The Village of Indiantown

Comprehensive Plan

Infrastructure and Water Resources

Element

Goals, Objectives and Policies
Introduction

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)(a). 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 rural and agricultural areas; and preserve the public health, safety, and general welfare the Village of Indiantown’s citizens.

DEFINITIONS AND ACRONYMS:

Annual 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.

Environmental Protection Agency (EPA) - a federal agency established in 1970 that researches, monitors, sets standards for and enforces activities to ensure that the environment is protected.

Equivalent Residential Connections (ERCs) - A factor used to convert a given annual daily flow (ADF) to the equivalent number of units required for connection to the utility system.

Florida Public Service Commission (FPSC) - A state agency that employs regulatory authority over utilities in one or more of three key areas: rate base/economic regulation; competitive market oversight; and monitoring of safety, reliability, and service.

Gallons Per Capita Per Day (GPCD) - A measurement of the average amount of water each person in a particular area uses on a daily basis.
Groundwater quality - the condition of water that is located beneath the Earth’s surface in a given area.

Municipal Service Taxing Unit (MSTU) - is a non-ad valorem assessment district to provide funding for an essential improvement in a specific geographic area within the county taxing district. An MSTU consists of a group of properties that share in the benefit and cost of that improvement.

Natural Water System - A natural water system is network of water in the environment. This includes the water that falls from the sky as precipitation, water that is absorbed into the ground and water that flows into streams, rivers, lakes and oceans. Revise to include a policy.

Non-ad valorem assessment - assessments that are primarily for paving services, storm water and solid waste collection and disposal. The collection of taxes, as well as the assessment, is in accordance with the rules and regulations of the Florida Department of Revenue* and Florida Statutes*.

Potable water - water that is suitable for drinking.

South Florida Water Management District (SFWMD) - is a 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.

Water reuse program - using treated wastewater for a beneficial purpose.
Goals

1. Potable Water
The Village of Indiantown seeks to achieve and sustain adequate and equitable access to safe and affordable drinking water for its residents and visitors.

2. Groundwater Quality Protection
The Village of Indiantown seeks to protect, maintain and restore the Floridan (artesian) Aquifer in an effort to ensure the quality and availability of water for future generations.

3. Wastewater, Stormwater and Sanitary Sewer Management
The Village of Indiantown will coordinate with the private utility provider in its efforts to encourage the provision of cost-effective wastewater treatment and environmentally appropriate effluent disposal through central wastewater treatment systems.

4. Build Resilient and Sustainable Infrastructure
The Village of Indiantown shall promote the building of resilient infrastructure, inclusive and sustainable industrialization, and foster innovation for all the residents.

5. Solid Waste
The Village will provide for the clean, efficient, economical and environmentally sound management of solid waste.
GOAL IWR1 Potable Water
The Village of Indiantown seeks to achieve and sustain adequate and equitable access to safe and affordable drinking water for its residents and visitors.

OBJECTIVE IWR1.1 Identify Needed Facilities
Identify any problems and/or associated needs with existing water resources. This includes waste and stormwater treatment facilities, availability of central sewer, the quality of capital water infrastructure, and the availability of alternative rainwater collection mechanisms.

POLICY IWR1.1.1 Correct Existing Facilities’ Deficiencies
The Village shall coordinate with the private utility provider 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 IWR1.1.2 Maximize Use of Existing Facilities
The Village shall coordinate with the private utility and encourage them to prioritize the repair and maximization of use within existing water resource facilities.

POLICY IWR1.1.3 Coordinate with Water Management and Utility Companies
The Village shall coordinate with the private utility provider and South Florida Water Management District to implement integrated water resource management at all levels.

POLICY IWR1.1.4 Minimum Level of Service for Potable Water
The Level Of Service standard for potable water systems is 100 gallons per capita per day (GPCD).

POLICY IWR1.1.5 Quality Standards for Potable Water
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 IWR1.2 Coordination of Extension and Increase of Facilities to Meet Future Needs
The Village shall coordinate with the private utility provider to encourage the extension and retrofitting of existing water facility infrastructure to accommodate new development and redevelopment.

POLICY IWR1.2.1 Innovative Water Conservation
The Village of Indiantown shall strive to build infrastructure that is resilient, promote inclusive and sustainable industrialization, and foster innovative techniques for water conservation. POLICY IWR1.2.2 Discourage Urban Sprawl
The Village of Indiantown shall discourage sprawl through policies in the Future Land Use Element and Future Land Use Map and the Capital Improvements Element.

POLICY IWR1.2.3 Wellfield Protection
The Village of Indiantown shall address Wellfield Protection as a means of protection of its potable water supply in the Land Development Regulations.

