
INFRASTRUCTURE ELEMENT

PURPOSE

The purpose of this element is to provide for necessary public facilities and services correlated to the future land use projections.

WATER AND WASTEWATER ANALYSIS

Changes to Florida Statutes now require local governments to prepare and adopt a 10 year Water Supply Facilities Work Plan (WCFWP) that is consistent with the appropriate water supply plan, which, for the City of Pahokee, is the South Florida Water Management District's Lower East Coast Water Supply Plan 2018 (LECWSP). The LECWSP provides details on the current and projected water supply for the area. The plan considers public water supply, domestic and small public supply, commercial/industrial/institutional supply, recreational/landscape irrigation supply, power generation supply, and agricultural supply as components for water use in the region. The plan concludes that future water needs can be met through the 2040 planning horizon with appropriate management, conservation, and implementation of identified projects.

In May of 2013, Palm Beach County assumed the former Glades Utility Authority (GUA) service area rights to provide potable water, wastewater, and reclaimed water service to the Cities of Belle Glade, South Bay, and Pahokee. In the County's 10-Year Water Supply Facilities Work Plan, and within the Utility Element of the County's comprehensive plan, projections are included that indicate that level of service standards and capacity needs are available for their service areas. In the WSFWP, the County indicates that:

- The County has committed to spend \$5 million for 5 years toward the repair and replacement of aged and deteriorated water and wastewater infrastructure in the Glades Region.
- The 10 mgd Lake Region Water Treatment Plant, a 100% alternative water source that utilizes reverse osmosis, has adequate capacity to serve the existing populations of the Glades Cities, surrounding unincorporated County, and future additional population increases and projected development in the area.
- The County and South Florida Water Management District (SFWMD) have developed water supply strategies to ensure infrastructure is expanded to accompany growth and protect the environment; and adequate financing is in place.
- The County continues to investigate innovative and cost-effective alternative water supply projects.
- The County is in the position to meet the demands of growth and achieve maximum efficiency and effectiveness.

The tables below, taken from the County's WSFWP and comprehensive plan, and the SFWMD Lower East Coast Water Supply Plan, show demand and capacity information for services provided to the City.

Table 4-1: Western Region Facility Capacity Analysis

Facility Capacity Analyses	2018	2020	2025	2030
Western Region Population Served ¹	34,018	34,856	36,500	38,020
Demand per Capita (gpd) ²	157	157	157	157
Total Finished Water Average Daily Demand (mgd)	5	5	6	6
Total Raw Water Average Daily Demand (mgd)³ = Finished Water x 1.31	7	7	8	8
Available Raw Water Facility Capacity (mgd) ⁴	8	8	8	8
Raw Water Facility Capacity Surplus ⁵	1	1	0	0
Permitted Raw Water Allocation (mgd annual average) ⁶	10	10	10	10
Total Raw Water Average Daily Demand	7	7	8	8
Permitted Water Available	3	3	2	2

¹ Population Served represents projected retail customers and self-served conversions, Table 5-4.
² Demand per Capita based upon population served.
³ ADF raw water = 1.31* ADF FW (per historical and capacity-based analyses)
⁴ Raw Water Facility Capacity = Wellfield Capacity with two largest wells out of service for each individual wellfield.
⁵ Calculated by subtracting average daily demand from available facility capacity.
⁶ Permitted allocation from Permit #50-06857-W.

Source: Palm Beach County Comprehensive Plan, Utility Element, Table 6.2

**Table 4-2: Palm Beach County Water Utilities Department Western Region
Water Supply Demand**

Population and Finished Water Demand						
		Existing	Projected			
		2016	2020	2030	2040	
Population		34,886	36,137	38,446	39,888	
Average 2012-2016 Per Capita (gallons per day finished water)		157				
Potable Water Demands (daily average annual finished water in mgd)		5.48	5.67	6.04	6.26	
SFWMD Water Use Permitted Allocation (mgd)						
Potable Water Source		Permit Number 50-06857-W (expires 2025)				
SAS		0.00				
FAS		9.43				
Total Allocation		9.43				
FDEP Potable Water Treatment Capacity (PWS ID # 4505005)						
Permitted Capacity by Source		Cumulative Facility & Project Capacity (mgd)				
		Existing	Projected			
		2016	2020	2030	2040	
SAS		0.00	0.00	0.00	0.00	
FAS		10.00	10.00	10.00	10.00	
Total Potable Capacity		10.00	10.00	10.00	10.00	
Nonpotable Alternative Water Source Capacity (mgd)						
Total Nonpotable Capacity		0.00	0.00	0.00	0.00	
Project Summary						
Water Supply Projects	Source	Completion Date	Total Capital Cost (\$ million)	Projected Cumulative Design Capacity (mgd)		
				2020	2030	2040
Potable Water						
No Projects						
Total Potable Water			\$0.00	0.00	0.00	0.00
Nonpotable Water						
No Projects						
Total Nonpotable Water			\$0.00	0.00	0.00	0.00
Total New Water			\$0.00	0.00	0.00	0.00

