

PUBLIC FACILITIES ELEMENT

TABLE OF CONTENTS

| | <u>Page</u> |
|---|--------------------|
| BACKGROUND | PF - 1 |
| INVENTORY AND ANALYSIS | PF - 1 |
| SEWER FACILITIES | PF - 2 |
| POTABLE WATER AND GROUNDWATER RECHARGE FACILITIES | PF - 3 |
| SOLID WASTE MANAGEMENT | PF - 6 |
| DRAINAGE | PF - 7 |
| STREET SYSTEM | PF - 7 |
| BUILDINGS AND OTHER FACILITIES | PF - 8 |
| NEEDS AND RECOMMENDATIONS | PF - 9 |
| GOALS, OBJECTIVES, AND POLICIES | PF - 10 |
| WATER SUPPLY FACILITIES WORK PLAN SUB-ELEMENT | PF - 22 |

LIST OF MAPS

| | |
|--|------------------|
| MAP # 1 - PLANNING AND SERVICE AREAS | PF - 5 & PF - 24 |
|--|------------------|

PUBLIC FACILITIES ELEMENT

OF THE COMPREHENSIVE PLAN

CITY OF DELRAY BEACH

BACKGROUND

The text of the Element is a summary of the complete inventory, analysis, and recommendations which are contained in the following source documents:

- ☐ Water Distribution System Master Plan (Hazen & Sawyer, 1992)
- ☐ Water Supply Master Plan (CH2M Hill, 2007)
- ☐ 2015 10-Year Water Supply Facilities Work Plan (Kimley-Horn and Associates, 2015)
- ☐ Stormwater Master Plan (Kimley Horn, 2000)
- ☐ Wastewater Transmission System Master Plan (Hazen & Sawyer, 1992)
- ☐ 1996 Evaluation and Appraisal Report (City of Delray Beach, 1996)
- ☐ Alternative Water Treatment Study (CH2M Hill 2001)
- ☐ Reclaimed Water Master Plan (Mathews Consulting, 2003)
- ☐ Congress Avenue Corridor Capacity Study (Mathews Consulting, 2007)
- ☐ Roadway Conditions Atlas (City of Delray Beach, 2007)
- ☐ 2006 Evaluation and Appraisal Report (City of Delray Beach, 2006)
- ☐ [2017 Evaluation and Appraisal Report \(City of Delray Beach, 2017\)](#)

The source documents, and other documents which are cited in the Element, are available for public review at the Planning and Zoning Department offices located at 100 N.W. 1st Avenue, Delray Beach, Florida.

INVENTORY AND ANALYSIS

The following summaries have been prepared to facilitate review with the requirements of ~~Administrative Rule 9J-5F.S. 163.3177~~. As a summary, only significant items are highlighted. The source documents should be referred to for more information.

A separate inventory and analysis is provided for sewer, water, drainage, and solid waste disposal facilities. Inventory and analysis dealing with groundwater aquifer recharge is addressed under the water subsection.

SEWER FACILITIES

Wastewater treatment is provided by the South Central Wastewater Treatment Facility, located in Delray Beach. The facility is jointly owned by Delray Beach and Boynton Beach, under the responsibility of a board comprised of the City Commissions of both cities. Daily operations of the facility are overseen by an executive director, reporting to the board. Delray Beach Environmental Services Department is responsible for the wastewater collection and transmission system within the service area.

The service area coincides with the City's Planning Area plus service provided through contract to Highland Beach. Also included are several single and multi-family connections in the Town of Gulf Stream. The service area encompasses approximately 18 square miles, as shown on Map #1.

The wastewater collection system consists of approximately 355 miles of gravity and force mains interconnected to 126 lift stations. In addition, there are less than 100 septic tanks within the service area. The treatment plant was constructed in 1979, with a programmed life of 50 years (2029). Ultimate disposal is currently by ocean discharge of secondary effluent and land spreading of sludge. In late 2008, deep well injection will replace the ocean discharge except for emergency situations and DEP permitted exceptions. Also in late 2008, with completion of the Palm Beach County Biosolids Pelletization facility, land spreading of sludge will no longer be used. The new facility will dry and process the sludge into pellets for use in fertilizer. The design capacity of the treatment plant, established by its secondary treatment capacity, is 24 mgd. This capacity is shared equally between Boynton Beach and Delray Beach.

CITY OF DELRAY BEACH CAPACITY/DEMAND ANALYSIS (SEWER) (Includes Service to City of Highland Beach)

| CAPACITY | DEMAND ('07) | DEMAND (2025) |
|-----------------|---------------------|----------------------|
| 12 mgd | 7.5 mgd | 9.5 mgd |

Deficiencies

Upgrading and maintenance of lift stations requires on-going capital investment.

Infiltration into the collection system could impact future facility costs through capital expansion. This problem has been significantly reduced in recent years with the repair and reconstruction of the collection system east of I-95. An on-going program to reduce infiltration/inflow is a cost effective method of reducing the need for treatment facility expansion and requires on-going capital investment.

POTABLE WATER AND GROUNDWATER RECHARGE FACILITIES

Water treatment is provided by the City of Delray Beach at the Water Treatment Plant. The geographic service area coincides with the Planning Area plus service provided to Gulf Stream through contract as a bulk customer. The service area encompasses approximately 19 square miles, as shown on Map #1.

