INFRASTRUCTURE AND WATER RESOURCES ELEMENT

Goals, Objectives, and Policies

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PURPOSE AND SUMMARY OF THE INFRASTRUCTURE AND WATER RESOURCES ELEMENT

The purpose of the Infrastructure Element is to provide guidance in the provision of services necessary to accommodate existing and future development in a way that is environmentally sensitive, efficient, and cost-effective. Included within this element are goals, objectives, and policies regarding potable water provision, wastewater treatment, solid waste disposal, stormwater management, and aquifer protection, as required by Florida Statutes FSS 163.3177 (6)(c). The adequate provision of these services is intended to promote orderly growth within areas best suited to accommodate development, protect sensitive natural resource systems, and preserve the public health, safety, and general welfare for the Town of Sewall's Point's citizens.

This element will identify an environmentally sound, sustainable, and cost-effective management of solid waste materials that will serve the needs of the Town of Sewall's residents and businesses. It will also identify ways to properly manage waste materials with hazardous characteristics to protect public health and the environment. This element identifies ways to protect aquifer water quality and quantity, which will protect the quality and quantity of potable water supplies and systems. It will identify the potable water facilities and services that are needed to meet existing and projected demands. This plan will include efficient wastewater treatment policies that meet the demands of the community, while maintaining public health and environmental standards. A stormwater management system will be maintained to protect the health, welfare, and safety of the public by reducing damage and the inconvenience that results from flooding.

GOAL IWR 1 POTABLE WATER

Goal IWR 1 Potable Water – The Town of Sewall's Point seeks to achieve and sustain adequate and equitable access to safe and affordable drinking water for its residents and visitors.

OBJECTIVE IWR 1.1 IDENTIFY NEEDED FACILITIES

Objective IWR 1.1. – The Town of Sewall's Point relies upon Martin County Utilities to provide its potable water supply. To that end, the Town will -coordinate with them through ongoing communications including but not limited to meetings, emails and drafting and updating interlocal agreements as needed. This communication will help shall seek to identify any problems and/or associated needs with existing water resources. This includes wastewater and stormwater treatment facilities, availability of central sewer, the quality of capital water infrastructure, and the availability of alternative rainwater collection mechanisms.

Policy IWR 1.1.1 Martin County Utilities has an established criteria for ensuring that it has adequate capacity concurrent with development. To that end, the Town will inform the Martin County Utilities of any proposed new developments that may affect demand of the system to ensure the level of service is not jeopardized for present and future customers.

<u>Policy IWR 1.1.2</u> – The Town of Sewall's Point will review the Martin County 10-year schedule of Capital Improvements to inform the Town Commission of projects aimed to correct to identify any deficiencies in the potable water system, in accordance with regulatory requirements, and encourage them to prioritize projects to correct and upgrade the facilities.

Policy IWR 1.1.32 – The Town of Sewall's Point shall coordinate with the municipal utility provider Martin County Utilities by sharing demographic and population data and by requesting an invitation to the Quarterly Joint County/Municipal meeting hosted by Martin County Board of County Commissioners. and encourage them to prioritize the maximization of use within existing water resource facilities.

Policy IWR 1.1.43 – The Town of Sewall's Point shall coordinate with the municipal utility provider Martin County Utilities and South Florida Water Management District to implement integrated water resource management at all levels.

Policy IWR 1.1.54 – The Level of Service standard for potable water systems is $10\underline{60}$ gallons <u>per capita</u> per day (GCPD).

Policy IWR 1.1.65 – Potable water will meet all relevant primary and secondary drinking water standards as required by the Florida Department of Environment Protection. The capacity for potable water will be permitted and constructed in accordance with Florida Department of Environmental Protection criteria.

OBJECTIVE IWR 1.2 COORDINATION OF EXTENSION & INCREASE OF FACILITIES TO MEET FUTURE NEEDS

Objective IWR 1.2. – The Town shall coordinate with the municipal utility provider Martin County Utilities to encourage the extension and retrofitting of existing water facility infrastructure to accommodate new development and redevelopment.

