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# INFRASTRUCTURE AND WATER RESOURCES ELEMENT

## Data, Inventory and Analysis

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## INTRODUCTION

The purpose and intent of the Infrastructure & Water Resources Element is to describe how public facilities will be provided in the Town of Sewall's Point. As required by Florida State Law {FSS 163.3177 (6)(a)}, this element will indicate ways that the Town will provide potable water, manage sewage and drainage, address garbage collection and how it will protect the aquifer.

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. This element will include strategies to protect surface water and groundwater quality.

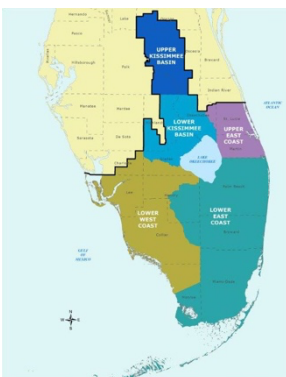
## STATUTORY REQUIREMENTS

Florida Statute 163.3177(6)(c) includes the following requirements for Infrastructure and Water resources:

- Data and analysis for the facilities that provide service within the Town of Sewall's Point
- Projection of shared facility needs and the proportional capacity of the systems allocated to the Town of Sewall's Point
- Describe any needs and the general facilities required to solve current needs and issues including correcting any deficiencies
- Extensions, if needed, for increase of capacity while maximizing the use of existing facilities.

This section outlines the current and projected water needs and sources for the next ten-year period based on demand. The analysis also examines the quantity and quality available to meet these needs.

## THE REGIONAL WATER SUPPLY PLAN



The Town of Sewall's Point is in the Upper East Coast Water Supply Planning Area. The South Florida Water Management District (SFWMD) has developed the ~~2016-2021~~ Upper East Coast Water Supply Plan Update to assess projected water demands ~~and potential sources of water~~ projections through 2045 ~~for the years 2013 to 2040~~. The Water Supply Plan is updated every five years. ~~The 2021 Upper East Coast Water Supply Plan Update was in draft form at the time this document was published.~~ The Water Supply Plan focuses on alternative water sources and ways to treat, store and conserve water for future needs. Some of the data for this element is sourced by this plan.

## UTILITY PROVIDER

Martin County Utilities is a regional utility that provides water and wastewater services to the Town of Sewall's Point. Therefore, much of the data for this element is sourced from Martin County and Martin County Utilities. Martin County Utilities currently treats an average of 9 million gallons of water a day from 35 surficial and 4 Floridan wells. The Martin County water system is interconnected between the Tropical Farms and North County water plants. Water treated at these plants is a combination of lime softening and reverse osmosis. The treatment process for water, wastewater, and irrigation quality (reuse) water meets all the requirements established by the federal, state, and local regulatory agencies.

## WATER SOURCES

Martin County Utilities' water is derived from either surface water or ground water resources. Two major aquifers serve Martin County Utilities: the Surficial Aquifer System (SAS) (non-artesian), 15 to 150 feet below the land surface, and the Floridan Aquifer System (FAS) (artesian), 600 to 1,500 feet below the land surface. Both aquifers yield water to wells in Martin County. Water from the FAS is used for irrigation and stock watering, and with advanced treatment, for potable water. Approximately half of the water used in Martin County is obtained from the SAS with projected increase in FAS use in the future.

*Source: Martin County Comprehensive Plan [2018](#)*

## WATER QUALITY

Chemical analysis of water samples from Martin County indicates that water from the SAS is generally of good quality. It contains some iron (1 to 4 milligrams per liter). Water from the FAS is mineralized with chloride salt and requires advanced water treatment to be used as potable. Contamination of the surficial potable water supply can result from saltwater intrusion, leaky underground storage tanks, spills of hazardous or toxic substances, and free-flowing or leaking artesian wells that commingle Floridan water with surficial water. Saltwater intrusion has occurred in some coastal areas of Martin County.