The treatment plant, as noted within the 2015 10-Year Water Supply Facilities Work Plan is rated at 26 MGD by the Florida Department of Environmental Protection (FDEP). The City maintains a State certified laboratory, the primary responsibility of which is monitoring potable water quality. EPA Stage 2 Standards for disinfection by-products are being met through the use of supplemental chemical treatment.

CITY OF DELRAY BEACH CAPACITY/DEMAND ANALYSIS (WATER TREATMENT) (Includes Service to Town of Gulf Stream)

| <u>CAPACITY</u> | <u>POTABLE WATER DEMAND (2015)</u> | <u>POTABLE WATER DEMAND (2030)</u> |
|------------------------|---|---|
| 26 mgd | 16.29 mgd | 18.20 mgd |

The water distribution system includes 430 miles of water mains ranging from 2 to 24 inch diameter, 2,635 fire hydrants, transfer pumps, and storage facilities with a capacity of 8.5 mg.

The City currently withdraws groundwater from the 30 active Surficial Aquifer System (SAS) wells in four wellfields and one (1) Floridan Aquifer System (FAS) well for subsequent treatment and distribution to its service area. The City's current SFWMD Water Use Permit No. 50-00177-W was issued on December 20, 2010 and expires on December 20, 2030. Under this permit, the annual groundwater allocation shall not exceed 6,972 MG (19.10 MGD) and the maximum monthly allocation shall not exceed 654 MG (21.8 MGD). In addition, there are more than 1,000 domestic wells within the service area, predominantly used for irrigation. There are no major groundwater

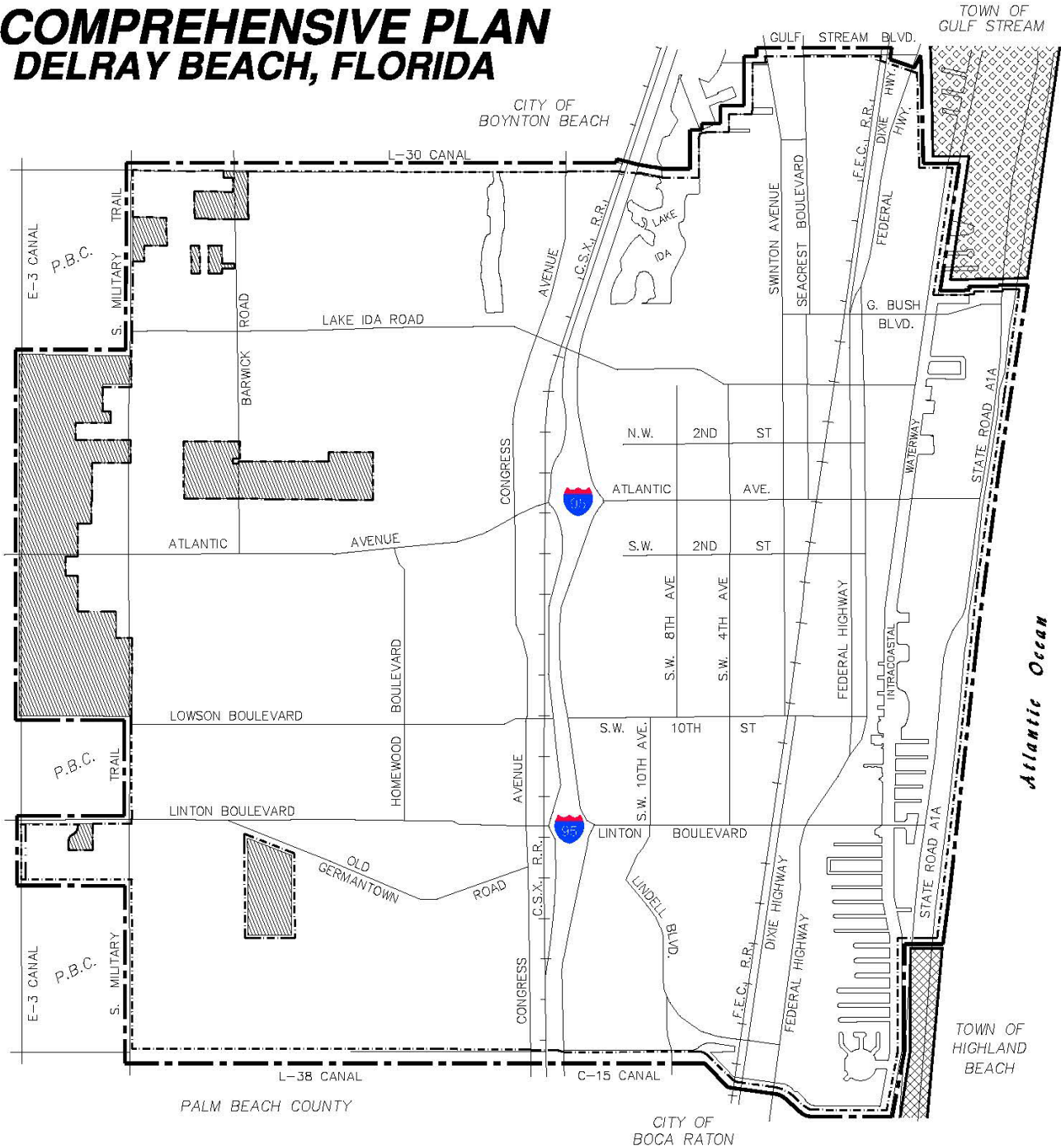
recharge areas within the Planning Area, although the entire region east of the Conservation Area is identified as a prime aquifer recharge area by the U.S. Geological Survey and the Palm Beach County Comprehensive Plan.