OBJECTIVE IWR1.3 Efficiency, Pollution and Contamination
The Village of Indiantown shall strive to conserve the potable water supply by:
A. Encouraging the reduction in water demand
B. Seeking to prevent and reduce wasteful, uneconomical, impractical, or unreasonable use of water
C. Seeking to preserve the natural groundwater aquifer supplies for existing and future population
D. Encouraging the private utility to continue its distribution of reclaimed water as a source for non-potable water
E. Promoting water conservation programs

POLICY IWR1.3.1 Potable Water Resources
The Village of Indiantown shall coordinate with the private utility provider in efforts to avoid water scarcity as the Village develops by promoting water use efficiency and encouraging sustainable withdrawals.
POLICY IWR1.3.2 Reduce Water Pollution
The Village of Indiantown seeks to improve water quality by promoting the reduction of pollution, eliminating dumping, and minimizing the release of hazardous chemicals and materials into the water ecosystem.

POLICY IWR1.3.3 Water Contamination Prevention Education
The Village of Indiantown shall encourage the participation of residents in improving water and sanitation management by providing educational resources on the importance of clean drinking water and the cataclysmic effects of water contamination throughout the entire water ecosystem.
GOAL IWR2 Groundwater Quality Protection
The Village of Indiantown 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 IWR2.1 Aquifer Recharge Problems and Needs
The Village of Indiantown shall protect the aquifer from pollutants resulting from household detergents, lawn fertilizers, chemicals and bacteria from septic tanks and waste disposal sites.

POLICY IWR2.1.1 LDR Protection of Natural Water Sources
The Village of Indiantown Land Development Regulations shall include requirements for land use which assist in the protection of groundwater aquifer recharge and protection of existing and future groundwater supplies. For example, hazardous waste treatment facilities should not be constructed above or near wellhead protection areas or highly effective aquifer recharge areas.

POLICY IWR2.1.2 Identification and Protection of Water Recharge
The Village’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 Village of Indiantown will review the SFWMD regulations on an annual basis and update the LDRs as needed.

POLICY IWR2.1.3 Protect Aquifer Recharge Areas
The Village of Indiantown shall construct projects in a way that preserves the predevelopment conditions of the highly effective aquifer recharge with regard to soil type, drainage rates, and grade elevation, in order to minimize the reduction in the recharge of the surficial aquifer.

POLICY IWR2.1.4 The Village’s Land Development Regulations shall require that development applications include a field analysis that delineates the area enveloped by the highly effective aquifer recharge area and demonstrate that the groundwater level, quality and fluctuations shall not be worse after construction than under predevelopment conditions.
OBJECTIVE IWR2.2 Protection of Natural Water Systems
The Village shall have an objective to reduce the potential for contamination of groundwater aquifer through stormwater best management practices and through management of land use activities that may threaten groundwater quality near wellfield sites.

POLICY IWR2.2.1 Water Supply Plan
The Village of Indiantown shall, through the coordination with the private utility provider, adopt and implement a 10-Year Water Supply Plan, in accordance with the South Florida Water Management District (SFWMD) by 2020.

POLICY IWR2.2.2 Water Supply
The Village of Indiantown shall coordinate and participate in the SFWMD Upper East Coast Water Supply Process.

POLICY IWR2.2.3 Wellfield Protection Zones
The Village of Indiantown shall establish wellfield protection areas. The intent of wellfield protection areas is to protect potable water wells from contamination, and to prevent the need for their replacement or restoration due to contamination. Land uses and construction within the wellfield protection zone shall not create a threat to groundwater quality resulting from contamination entering the ground. Use and activities within the wellfield protection areas shall be consistent with the requirements and prohibitions stipulated within the Ground Water Protection Measures in Wellhead Protection Areas section of the Land Development Regulations.

POLICY IWR2.2.4 Future septic systems
The Village shall discourage the creation of new septic tanks and drain fields for new development through the enforcement of standards for availability and mandatory connection to available sewer systems no less strict than those set forth in Sections 381.0065 and 381.00655, Florida Statute.

POLICY IWR2.2.5 Increase Quality of Natural Water Systems
The Village of Indiantown shall educate the public on the importance of high-quality water in the Village’s natural water systems and ways to improve the quality.

POLICY IWR2.2.6 Increasing Quantity of Natural Water Systems
The Village of Indiantown shall provide education and demonstrations of ways to increase the quantity of water that remains in the natural water systems in the Village. (Reference Infrastructure and Water Resources Policy IWR 4.3.2 “Living Infrastructure”.)

