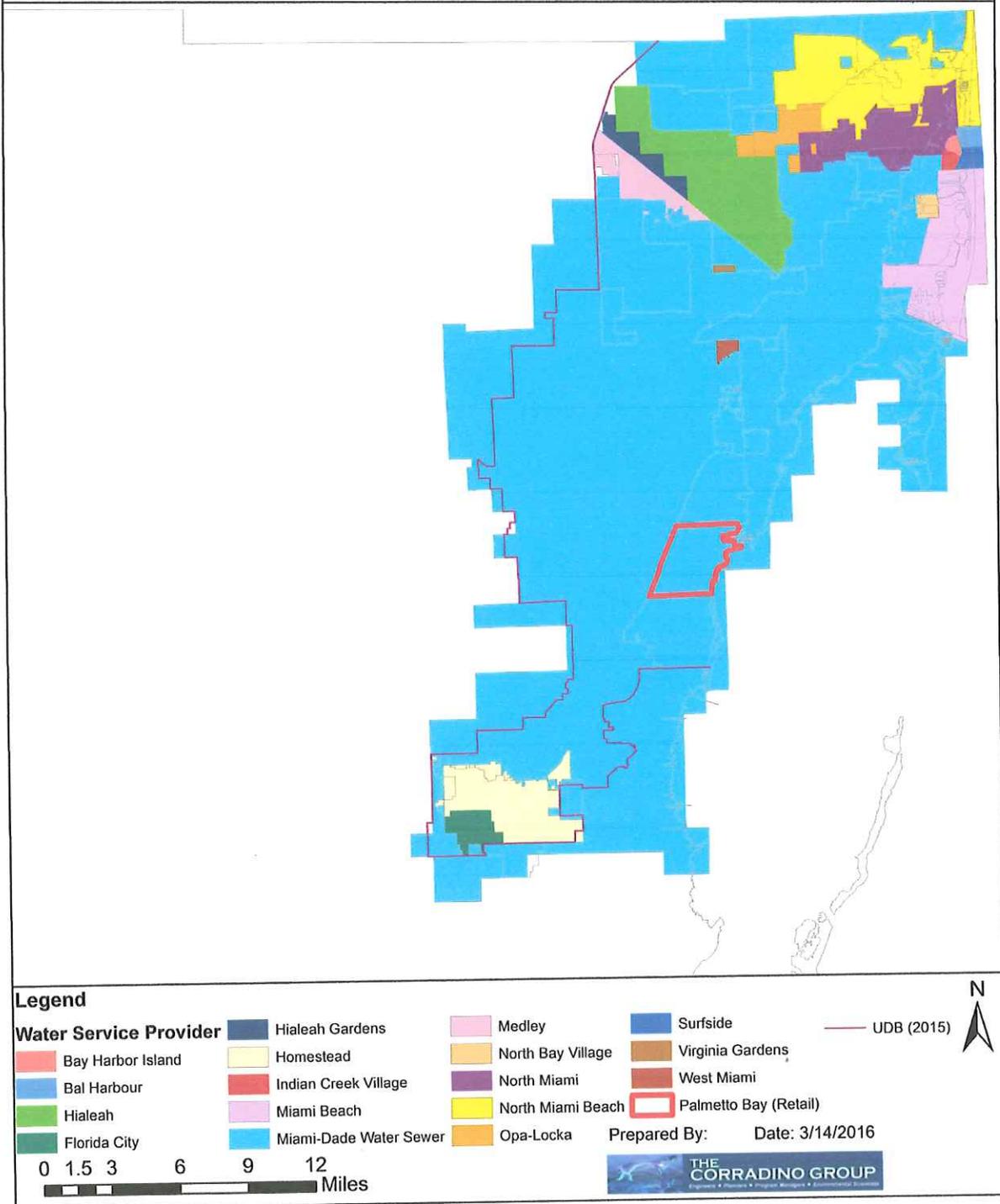
Policy 11.5.11 Miami-Dade County Water Supply Facilities Work Plan, adopted as apart of Miami-Dade County's Comprehensive Master Development Plan on February 4, 2015, revised March 2008 as prepared by Camp, Dresser, and McKee, Inc. revised November 2014 is hereby adopted by the Village, the 20-year work plan schedule is consistent with the Village's work plan schedule.