Deficiencies

Water mains of 2" diameter, found in older areas of the City, are not sufficient for fire protection. Funds are provided annually to upgrade these lines.

Needed improvements to the piping system have been identified to accommodate demand conditions and localized fire demands.

COMPREHENSIVE PLAN DELRAY BEACH, FLORIDA



MILE
GRAPHIC SCALE

CITY OF DELRAY BEACH, FLORIDA
PLANNING & ZONING DEPARTMENT

MARCH 2015

PLANNING AREA MAP #1

LEGEND:

| | |
|---|--|
| PLANNING AREA (ULTIMATE CITY BOUNDARY) | CITY LIMITS |
| TOWN OF GULF STREAM (WATER & FIRE SERVICE) | TOWN OF HIGHLAND BEACH (SEWER & FIRE SERVICE) |
| COUNTY JURISDICTION | |

SOLID WASTE MANAGEMENT

The Solid Waste Authority has responsibility for the ultimate disposal of solid waste in the region. The City is responsible for collection of solid waste within the City limits through a contract with a private firm.

Solid waste is collected by the City's contractor and generally taken to a transfer station located within the City, then by Solid Waste Authority trucks to the regional landfill, located near West Palm Beach. The transfer station, located on S.W. 4th Avenue just south of Linton Boulevard, has a capacity of 1,000 tons per day and is operating at approximately 15% below its maximum capacity. This transfer station serves the south county from Boynton Beach Boulevard south to the County line. Other transfer stations used are outside the City.

The North County Regional Solid Waste Disposal Facility, operated by the Solid Waste Authority, is the ultimate disposal site. This facility occupies 334 acres, and consists of a Class 1 (garbage and incinerator residue) and a Class 3 (trash) landfill. The landfill, at its established Level of Service standard of 7.13 pounds per person per day, has sufficient capacity to serve until the year 2021. The Board of the Solid Waste Authority has authorized the initial design and permitting efforts to develop a new landfill on 1,600 acres owned by the authority. The capacity of this new landfill would extend the life of the solid waste system beyond the year 2065. In addition to the landfill, the facility provides recycling, waste-to-energy incineration and composting facilities. The total tonnage added to the landfill annually is 1,918,735 tons (2007). The City of Delray Beach contributes 70,800 tons per year (commercial and residential) to the landfill (2007), including garbage, trash, and vegetation. This equates to 6.02 pounds per person per day. The City's yearly contribution to the landfill is 4.4% of the total. The Delray Beach population of 64,360 (2007 estimate) represents 5.0% of the County population of 1,295,033 (2007 estimate). The City's impact on the landfill is, therefore, 16% less than the Level of Service standard and 11% less than its portion of the County population.

The City has an aggressive recycling program that began in 1990. The program includes curbside residential recycling for single family and multi-family homes. The program accounts for a reduction to the waste stream of 5,180 tons per year (2007). This represents a reduction of over 12% in the residential waste stream.

There were no problems or deficiencies with the collection system. Long truck queues at the transfer station sometimes cause congestion problems.

The capacity of the landfill was not estimated for this report. Such capacity analysis is under the jurisdiction of the Solid Waste Authority, and indicates sufficient capacity through the year 2021. A local issue relative to capacity would be whether the local government is meeting the established level of service standard of 7.13 pounds per person per day. As discussed above, Delray Beach is well below the standard, at 6.02 pounds per person per day.

DRAINAGE

Responsibility for storm drainage in the City is divided among a hierarchy of state and regional agencies, the City, and landowners, as follows:

| AGENCY | RESPONSIBILITY |
|---|---|
| South Florida Water Management District | Major canals and structures; permitting |
| Lake Worth Drainage District | Lateral and equalizer canals and minor structures |
| City of Delray Beach/Palm Beach County | Public storm sewer system |
| Land Owners | On-site storm sewers and retention areas |

Deficiencies

Local and City-wide drainage deficiencies are identified in the Stormwater Master Plan (Kimley-Horn, 2000). The City has programmed projects to correct the deficiencies identified in this report and achieve a Level of Service standard of 'C', with funding to come from the Stormwater Utility Fee.

STREET SYSTEM

The City has repair and maintenance responsibility for most roads within the City limits. Exceptions to this include major roads under the jurisdiction of the State or County, and private roads maintained by land owners. The City maintains approximately 305.4 lane-miles of roadways (April, 2008).

The City has completed the 2000 Road Bond Program to reconstruct numerous streets under City jurisdiction. An annual program currently exists to resurface streets as needed. The program was developed to bring all city streets to Level of Service C, and to pave all unpaved streets which provide access to improved properties. Unpaved streets which do not currently provide access to improved properties will be paved by the developer with development of the property. In addition, there is a need to pave currently unpaved streets, particularly in areas added to the City by annexation. Approximately 2 miles of unpaved roads exist in the City (April, 2008).