*Source: Martin County Comprehensive Plan [2018](#)*

## WATER QUANTITY AND DEMANDS

The Town's water demand is met by Martin County Utilities. Most homes in the Town are connected to the County potable water system. Specifically, all 640 properties in South Sewall's Point have potable water service from the Utility, and 211 North Sewall's Point residents have water service with 10 homes utilizing private wells. The Martin County system services an estimated 100,000 customers and thus based upon population figures, the Town accounts for less than 1 percent (.8%) of the utility's customer base. According to the Upper East Coast Water Supply Plan [20162021](#), Martin County [Utilities](#) utilizes approximately ~~403~~ [108156](#) gallons of water per day ~~of water~~ per customer. ~~The utility provider demands 10 million gallons per day of water.~~ The projected [water](#) needs for [the Town of Sewall's Point's water provider](#), Martin County [Utilities](#), in [2040-2045](#) will be ~~11.59~~ [a daily average of 23.0512.66](#) million gallons [of water](#) per day.

TABLE IWR 3-1 POPULATION AND FINISHED WATER DEMAND (MGD)

	2019	2020	2025	2030	2035	2040	2045
Population	94,163	95,352	101,153	106,077	110,170	113,844	117,215
2015-2019 Average PCUR	156						
<b>Potable Water Demands</b> (Net Finished Water Demand in MGD)	10.17	10.30	10.92	11.46	11.90	12.30	12.66

Source: Upper East Coast Water Supply Plan Appendices 2021

MGD = Million Gallons Per Day; DSS = Domestic Self Supply; PCUR = Per Capita Use Rate; PS = Public Supply

Martin County Utilities has more than enough water to meet future needs of its customers as illustrated in **Tables IWR 3-1 and 3-2**.

TABLE IWR 3-2 SFWMD CONSUMPTIVE USE PERMITTED ALLOCATION (MGD)

Potable Water Source	Permit Number 43-00102-W (Expires 2035)
Surficial Aquifer System	5.91
Floridan Aquifer System	15.09
Total Allocation	21.0

Source: Upper East Coast Water Supply Plan 2021

## RESIDENTIAL POTABLE WATER FUTURE NEEDS

Based on population projections, and an average of 156 gallons per day per household, the total potable water demand for the Town is shown in **Table IWR 3-3** below.

TABLE IWR 3-3 RESIDENTIAL POTABLE WATER FUTURE NEEDS

Year	Population	Projected Demand (gallons per day)
2020	2,202	343,512
2025	2,285	356,460
2030	2,353	367,068
2035	2,428	378,768
2040	2,496	389,376

Source: Bonnie C. Landry and Associates

## REUSE WATER

Martin County manages a successful and sustainable water reuse program. This water reuse program transforms highly treated domestic wastewater to be reused to local golf courses and residential subdivisions within the County. Water reuse makes good environmental sense because it helps to maintain a stable, cost-effective water supply.

## WASTEWATER

Most of the Sewall's Point homes still use septic tanks to manage wastewater. All of the properties in South Sewall's Point (640) use septic tanks for wastewater, and only 73 of the 221 properties in North Sewall's Point are connected to the sewer system. There is an effort by the Town to encourage residents with septic tanks to connect to the sewer system. See "Connect to Protect" section of this report for more information.

*Source: Martin County Utilities [2021](#)*

## SANITARY SEWER

Martin County Utilities provides sanitary sewer service to the Town of Sewall's Point. Pipes from each house or building flow to a sewer main that runs, for example, down the middle of the street. The sewer mains flow into progressively larger pipes until they reach the wastewater treatment plant where the water is treated. There are two types of sewer systems: Grinder and Vacuum.

### GRINDER SYSTEM

In a grinder system, small diameter mains are installed utilizing a directional boring technique. It is a minimal impact trenchless method of installing underground utilities such as these pipelines.

Waste flows from the home into the grinder tank. When it reaches a certain level, it is then pumped from each property directly into the County's sewer system for treatment. The cost for the MCU installed residential grinder system in communities with new force mains is approximately \$10,000.

Once connected, the residents will be billed approximately \$18 monthly, in addition to a usage charge based on the number of gallons of water used.

### VACUUM SYSTEM

With a vacuum system connection, vacuum sewer lines are installed, ready to connect each home. The County sewer lines, which carry wastewater, will be evacuated to a neighborhood vacuum pump station.