Policy IWR 1.2.1 – The Town of Sewall's Point shall strive to build infrastructure that is resilient, promote inclusive and sustainable development and redevelopment, and foster innovative techniques for water conservation.

Policy IWR 1.2.2 – The Town of Sewall's Point shall discourage sprawl through policies in the Future Land Use Element.

Policy IWR 1.2.3 – The Town of Sewall's PointMartin County Utilities has adopted Wellfield Protection Regulations that protect existing and future water supply wells apply to all public wells. shall address Wellfield Protection as a means of protection of its potable water supply by The Town will update its Land Development Regulations to include regulations that supporting Martin County's wellfield protection ordinance.

OBJECTIVE IWR 1.3 EFFICIENCY, POLLUTION, AND CONTAMINATION

Objective IWR 1.3 – The Town of Sewall's Point shall strive to conserve the potable water supply by:

- a) Partnering with Martin County Utilities in its strategies to reduce Encouraging the reduction in water demand
- b) <u>Including strategies in its Land Development Regulations which Seeking to</u> prevent and reduce wasteful, uneconomical, impractical, or unreasonable use of water
- c) <u>Including strategies in its Land Development Regulations which Seekinopreserve</u> the natural groundwater aquifer supplies for existing and future population
- d) <u>EncouragingPartnering with</u> the municipal utility provider<u>Martin County Utilities</u> to continue its distribution of reclaimed water as a source for non-potable water

Policy IWR 1.3.1 – The Town of Sewall's Point seeks towill collaborate with the municipal utility provider facilitate in efforts to avoid water scarcity by providing public education programs that promote water use efficiency, the importance of clean drinking water, and the detrimental effects of water contamination to the water ecosystem.

Policy IWR 1.3.2 – The Town of Sewall's Point seeks towill continue to implement strategies that improve water quality by promoting educating the public on ways to reduce the reduction of pollution and minimizing and prevent the release of hazardous chemicals and materials into the water ecosystem.

Policy IWR 1.3.3 – The Town of Sewall's Point will continue to collaborate with local and state elected officials to encourage the Army Corp of Engineers to reduce or eliminate the releases of fresh water from Lake Okeechobee into the St. Lucie River. These releases disturb the river's delicate balance of salinity leading to toxic algae blooms that pose a health risk to Town residents and reduce their quality of life. The Town will look for opportunities to join local and state elected officials in this effort.

GOAL IWR 2 GROUNDWATER QUALITY PROTECTION

Goal IWR 2 – The Town of Sewall's Point seeks to protect, maintain, and restore the Floridan (artesian) Aquifer in an effort to ensure the quality and availability of water for future generations.

OBJECTIVE IWR 2.1 AQUIFER RECHARGE PROBLEMS AND NEEDS

Objective IWR 2.1 – The Town of Sewall's Point shall protect the aquifer from pollutants resulting from household detergents, lawn fertilizers, chemicals, and bacteria from septic tanks and waste disposal sites.

Policy IWR 2.1.1 – The Town of Sewall's Point will continue to regulate the use of fertilizers through its Code of Ordinances.

Policy IWR 2.1.2 – The Town of Sewall's Point will continue to collaborate with Martin County Utilities in its *Connect to Protect* campaign in an effort to provide central sewer to those residents who are currently utilizing septic tanks.

Policy IWR 2.1.3 – The Town's Land Development Regulations (LDR) shall support and comply with the South Florida Water Management District's (SFWMD) regulations regarding high aquifer recharge areas. To ensure continued compliance with these, the Town of Sewall's Point will review the SFWMD regulations on an annual basis and update the LDRs as needed.

Policy IWR 2.1.4 – The Town of Sewall's Point shall construct projects in a way that preserves the predevelopment conditions of the highly effective aquifer recharge regarding soil type, drainage rates, and grade elevation in order to minimize the reduction in the recharge of the surficial aquifer.

Policy IWR 2.1.5 – The Town of Sewall's Point's Land Development Regulations shall require that development applications provide evidence that water quality post-development is the same or better than the pre-development conditions.

