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**INFRASTRUCTURE**  
**GOALS, OBJECTIVES AND POLICIES (Rev: Ord. 2013-08)**

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**GOAL 3: INFRASTRUCTURE**

Ensure the provision of high quality, healthful, effective, reliable, efficient, environmentally sound and necessary services for coordinated sanitary sewer, solid waste, drainage, potable water and natural ground water aquifer recharge to town residents and visitors.

**DRAINAGE GOAL 3A: DRAINAGE**

Provide high quality, healthful, effective, reliable, efficient, environmentally sound and necessary services for coordinated drainage.

3A.1 *Objective:*

*To optimize the utilization of water resources through provision of stormwater management in ~~urban areas~~ for the Town which reduces damage and inconvenience from flooding, promotes aquifer recharge, minimizes degradation of water quality in surface and groundwater and protects the functions of wetlands in ~~urban areas~~.*

3A.1.1 Policy:

Storm water management facilities shall be designed in accordance with South Florida Water Management District (SFWMD) criteria, ~~and, when applicable, with Loxahatchee Groves Water Control District (LGWCD) criteria.~~

3A.1.2 Policy:

The Town of ~~Loxahatchee Groves~~ shall ~~implement~~ maintain land development regulations which implement the minimum design criteria for stormwater management, ~~as shown below, as the level of service standard to be used as the basis to assess adequacy of service. and concurrency during the development review process.;~~

- ~~a. Minimum roadway and parking lot elevations; shall be at least at the highest elevation that may occur at the peak of the 10-year one-day storm event;~~
- ~~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 10-year, one 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. All roof runoff shall be detained on site;~~

~~g. Storm sewers shall be designed to convey the 5 year, 1 day storm event;~~

~~h. Prior to discharge to surface or groundwater, BMP's of SFWMD shall be used to reduce pollutant loading from storm water runoff from non-agricultural uses; and,~~

~~i. Prior to discharge to surface or groundwater, BMPs of the DEP and USDA shall be used to reduce pollutant loading from storm water runoff from agricultural uses.~~

3A.1.3 Policy:

The Town shall ~~support the LGWCD in considering~~ consider the impact of the construction and operation of stormwater management facilities and support services on adjacent natural resources in accordance with SFWMD regulations during the installation of new stormwater management facilities and the expansion of, or increase in capacity of stormwater management facilities.

3A.1.4 Policy:

Coordinate with the SFWMD ~~and the LGWCD~~ to implement applicable portions of the SFWMD regional water resource projects, which intend to reduce losses of excess stormwater to tide, recharge the Surficial aquifer and Water Preserve Areas or provide additional storage surface waters.

3A.1.5 Policy:

The Town shall ~~support the LGWCD in addressing~~ address stormwater management issues on a watershed (basin) basis in accordance with SFWMD permits as a means of providing cost effective water quality and water quantity solutions to specific watershed problems.

3A.1.6 Policy:

The Town shall ~~support the LGWCD in managing~~ manage the construction and operation of its facilities which dam, divert or otherwise alter the flow of surface waters to minimize damage from flooding, soil erosion or excessive drainage.

3A.1.7 Policy:

The Town shall support the SFWMD in maintaining and protect ground water recharge of the Surficial Aquifer system so as to maintain all of the functions of the Aquifer, including the reduction of saltwater intrusion. ~~LGWCD capital~~ Capital projects shall be incorporated within the Town's Five-Year Schedule of Capital Improvements on an annual basis.

3A.1.8 Policy:

The Town shall support the LGWCD in ~~requiring~~ require that new drainage facilities shall be designed to provide pollution control sufficient to meet criteria of all local, state and federal regulatory requirements, including but not limited to the following when applicable:

- a. Retention of stormwater;
- b. Flow of stormwater over grassed and vegetated areas;
- c. Sumps;
- d. Grease separation baffles;
- e. Mosquito control; and,
- f. Infiltration and percolation prior to overflow or outfall discharge.

3A.1.9 Policy:

Use Best Management Practices (BMPs) in accordance with its regulations and those of the ~~South Florida Water Management District~~ SFWMD and the Florida Department of Environmental Protection.