There is no overall master plan for all the components of a street system, including roadways, sidewalks, street lights, drainage, and signs and markings. Without such a master plan, it is difficult to efficiently address problems in the area, and impossible to identify the proper level of funding needed to provide a uniform and equitable level of service to all parts of the City. These components are currently being added to the

citywide GIS system. When completed, this will provide the necessary information to identify problem areas and make funding decisions.

BUILDINGS AND OTHER FACILITIES

An inventory of the major buildings and facilities owned by the City includes:

- ☐ City Hall and Community Center on NW 1st Avenue.
- ☐ City Attorney's Office on NW 1st Avenue.
- ☐ Central Fire Station on Atlantic Avenue.
- ☐ Four fire substations (#2, #3, #4, #5).
- ☐ Environmental Services complex on South Swinton Avenue.
- ☐ Water treatment plant on SW 2nd Avenue.
- ☐ Chemical/Generator Storage Building on SW 2nd Avenue.
- ☐ Public Safety Building (Police) on Atlantic Avenue.
- ☐ City Marina.
- ☐ Municipal Tennis Center and Stadium (operated by management firm).
- ☐ Municipal Golf Course (operated by a management firm).
- ☐ Lakeview Golf Course (operated by a management firm).
- ☐ Old School Square Complex (operated by a non-profit organization).
- ☐ Cason Cottage Museum (operated by a non-profit organization).
- ☐ Cemetery (mausoleum portion is operated by a lessee).
- ☐ Parks and Historic Structures (addressed in the Open Space & Recreation Element).
- ☐ Federspiel Parking Garage.
- ☐ Old School Square Parking Garage.
- ☐ Seacrest Soccer Complex.
- ☐ Delray Swim and Tennis Club (operated by management firm).

- ☐ Ocean Rescue Headquarters at Anchor Park

Deficiencies

There are no major deficiencies related to buildings and facilities.

NEEDS AND RECOMMENDATIONS

Summarizing from the previous facility and performance analysis, the following needs and recommendations are identified in the City's Public Facilities Element.

- ☐ Continue the program for reduction of I/I in the wastewater collection system.
- ☐ Continue the program for extending water and sewer mains to inhabited areas in the City.
- ☐ Complete the citywide GIS street network inventory and mapping, including roadways, sidewalks, street lights, drainage, signs and markings.

GOALS, OBJECTIVES, AND POLICIES

GOAL AREA "A" *ENVIRONMENTAL PROTECTION*

Objective A-1 Sources of Pollution

Policy A-1.1 Septic Systems

Policy A-1.2 Rehabilitation of Sewer System

Objective A-2 Solid Waste

Policy A-2.1 Local Drop Off for Hazardous Waste

Policy A-2.2 Waste Level of Service

GOAL AREA "B" *POTABLE WATER*

Objective B-1 Water Supply

Policy B-1.1 WWTP Effluent Recycling

Objective B-2 Meeting Future Demands

Policy B-2.1 Decrease in Consumption

Policy B-2.2 Level of Service

Policy B-2.3 New Development Concurrency

Objective B-3 Groundwater Protection

Policy B-3.1 Wellfield Protection

Policy B-3.2 Minimal Reliance on Eastern Wellfield

Objective B-4 Enhancement of Water Quality (Potable)

Policy B-4.1 Reports to the City Commission

Policy B-4.2 Water Main Inspection

Policy B-4.3 Discourage Urban Sprawl

Policy B-4.4 Alternative Treatment Methods

Objective B-5 Water Supply Facilities Work Plan

Policy B-5.1 Adoption of Work Plan

Policy B-5.2 Coordination with SFWMD

Policy B-5.3 Coordination with Town of Gulfstream

Policy B-5.4 Prioritization of Improvements

Policy B-5.5 Schedule of Improvements

GOAL AREA "C" SEWER COLLECTION AND WATER DISTRIBUTION SYSTEMS

Objective C-1 Master Plans

- Policy C-1.1 Water System Model
- Policy C-1.2 Sewer System Model

Objective C-2 System Improvements

- Policy C-2.1 Remedial Work - Sewer
- Policy C-2.2 Remedial Work - Water

Objective C-3 Availability of Facilities - Sewer

- Policy C-3.1 Obligations of New Development
- Policy C-3.2 Upgrading existing Facilities

Objective C-4 Availability of Facilities - Water

- Policy C-4.1 Upgrading of Existing Facilities
- Policy C-4.2 Obligations of New Development

Objective C-5 Revenue Allocations

- Policy C-5.1 General Fund Relationship
- Policy C-5.2 Annual Allocations for Upgrading of System Components
- Policy C-5.3 Financing of System expansions
- Policy C-5.4 Coordination with Other Improvement Projects

Objective C-6 Wastewater Treatment Plant

- Policy C-6.1 Level of Service
- Policy C-6.2 Participation Formula
- Policy C-6.3 Design Capacity

GOAL AREA "D" BUILDINGS AND FACILITIES

Objective D-1 Public Facilities

- Policy D-1.1 Repair and Maintenance
- Policy D-1.2 Facility Replacement
- Policy D-1.3 Accessibility