Note: (Service Area Cities of Belle Glade, Pahokee, and South Bay)

Source: Palm Beach County 2020 10-Year Water Supply Facilities Work Plan

**Table 4-3: Palm Beach County – Western Region North
(Pahokee) Wastewater Treatment Facility**

FACILITY SUMMARY			
2016		Projected 2040 ^a	
FDEP-Permitted Treatment Capacity	1.20 mgd	FDEP-Permitted Treatment Capacity	1.20 mgd
Total Treated Wastewater	0.88 mgd	Total Treated Wastewater	1.02 mgd
<u>Disposal</u>		<u>Disposal</u>	
Deep Well Injection	0.88 mgd	Deep Well Injection	1.02 mgd
<u>Reuse</u>		<u>Reuse</u>	
Total	0.00 mgd	Total	0.00 mgd
Reuse Percentage	0%	Reuse Percentage	0%

^a The utility did not provide projected 2040 flows. Flows were estimated based on the applicable percent change in population from 2016 to 2040.

Source: SFWMD, 2018 Lower East Coast Waster Supply Facilities Work Plan Update

DRAINAGE AND NATURAL GROUNDWATER AQUIFER RECHARGE ANALYSIS

Stormwater ~~management~~ in the City of Pahokee is primarily managed by the East Beach Water Control District (EBWCD), with the exception of the northeastern corner of the City, which lies within the Pelican Lake Water Control District (PLWCD).

~~The East Beach Water Control District (EBWCD) manages stormwater drainage for the entire City of Pahokee, with the exception of the northeastern corner of the City, which is part of the Pelican Lake Water Control District.~~ The system has two outfalls, one into Lake Okeechobee and one into the West Palm Beach Canal; both are equipped with a pump. There is also one internal pump to help move water within the system. Water level is controlled based on irrigation and drainage needs. When the system level needs to be raised, water is pumped in from Lake Okeechobee; when it needs to be lowered, water is pumped into the Stormwater Treatment Areas (STA's). The STA's were constructed by the South Florida Water Management District as part of the Everglades Forever Act.

SOLID WASTE ANALYSIS

Solid waste collection and disposal within the City of Pahokee is contracted with a private sanitation company. Solid waste is transported to the Glades Regional Transfer Station, located on State Road 15, in Belle Glade. The transfer station is owned and operated by the Palm Beach County Solid Waste Authority (SWA). From the transfer station, waste is hauled to the North County Regional Resource Recovery Center and landfill located in West Palm Beach.

Each year the Solid Waste Authority (SWA) provides certification that there is disposal capacity available to accommodate the solid waste generation for the municipalities and County for the upcoming year. In correspondence dated January 17, 2024 (included as Appendix 4C), SWA indicated capacity is available for the coming year and the five- and ten-year planning periods.

~~This element addresses the general utilities which are provided by or managed by the City of Pahokee or Palm Beach County. These include:~~

- ~~● SANITARY SEWER~~
- ~~● POTABLE WATER~~
- ~~● SOLID WASTE~~
- ~~● DRAINAGE & NATURAL GROUND WATER AQUIFER RECHARGE~~

~~The element is organized to provide analysis information about each area of service individually. The element conclusion contains the goals, objectives and policies for all the utilities services.~~

~~SANITARY SEWER ANALYSIS~~

~~Sanitary sewer service is currently provided to the City of Pahokee by the City owned and operated Wastewater Utility. The Cities of Pahokee, Belle Glade and South Bay, as well Palm Beach County Water Utilities, are forming the Glades Utility Authority (GUA) to handle the operations their water and sewer systems. The GUA will assume the operational control of the sewer system.~~

~~Sanitary sewer service is available to all residents within the City limits, unincorporated areas immediately surrounding the City, and the Glades Regional Airport.~~