OBJECTIVE IWR 2.2 PROTECTION OF NATURAL WATER SYSTEMS

Objective IWR 2.2 – The Town of Sewall's Point shall aim to reduce the potential for contamination of the groundwater aquifer through the application of stormwater best management practices and management of land use activities that may threaten groundwater quality.

Policy IWR 2.2.1 – The Town of Sewall's Point shall coordinate and participate in the South Florida Water Management District's Upper East Coast Water Supply Process.

Policy IWR 2.2.2 - The Town of Sewall's Point shall, through the coordination with the municipal utility provider Martin County Utilities, adopt and implement a 10-Year Water Supply Plan, in accordance with the South Florida Water Management District (SFWMD) no later than May 10, 2023.

Policy IWR 2.2.3 – The Town of Sewall's Point shall discourage the creation of new septic tanks and drain fields and ensure each development complies with Florida Statutes 381.0065 and 381.00655.

Policy IWR 2.2.4 – The Town of Sewall's Point's Land Development Regulations shall include provisions that encourage new development and redevelopment to utilize landscaping materials that are drought resistant. (Reference University Florida IFAS Extension Florida-Friendly Landscaping).

Policy IWR 2.2.5 – The Town shall <u>continue to enforce the regulations in its Code of Ordinances related to landscape irrigation conservation methods which prohibit wasteful and unnecessary water use and limit irrigation to specific days of the week and hours of the day.</u>

discourage the use of potable water for irrigation and collaborate with the municipal utility provider to encourage the use of reclaimed water for irrigation purposes, when available.

Policy IWR 2.2.6 – The Town shall collaborate with the South Florida Water Management District to implement and participate in water conservation activities and programs and provide data for the Regional Water Supply Plan as needed.

GOAL IWR 3 WASTEWATER, STORMWATER, AND SANITARY SEWER MANAGEMENT

Goal IWR 3 – The Town of Sewall's Point will coordinate with the municipal utility provider Martin County Utilities in its efforts to encourage the provision of cost-effective wastewater treatment and environmentally appropriate effluent disposal through central wastewater treatment systems.

OBJECTIVE IWR 3.1 FUTURE SANITARY SEWER NEEDS

Objective IWR 3.1 – The Town will coordinate with the municipal utility provider Martin County Utilities to provide the public with economically and environmentally sound wastewater collection and treatment. This protects investments in existing facilities, increases property values, and improves the water quality for the St. Lucie River and Indian River Lagoon.

Policy IWR 3.1.1 – The Level of Service standard for sanitary sewer shall be 100 Gallons Per Capita Per Day (GPCD). The capacity for sanitary sewer is permitted and constructed in accordance with Florida Department of Environmental Protection criteria.

Policy IWR 3.1.2 – The Town of Sewall's Point shall coordinate with the municipal utility Martin County Utilities to provide wastewater collection and disposal to ensure the integrity of the system and provide for the safe and efficient treatment of wastewater, in accordance with the Florida Department of Environmental Protection standards and regulations.

Policy IWR 3.1.3 – The Town of Sewall's Point shall coordinate with the municipal utility provider Martin County Utilities and support continued maintenance of the sanitary sewer system.

Policy IWR 3.1.4 – The Town of Sewall's Point shall protect natural drainage and water filtration features in the Town by introducing innovative and cost-effective techniques that remove debris and pollution from waterways such as:

- a) Nets attached to drainage pipes that collect debris in water as it flows out of the pipes
- <u>b)</u> Use of stormwater devices such as baffle boxes, exfiltration trenches and sand filters.

OBJECTIVE IWR 3.2 FLOOD PREVENTION AND STORMWATER MANAGEMENT

Objective IWR 3.2 – The Town of Sewall's Point seeks to limit property damage and inconvenience to the public created by poor street drainage by implementing stormwater mitigation strategies throughout the Town.

Policy IWR 3.2.1 – The Town of Sewall's Point shall contribute to the prevention of street and drainage flooding by encouraging sustainable flood prevention practices.