GOAL AREA "E" STREETS AND DRAINAGE

Objective E-1 Drainage Facilities

- Policy E-1.1 Project Priorities
- Policy E-1.2 Design Standards
- Policy E-1.3 Storm Water Management Regulations
- Policy E-1.4 Design Frequency Standards
- Policy E-1.5 NPDES Programs and Activities
- Policy E-1.6 Storm Water Mapping System

Objective E-2 Funding Mechanisms

Objective E-3 Street Resurfacing and Reconstruction

- Policy E-3.1 Street Resurfacing Program
- Policy E-3.2 Sidewalk System

GOAL AREA "F" PUBLIC INFORMATION

Objective F-1 Public Information Resources

Objective F-2 Public Participation

- Policy F-2.1 Public Hearings Required Prior to Setting Priorities
- Policy F-2.2 Local Planning Agency Responsibilities
- Policy F-2.3 Priority Changes restricted

GOAL AREA "A" *THE PURPOSES, PROGRAMMING, AND PROVISION OF WASTE DISPOSAL FACILITIES SHALL BE DIRECTED BY THE GOAL OF PROVIDING A SAFE, FUNCTIONAL, ECOLOGICALLY SOUND, AESTICALLY PLEASING AND SUSTAINABLE PHYSICAL ENVIRONMENT, ELIMINATING ANY WASTE INTO THE INTRACOASTAL WATERWAY AND OCEAN AND ENCOURAGING RECLAIMED WATER USAGE AS A WATER CONSERVATION MEASURE.*

Objective A-1

Specific programs to mitigate the adverse impacts of point sources of pollution, as identified in the following policies, shall be developed and implemented by the City's Environmental Services Department and the South Central Regional Wastewater Treatment Facility Board, as appropriate.

Policy A-1.1 Existing septic tanks which are located in sewerred areas throughout the City shall be removed from use as necessary pursuant to Florida Statutes. Septic systems deemed subject to flooding, or with chronic drainfield problems that may have an adverse impact on the environment shall be abandoned and connection made to the central sewer system.

Policy A-1.2 Programming of improvements to the sewer system shall place a high priority upon the rehabilitation of portions of the original system which experience infiltration and leakage.

Objective A-2

Programs to address the collection and disposal of solid waste shall be developed and implemented with particular regard to environmentally sound procedures.

Policy A-2.1 The City shall support the continued operation of the "transfer" station or suitable alternative for the collection of small amounts of hazardous substances from individuals, and public information efforts which educate the public on the identification and proper disposal of household hazardous waste.

Policy A-2.2 A level of service for solid waste at a generation of 7.13 pounds per person per day is hereby established within the City of Delray Beach.

GOAL AREA "B" *POTABLE WATER SHALL BE PLANNED FOR AND PROVIDED SO THAT IT IS AVAILABLE TO ACCOMMODATE DEMANDS BOTH IN TERMS OF QUANTITY AND QUALITY WHILE ALSO MAKING WISE USE OF THIS LIMITED RESOURCE AND THE LIMITED RESOURCE OF CAPITAL.*

Objective B-1

Even though the City has projected an adequate water supply, it shall provide for increasing draw-down and the potential of reduced capacity through salt water intrusion and/or extended drought conditions through optimum use of existing wells, development of new wells and development of alternative technologies and methods of providing water. This objective shall be met in the performance of the following:

Policy B-1.1 The City, through the South Central Regional Wastewater Treatment Facility Board, shall continue to monitor the area of effluent reuse with the ultimate goal of reclaiming and reusing more effluent from the wastewater treatment plant for irrigation. Priorities for expansion should be on golf courses in the City, large home owner associations on master meters, and in the Coastal Planning Area.

Objective B-2

To insure that potable water is available to meet consumption, a reduction in demand through year- round conservation and treatment plant enhancement shall be achieved.

Policy B-2.1 The City shall maintain its program of responsible consumption of water and shall strive to decrease the overall per capita consumption of water through continued implementation of the following techniques and programs: (Also see Objective A-4 of the Conservation Element).

- ☐ Maintaining its water rate structure which establishes an inverted block rate structure to set higher consumption rates for increased water use in order to promote reductions in water consumption as well as establishment of conservation surcharges, based on South Florida Water Management District formulae, and keyed to various levels of drought alert.
- ☐ Mandatory use of wells for irrigation purposes where conditions permit.
- ☐ Continued enforcement of water use laws.
- ☐ The consideration of xeriscape landscaping alternatives for all new development during the review of site and development plans.
- ☐ Continuation of the regular preventive maintenance program for water mains, pumps and meters.

- ☐ Continuation and expansion of the wastewater effluent reuse program.
- ☐ Participating in SFWMD's Conservation Hotel and Motel Program (CHAMP) to promote water conservation for many of the City's hotels.

Policy B-2.2 The City's water utility shall perform at the following levels of service:

- ☐ Average finished water design flow of the water system @ 234.8 gpcd.
- ☐ Storage capacity for the water system @ 15% of maximum flow plus fire reserve at 1.5 mg, plus 25% of that total. (Based on 2007 figures, this amount is 5.6 mg).
- ☐ Minimum pressure for the water system @ 20 psi.

(Note: The above standards are currently met throughout the system).

Policy B-2.3 It shall be an obligation of new development to provide water system improvements to accommodate demands created by it and to meet the City's minimum design standards concurrent with development.