3A.1.10 Policy:

The Town shall support the Lower East Coast Regional Water Supply Plan and operating procedures to increase recharge water to the Surficial Aquifer.

3A.1.11 Policy:

Utilize, preserve, restore and enhance natural water bodies and functions by encouraging non-structural and structural erosion control devices and discourage the canalization, installation of seawalls or other alteration of natural rivers, streams and lakes.

3A.1.12 Policy:

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.

3A.1.13 Policy:

Coordinate with ~~the LGWCD~~, Palm Beach County ("PBC") and SFWMD to protect aquifers from depletion through water conservation and preservation of the functions of high recharge areas including but not limited to the water conservation areas and water preserve areas.

3A.1.14 Policy:

The Town of ~~Loxahatchee Groves~~ shall investigate the need to acquire a National Pollution Discharge Elimination System - Municipal Separate Storm Sewer System (NPDES-MS4) and the implementation of the permit conditions including monitoring of outfalls and improving stormwater management practices, ~~by December 2009.~~

~~3A.1.15 Policy:~~

~~The Town of Loxahatchee Groves shall investigate the creation of grading and drainage standards for residential properties.~~

## ~~NATURAL GROUNDWATER AQUIFER RECHARGE~~

### ~~GOAL 3B: NATURAL GROUNDWATER AQUIFER RECHARGE~~

~~Provide natural ground water aquifer recharge meeting all applicable federal, state and local water quality standards and does not compromise the sustainability of the town's water resources to supply water in the future.~~

#### 3B.1 *Objective:*

~~Conserve and protect potable water resources with primary focus on the Surficial Aquifer by optimizing the utilization of water resources through effective water management practices.~~

##### 3B.1.1 Policy:

~~The Town shall enforce the landscape regulations which shall address the SFWMD's xeriscape guidelines.~~

##### 3B.1.2 Policy:

~~The Town shall protect groundwater quality by continuing to implement support the County's Wellfield Protection Ordinance, which regulates the storage, handling, usage, disposal or production of hazardous materials and solid waste within designated zones of influence as identified in the Code~~

##### 3B.1.3 Policy:

~~The Town shall support Palm Beach County PBC to implement a year-round public information and education program promoting water conservation.~~

##### 3B.1.4 Policy:

~~The Town shall support PBCWUD PBC to continue to implement a leak detection program to reduce the amount of unaccounted-for water loss within its utility systems.~~

##### 3B.1.5 Policy:

~~The Town shall coordinate with the LGWCD SFWMD in the maintenance of sufficient water levels in the canals system for fire protection purposes\_ by exploring partnering with Palm Beach County in its investigation of storm water reservoirs.~~

##### 3B.1.6 Policy:

~~The Town shall support the LGWCD in its efforts to maintain sufficient water levels in the canals in its interaction with SFWMD.~~

#### 3B.2 *Objective:*

~~Potable water facilities shall be designed, constructed, maintained and operated in such a manner as to protect the functions of natural groundwater recharge areas and natural~~

*drainage features and not exacerbate saltwater intrusion.*

3B2.1 Policy:

The design for the construction, operation and maintenance of new or expanded potable water facilities shall consider the short-term and long-term impacts to natural groundwater recharge areas, wetlands, surface and groundwater levels, ~~and exacerbation of saltwater intrusion~~. The design shall also consider whether or not the construction, operation and maintenance will significantly harm the aquifer system. Adverse impacts of construction, operation, and maintenance shall be avoided or at least minimized.

3B2.2 Policy:

In order to protect and conserve the Surficial Aquifer, ~~Palm Beach County PBC Water Utilities~~ and the Town shall investigate utilization of alternate potable water sources to supplement and broaden its future water supply sources. These potential sources could include the Floridan Aquifer, desalinization, capture and storage of excess storm water currently lost to tide and other technologies which may be addressed in the SFWMD's Lower East Coast Regional Water Supply Plan.