* * *



Miami-Dade County Water Service Providers

Figure 2



1

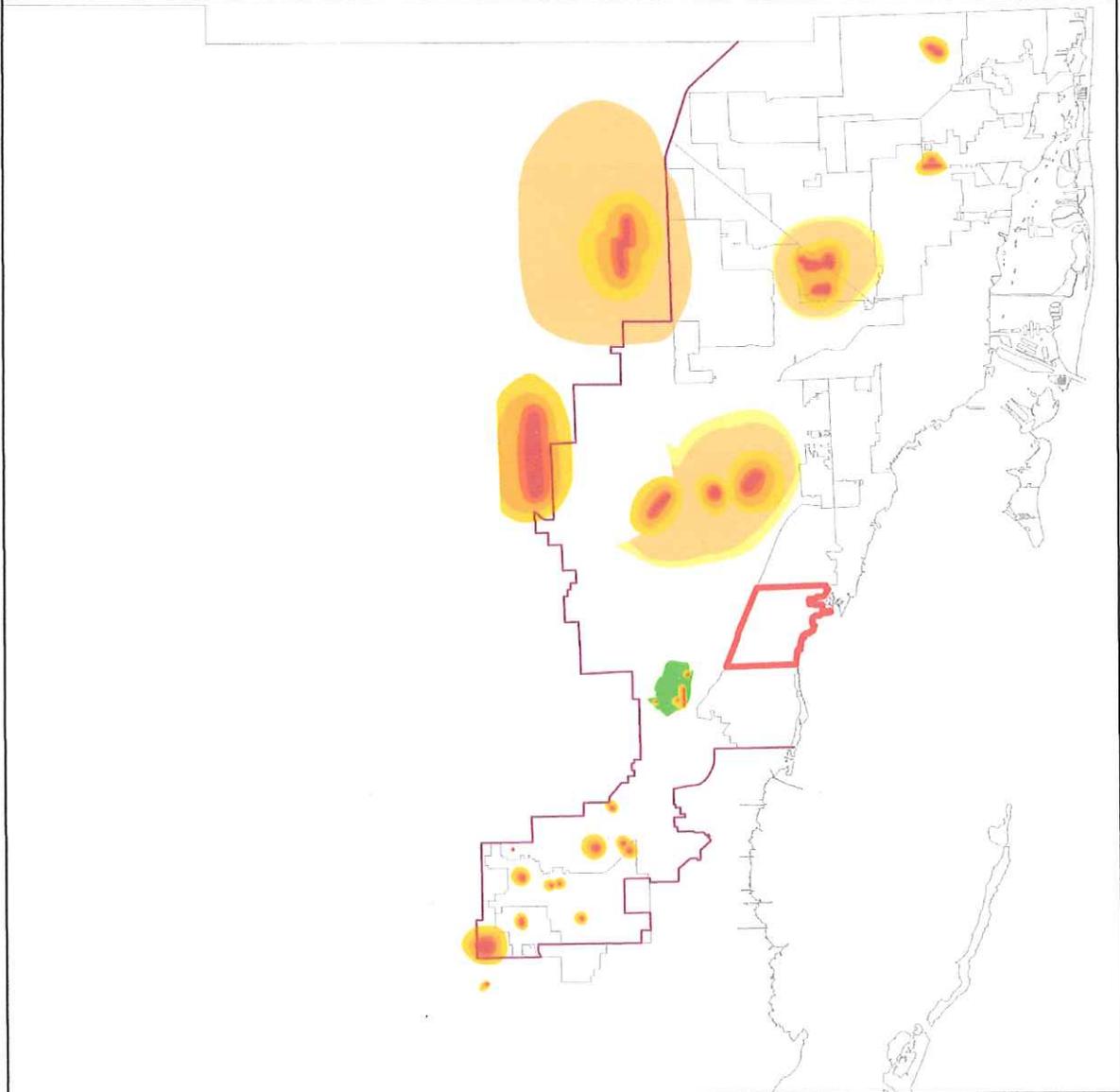
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*** indicates portions of code excluded.



Miami-Dade County Wellfield Protection Cones of Influence

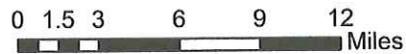
Figure 3



Legend

- 10 Day
- Average Day
- 30 Day
- Maximum
- 100 Day
- Outer
- 210 Day
- Miami-Dade Municipalities

- UDB 2015
- Palmetto Bay



Prepared By: Date: 3/14/2016



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**** indicates portions of code excluded.

Additions shown by underlining and deletions shown by ~~overstriking~~. Additions since first reading shown by double underlining and deletions since first reading shown by ~~double overstriking~~.
"***" indicates portions of code excluded.