~~The City of Pahokee Wastewater Treatment Facility, located on Rim Canal Road, has a 1.2 MGD design capacity. Wastewater treatment is provided through a 0.5 MGD conventional activated sludge process and a 0.7 MGD Walker Process Package Plant. The plant is currently permitted through the Florida Department of Environmental Protection (FDEP) to treat 1.2 MGD; this permit is active until May 2012.~~

~~Effluent disposal is provided by a deep injection well, which has a design capacity of 3.4 MGD. The City is permitted by FDEP to discharge 4.0 MGD via the deep injection well. Sludge from the treatment process is hauled away and sold.~~

~~The Sanitary Sewer collection and transmission system consists of gravity mains, lift stations and force mains. The City currently operates 15 lift stations, which had upgrades to their electrical panels completed in 2005/2006. The transmission system is mostly ductile iron pipe and reported to be in fair condition. The gravity system is predominately clay pipe, with some ductile iron pipe in newer areas. Repairs including slip lining, patching and replacement of pipe, have been made on an as needed basis. The gravity collection system had experienced significant issues with Infiltration and Inflow (I/I). Excess flow caused by I/I utilizes system treatment capacity, which results in higher treatment facility operation and maintenance costs. In an effort to reduce I/I, the City has replaced many lines, which greatly alleviated the problem.~~

~~Palm Beach County Water Utilities Department (PBCWUD) is undertaking an I/I study funded by the Palm Beach County District 6 Commissioner. The study scheduled to be complete in 2009.~~

~~Sewer service is being extended to Canal Point businesses south of the West Palm Beach Canal. The project is funded by Palm Beach County and is scheduled to be complete in 2009. The estimated project cost is approximately \$0.5 million. A project to construct improvements to the plant's headworks is also scheduled to be completed in 2009.~~

~~The City of Pahokee currently has a Level of Service (LOS) standard of 100 GCD per Equivalent Residential Connection (ERC) for new customers and 120 GCD for existing customers. It is recommended that the city maintain this LOS.~~

**Table 4-1
Sanitary Sewer Level of Service Projections**

YEAR	2007	2010	2014	2015	2020	2025	2030
Population projection	6,479	6,711	6,951	7,116	7,546	8,001	8,484
WWTP design capacity (MGD)	1.2	1.2	1.2	1.2	1.2	1.2	1.2
Capacity needed to maintain LOS (MGD)—existing customers	0.72	0.80	0.81	0.84	0.85	0.91	0.96
Capacity needed to maintain LOS (MGD)—new customers	0.05*	0.01	0.03	0.01	0.04	0.05	0.05
Surplus/deficit (MGD)	+0.43	+0.40	+0.36	+0.35	+0.30	+0.25	+0.19

Sources: US Census, BEBR, Palm Beach County, and Calvin, Giordano & Associates, 2009
 * New customers in 2007 derived from the increase in population since the 2000 Census.

POTABLE WATER ANALYSIS

~~Potable water is sold to Pahokee wholesale by a bulk purchase agreement with the Palm Beach County Water Utilities Department. The County has constructed a new Lake Region Water Treatment Plant (LRWTP) to serve the cities of Belle Glade, Pahokee, and South Bay. The new plant went on line in July 2008. The LRWTP is the water source for the Glades Region, including the cities of Pahokee, Belle Glade and South Bay. These three cities, along with Palm Beach County Water Utilities, are forming the Glades Utility Authority (GUA) which will operate and maintain all three cities' water systems. The GUA will be responsible for the sale and distribution of water from the LRWTP.~~

~~The LRWTP replaced the aging treatment plants that served the tri-city area and shifted the area's water supply source from Lake Okeechobee to the Upper Floridan Aquifer, an alternative water source. In the plant, the brackish Floridan water will be treated using reverse osmosis to provide high-quality potable water for each of the three cities. The plant is capable of producing 10 million gallons of potable water per day, enough to meet the cities' current water demands with adequate capacity for the projected future growth. The City maintains a Level of Service for potable water at 93 gallons per capita per day (GCD).~~

~~The Pahokee Water Department provides water to customers within their Water Service Area (WSA) which includes unincorporated areas outside of the City limits. The following table shows the estimated water supply demand for the City of Pahokee and for the Water Service Area. Map INF-1 shows the water service area.~~