**POTABLE WATER GOAL 3C: POTABLE WATER**

**Provide commercial and residential potable water supply system which provides an adequate supply of water meeting all applicable federal, state and local water quality standards.**

3C.1 *Objective:*

*The Town shall support ~~PBC Water Utilities (PBCWUD)~~ to identify and, where feasible, correct existing potable water facilities' deficiencies as necessary.*

3C.1.1 Policy:

The Town shall assist the County with capacity surpluses and deficiencies for the long-term planning horizon and any other relevant issues.

3C.2 *Objective:*

*Potable water facilities, currently depicted on MAP INF-1, shall be provided to meet the Town's short-term and long-term future needs.*

3C.2.1 Policy:

The level of service (LOS) standard for potable water facilities shall be the Florida Department of Environmental Protection Permitted Capacity of the facility. The LOS standard for water treatment plants shall be measured by maximum daily flow. The level of service (LOS) standard for potable water facilities provided by ~~PBCWUD~~ is 126 GPD per capita.

3C.2.2 Policy:

The Town of ~~Loxahatchee Groves~~ shall require in the land development

regulations that applicants for development permits utilize existing potable water facilities if lines are available as defined by Chapters 62-550, 62-555, and 62-560, Florida Administrative Code (FAC).

**3C.2.3 Policy:**

The Town shall support the planning for additional capacity and/or a reduction in per capita demand shall be include in the 10-Year Water Supply Facilities Work-plan as required in Chapter 163 of Florida Statutes to increase the coordination of local land use and future water supply planning.

**3C.2.4 Policy:**

An assessment of the impacts of the construction and operation of new or expansion of existing water treatment plants and support services on adjacent natural resources shall be prepared ~~during site review by PBC during preparation of its 10-Year Water Supply Facilities Work Plan, when considering the siting of new water treatment plants and the expansion of, or increase in capacity of, water treatment plants.~~

**3C.2.5 Policy:**

The Town shall assist the County with the Retail Service Water and Wastewater Master Plan Update, and support the County to re-examine the feasibility of amending the potable water facilities LOS standard. The LOS standards that may be considered include treatment plant peak daily demand capacity, water storage capacity, and water pressure for distribution facilities.

**3C.2.6 Policy:**

In order to protect and conserve the Surficial Aquifer, the Town shall cooperate with ~~Palm Beach County~~ PBC to continue to investigate utilization of alternate water sources to supplement and broaden the county's future water supply sources as described in the 10-Year Water Supply Facilities Work Plan. These potential sources could include the increased use of reclaimed wastewater, improved methods of conservation, Aquifer Storage and Recovery (ASR), improved operations to increase stormwater reuse and aquifer recharge by improvements to the secondary canal infrastructure, and other technologies which may be addressed in the Lower East Coast Regional Water Supply Plan of the South Florida Water Management District (SFWMD).

**3C.2.7 Policy:**

The Town shall support ~~and encourage~~ maximizing the use of existing potable water facilities and reducing redundant facilities.

**3C.2.8 Policy:**

The Town shall support and promote the implementation of an integrated

geographic information system in order to make available standardized land use and potable water supply facilities information for local and regional planning.

3C.3 *Objective:*

*Maximize the use of existing potable water facilities and encourage responsible growth patterns.*

3C.3.1 Policy:

The Town of ~~Loxahatchee Groves~~ shall require in the land development regulations that applicants for commercial development permits adjacent to existing facilities enter into an agreement to tie-in to existing facilities or construct improvements to the utility provider's potable water system necessitated by the proposed development when adequate facilities, based on the adopted level of service standard, are not available and no fiscally feasible plan to construct or expand said facilities is proposed.

3C.3.2 Policy:

The Town shall recommend the denial of future land use map amendments where densities or intensities are increased if:

A1. Potable water facilities are not available and a consumptive use permit for the Florida Department of Environmental Protection Permitted capacity from the South Florida Water Management District (SFWMD) has not been issued; and,

B2. Plans to extend potable water facilities so that they become available are not included within a financially feasible capital improvements program and/or there is not a reasonable expectation that the consumptive use permit will be issued.

3C.3.3 Policy:

As an alternative to new potable water facility construction, The Town shall cooperate with ~~Palm Beach County~~ PBC to identify opportunities to increase the efficiency and optimize the use of existing facilities.