**POLICY IWR2.2.7 Low Water Use Landscaping**
The Village of Indiantown’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 IWR2.2.8 Reclaimed water**
The Village shall discourage the use of potable water for irrigation and collaborate with the private utility provider to encourage the use of reclaimed water for irrigation purposes.
GOAL IWR3 Wastewater, Stormwater and Sanitary Sewer Management
The Village of Indiantown will coordinate with the private utility provider in its efforts to encourage the provision of cost-effective wastewater treatment and environmentally appropriate effluent disposal through central wastewater treatment systems.

OBJECTIVE IWR3.1 Future Sanitary Sewer Needs
The Village will coordinate with the private utility provider to seek to provide the public with economically and environmentally sound wastewater collection and treatment, which protects investments in existing facilities and promotes orderly, compact urban growth.

POLICY IWR3.1.1 Minimum Level of Service for Sanitary Sewer
The Level Of Service standard for sanitary sewer shall be 85 Gallons Per Capita Per Day (GPCD). The capacity for sanitary sewer will be permitted and constructed in accordance with Florida Department of Environmental Protection criteria.

POLICY IWR3.1.2 Treatment Standards for Sanitary Sewer
The Village of Indiantown shall coordinate with the private utility to provide wastewater collection and disposal that will seek 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 IWR3.1.3 Maximize Existing Facilities
The Village shall coordinate with the private utility provider in the private utility provider’s efforts to ensure continued maintenance of the sanitary sewer system.

POLICY IWR3.1.4 Alternative Sources for Sewer Treatment
The Village of Indiantown shall coordinate with the private utility provider to identify alternative sources for sewer treatment if sewer service capacities are not sufficient to meet or exceed the sanitary sewer established level of service standard.

POLICY IWR3.1.5 Protect the Functions of Natural Drainage Features
The Village shall protect natural drainage and water filtration features in the Village by introducing innovative and cost-effective techniques that remove debris and pollution from waterways such as:
1. Nets attached to drainage pipes that collect debris in water as it flows out of the pipes.
2. Increase the number of recycling and trash bins around the Village to make it convenient for the public to properly dispose of recyclables and trash.
3. Use proprietary stormwater devices such as baffle boxes, exfiltration trenches and sand filters.

**OBJECTIVE IWR3.2 Flood Prevention and Stormwater Management**
The Village of Indiantown seeks to limit property damage and inconvenience to the public created by poor street drainage by implementing stormwater mitigation strategies throughout the Village.

**POLICY IWR3.2.1 Public Outreach on Stormwater Impacts**
The Village of Indiantown shall provide educational opportunities for the public on the impacts of individual behavior and activities on the contamination of stormwater runoff.

**POLICY IWR3.2.2 Flood Prevention**
The Village of Indiantown shall contribute to the prevention of street and drainage flooding by encouraging sustainable flood prevention practices.
(Reference Infrastructure and Water Resources Policy IWR 4.3.2 “Living Infrastructure”.)

**POLICY IWR3.2.3 Level of Service for Drainage Facilities**
To ensure that the Village of Indiantown 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.
GOAL IWR4 Build Resilient and Sustainable Infrastructure
The Village of Indiantown shall promote the building of resilient infrastructure, inclusive and sustainable industrialization, and foster innovation for all the residents.

OBJECTIVE IWR4.1 Promote Sustainable and Long-Lasting Infrastructure
The Village of Indiantown seeks to develop quality, reliable, sustainable, and resilient infrastructure to support economic development and human well-being.

POLICY IWR4.1.1 Efficient Building Techniques and Materials
The Village of Indiantown shall promote inclusive and sustainable industrialization by encouraging the use of energy efficient materials and building techniques.

POLICY IWR4.1.2 Retrofit and Upgrade Existing Infrastructure
The Village of Indiantown shall plan for and fund projects that upgrade and retrofit infrastructure which is in disrepair or is obsolete.

POLICY IWR4.1.3 Sustainable Development Incentives
The Village of Indiantown shall facilitate sustainable and resilient infrastructure development in the Village through incentive programs for developers who utilize this framework. These incentives will be described in the Land Development Regulations.

POLICY IWR4.1.4 Renewable Energy Sources
The Village of Indiantown shall seek to partner with agencies, such as Florida Power and Light, to integrate solar projects into development within the community to create clean and renewable energy.