**Table 4-2
 PBCWUD—Population and Potable Water Supply Demand**

	POPULATION PROJECTIONS						
YEAR	2007	2010	2014	2015	2020	2025	2030
City Population	6,479	6,711	7,033	7,116	7,546	8,001	8,484
Unincorporated WSA Population	3,127	3,403	3,478	3,511	3,775	4,063	4,373
Calculated Total Population	9,606	10,114	10,511	10,627	11,321	12,064	12,857
	WATER SUPPLY DEMAND (MGD)						
City MGD	0.60	0.62	0.65	0.66	0.70	0.74	0.79
Unincorporated WSA MGD	0.29	0.32	0.32	0.33	0.35	0.38	0.41
Calculated Total MGD	0.89	0.94	0.98	0.99	1.05	1.12	1.20

Source: US Census, BEBR, Palm Beach County, and Calvin, Giordano & Associates, 2009

~~Because the City of Pahokee relies on PBCWUD's LRWTP the capital improvement projects will be referenced according to the 2008 PBC 20 Year Water Supply Plan and the 2008 PBC CIE Update. PBCWUD's LRWTP is less than 5 years old, so major capacity improvements are not planned until the Lake Region Water Plant Phase II in FY 2025 as shown in the Schedule of Capital Improvements. PBCWUD does have a \$100,000 non-capacity project planned for FY 2011 for~~

~~the connection of the LRWTP to the City of Belle Glade’s sanitary sewer system which is shown in the Schedule of Capital Improvements.~~

~~Changes to Florida Statutes now require local governments to prepare and adopt a 10-year water supply facility work plan that is consistent with the appropriate water supply plan, which is the South Florida Water Management District Lower East Coast Water Supply Plan for the City of Pahokee. The Work Plan can be found in Appendix 2A.~~

~~SOLID WASTE ANALYSIS~~

~~The Glades Regional Transfer Station has a design capacity of 500 tons per day. According to the SWA 2008 Landfill Depletion Model, the Glades Regional Transfer station processed approximately 39,717 tons of solid waste, 362 tons of recyclables and 61,216 tons of vegetation debris.~~

~~The SWA recently completed a Landfill Depletion Model for the North County Regional Resource Recovery Center and Landfill, which produced the following results:~~

Total Estimated Volume:	50,124,427 CY
Class I:	40,754,579 CY
Class III:	9,369,888 CY
Volume Depleted to Date:	17,009,096 CY
Class I:	11,390,426 CY
Class III:	5,618,670 CY
Remaining Volume:	33,115,331 CY
Class I:	29,368,153 CY
Class III:	3,750,909 CY

~~Pahokee has adopted the County’s LOS for solid waste management: disposal capacity sufficient for a per capita generation rate of solid waste delivered to SWA facilities of 7.13 pounds per person per day. The Palm Beach County Solid Waste Authority’s Integrated Solid Waste Management Plan has provided for additional capacity upon depletion of the existing capacity, estimated to occur in year 2024.~~

Infrastructure Element Goals, Objectives, and Policies

SANITARY SEWER SUB-ELEMENT

GOAL 4.1: *To provide sanitary sewer facilities through collaboration with the Palm Beach County Water Utilities Department (PBCWUD) which comply with all applicable regulations and which meet the needs of the current and future residents of the Pahokee Service Area.*

Objective 4.1.1 – The City shall ~~provide~~ coordinate with PBCWUD to provide sanitary sewage facilities which comply with the level of service and capacity standards established by this element.

Policy 4.1.1.1 – The City shall maintain an average level of service of ~~12008~~ gallons of wastewater per capita per day for current customers ~~and 100 gallons for future customers.~~

~~Policy 4.1.1.2 – The City shall adopt a peak 24-hour level of service of 175 gallons of wastewater per capita per day.~~

Policy 4.1.1.~~32~~ – The City shall ~~maintain~~ coordinate with PBCWUD to provide wastewater treatment facilities which provide sufficient capacity over the planning period for the adopted level of service.

Policy 4.1.1.~~43~~ – The City shall continue to coordinate with PBCWUD to examine the system for leaks and schedule repairs as necessary, through the Capital Improvement Element schedule.

Policy 4.1.1.~~54~~ – The City shall continue to coordinate with PBCWUD to repair or replace lines that significantly contribute to the infiltration problem.

Policy 4.1.1.~~65~~ – The City shall continue to coordinate with PBCWUD to maintain and implement a comprehensive maintenance program for the wastewater treatment plant and lines.