3C.3.4 Policy:

The Town shall support ~~Palm Beach County~~ PBC's effort to encourage the use of coordinated regulatory and programmatic approaches and financial incentives to promote responsible growth patterns.

3C.3.5 Policy:

The Town shall ensure adequate water supplies are available to serve the new development no later than the anticipated date of issuance of a certificate of occupancy or its functional equivalent.

3C.3.6 Policy:

The Town shall coordinate with the South Florida Water Management District to continue to protect ground and surface waters through its permitting of water withdrawals for irrigation and human consumption.

**SANITARY SEWER GOAL 3D: SANITARY SEWER**

**Provide residents with a cost effective, equitable and adequate sanitary sewer facilities meeting applicable federal, state, and local design standards and effluent water quality standards.**

3D.1 Objective:

*The Town shall cooperate with PBCWUD to identify and, where feasible, correct existing PBCWUD sanitary sewer facility deficiencies in the Town.*

3D.1.1 Policy:

In the absence of legal constraints on the use of revenues, the Town shall cooperate with PBCWUD to maintain system improvements identified in the Capital Improvements Element to alleviate public sanitary sewer systems deficiencies within the Town.

3D.1.2 Policy:

The Town shall assist PBCWUD to develop and maintain an inventory of all its sanitary sewer facilities serving residents, customers, and large users in the Town.

3D.2 Objective:

*Sanitary Sewer facilities, currently depicted on MAP INF-2, shall be provided to meet the short-term and long-term future needs.*

3D.2.1 Policy:

The level of service (LOS) standard for sanitary sewer facilities shall be the Florida Department of Environmental Protection Permitted Capacity of the facility. The LOS standard for wastewater treatment plants shall be measured by average daily flow.

3D.2.2 Policy:

The Town and PBCWUD shall use PBCWUD standards for sewage generation rates to assess the adequacy of service and concurrency for potential retail customers. The LOS for PBCWUD is 100 GPD per capita.

3D.2.3 Policy:

The Town shall require in the land development regulations that applicants for development permits utilize existing sanitary sewer facilities if lines are available as defined by Chapter 10D-6, Standards for Onsite Sewage Treatment and Disposal Systems, Florida Administrative Code (FAC), pursuant to Section 381.0065, Onsite sewage disposal systems; installation; conditions, Florida Statutes.



3D.2.4 Policy:

Local government entities shall require customers with private septic tanks to connect to public gravity sanitary sewer collection systems within 365 days of written notice that the service is available, as required by F.S. 381.00655.

3D.2.5 Policy:

The Town shall encourage maximizing the use of existing sanitary sewer activities and reducing redundant facilities.

3D.2.6 Policy:

The Town of ~~Loxahatchee Groves~~ shall support the implementation of an integrated geographic information system in order to make available standardized land use and sanitary sewer facilities information for local and regional planning.

3D.2.7 Policy:

The Town of ~~Loxahatchee Groves~~ shall support and provide information as necessary to Palm Beach County Water Utilities for the update of their required planning processes.

3D.3 *Objective:*

*Maximize the use of existing sanitary sewer facilities.*

3D.3.1 Policy:

The Town shall require in the land development regulations that applicants for development permits within the County's utility districts enter into an agreement to tie-in to existing facilities or construct improvements to the County's sanitary sewer system necessitated by the proposed development when adequate facilities, based on adopted level of service standard, are not available and no fiscally feasible plan to construct or expand said facilities is proposed.

3D.3.2 Policy:

The Town shall continue to investigate the provision of sanitary sewer services through agreements with a franchisee. ~~PBC.~~

3D.3.3 Policy:

The Town shall recommend the denial of future land use map amendments where densities or intensities are increased if:

A4. Sanitary sewer and permitted effluent disposal facilities are not available; and

B2. Where plans to extend such facilities so that they become available are

not included within a financially feasible capital improvements program.

3D.3.4 Policy:

As an alternative to new sanitary sewer facility construction, the Town shall identify opportunities to increase efficiency and optimize the use of existing sanitary sewer facilities.

3D.3.5 Policy

The Town shall encourage the use of coordinated regulatory and programmatic approaches and financial incentives to promote efficient growth patterns.