Section 4. Transmittal. The Village Council, acting in its capacity as the Local Planning Agency, approves the above amendment, as further modified herein. The Village Council, acting in its capacity as the Local Planning Agency, further recommends to the Village Council that it authorize the Village Clerk to transmit the attached amendments to the FLUM to the State of Florida Department of Economic Opportunity (DEO) and all other governmental bodies, agencies, or private individuals as required by State law.

Section 5. Severability. The provisions of this ordinance are declared to be severable, and if any sentence, section, clause or phrase of this ordinance shall, for any reason, be held to be invalid or unconstitutional, such decision shall not affect the validity of the remaining sentences, sections, clauses or phrases of the ordinance, but they shall remain in effect it being the legislative intent that this ordinance shall stand notwithstanding the invalidity of any part.

Section 6. Conflicts. The provisions of the Comprehensive Plan of the Village of Palmetto Bay, Florida and all ordinances or parts of ordinances in conflict with the provisions of this ordinance are hereby repealed.

Section 7. Codification. It is the intention of the Village Council and it is hereby ordained the provisions of this Ordinance shall become and be made part of the Comprehensive Plan of the Village of Palmetto Bay, Florida.

Section 8. Effective Date. This ordinance shall upon enactment.

PASSED and ENACTED this _____ day of _____, 2016.

First Reading: _____

Second Reading: _____

Attest: _____
Meighan Alexander
Village Clerk

Eugene Flinn
Mayor

APPROVED AS TO FORM AND LEGAL SUFFICIENCY FOR THE
USE AND RELIANCE OF THE VILLAGE OF PALMETTO BAY ONLY:

Dexter W. Lehtinen
Village Attorney

1 FINAL VOTE AT ADOPTION:
2
3 Council Member Karyn Cunningham _____
4
5 Council Member Tim Schaffer _____
6
7 Council Member Larissa Siegel Lara _____
8
9 Vice-Mayor John DuBois _____
10
11 Mayor Eugene Flinn _____



Village of Palmetto Bay

~~2018~~18-YEAR WATER SUPPLY FACILITIES WORK PLAN

~~2016-2036~~3

First Reading June 6, 2016

FINAL

ACKNOWLEDGEMENTS

Village Council

Eugene Flinn, Mayor
John DuBois, Vice Mayor
Karyn Cunningham
Tim Schaffer
Larissa Siegel Lara

Village Staff

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1.0 INTRODUCTION

The Village of Palmetto Bay (Village) acknowledges the importance of water conservation and reuse and has included policies in its Comprehensive Plan in order to assist in implementing related strategies. The Village also recognizes that in order to maintain a proactive water conservation program there must be an effective coordination program with the Miami-Dade County Water and Sewer Department (MDWASD) to ensure the success of the program. In addition, the Village maintains an excellent working relationship with MDWASD as a retail customer to ensure compliance with all applicable regulations and guidelines. As a retail customer, the Village residents buy their water directly from MDWASD at a determined rate. Under this arrangement, the Village's Public Services Department coordinates with WASD to ensure that enough capacity is available for existing and future customers and supporting infrastructure (e.g. adequately maintaining water lines).

The Village 2016-2033~~6~~ ~~18-20~~ Year Water Supply Facilities Work Plan (hereinafter the Work Plan) will reference the initiatives already identified in the Miami-Dade County's ~~15-year~~~~20-year~~ Water Supply Facilities Work Plan Update, which was adopted on February 4, 2015, since the Village is a retail customer. According to state guidelines, the Work Plan and the Comprehensive Plan (Comp Plan) 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 purpose of the Village of Palmetto Bay's new ~~18-year~~~~20-year~~ 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. This Work Plan will be adopted with a ~~18-year~~~~20-year~~ planning horizon to be consistent with both the Miami-Dade County and South Florida Water Management District Water Facilities Work Plans. Chapter 163, Part II, F.S., requires local governments to prepare and adopt Water Supply Work Plans into their comprehensive plans within 18 months after the water management district approves a regional water supply plan or its update. Updates to the original Work Plan are required every five years. The Village is located in the South Florida Water Management District region in southeast Florida (Figure 1). The *2013 Lower East Coast Water Supply Plan Update* (LEC) was approved by the South Florida Water Management District (SFWMD) on October 10, 2013. Therefore, local governments within the South Florida Water Management District Lower East Coast jurisdiction should amend their comprehensive plans by adopting a Work Plan or Update by March 13, 2015. As stated previously, MDWASD provides retail potable water service to its customers in the Village (Figure 2).