When the wastewater level in the vacuum pump station tank reaches a certain level, it will then be pumped to the County wastewater treatment facility. Repair and maintenance of vacuum systems is solely the responsibility of the County. Owners served by a vacuum sewer system will pay for connection via a special assessment on their annual property tax bill amortized over 20 years. The balance can be paid off at any time or the assessment can be paid in full prior to going to the tax bill.

Additionally, when these owners establish a sewer account, they will be required to pay for lateral service connection from their house to the County sewer line. There will be a monthly sewer charge on the water bill based on the number of gallons of water used.

## SEPTIC TANKS

Septic tank systems are utilized for wastewater management for the homes in Sewall's Point that are not connected to the sanitary sewer. This form of wastewater treatment uses a tank that receives wastewater from the residence and provides a period of settling during which time a significant portion of the suspended solids settle out to be biologically (anaerobically) degraded. The effluent is discharged through underground, perforated drainage pipes (drainfield) and percolate into the soil where microorganisms and filtration purify the liquids. Septic tanks generally require cleaning every two to three years to remove accumulated solids. These solids, called septage, are generally transported to treatment and disposal facilities. Septic tanks can be adversely affected by several conditions, including high water table, poor drainage, lack of space, and miscellaneous effects from other conditions such as overloads from washing machines. This risk of failing septic systems results in pollution. Septic tanks with concrete or metal parts can degrade over time, leading drain fields to becoming clogged with organic material which makes the system unusable. Pipes blocked by roots, soils saturated by high water tables, crushed distribution pipes, improper location, poor original design or poor installation can all lead to major problems. By far the most common reason for early failure is inadequate maintenance by homeowners.

Due to the age of some of the septic tanks and their location near the waterways, the Town is actively seeking state and federal grants to assist in connecting these homes to the sewer system provided by Martin County Utilities. They are also collaborating with the County in their "Connect to Protect" initiative. There are still 788 homes in the Town of Sewall's Point which are not connected to the Martin County Utilities sewer system.

*Source: Martin County Utilities [2021](#)*

## CONNECT TO PROTECT

Connect to Protect is Martin County's environmental initiative to connect residential properties currently on septic systems to the County's wastewater collection and treatment system. The aim is to improve the health of nearby waterways. Sewall's Point is an excellent candidate for this initiative due to its location along the St. Lucie River and Indian River Lagoon.

Sewer conversions will reduce water body contaminants, such as nitrogen, phosphorous and fecal coliform, from being released into the St. Lucie River, Indian River Lagoon and Estuary, and offshore reefs. Protecting these water bodies is important because they are vital assets of the community, environment and the local economy.

In addition to reducing pollution, residents benefit from the sewer connection as it eliminates the maintenance costs for the septic system and the risk of the septic tank's failure. As an incentive, Martin County offers a program for residents who desire to offset costs of the connection. The Solar and Energy Loan Fund (SELF) is a non-profit lending organization that can help reduce loan costs up to \$1,000.

## SOLID WASTE COLLECTION, DISPOSAL AND RECYCLING

Solid waste collection and disposal services are provided for the Town of Sewall's Point by Martin County through its contract with Waste Management. This company provides Sewall's Point with residential collection twice-a-week; and recycling and yard waste once a week.

### GARBAGE COLLECTION

The Town of Sewall's Point Collection Days are as follows:

- Monday and Thursday – Garbage Collection Days
- Thursday – Recycle Collection Days

### REGULAR YARD WASTE COLLECTION

Regular Yard Waste is collected on Wednesday of each week. Yard waste is grass clippings, branches, limbs, pine needles, pinecones, palm fronds and any other small vegetative waste.

### BULK TRASH COLLECTION

Bulk trash, also referred to as "bulky waste," includes non-vegetative items that can't be containerized, bagged or bundled. For single-family homes, bulk trash includes non-vegetative items that can't be containerized, bagged or bundled.