3D.4 *Objective:*

*Sanitary sewer facilities shall be designed, constructed, maintained, and operated in a manner that conserves and protects potable water resources by optimizing the use of reclaimed wastewater, where feasible, thus offsetting demands on the Surficial Aquifer.*

3D.4.1 Policy:

The Town shall encourage the use of reclaimed water as an integral part of its wastewater management program, where economically, environmentally, and technically feasible.

3D.4.2 Policy:

The Town shall encourage increased wastewater reuse from the East Central Regional Water Reclamation Facility (ECRWF), where feasible.

3D.4.3 Policy:

The Town shall continue public education efforts on the reuse of reclaimed water, encouraging the reuse of water of an appropriate quality level for the purpose intended.

3D.5 *Objective:*

*Sanitary sewer facilities shall be designed, constructed, maintained and operated in a manner that protects the functions and quality of ground and surface waters, natural groundwater recharge areas and natural drainage features.*

3D.5.1 Policy:

The Town shall support the effort of the Palm Beach County Health Department, Florida Department of Health to reduce potential groundwater pollution sources.

3D.5.2 Policy:

The Town shall support the effort of ~~Palm Beach County~~ PBC to prohibit direct wastewater effluent discharges to surface and ground waters within Zone 1 and Zone 2 of wellfield zones of influence as designated on the Wellfield Protection Maps

3D.5.3 Policy:

The Town shall coordinate with the Palm Beach County Health Department to continue to protect ground and surface waters from pollution through permitting of septic tanks, collection and transmission systems.

**SANITARY SEWER GOAL 3E: SOLID WASTE**

**Provide a cost effective and equitable solid waste disposal system which emphasizes resource recovery and meets all federal, state, and local environmental quality standards.**

*3E.1 Objective:*

*Solid waste management facilities shall be provided to meet the Town's short-term and long-term future needs.*

3E.1.1 Policy:

The Town of ~~Loxahatchee Groves~~ shall require in the land development regulations that applicants for development permits demonstrate adequacy of solid waste disposal sites or facilities prior to occupancy.

3E.1.2 Policy:

The Town shall support and provide information as necessary to SWA to design for additional capacity.

3E.1.3 Policy:

The Town shall provide data to SWA to determine the impact of solid waste management facilities and support services on adjacent natural resources.

3E.1.4 Policy:

~~Palm Beach County~~ PBC shall provide for the periodic update of the Integrated Solid Waste Management Plan in order to assure that solid waste management facilities are available to meet future needs.

*3E.2 Objective:*

*The Town shall support ~~Palm Beach County~~ PBC conserving its existing solid waste Disposal facilities.*

3E.2.1 Policy:

Reduce the solid waste stream 30 percent as required by state law, so as to conserve existing solid waste facilities by encouraging recycling.

3E.2.2 Policy:

The Town shall cooperate with ~~Palm Beach County~~ PBC to further preserve landfill space, examine the need for a comprehensive countywide yard waste program and establish clear policies regarding the construction and debris waste stream.

3E.2.3 Policy:

The Town shall cooperate with ~~Palm Beach County~~ PBC to strive toward a reduction in the amount of paper through greater reliance upon the electronic media.

~~3E.4~~ 3E.3 Objective:

*Protect the functions of the groundwater aquifer recharge areas and other natural resources from improper disposal of solid waste.*

~~3E.4.1~~ 3E.3.1 Policy:

The Town shall cooperate with the SWA to monitor groundwater at SWA-managed landfills.

~~3E.4.2~~ 3E.3.2 Policy:

Solid waste management facilities shall be designed, constructed, operated and maintained so as not to exceed established water quality standards.

3E.3.3 Policy: (moved from Conservation Policy 4.3.3)

The Town shall cooperate with appropriate public agencies to assure that solid and hazardous wastes generated within the Town are properly managed to protect the environment. The Town shall report any solid or hazardous waste violation they may become aware of to the appropriate jurisdictional agency.

# **MAP INF-1-WATER MAINS**

**(to be inserted)**

**MAP INF-2-SEWER MAINS**

**(to be inserted)**