The Village's Work Plan is divided into six sections:

- Section 1 – Introduction
- Section 2 – Background Information
- Section 3 – Data and Analysis
- Section 4 – Intergovernmental Coordination
- Section 5 -- Capital Improvement Elements
- Section 6 – Goals, Objectives, Policies

1.1 Statutory History

The Florida Legislature has enacted bills in the 2002, 2004, 2005 and 2011 sessions to address the state's water supply needs. These bills, especially Senate Bills 360 and 444 (2005 legislative session), significantly changed Chapter 163 and 373 Florida Statutes (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 the local land use planning and water supply planning.

1.2 Statutory Requirements

The Village of Palmetto Bay has considered the following statutory provisions when updating the Water Supply Facilities Work Plan (Work Plan):

1. Coordinate appropriate aspects of its comprehensive plan with the South Florida Water Management District's Regional Water Supply Plan, [163.3177(6)(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. Data and analysis demonstrating that adequate water supplies and associated public facilities will be available to meet projected growth demands must accompany all proposed Future Land Use Map amendments submitted for review.
3. Ensure that adequate water supplies and 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 and consult with the applicable water supplier 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.].
4. For local governments subject to a regional water supply plan, revise the General Sanitary Sewer, Solid Waste, Drainage, Potable Water, and Natural Groundwater Aquifer Recharge Element (the "Infrastructure Element"), within 18 months after the water management district approves an updated regional water supply plan, to:
 - a. Identify and incorporate the alternative water supply project(s) selected by the local government from projects identified in the updated SFWMD Regional Water Supply Plan or the alternative project(s) proposed by the local government under s. 373.709(8)(b), F.S. [s. 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 SFWMD Regional Water Supply Plan [s. 163.3177(6)(c), 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. [s. 163.3177(6)(c), 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 five-year period [s. 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 SFWMD 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.]. The plan must address the water supply sources necessary to meet and achieve the existing and projected water use and demand for the established planning period, considering the SFWMD Regional Water Supply Plan [s.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 coordination of the comprehensive plan with the SFWMD Regional Water Supply Plan [s.163.3177(6)(h)1., F.S.].
 8. While an Evaluation and Appraisal Report is not required, local governments are encouraged to comprehensively evaluate, and as necessary, update comprehensive plans to reflect changes in local conditions. The evaluation could address the extent to which the local government has implemented the need to update 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 [s.163.3181(3), F.S.].

2.0 BACKGROUND INFORMATION

2.1 Overview

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

The Village of Palmetto Bay was incorporated in 2002. The Village covers a rectangular-shaped, 8.9 square mile area which is approximately defined by Howard Drive (SW 136 St) on the north, Eureka Drive (SW 184 St) on the south, South Dixie Highway (US-1) on the east and Biscayne Bay on the west. The Village is bordered by the Village of Pinecrest to the north, the City of Coral Gables to the north-east, the Town of Cutler Bay to the south and Unincorporated Miami-Dade County to the west.

Palmetto Bay's municipal form of government as set forth in its charter is "Council-Manager." The elected officers are the Mayor, Vice-Mayor and three Residential Council members, who are all elected at-large for four year terms. The Manager is the chief administrative officer of the Village and is responsible for the day-to-day functions. The Manager is responsible for presenting the annual budget to the Council members for approval.

The Village of Palmetto Bay is substantially built-out. The Village's current population is approximately 24,440 (2015 Miami-Dade County WASD estimate), with future development potential and population growth limited by the scarcity of vacant and developable land. The redevelopment of properties along US-1 including the Franjo Triangle, which according to its Master Plan is calling for higher density, and the potential expansion of the Village's current boundaries through annexations, are the only factors that might result in significant population increase during the planning period. The vast majority of the Village of Palmetto Bay is served by public water lines. The Miami-Dade Water and Sewer Department is responsible for water supply, treatment and transmission. New development and redevelopment are not expected to significantly increase needs for water service. There are no classified prime groundwater recharge areas within the Village of Palmetto Bay. Aquifer recharge sources in the Village include the Cutler Drain Canals and Biscayne Bay and their tributaries, drainage structures designed for infiltration, and lawns and swales.

The Village of Palmetto Bay is a small municipality in the middle of a major metropolitan area. A great majority of the Village is encompassed by single-family homes and commercial shopping areas along US-1. Future population estimates are based on the MDWASD population estimates for Retail Customers by municipality. As stated above the current population of the Village is 24,440 increasing to 24,848 in 2020; 25,357 in 2025; ~~and~~, 25,866 in 2030, and 26,172 in 2033.