Objective B-3

The City shall provide for the protection of its potable water resources at all times, including, but not limited to, power outages and other emergency situations.

Policy B-3.1 Protection of existing wellfields shall be accommodated through the continued implementation of monitoring for salt water intrusion, wastewater pretreatment programs and monitoring wells and through enhanced quality control programs which provide early detection of possible contamination.

Policy B-3.2 The City shall maintain provisions in the program for raw water supply to require only minimal reliance upon wells which are subject to salt water intrusion.

Objective B-4

The City shall provide for the enhancement of the quality of its water through implementation of the following:

Policy B-4.1 Annual consumer confidence reports which describe the current condition of potable water, including at a minimum, water quality, consumption trends, and treatment methods, shall be distributed to residents.

Policy B-4.2 Whenever the opportunity occurs to uncover or examine an existing water main, an inspection shall be conducted relative to the presence of asbestos cement in the main. The results of each such inspection shall be logged and made a part of the Operation and Maintenance Plan.

Policy B-4.3 The City shall assist in discouraging urban sprawl within areas of County jurisdiction by denying requests to make water service available outside its existing Planning Area to areas which could be developed at low density with City water facilities.

Policy B-4.4 The City shall continue to meet the EPA stage 2 disinfection by-product rule requirements.

Objective B-5

The City shall ensure that there is an adequate water supply to meet existing and projected potable water needs in emergency and nonemergency situations, with the recognition that development which increases density also increases the demand for water.

Policy B-5.1 The City shall adopt and maintain a Water Supply Facilities Work Plan for at least a ten year period, based on the availability and appropriate use of regional water resources and the combined use of alternative water supplies to diversify the City's source of water and reduce dependence on the surficial aquifer. The Work Plan shall be consistent with the City's Water Use Permit renewals.

Policy B-5.2 The City shall consider the most current version of South Florida Water Management District's Lower East Coast Water Supply Plan and Regional Water Plan in developing a Water Supply Facilities Work Plan. The Work Plan will be updated within 18 months following an update of the Regional Water Supply Plan.

Policy B-5.3 The City will coordinate planning efforts regarding population projections and water demand with those of the Town of Gulfstream, to which it provides water service.

Policy B-5.4 The City will use the Water Supply Facilities Work Plan to prioritize and coordinate improvements to the City's water supply system.

Policy B-5.5 The City will maintain a current five-year schedule of capital improvements to the Water Supply System.

GOAL AREA "C" ***SEWER COLLECTION SYSTEMS AND WATER DISTRIBUTION SYSTEMS SHALL BE PROVIDED TO UNSERVED AREAS, AND EXISTING SYSTEMS SHALL BE UPGRADED IN SUCH A MANNER AS TO PROVIDE FOR THE PROTECTION OF THE ENVIRONMENT THROUGH AN ACCELERATED IMPROVEMENT PROGRAM.***

Objective C-1

The condition and inventory of the water and sewer systems shall be kept current through regular updates of the City atlas and surveillance programs.

Policy C-1.1 The water distribution system atlas shall be maintained on an on-going basis and shall reflect current system inventory. Operational characteristics will be maintained utilizing an asset management program such as the Hansen Data Base Program, which shall be used in the planning of system extensions and upgrade requirements.

Policy C-1.2 The wastewater collection and transmission system atlas shall be maintained on an on-going basis and shall reflect current system inventory. Operational characteristics will be monitored by radio telemetry and surveillance programs, and shall be used in the planning of system extensions upgrade requirements.

Objective C-2

Upgrading of sewer and water facilities shall occur as quickly as possible based on available funding. System upgrades shall be funded through annual appropriations in the Water and Sewer Renewal and Replacement Fund.

Policy C-2.1 A study has been completed determining the total program cost of addressing remedial work needed, for wastewater lines and lift stations, to correct the problems with inflow and infiltration. The City shall allocate annual expenditures to complete the project by 2015.

Policy C-2.2 A study has been completed determining the total program cost of addressing remedial work needed to correct deficiencies in existing water lines. The City shall allocate annual expenditures to complete the project by 2015.

Objective C-3

Installation of wastewater collection facilities shall be programmed and provided when the need is demonstrated.

Policy C-3.1 New development shall be responsible for extending sewer service to and through the land to be developed. Said extensions shall meet the City's performance standards.

Policy C-3.2 Upgrading of existing wastewater facilities shall be provided for through annual appropriations in the capital improvement program.

Objective C-4

Installation of potable water distribution facilities shall be programmed and provided when the need is demonstrated.

Policy C-4.1 Upgrading of existing potable water facilities shall be provided for through annual appropriations in the capital improvement program.

Policy C-4.2 New development shall be responsible for extending water service to and through the land to be developed. Said extensions shall meet the City's performance standards.

Objective C-5

Capital raised through the water and sewer enterprise funds shall be allocated as required by bond covenants.

Policy C-5.1 Transfers from enterprise funds to the general fund are made only for the fund's proportionate share of administrative costs and an in-lieu of tax payment.

Policy C-5.2 Annual allocations shall be provided for upgrading system components (i.e. manholes, hydrants, etc.) in the Water and Sewer Renewal and Replacement Fund.