~~Policy 4.1.1.7 – The City shall provide ongoing training for operations and field personnel.~~

Objective 4.1.2 – The City shall coordinate with PBCWUD to extend wastewater collection services to new areas only when such extensions are economically feasible, promote compact urban growth, and are of benefit to the health, safety, and welfare of the community.

Policy 4.1.2.1 – The City shall not ~~extend support the extension of~~ extend support the extension of wastewater collection services to developments which would exceed either the adopted levels of service or capacity standards of ~~the City's~~ wastewater treatment facilities.

Policy 4.1.2.2 – In order to promote compact growth and retain sewer system capacity for the incorporated area of Pahokee, the City shall not support the extension of wastewater collection services to unincorporated areas ~~shall be approved only by a majority vote of the City Commission.~~

Policy 4.1.2.3 – Extensions of wastewater collection services to private developments shall be made only at the developer’s expense. The City Commission may ask PBCWUD to reduce or waive such expenses upon a finding that such an extension would be in the best interest of the public health, safety, and welfare.

Policy 4.1.2.4 – ~~In accordance with Section 163.3202, F.S., +~~ The City shall continue to require building permits for all replacement septic systems to be issued by the City in addition to the County. Prior to the issuance of septic permits, the City shall determine whether central sewer service is available to accommodate the site to be serviced by the proposed septic system.

Policy 4.1.2.5 – To the maximum extent feasible, all new development shall be connected to central public sanitary sewer service. Development activity shall be directed towards areas of the City which already have sanitary sewer infrastructure in place.

POTABLE WATER SUB-ELEMENT

GOAL 4.2: To provide potable water facilities through collaboration with the Palm Beach County Water Utilities Department (PBCWUD) which comply with applicable regulations and which meet the needs of the current and future residents of the Pahokee Service Area.

Objective 4.2.1 – The City of Pahokee shall coordinate with PBCWUD to provide potable water facilities which comply with established ~~the~~ level of service standards and capacities ~~established by this element~~.

Policy 4.2.1.1 – The City shall adopt an average annual level of service standard of 93157 gallons of potable water per person per day.

Policy 4.2.1.2 – The City shall coordinate with Palm Beach County Water Utilities Department to ensure the Lake Region Water Treatment Plant meets or exceeds a permitted average annual capacity sufficient to provide the adopted level of service.

Policy 4.2.1.3 – The City shall coordinate with PBCWUD to make improvements to the City water distribution system as necessary to maintain a pressure of approximately 48 pounds per square inch, as recommended by NFPA.

Policy 4.2.1.4 – The City ~~shall continue~~ coordinate with PBCWUD to install and/or replace fire hydrants as necessary to meet NFPA fire standards.

Policy 4.2.1.5 – The City shall prepare a Water Supply Facilities Work Plan, for a minimum 10-year period, ~~for building water supply facilities identified in the Potable Water Sub-Element to serve existing and new development.~~ The Work Plan shall be adopted as an attachment to the ~~Infrastructure Potable Water Sub-Element~~ and its goals, objectives and policies incorporated into the Comprehensive Plan within eighteen months after the South Florida Water Management District ~~Regional Lower East Coast~~ Water Supply Plan has been approved or updated.

Policy 4.2.1.6 – ~~The City shall identify and incorporate into its Capital Improvement Element the alternative water supply project(s) from the projects identified in the most current SFWMD water supply plan and Palm Beach County 20-year Water Supply Work Plan.~~

Objective 4.2.2 – The City shall coordinate with Palm Beach County Water Utilities Department to ensure the Lake Region Water Treatment Plant functions to efficiently provide an acceptable LOS in compliance with all applicable regulations.

Policy 4.2.2.1 – The City shall continue to coordinate with PBCWUD to ~~implement~~ develop a comprehensive maintenance program updated annually in coordination with the annual update of the Capital Improvement Element for the water distribution system.

~~Policy 4.2.2.2 – The City shall provide ongoing training for operations and field personnel.~~

Objective 4.2.3 – The City shall coordinate with PBCWUD to extend potable water services to new areas only when such extensions are economically feasible, promote compact urban growth, and are of benefit to the health, safety, and welfare of the community.

Policy 4.2.3.1 – The City shall not support the extension of ~~extend~~ potable water service to developments which would exceed either the adopted levels of service or capacity standards of the ~~City's~~ water treatment facilities.