Policy IWR 3.2.2 – The Town of Sewall's Point shall provide educational opportunities for the public on the impacts of individual behavior and activities on the contamination of stormwater runoff.

Policy IWR 3.2.3 – To ensure that the Town of Sewall's Point maintains sufficient stormwater runoff, the following level-of-service standard shall be utilized in determining the appropriate amount of runoff for a project: Peak flood stages less than the first (finished) floor elevation for a 100-year, 3-day flood event.

Policy IWR 3.2.4 – The Town of Sewall's Point shall upgrade its stormwater infrastructure, where appropriate, through drainage improvements and the application of innovative flood management strategies such as the installation of bioswales, recharge through drainage wells, use of pervious pavement, and maintenance of naturally preserved areas.

GOAL IWR 4 BUILD RESILIENT AND SUSTAINABLE INFRASTRUCTURE

Goal IWR 4 - The Town of Sewall's Point shall promote the building of resilient infrastructure, inclusive and sustainable development, and foster innovation for all the residents.

OBJECTIVE IWR 4.1 PROMOTE A SUSTAINABLE COMMUNITY

Objective IWR 4.1 – The Town of Sewall's Point seeks to build sustainable and resilient infrastructure and encourages energy conservation.

Policy IWR 4.1.1 – The Town of Sewall's Point shall promote inclusive and sustainable development by encouraging the use of energy efficient materials and building techniques.

Policy IWR 4.1.2 – The Town of Sewall's Point shall identify deficiencies in existing infrastructure and consider projects in the Capital Improvement Program that upgrade and retrofit infrastructure which is in disrepair or is obsolete.

Policy IWR 4.1.3 – The Town of Sewall's Point shall seek to partner with agencies, such as Florida Power and Light, to educate and encourage the community to utilize clean and renewable energy.

Policy IWR 4.1.4 – The Town of Sewall's Point shall seek to partner with outside agencies to provide community education on the importance of each citizen participating in the Town's goal to reduce pollution and improve the environment.

OBJECTIVE IWR 4.2 LOW IMPACT DEVELOPMENT

Objective IWR 4.2 – The Town of Sewall's Point's Land Development Regulations shall encourage low impact development practices that reduce the volume and rate of stormwater runoff from a site.

Policy IWR 4.2.1 – New construction shall be encouraged to use water fixtures that efficiently distribute water in a manner that reduces overuse and promotes water conservation.

Policy IWR 4.2.2 – The Town of Sewall's Point shall utilize innovative stormwater treatment, when possible, in its capital projects and encourage private development to do the same. These strategies could include:

- a) Bioretention and Rain Gardens Shallow, vegetated areas that collect and absorb runoff from rooftops, sidewalks, and streets; This practice mimics natural hydrology by infiltrating, evaporating and transpiring stormwater runoff
- b) Pervious Pavement- Permeable interlocking pavers, grass pavers, pervious concrete and porous asphalt
- c) Tree Canopies The aboveground portion of a tree which helps to provide shade
- d) Natural Vegetation Landscaping "Nature Scaping" Landscape design which typically focuses on native plants
- e) Low Impact Development A land planning approach to manage stormwater runoff with the use of on-site natural features
- f) Green Streets and Infrastructure Integrating vegetation into stormwater treatment such as street trees, permeable pavements and bioswales

GOAL IWR 5 SOLID WASTE

Goal IWR 5 – The Town of Sewall's Point will provide for the clean, efficient, economical, and environmentally sound management of solid waste.

OBJECTIVE IWR 5.1 SOLID WASTE MANAGEMENT

Objective IWR 5.1 – The Town of Sewall's Point, in cooperation with the solid waste provider, shall ensure the safe operation and maintenance of solid waste management facilities that comply with all stipulations and conditions of Florida Department of Environmental Protection (FDEP), as well as with other applicable local, state and federal regulations that protect water, soil, and air quality.