Policy C-5.3 Upgrading of existing systems to construction and level of service standards and extension of new facilities to unserved, inhabited areas shall be financed through appropriations in the Water and Sewer New Capital Outlay Fund.

Policy C-5.4 Priorities for projects shall also consider other improvement projects (e.g. street construction and drainage) in establishing priorities.

Objective C-6

The City Commission in its role with the Board of the South Central Regional Waste Water Treatment Plant shall examine ways in which increased costs associated with capital expansion can be avoided with respect to property owners within the City.

Policy C-6.1 The Level of Service of the waste water treatment plant is hereby established as 115 gpcd up to the plant capacity of 12 mgd, in addition to the specific requirements of Boynton Beach.

Policy C-6.2 Commitments by the South Central Regional Waste Water Treatment Board for capital expansion at the wastewater treatment plant, are based on a 50%/50% cost sharing by the City of Delray Beach and the City of Boynton Beach. Costs related to operating the plant is based on the usage of Delray Beach and Boynton Beach respectively.

Policy C-6.3 Average and peak flow design capacity for the Regional Wastewater Treatment Plant shall be 24 mgd and 30 mgd respectively. Thus, capacity need shall be monitored by the South Central Wastewater Regional Treatment Plant Board.

GOAL AREA "D" ***A COORDINATED AND COMPREHENSIVE PROGRAM FOR THE PROVISION OF ADEQUATE OFFICE FACILITIES FOR THE CONDUCT OF CITY BUSINESS SHALL BE CONTINUED.***

Objective D-1

Provisions are to be implemented to maintain and upgrade existing public facilities to a state of the art level of service and improve the appearance of the facilities.

Policy D-1.1 The City shall continue its established program for the maintenance and repair of buildings and facilities, including such items as roof replacement and major structural repair, in a timely manner to maintain the viability of the facility.

Policy D-1.2 The City shall continue its established program for the replacement of irreparable or obsolete buildings, facilities, and major facility elements and the upgrading of existing facilities to maintain their ability to deliver the established level of service to the community.

Policy D-1.3 All new construction projects shall be in accordance with Federal guidelines on accessibility. The City shall make modifications to existing facilities that are easily achievable without great expense, such that the facility will be in accordance with Federal guidelines on accessibility.

GOAL AREA "E" ***PROPERTY DAMAGE AND INCONVENIENCE TO THE PUBLIC CREATED BY FLOODING AND POOR STREET CONDITIONS SHALL BE SUBSTANTIALLY REDUCED AND, WHERE POSSIBLE, ELIMINATED THROUGHOUT THE CITY.***

Objective E-1

A capital improvement program directed specifically to storm drainage and runoff management has been adopted by the City Commission, and capital projects, as

identified in that program, shall be implemented with funding to come from the Stormwater Utility Fee.

Policy E-1.1 Criteria for determining project priorities shall be as defined in the Stormwater Master Plan, and based upon correcting current, localized problems.

Policy E-1.2 Minimum design standards for determining the scope of drainage projects shall be such as to establish a level of service at least equal to the standard of retaining the first one inch of runoff for the entire site, or 2.5 inches of water storage times the percentage of impervious area, whichever is greater, to protect water quality.

Policy E-1.3 Storm water drainage regulations which provide for the protection of natural drainage features and ensure that development utilizes storm water management systems which are compatible with this objective shall be retained.

Policy E-1.4 The City shall maintain through regulations the minimum design storm return frequency for stormwater facilities capacity.

Policy E-1.5 The City shall protect and enhance surface water quality through the full implementation of programs and activities included in the National Pollutant Discharge Elimination System (NPDES) permit.

Policy E-1.6 The City shall maintain a stormwater mapping system and maintenance program for storm sewers and structures.

Objective E-2

Drainage improvements and flood control measures shall be financed through the Stormwater Utility Fee. Funded projects shall be located throughout the City as opposed to being concentrated in a single quadrant. The fee shall be reassessed upon completion of the program.

Objective E-3

The street system under the City's jurisdiction shall be maintained and enhanced to provide a uniform level of service throughout the City and provide a safe and convenient transportation network.

Policy E-3.1 The program of resurfacing streets shall be maintained with at least the current funding level.

Policy E-3.2 The City shall program installation of sidewalks on an annual basis, with the goal of completing a safe and convenient sidewalk system throughout the City by the year 2010.

GOAL AREA "F" ***THE NEED FOR ENHANCEMENT OF PUBLIC FACILITIES AND THE PROCESSES USED TO IDENTIFY, PRIORITIZE, AND FINANCE IMPROVEMENTS SHALL BE PUT FORWARD IN A MANNER WHICH IS EASILY UNDERSTOOD BY THE PUBLIC AND IS CONSISTENTLY AND EQUITABLY APPLIED.***

Objective F-1

Public knowledge and understanding of public facilities and infrastructure planning shall be assured through continuation of the following practices: display of system maps for water, sewer and drainage in City Hall; ready availability of the Five Year Capital Improvement Plan; prominent display of pamphlets, innovative methods and website additions addressing water conservation, solid waste disposal, and other subjects relative to public facilities.

Objective F-2

Public awareness of the methods used to determine public improvement activities, and public input to the process, shall be encouraged.