OBJECTIVE IWR4.2 Innovative Vision
The Village of Indiantown shall support innovative industrial diversification by providing residents, landowners, business owners, and potential developers access to information that supports the vision for the Village to build sustainable developments for generations to come to utilize and enjoy.
POLICY IWR4.2.1 Connecting the Village Areas
The Village shall support positive economic, social and environmental links between urban and rural areas by strengthening development planning. The Village will seek opportunities for greenbelts and linear parks to serve as connections between varying land uses.

POLICY IWR4.2.2 Public Education on Pollution
The Village of Indiantown shall seek to partner with outside agencies to provide community education on the importance of each citizen to participate in the Village’s goal to reduce pollution and improve the environment.

POLICY IWR4.2.3 Water Conservation Plans & Education Programs
The Village shall cooperate with the South Florida Water Management District to implement and participate in water conservation activities and programs.

POLICY IWR4.2.4 Public Outreach on Water Conservation
The Village shall educate water users in the use of water conservation techniques by posting information on the Village’s website.

OBJECTIVE IWR4.3 Low Impact Development
The Village of Indiantown’s Land Development Regulations shall encourage low impact development practices that reduce the volume and rate of stormwater runoff from a site.

POLICY IWR4.3.1 Water Conservation Fixtures
New construction shall be encouraged to use water fixtures that efficiently distribute water in a manner that reduces overuse and promotes water conservation.
POLICY IWR4.3.2 Living Infrastructure
The Village shall include the use of Living Infrastructure in their capital projects and encourage private development to do the same.

1. 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.
2. Pervious pavement - permeable interlocking pavers, grass pavers, pervious concrete and porous asphalt.
3. Tree Canopies - the aboveground portion of a tree which helps to provide shade.
4. Planter Boxes - rain gardens with vertical walls and either open or closed bottoms that collect and absorb runoff from sidewalks, parking lots, and streets. They also have the benefit of contributing to streetscape beautification.
5. Low Impact Development - a land planning approach to manage stormwater runoff with the use of on-site natural features.
6. Green Streets and Infrastructure - integrating vegetation into stormwater treatment such as street trees, permeable pavements and bioswales.
7. Rainwater Harvesting - collecting rainwater for reuse.
8. Natural Vegetation Landscaping “Nature scaping” - landscape design which typically focuses on native plants.
GOAL IWR5 Solid Waste
The Village will provide for the clean, efficient, economical and environmentally sound management of solid waste.

(NOTE: At the time of this draft of the Comprehensive Plan, the Village of Indiantown outsources its solid waste collection to a solid waste provider through an interlocal agreement with Martin County Board of County Commissioners. - Reference Resolution 042-2018, adopted 9-13-18.)

OBJECTIVE IWR5.1 Solid Waste Management
The Village of Indiantown, in cooperation with a solid waste provider shall facilitate the safe operation and maintenance of solid waste management facilities, in compliance 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 IWR5.1.1 Reduction of Solid Waste
The Village of Indiantown shall promote the reduction of solid waste by providing educational information on topics of source reduction such as:

1. Reusing products
2. Using repairable, refillable and durable products with the capacity for a long useful lifespan
3. Reducing the use of single use plastics

POLICY IWR5.1.2 Protection of Natural Resources
The Village of Indiantown shall seek partnerships and coordination opportunities with state and federal departmental agencies to provide funding and educational resources in regard to waste source reduction, recycling options and alternative methods to keep the streets and waters of the Village of Indiantown clean.

POLICY IWR5.1.3 Addressing Littering, Dumping and Yard Waste
The Village of Indiantown 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 community as a whole.
POLICY IWR5.1.4 Hazardous Waste
The Village of Indiantown shall provide education on the proper management and disposal of hazardous household wastes, medications, batteries and electronic devices. The Village shall seek out 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.

POLICY IWR5.1.5 Individual Composting
The Village of Indiantown 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 into and disrupts the effectiveness of water utility infrastructure.

OBJECTIVE IWR5.2 Statewide Goal of 75% Recycling by 2020
The Village shall support Florida’s goal to recycle at least 75% of waste by 2020 as referenced in Florida State Statute 403.7032 “Recycling”.

POLICY IWR5.2.1 Adopt a Recycling Program
The Village shall coordinate with outside agencies to develop new recycling programs such as the Department of Economic Opportunity’s Recycling Business Assistance Center and the Florida Recycling Loan Program for individual business operators.

POLICY IWR5.2.2 Waste Management Recycling Program
The Village shall pursue coordination with the solid waste management provider in recycling efforts and increase educational opportunities on the benefits of recycling.
POLICY IWR5.2.3 Addressing Recycling Contamination
The Village 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 in order to maximize the amount of recyclable materials that are able to be successfully recycled.

POLICY IWR5.2.4 Public Recycle Bins
The Village 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.