Policy IWR 5.1.1 – The Town of Sewall's Point shall promote the reduction of solid waste by providing educational information on topics of source reduction such as:

- a) Reusing products
- b) Using repairable, refillable, and durable products with the capacity for a long useful lifespan
- c) Reducing the use of single use plastics

Policy IWR 5.1.2 – The Town of Sewall's Point shall coordinate with agencies such as the Department of Environmental Protection (DEP) and the Environmental Protection Agency (EPA) to provide educational opportunities on the negative multi-level effects that littering, pollution, and yard waste have on the streets, adjacent waterways, and the community as a whole.

Policy IWR 5.1.3 – The Town of Sewall's Point shall provide education on the proper management and disposal of hazardous household wastes, medications, batteries, and electronic devices. The Town shall seek grants and technical assistance programs such as the Department of Economic Opportunity's Household Hazardous Waste Collection Center to provide implementation of solid waste management programs and local household hazardous waste collection programs. The Town will continue to partner with the solid waste provider which provides regular mobile Hazardous Waste Collection at Sewall's Point Town Commons.

Policy IWR 5.1.4 – The Town of Sewall's Point shall coordinate with agencies such as Florida Cooperative Extension Services to provide community education on the importance of backyard composting, also known as "grass cycling," to decrease the amount of organic (yard and kitchen) waste that enters and disrupts the effectiveness of the water utility infrastructure.

<u>Policy IWR 5.1.5</u> – The Town of Sewall's Point hereby adopts 8.22 pounds per capita per day (PPCD) as the Level of Service for solid waste.

OBJECTIVE IWR 5.2 STATEWIDE RECYCLING

Objective IWR 5.2 – The Town of Sewall's Point shall support Florida's goal to recycle at least 75% of waste, as referenced in Florida State Statute 403.7032 "Recycling".

Policy IWR 5.2.1 – The Town shall pursue coordination with the solid waste management provider in recycling efforts and increase educational opportunities about the benefits of recycling.

Policy IWR 5.2.2 – The Town seeks to coordinate with the solid waste provider to provide educational programs and information to the public on the importance of keeping recycling clean of contamination.

Policy IWR 5.2.3 – The Town of Sewall's Point seeks to coordinate with the solid waste management provider in an effort to provide ample recycling bins and opportunities for recycling in easily accessible public spaces.

DEFINITIONS AND ACRONYMS

Annual Average Daily Flow (AADF) - Average flow for the individual year or multi-year period of interest. It is obtained by dividing the sum of all the individual daily flows by the number of daily flows recorded for the year.

Aquifer - An underground layer of water-bearing permeable rock, rock fractures or unconsolidated materials. Groundwater can be extracted using a water well.

Basin Management Action Plan (BMAP) - A framework for water quality restoration that contains local and state commitments to reduce pollutant loading through current and future projects and strategies. BMAPs are adopted by Florida Department of Environmental Protection Secretarial Order and are legally enforceable.

Bioretention Areas and Rain Gardens - Shallow, vegetated areas that collect and absorb runoff from rooftops, sidewalks, and streets. This practice mimics natural hydrology by infiltrating, evaporating and transpiring stormwater runoff.

Downspout Disconnection - The process of disconnection the downspout of a pipe to redirect water to flow into a rain barrel or landscaped area.

Groundwater Quality - The condition of water that is located beneath the Earth's surface in each area.

Harvested Rainwater - Stormwater that is conveyed from a building roof, stored in a cistern and disinfected and filtered before being used for toilet flushing. It can also be used for landscape irrigation.

Low Impact Development - The systems and practices that use or mimic natural processes that result in the infiltration, evapotranspiration or use of stormwater to protect water quality and associated aquatic habitat.

Pervious Pavement - Permeable interlocking pavers, grass pavers, pervious concrete and porous asphalt.

Potable Water - Water that is suitable for drinking.

Rainwater Harvesting- Capturing, diverting, and storing rainwater for later use.

South Florida Water Management District (SFWMD) - Regional governmental agency that manages the water resources in the southern half of Florida.

Surface Water - Water that collects on the surface of the ground.

Total Maximum Daily Load (TMDL) – Scientific determination of the maximum amount of a given pollutant that a surface water can absorb and still meet the water quality standards that protect human health and aquatic life.