Policy F-2.1 Public input through testimony received at public hearings, advertised and held before the Local Planning Agency, shall be solicited annually during winter months in order to identify geographic areas which are most in need of improvements.

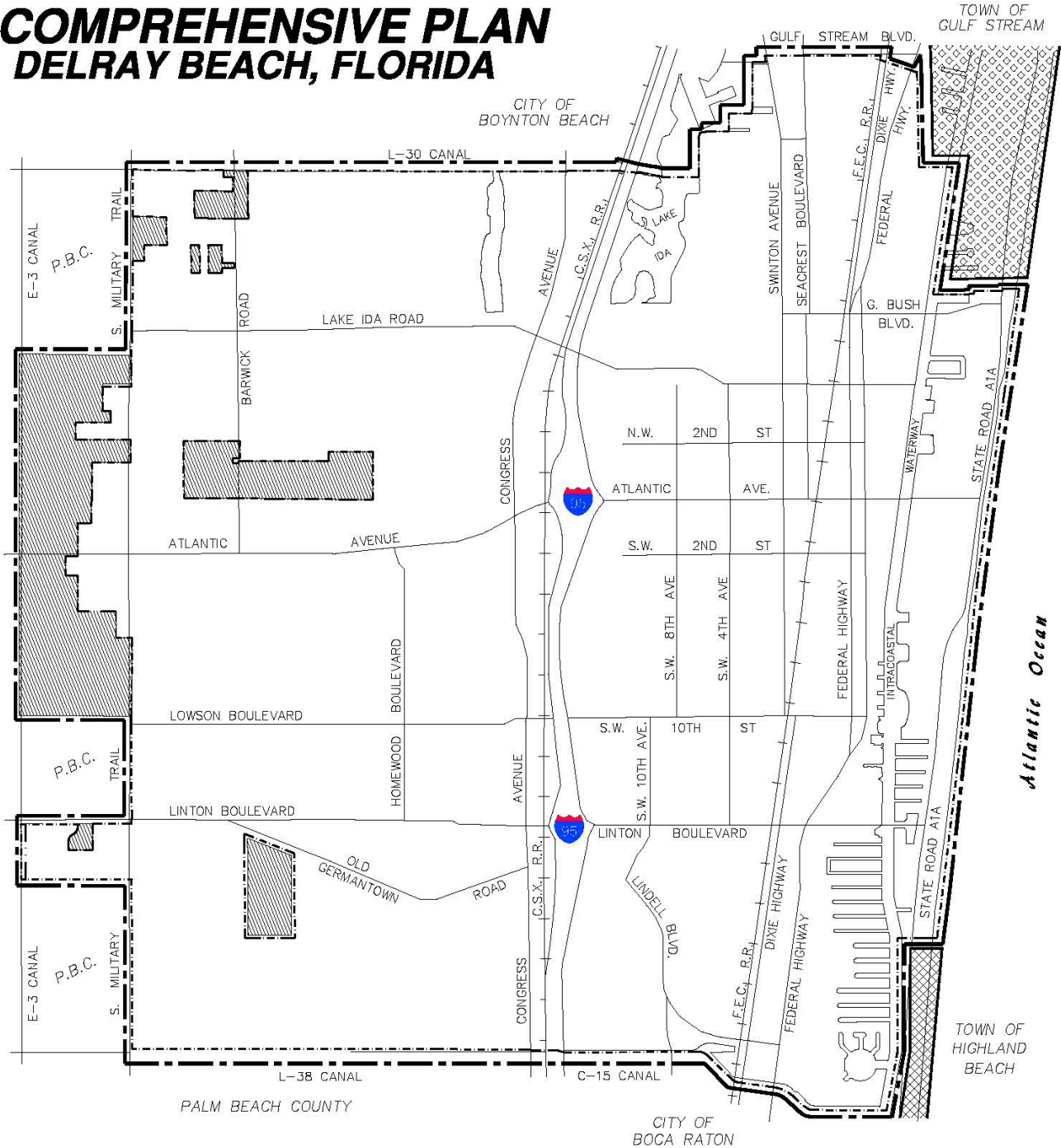
Policy F-2.2 Criteria, as identified in the Capital Improvement Element, shall be followed in the establishment of priorities for construction of public facilities. On an annual basis, the Local Planning Agency shall forward to the City Commission a listing of new or revised priorities with written findings as to the relationship of projects to those criteria.

Policy F-2.3 Once established, program priorities shall not be altered except as allowed in the policies established for implementation of capital improvement programming.

Water Supply Facilities Work Plan Sub-Element

(Note: the 2015 Water Supply Facilities Work Plan Sub-Element is attached as an Appendix)

COMPREHENSIVE PLAN DELRAY BEACH, FLORIDA



MILE
GRAPHIC SCALE

CITY OF DELRAY BEACH, FLORIDA
PLANNING & ZONING DEPARTMENT

MARCH 2015

PLANNING AREA MAP #1

LEGEND: PLANNING AREA (ULTIMATE CITY BOUNDARY)

TOWN OF GULF STREAM
(WATER & FIRE SERVICE)

TOWN OF HIGHLAND BEACH
(SEWER & FIRE SERVICE)

TOWN OF HIGHLAND BEACH
(SEWER & FIRE SERVICE)

CITY LIMITS

COUNTY JURISDICTION