2.2 Relevant Regional Issues

Regional issues that affect the Village of Palmetto Bay include minimizing pressure on the Everglades and Biscayne Bay ecosystems 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 Palmetto 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 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 increasing conservation and reuse.

Even with an ever increasing population, withdrawals from the Aquifers will be limited, greater conservation will be required to reduce per capita use; and, reclaimed water must continue to be an important alternative water source per the 2008 Leah G. Schad Ocean Outfall Program. The Village supports Miami-Dade County efforts in reducing wastewater outflows and providing for re-use.

The Lower East Coast's Plan notes that a number of utilities have diversified their water supplies, including treatment and storage technologies, and water conservation programs. These alternatives include constructing brackish Floridian aquifer wells and reverse osmosis treatment plants, reclaimed water treatment and distribution facilities, and aquifer storage and recovery systems. Between 2007 and 2009, 41 MGD of potable water supply capacity was added. The LEC water supply plan noted that in 2010, the demand for water (1,720 MGD) was as follows:

- Public Water Supply - 842 MGD
- Domestic Self-Supply - 18 MGD
- Agricultural (AGR) Self-Supply - 655 MGD
- Industrial/Commercial/Institutional (ICI) Self-Supply - 44 MGD
- Recreational/Landscape (REC) Self-Supply - 149 MGD
- Power Generation Self-Supply - 12 MGD.

From 2010 to 2013, nine utilities built public water supply (PWS) projects with a capacity of 49 MGD. Approximately 14 percent of the current PWS allocation is now from an alternative water source, primarily brackish groundwater. As of 2010, SFWMD water use permitted allocations was 1172 MGD. As of 2012, FDEP permitted water treatment capacity for potable water was at 1489 MGD, and permitted water treatment capacity for non-potable water was at 117 MGD.

The Village, through Policy 8.1.19 and Coastal Management Objective 5 and associated Policies, supports CERP and the Biscayne Bay Coastal Wetlands Project. The Deering Estates Flow-way, a part of the Biscayne Bay Coastal Wetlands Project, runs directly through the Village of Palmetto Bay.

Through Policies 6.2.11 and 6.2.15 and Objectives 4A, 4B, 4C, 4E, 6.3, 6.4, 11.6, 11.7, and 11.8 and these Objectives' associated Policies, the Village assists in the protection of surface and ground waters, water quality and recharge.

3.0 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/or intensity. Additionally, population projections should be reviewed for consistency between the County and the South Florida Water Management District's Water Supply Plan.

3.1 Population Information

The Village’s existing and future population figures were derived from the MDWASD Retail Customers estimate. Below is a comparison in tabular format. As stated previously, for the purpose of water supply planning the LEC projections will be utilized. As shown in Table 1, the LEC Update states that the MDWASD Service Area has a population of 2,239,773.

The total 2010 population of Miami-Dade County, in which the Village’s population is included, was 2,496,435 (Table A-7. PWS and DSS population projections for the LEC Planning Area, *2013 LEC Water Supply Plan Update*). Of that total the Miami-Dade WASD serviced 2,141,885 residents.

**Table 1.
Village vs. Miami-Dade County Population Comparison**

	2010	2015	2020	2025	2030	2033
Village of Palmetto Bay	23,829	24,440	24,848	25,357	25,866	26,172
MDWASD Service Area	2,141,885	2,239,773	2,337,660	2,435,548	2,533,436	2,642,929
Miami-Dade County Total Pop.	2,496,435	2,610,526	2,724,618	2,838,709	2,952,800	3,118,328

3.2 Maps of Current and Future Areas Served

Figure 2 depicts current and future water service areas of the Village. MDWASD is the only service provided to customers within the Village’s municipal boundaries. There are no areas anticipated to be annexed.

3.3 Potable Water Level of Service Standard

Current Village adopted Level of Service are outlined in the policies.

Objective 11.1 Potable Water Level of Service

Coordinate effectively with the Village’s water service provider Miami-Dade County Water and Sewer Department (WASD), to ensure that potable water service to the Village will meet to exceed the adopted level-of-service (LOS) standard throughout the planning period.