#### Examples of bulk trash:

- Broken or discarded refrigerators
- Ranges
- Toilets
- Washers/dryers
- Bathtubs
- Water heaters
- Sinks
- Bicycles
- Household goods and furniture

Contractors must dispose of any waste they generate.

### RECYCLING

Recycling is a great way to reduce pollution as mentioned by the residents at the April 2021 workshop. This strategy only works if the residents put the appropriate items into recycling bins so as not to compromise the system. Martin County uses a process called "single stream recycling," which means all recyclables go into one bin. It is important that residents put the appropriate items into recycling bins so as not to compromise the system.

## HAZARDOUS WASTE

Any material or substance that is potentially damaging to the environment and harmful to humans or other living organisms is considered a hazardous waste. These materials should never be disposed of curbside. If disposed of improperly, these products can contaminate our waterways and fragile drinking water supply, damage septic tanks and wastewater systems, and injure sanitation workers. Town residents should take hazardous waste to the Household Hazardous Waste Disposal Center, located at 9155 Busch Street, Palm City, for free disposal. In addition to the drop-off option, there is also a mobile Hazardous Waste Collection available on the 5th Wednesday of each month from 8:30 a.m. to 1:30 p.m. at Sewall's Point Town Commons Park.

## AQUIFER RECHARGE PROBLEMS AND NEEDS

Although the ground is an excellent natural mechanism for filtering matter out of water such as dirt, leaves, and bugs, other contaminants are not filtered out. These contaminants include detergents (from our laundry, shampoos, household cleaning agents, etc.), fertilizers (from our gardens, lawncare, etc.), chemicals (medicines, domestic cleaners, industry by products and agricultural chemicals such as pesticides, herbicides, etc.) and bacteria from septic tanks and waste disposal sites. The Town's Land Development Regulations include guidelines from *Florida-Friendly Best Management Practices for Protection of Water Resources* in efforts to minimize the negative impacts associated with fertilizers.

## STORMWATER MANAGEMENT

### STORMWATER DESCRIPTION

Stormwater is precipitation that falls from the sky from natural weather conditions onto the earth's surface. The hydrologic cycle of precipitation includes rainfall, evaporation/transpiration, surface runoff, interflow and base flow conditions. For undeveloped parcels, stormwater is intercepted by tree canopy, natural landscape, and is infiltrated into the natural soil conditions and percolated into the groundwater. The volume of water that is not immediately utilized by the natural surroundings is classified as runoff. The runoff in pre-development conditions is typically minimal and classified as balanced. This is due to the direct correlation between the natural growth of plants/trees and the local rainfall (i.e., high rainfall results in dense lush growth; low rainfall areas result into drought tolerant scrub). This natural cycle maintains a healthy groundwater table at a level that supports naturally occurring water bodies.

The hydraulic cycle of precipitation after a parcel is developed changes based upon the amount of impervious or solid surface the rainfall encounters. A higher percent of impervious area results in a greater volume of runoff which negatively impacts the surrounding landscape and downstream waters. Negative impacts include drought conditions from evaporation, flash flooding and pollutions, all of which are due to the lack of infiltration and percolation. Groundwater tables diminish and the level of natural water bodies decreases or disappears. To combat the negative impacts, development tools are implemented to mimic natural conditions. These tools aim to increase infiltration and percolation, the storage of water and the evaporation/transpiration. The term "treatment train" is used to describe this approach. By developing with a treatment train, there will be less pollution and a reduction of other negative impacts to the watershed.

*Source: Stormwater Design Toolkit, Martin County CRA, January 2012*

## LOW IMPACT DEVELOPMENT

A treatment train differs from the traditional drainage systems and is generally identified as Low Impact Development (LID). Some of the LID practices include bioswales or bioretention areas, which detain or retain water and are planted with native materials other than grasses to increase the amount of runoff captured on a site and to filter the runoff prior to being discharged off site. The use of grassed swales to convey water instead of a closed system of underground pipes is an LID practice. Other practices include pervious paving systems which reduce runoff by allowing the rainwater to percolate into the ground. Green (vegetated) roofs are another potential practice for capturing a portion of rainwater that would traditionally be lost as runoff. Rainwater can be captured via above ground rain barrels, which are barrels located at roof gutter downspouts or underground storage vaults called cisterns and used to irrigate site landscaping in another common LID practice.