Policy 4.2.3.2 – In order to promote compact urban growth and retain potable water treatment plant capacity and storage for the incorporated area of Pahokee, the City shall not support the extension of potable water services to unincorporated areas ~~shall be approved only by a majority vote of the City Commission.~~

Policy 4.2.3.3 – Extensions of the potable water system to private developments shall be made only at the developer's expense. The City Commission may ask PBCWUD to reduce or waive such expenses upon finding that such an extension would be in the best interest of the public health, safety, or welfare.

Policy 4.2.3.4 – The 10-Year Water Supply Facilities Work Plan shall guide coordination with PBCWUD to provide future expansion and upgrade of facilities needed to transmit and distribute potable water to meet current and future demands.

Objective 4.2.4 – The City shall encourage ~~continue to implement a~~ water conservation programs.

Policy 4.2.4.1 – ~~The City shall assist the PBCWUD with the distribution of w~~ Water conservation information ~~shall be included with monthly billings and distributed to new customers at the time of hook-up.~~

~~Policy 4.2.4.2 – The City Utilities Department shall have available a customer representative who, upon request, shall be available for consultations on water conservation strategies that may be employed by a particular user. The services of the representative shall be made known to the public and be available free of charge.~~

Policy 4.2.4.3 – The City shall investigate the long-range feasibility of utilizing reclaimed water for irrigation purposes.

Policy 4.2.4.43 – The City shall work with local governments, the Lake Region Water Treatment Plant, SFWMD, and Palm Beach County to identify traditional and alternative water supply projects and ~~the~~ conservation and reuse programs to meet current and future water use demands within the City of Pahokee’s jurisdiction consistent with the South Florida Water Management District’s Lower East Coast Water Supply Plan.

SOLID WASTE SUB-ELEMENT

GOAL 4.3: To ~~i~~ensure the provision of solid waste disposal services and facilities that comply with applicable regulations and which meet the needs of current and future residents of the City of Pahokee.

Objective 4.3.1 – The City shall have continuous availability of solid waste disposal facilities that are adequate to meet the level of service standard established in this Element and which comply with applicable regulations.

Policy 4.3.1.1 – The City shall adopt an average solid waste level of service standard of 7.13 pounds per capita per day.

Policy 4.3.1.2 – The City shall continue to contract with private haulers to collect all solid waste generated by residents of Pahokee.

Policy 4.3.1.3 – The City shall continue to coordinate with the Palm Beach County Solid Waste Authority (SWA) for the disposal of all solid waste generated by the residents of Pahokee.

Policy 4.3.1.4 – The City shall continue to coordinate with the ~~PBC~~SWA to develop programs to increase recycling activities to reduce total ~~S~~solid ~~W~~waste generated by the City.

DRAINAGE AND GROUNDWATER AQUIFER RECHARGE SUB-ELEMENT

GOAL 4.4: Coordinate ~~with~~ the provision of drainage facilities with the East Beach Water Control District (EBWCD) and Pelican Lake Water Control District (PLWCD) which comply with all applicable regulations and which meet the needs of the current and future residents of the City of Pahokee.

Objective 4.4.1 – The City shall address identified storm water quantity and quality issues with the establishment of storm water run-off quantity and quality level of service standards and the implementation of programs and procedures intended to enhance existing levels of water quality.

Policy 4.4.1.1 – Any development activity which results in a net increase in impervious ~~services~~ surfaces shall be subject to the drainage regulations adopted in this Element and those implemented through the adoption of land development regulations.

Policy 4.4.1.2 – ~~The~~ City shall protect the water storage and water quality enhancement functions of wetlands, floodplains and aquifer recharge areas through acquisition, enforcement of rules and the application of land and water management practices which provide for compatible uses.

Policy 4.4.1.3 – The City shall use Best Management Practices (BMPs) in accordance with the South Florida Water Management District and Florida Department of Environmental Protection.

Policy 4.4.1.4 – Proposed drainage plans which have outfalls into City drainage system components, swales or pipe, shall provide a capacity assessment of the impacted portions of the City’s system and evidence, based on professionally accepted standards, that projected impacts can be adequately accommodated. The City shall request the EBWCD and PLWCD to review and approve all proposed drainage plans which outfall into City and water control district system components.