Policy 11.1.1

The adopted level-of-service standard established by WASD for potable water service within the Village:

- a. Regional Treatment. System shall operate with rated capacity that is no less than two (2) percent above the maximum daily flow for preceding year.
- b. User LOS, maintain capacity to produce and deliver 93.45 gallons/per capita/per day.
- c. Water Quality. Meet all federal, state, and county primary potable water standards.
- d. Countywide Storage. Storage capacity for finished water shall equal no less than 15 percent of countywide average daily demand.

Policy 11.1.2

Monitor and assess periodically, the planning, capital programming, and construction programs of WASD, as well as service complaints, to help ensure that Village residents, businesses, and other Village users are provided with potable water services in compliance with the adopted LOS standard.

Policy 11.1.3

Coordination of land uses and future land use changes with the availability of water supplies and water supply facilities.

Policy 11.1.4

All Village development order approvals must ensure that the Village's adopted potable water LOS standard will be maintained from planning through to construction and operation.

Policy 11.1.5

Revise potable water level of service standards for residential and nonresidential users.

The Village will continue to encourage the reduction of annual average per person demand pursuant to policies in the comprehensive plan as coordinated by MDWASD and the South Florida Water Management District.

3.4 Population and Potable Water Demand Projections for the Village

The South Florida Water Management District *2013 Lower East Coast Water Supply Plan Update* (LEC) details the projected potable water demand for MDWASD, which includes the Village of Palmetto Bay. 100% of Palmetto Bay's residents are serviced by the MDWASD. Since MDWASD provides water to a number of Miami-Dade County municipalities and most of the unincorporated area, the analysis of the Village's water needs is determined by the Village's percentage of the overall population of the MDWASD service area population (Table 2).

Table 2.
MDWASD – Palmetto Bay
Current and Projected Water Supply
(MDWASD) Water Use Permit No. 13-00017-W)

	ACTUAL	PROJECTED				
	2010	2015	2020	2025	2030	<u>2033</u>
Population	23,829	24,440	24,848	25,357	25,866	<u>26,172</u>
Per Capita (gallons per day finished water)	93.45	93.45	93.45	93.45	93.45	<u>93.45</u>
	MGD	MGD	MGD	MGD	MGD	<u>MGD</u>
Potable Water Demands (daily average annual) – Village of Palmetto Bay	2.23	2.28	2.32	2.37	2.42	<u>2.44</u>

Notes

1. Population projections MDWASD Retail Customers
2. Per Capita data from Miami-Dade WASD 20-year Water Supply Facilities Work Plan (2014-2033)

3.5 Water Supply Distribution Provided by the Village of Palmetto Bay

MDWASD is a regional water and wastewater utility that furnishes potable water service to approximately 2.2 million inhabitants and tens of thousands of commercial establishments. The service area covers numerous municipalities and most of the unincorporated areas of Miami-Dade County. The Village of Palmetto Bay does not provide or distribute potable water to the Village’s residents or businesses.

3.6 Water Supply Provided by Miami-Dade County WASD

As stated above, the MDWASD System supplies potable water to over 2.2 million persons, including residents and businesses within the Village of Palmetto Bay, and is an interconnected system of three subareas. Other water suppliers within Miami-Dade County include: North Miami Beach, North Miami, Homestead, and Florida City. Currently within the MDWASD Service Area there are 15 municipal wholesale customers.

The information contained in the Miami-Dade 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 are herein incorporated by reference. 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.

The following Miami-Dade County CDMP Policy supports the coordination with the SFWMD LEC Update:

WS-6D. In the development of its future potable water supplies, Miami-Dade County shall, to the maximum extent feasible, utilize methods which preserve the integrity of the Biscayne Aquifer, protect the quality of surface water and related ecosystems, consider and are compatible with the South Florida Water Management District's 2013 Lower East Coast Regional Water Supply Plan Update and the current Water Use Permit, and comply with the land use and environmental protection policies of the Miami-Dade County CDMP, the Strategic Regional Policy Plan for South Florida, and the State Comprehensive Plan.

3.7 Conservation

Water conservation is the key to maintaining the health and productivity of the Surficial Aquifer System. Promoting water conservation equipment, techniques, and practices will benefit customers economically and maintain a realistic water demand picture for utilities. Protection of the aquifer system and wellfields (Figure 3) through conservation and reuse, recharge enhancement, limitations on withdrawal, regulation of land use, and maintenance of minimum flows and levels will ensure the availability of an adequate water supply for all competing demands, maintain and enhance the functions of natural systems and preserve water quality.