## RAINWATER HARVESTING

Rainwater harvesting has been identified by the Environmental Protection Agency as a sustainable approach to using water resources, looking at not only how much water is used, but also the quality of water needed for each use.

Most of the water used in the U.S. comes from freshwater supplies of surface and groundwater. Water extracted for public systems is treated to potable standards as defined by the Safe Drinking Water Act. Access to high quality water has greatly benefited public health, but it has also resulted in the typical system of utilizing potable water for virtually every end use, even when lesser quality water would be sufficient. In addition to conservation methods, using alternative sources of water will be necessary for more efficient use of water resources.

Rainwater harvesting is a good way to conserve water. This method collects rainwater from impervious surfaces and stores it for later use. Rainwater reuse offers several benefits. Rainwater harvesting:

- Is cost-effective
- Can supplement existing water supplies
- Reduces stormwater runoff and pollution
- Reduces erosion especially in urban environments
- Provides water that needs little treatment for irrigation or non-potable indoor uses
- Helps reduce peak summer demands
- Helps introduce demand on drinking water systems.

Rainwater harvesting has significant potential to provide environmental and economic benefits by reducing stormwater runoff and conserving potable water. Potable water is used almost exclusively for domestic uses although almost 80% of household water demand does not require drinkable quality water.

Some examples of typical household potable water use which could:

- Showers
- Dishwashers
- Baths
- Faucets
- Leaks

## TOWN STORMWATER MANAGEMENT PLAN

The Town is developing a Master Stormwater Management Plan Program which includes projects that can be budgeted in the Capital Improvement Plan. These Town will also need to budget each year to maintain these systems. Having and maintaining a Master Stormwater Management system is important to prepare the Town for the risk of flooding from king tide and sea level rise. Projects proposed for this can be found in the **Capital Improvements Element** of this report.

## FDEP SURFACE WATER MANAGEMENT

The Florida Department of Environmental Protection (FDEP), Division of Environmental Assessment and Restoration (DEAR), is charged with developing, adopting and reviewing Florida's surface water quality standards; identifying, verifying and prioritizing pollution problems; developing strategies to resolve the problems; and implementing those strategies through comprehensive restoration actions in partnership with local stakeholders. These strategies are continuously evaluated and updated as necessary to adapt to changing conditions as well as new technologies and research.

- Develops and adopts Florida's surface water quality standards.
- Monitors and reports on surface water and groundwater quality
- Assesses rivers, lakes, estuaries and springs to identify pollution problems
- Adopts scientific water quality restoration targets—Total Maximum Daily Loads (TMDLs)
- Develops and implements restoration plans such as Basin Management Action Plans (BMAPs), Reasonable Assurance Plans and Nutrient Reduction Plans in concert with local stakeholders to achieve water quality standards.
- Provides the department and other resource agencies with the highest quality laboratory services available

The South Florida Water Management District (SFWMD) serves as a local sponsor for many restoration efforts and plays a critical role in implementing Everglades projects.

## WATERSHED

Sewall's Point is located in the Indian River Lagoon and St. Lucie – Loxahatchee watersheds. A watershed is simply the geographic area through which water flows across the land and drains into a common body of water, whether a stream, river, lake or ocean. Much of the water comes from rainfall and stormwater runoff. The quality and quantity of stormwater is affected by the alterations of the land such as agriculture, roadways, urban development and the activities of people within a watershed. Watersheds are usually separated from other watersheds by naturally elevated areas. Because the surface water feature and stormwater runoff within a watershed ultimately drain into other bodies of water, it is essential the Town consider these downstream impacts when developing and implementing water quality protection and restoration actions. Everything upstream ends up downstream. It is important to remember that in everyday activities can affect downstream waters.