Policy 4.4.1.5 – Proposed centralized drainage facilities to be installed privately or publicly, shall meet all federal, state, SFWMD, and local regulations for such systems for both water quantity and quality.

Policy 4.4.1.6 – In accordance with Section 163.3202, F.S., the City shall maintain the adopted land development regulations which fully implement the storm water drainage regulations and standards in this sub-element.

Policy 4.4.1.7 - Proposed centralized drainage facilities to be installed publicly or privately shall meet the minimum design criteria for stormwater management, as shown below, as the level of service standard to assess adequacy of service and concurrency during the development review process:

- a. Minimum roadway elevations shall be at least at the 5-year storm event for non-plan collector streets and the 3-year storm for local streets and non-residential parking lots unless detention or retention is provided by subsurface exfiltration systems, in which case the 5-year storm event shall be used;
- b. Minimum site perimeter elevations shall be at least the 25-year-3-day stage. Site runoff up to such stage level may not overflow into any adjacent property, unless a permanent drainage easement is obtained;
- c. Dry or wet retention/detention, stage versus storage, stage versus discharge and flood routing calculations for the appropriate 3-year-1-hour, 3-year-1-day, 5-year-1-day, 10-year-1-day, 25-year-3-day and 100-year-3-day storm events for the site shall be submitted with the site development plans;
- d. Building floor elevations shall be at or above the 100-year flood elevation, as determined from the Federal Flood Insurance Rate Maps or calculations following the latest SFWMD methodology, whichever is greater;
- e. Off-site discharge shall be limited to pre-development runoff based on the 25-year-3-day storm event calculated by SFWMD methods;
- f. Storm sewers shall be designed to convey the 3-year storm event.

- g. All new development shall provide legal positive outfall to a permitted public or special district system.

Policy 4.4.1.8 – The City shall comply fully with the rules adopted to implement the Lake Okechobee Protection Plan and shall revise local policies and regulations accordingly.

Policy 4.4.1.9 – In accordance with available staff and financial resources, the City shall cooperate fully with the EBWCD and the PLWCD in the assessment of water quality and quantity impacts associated with the City’s drainage system. The City shall also formally consider all recommendations provided to it by either of the above entities or other local and state agencies for the improvement of drainage operations and regulations.

Policy 4.4.1.10 – The City, through the EBWCD and PLWCD, shall adhere to the National Pollution Discharge Elimination System - Municipal Separate Storm Sewer System (NPDES-MS4) Permit and shall implement the permit conditions including monitoring of outfalls and improving stormwater management practices.

Policy 4.4.1.11 – The City shall explore the feasibility of establishing a stormwater utility to help provide funds for the operation, maintenance, and improvement of the City’s stormwater system.

Objective 4.4.2 – The City shall assist the water control districts with maintaining canal easements and the prevention of illegal dumping of debris into canals and on canal easements.

Policy 4.4.2.1 – The City shall coordinate with the East Beach Water Control District and Pelican Lake Water Control District to ensure that adequate access to canals is provided during review of proposed development and redevelopment applications, where appropriate.

Policy 4.4.2.2 – The City shall continue to require new or amended plats to dedicate to the East Beach Water Control District and Pelican Lake water Control District right-of-way or an easement over any existing Water Control District canal water area and/or bank that may be present within the area to be platted. Prior to approval by the City or recording, new or amended plats shall be reviewed and approved by the appropriate Water Control District who may require additional dedication or easements as deemed necessary for the efficient operation and maintenance of the district system.

Policy 4.4.2.3 – The City shall continue to levy fines for the dumping of any materials into Water Control District canals or within canal easements and the City shall do all things reasonable to enforce such ordinances.

Objective 4.4.3 – The City shall continue to implement land development regulations consistent with the Future Land Use Map and which provide for maximum building coverages and impervious surfaces for new development and redevelopment activities for the preservation of groundwater recharge areas.

Policy 4.4.3.1 – The City shall continue to implement land development regulations containing standards for maximum impervious surfaces for all zoning districts.

Policy 4.4.3.2 – The City shall work cooperatively with the SFWMD and independent drainage districts to implement plans for additional surface water storage such as water preserve areas, the Lower East Coast ~~Regional~~ Water Supply Plan and any other plans and operating procedures to increase ground water aquifer recharge areas.

The current Water Supply Facilities Work Plan is being replaced with an updated plan. The current City and the County Water Supply Facilities Work Plans are provided in Appendices 4A and 4B respectively