The Village of Palmetto Bay works in coordination with MDWASD, SFWMD and state efforts aimed at promoting conservation through a variety of means including:

- The Village shall assist the County in its proposed water conservation program through plumbing requirements, and with Florida Friendly Landscaping materials, as described in Section 373.185, Florida Statutes, in medians and parks.
- The Village recently updated its Stormwater Master Plan and is currently implementing improvements as prioritized in the plan.
 - Use the Stormwater Master Plan process and prudent land development regulations to ensure that private development and public infrastructure projects maintain required surface water quality standards and serve to recharge the groundwater aquifer.
- Continue to support and monitor state, county, and South Florida Water Management District efforts to protect, conserve, and manage the quality and quantity of natural groundwater resources.

3.7.1 County-wide Efforts

Section 4.5 Water Conservation and Reuse of the Miami-Dade WASD 20-year Water Supply Facilities Work Plan (2014-2033) Support Data (November 2014) outlines additional MDWASD efforts (pages 4-6 and 7).

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 Village of Palmetto Bay continues to remain in full support of the water conservation initiatives adopted by the SFWMD and Miami-Dade County.

While the Village 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 Village 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 Village's Capital Improvement Plan (2015-2016).

The Village will continue to coordinate future water conservation efforts with WASD and SFWMD to ensure that proper techniques are applied. In addition, the Village 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 Village will continue to actively support SFWMD and Miami-Dade County in the implementation of new regulations or programs that are designed to conserve water.

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. The Village of Palmetto Bay is in full support of the water reuse initiatives under consideration by both the SFWMD and Miami-Dade County. The County has committed to implement a total of 170 MGD of water reuse as noted in the County's 20-year water use permit.

3.7.2 Village Specific Actions, Programs, Regulations, or Opportunities

The Village will coordinate future water conservation and reuse efforts with MDWASD and the SFWMD to ensure that proper techniques are applied. In addition, the Village will continue to support and expand existing goals, objectives and policies in the Comprehensive Plan that promote water conservation and reuse in a cost-effective and environmentally sensitive manner. The Village will continue to actively support the SFWMD and MDWASD in the implementation of new regulations or programs that are design to conserve water during the dry season. Finally, the Village will administer its own water conservation practices. The Village of Palmetto Bay ensures compliance with 40E-24 Florida Administrative Code via compliance with Miami-Dade County water

restriction rules, which are referenced specifically on the Village's Code Enforcement page.

In recognition of the need for immediate, coordinated and visionary action to address the impacts of a changing climate and provide for economic and environmental resilience in Southeast Florida, in 2010 the counties of Palm Beach, Broward, Miami-Dade and Monroe (Compact Partners) entered into the Southeast Florida Regional Climate Change Compact (Compact).

The Village has adopted a Stormwater Master Plan which provides for policies and actions regarding groundwater and recharge. As part of this plan, the Village includes Stormwater Capital Improvements Projects as part of its annually updated Capital Improvements Program/Capital Improvements Element.

3.7.3 MDWASD Specific Regulations

MDWASD, and therefore the Village of Palmetto Bay, implement water conservation through the following Ordinances:

20-4.5 - Landscaping and tree protection requirements for all zoning districts.

(F) Landscape Plans Review Criteria

In order to conserve water, reduce maintenance, and promote plant health, plant species shall be selected and installed based on their water needs, growth rate and size, and resource inputs. Plants with similar water needs shall be grouped in hydrozones. Adequate growth area, based on natural mature shape and size shall be provided for all plant materials.

20-4.6 - Environmental review standards.

The following standards shall be utilized by the environmental review and preservation board in their review and evaluation of all site and landscape plans as required by this Code.

(A) Natural Environment.

(1) Proposed development shall be designed in such a manner so as to preserve and protect existing environmentally-sensitive lands and natural resources, such as and including soils, ground water, surface water, shorelines, vegetative communities, fisheries and wildlife habitats.

4.0 INTERGOVERNMENTAL COORDINATION

The provision of water supply needs in the Village of Palmetto Bay is achieved in coordination with local, county, and regional partners including Miami-Dade County WASD and South Florida Water Management District. MDWASD is the Village's primary water partner as they provide the Village its water service utilities. MDWASD ensures that water supply services are provided to the majority of residents of Miami-Dade County in the most efficient and effective manner. SFWMD acts to protect the region's

water supply resources and coordinates the implementation of state water regulations and policies through local water planning efforts and water supply services.

5.0 CAPITAL IMPROVEMENTS

The information contained in the Village's FY 2015-2016 adopted budget, including Capital Improvement Plan, adopted September 21, 2015; the Miami-Dade County 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 are herein incorporated by reference.