*Source: Stormwater Design Toolkit, Martin County, January 2012*

## PUBLIC WORKSHOPS

An important component of data collection is public involvement. Staff provided a Comprehensive Plan Workshop in April 2021 to understand the needs of the residents and business owners within the Town of Sewall's Point. Staff conducted a live polling activity at the April Workshop. The public workshop was streamed live, and available on the Town's website shortly after the meeting. An electronic version of the same twenty-two questions was made available on the Town's website as well as in paper form at Town Hall. The survey was also distributed by the Town Manager via emails. In effort to reach even more residents, paper copies of the poll were printed and mailed to each resident with the Town's newsletter.

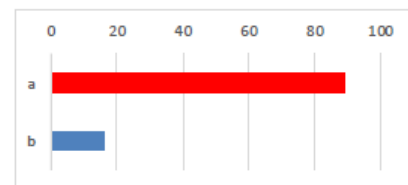
The poll included questions about a variety of topics, three of which were related to the Infrastructure and Water Resources Element related to water, sewer, and solid waste services. The majority of those polled stated they were happy with the quality of their drinking water and also the treatment of their wastewater.

### GRAPH IWR 3-1 PUBLIC WORKSHOP QUALITY OF DRINKING WATER POLL

12/29/21

I am happy with the quality of my drinking water.

a	True	89
b	False	16
		105

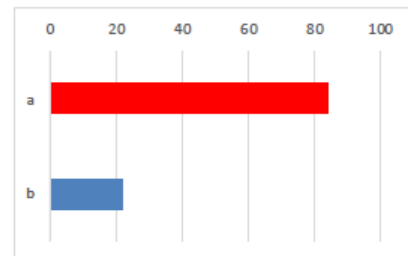


### GRAPH IWR 3-2 PUBLIC WORKSHOP TREATMENT OF WASTEWATER POLL

12/29/21

I am happy with the treatment system of my wastewater (sewer or septic system.)

a	True	84
b	False	22
		106



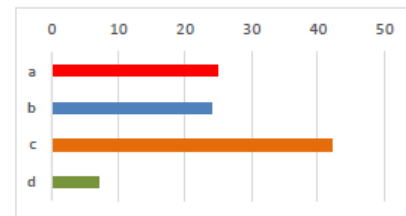
The next question looked at how the community viewed pollution, and which approach they felt was best. 43% of the residents polled felt replacing septic systems with sewer is the most effective way to reduce pollution in the Town.

### GRAPH IWR 3-3 PUBLIC WORKSHOP REDUCING POLLUTION POLL

12/29/21

Which strategy do you feel is most important to reduce pollution?

a	Encourage and facilitate more recycling	25
b	Reduce littering (educate/enforcement)	24
c	Replace septic systems with sewer	42
d	Reduce car use - use fuel efficient, electric or hybrid vehicles; or other travel mode	7
		98



## AQUIFER RECHARGE PROBLEMS AND NEEDS

Although the ground is an excellent natural mechanism for filtering matter out of water such as dirt, leaves and bugs, other contaminants are not filtered out. These contaminants include detergents (from our laundry, shampoos, household cleaning agents, etc.), fertilizers (from our gardens, lawncare, etc.), chemicals (medicines, domestic cleaners, industry by products and agricultural chemicals such as pesticides, herbicides, etc.) and bacteria from septic tanks and waste disposal sites.

## INFRASTRUCTURE AND WATER RESOURCES ANALYSIS

This element describes how public facilities (potable water, manage sewage and drainage) are provided in the Town of Sewall's Point. The data is sourced from local, state, and federal agencies. The preceding pages outline the Infrastructure and Water Resources in the Town. In summary:

- The Town of Sewall's Point does not own or manage a utility.
- Martin County Utilities provides water and wastewater services to the Town.
- Martin County Utilities has more than enough water to meet its customer demands through the year [20402045](#).
- Martin County manages a successful water reuse program which ensures a stable, sustainable and cost-effective water supply.
- Due to the age of many of the septic tanks and their location near important water bodies, the Town should encourage and seek grant funding to connect 788 homes to the County Sewer system.
- The Town has an Interlocal Agreement Martin County to manage its solid waste disposal through the County's provider.
- The Town is preparing for the risk of flooding by developing a Stormwater Master Plan.

## 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.

**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.

**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 County Utility system.

**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.