6.0 GOALS, OBJECTIVES AND POLICIES

The following lists the Goals, Objectives and Policies are included in the Village's adopted Comprehensive Plan (2015 Update) to ensure consistency between the elements in the Growth Management Plan and the Water Supply Facilities Work Plan.

1.0 Future Land Use Element

Objective 1.2 Land Development Code

Maintain, and revise as necessary, an effective Land Development Code (LDC), which clearly implements the goal, objectives, and policies of this Element, and the adopted Comprehensive Plan as a whole, and regulate development quality and impacts.

Policy 1.2.8

Preserve existing water-dependent and water-related uses within the Village's and establish standards within the Land Development Code for siting future water-dependent and water-related uses that address land use compatibility, availability of upland support services, existing protective status or ownership, hurricane contingency planning, protection of water quality, water depth, environmental disruptions, mitigation actions, availability for public use, economic need, and feasibility.

Objective 1.3 Public Facility Levels-of-Service

Make sure suitable land is available for roads and infrastructure needed to support proposed development and redevelopment, and the expansion of necessary public facility capacity and service concurrent with the impacts of development.

Policy 1.3.5

Work with Miami-Dade County and the South Florida Water Management District to implement the County's and Region's Water Supply Plan in conjunction with the

implementation of the Village's Water Supply Element, by adoption of the latest version of the Miami-Dade County Water Supply Facilities Work Plan, revised November 2014.

Objective 1.5 Environmental Resources and Natural Systems Protection and enhancement, to the maximum extent possible, of all environmentally important natural systems and historical resources existing in the Village.

Policy 1.5.1

Ensure that the LDC incorporates all relevant wetland, coastal and native upland protection requirements from the Miami-Dade County Department of Regulatory and Economic Resources, South Florida Water Management District, and the Florida Department of Environmental Protection, and that the applicable permitting requirements of these agencies are met for all development applications in the Village.

Policy 1.5.5

Retain and strengthen regulations protecting surface water, groundwater and air quality by implementing the standards for these resources establish by applicable regional, state, and federal environmental agencies.

Policy 1.5.6

Potable Water. No development orders shall be issued unless it can be determined that adequate potable water supplies and facilities are available.

Policy 1.5.7

Concurrency relating water supply shall be completed prior to the anticipated date of issuance of a certificate of occupancy in compliance with Policy 11.5.8. The Village shall consult with Miami-Dade County to determine that water supplies will be available at the time the certificate of occupancy is issued.

Objective 1.7 Street Tree Master Plan

Maintain the Street Tree Master Plan to create an attractive street environment that will complement private and public properties, create beauty within the public right-of-way, and be comfortable and create street canopy for energy efficiency for residents and visitors.

Policy 1.7.13

Increase green space within the rights-of-way to support tree growth and ensure proper swale areas for water percolation and ground water runoff purposes.

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4.0 Infrastructure Element

(A) Potable Water Sub-Element

Goal 4A

A quality, dependable potable water supply sufficient to meet the existing and future needs of Village residents and businesses on a timely basis, at a reasonable cost and in compliance with utility regulatory standards.

Objective 4A.1 Potable Water Level of Service

Coordinate effectively with the Village's water service provider, Miami-Dade County Water and Sewer Department (WASD) to ensure that potable water service to the Village will meet or exceed the adopted level-of-service (LOS) standard throughout the planning period.

Policy 4A.1.1

The adopted level of service standard adopted by the Miami-Dade Water and Sewer Department (WASD) for potable water service within the Village of Palmetto Bay is:

- a. The Regional Treatment: System shall operate with rated maximum daily capacity no less than 2% above the maximum daily flow for the preceding year, and an average daily capacity 2% above the average daily system demand for the preceding five years. The maximum daily flow shall be determined by calculating the average of the highest five single day flows for the previous 12 months.
- b. Water shall be delivered to users at a pressure no less than 20 pounds per square inch (psi) and no greater than 100 psi. Unless otherwise approved by the Miami-Dade Fire Rescue Department, minimum fire flows based on the land use served shall be maintained as follows:

<u>Land Use</u>	<u>Min. Fire Flow (gpm)</u>
Single Family Residential Estate	500
Single Family and Duplex; Residential on Minimum lots of 7,500 sf	750
Multi-Family Residential; Semiprofessional Offices	1,500
Hospitals; Schools	2,000
Business and Industry	3,000