

Holistic Water Policy Work Session

Seminole County Board of County Commissioners Meeting

August 27, 2024

Agenda

- **Water Policy History:**
Kim Ornberg, PE,
Environmental Services Director
- **Holistic Water Policy Plan Details:**
Dan Rutland, PE, Jacobs
- **Next Steps:**
Keeli Carlton,
Water Policy Program Manager

Water Policy Timeline



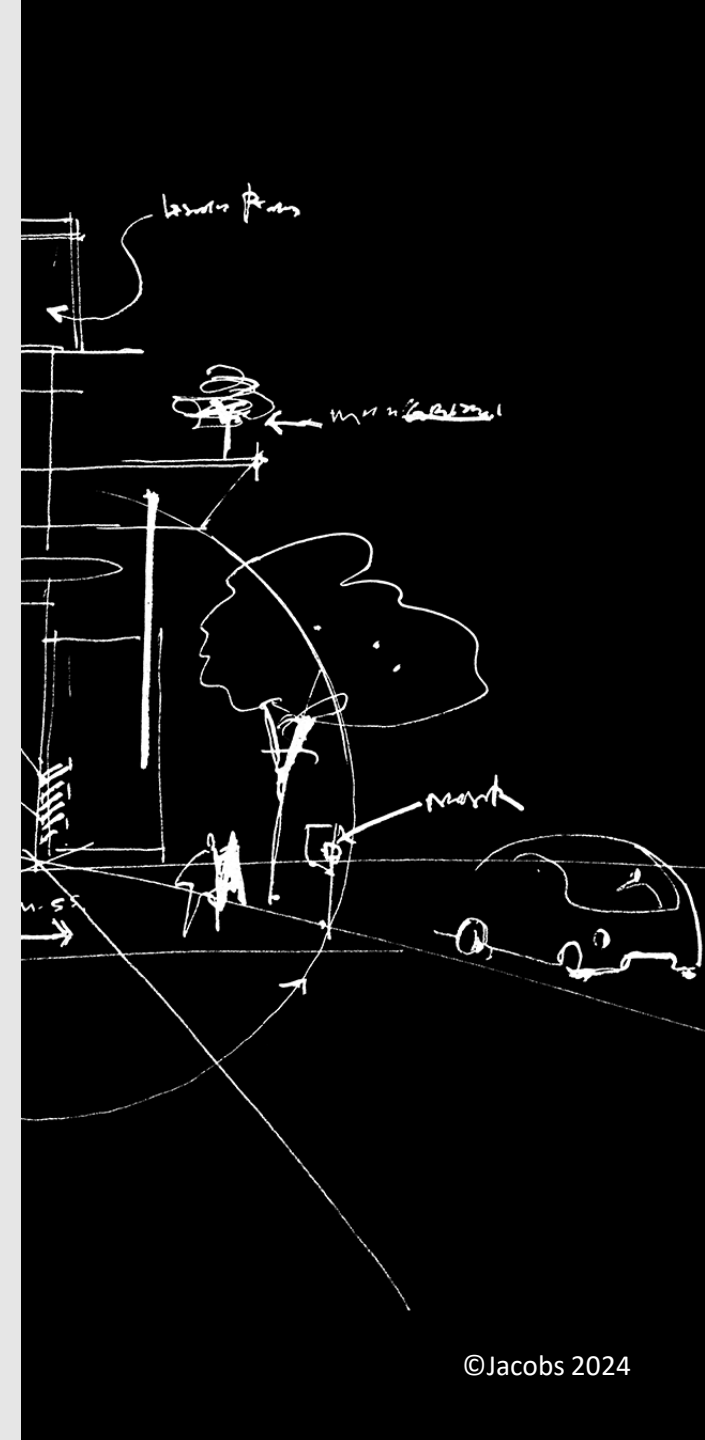
Holistic Water Policy

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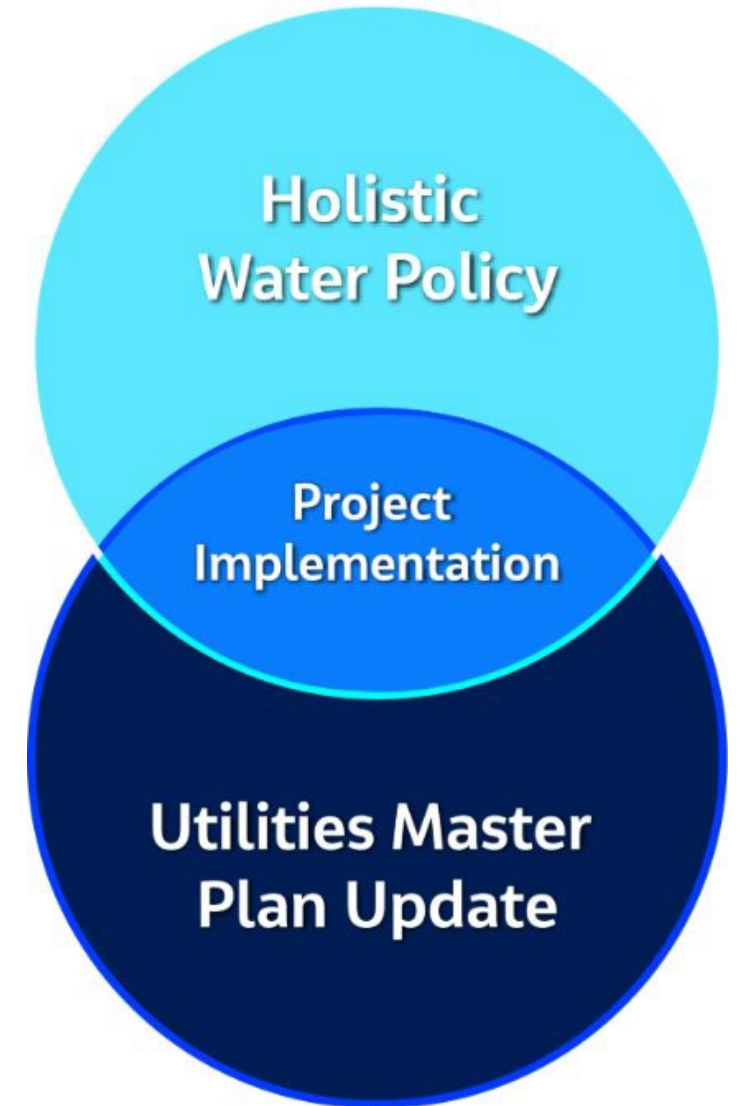
Agenda

- Background
- Scope
- Approach and Framework
- Categories Specific to the County
- Development Programs and Policies
- Implementation Plan
- Closing



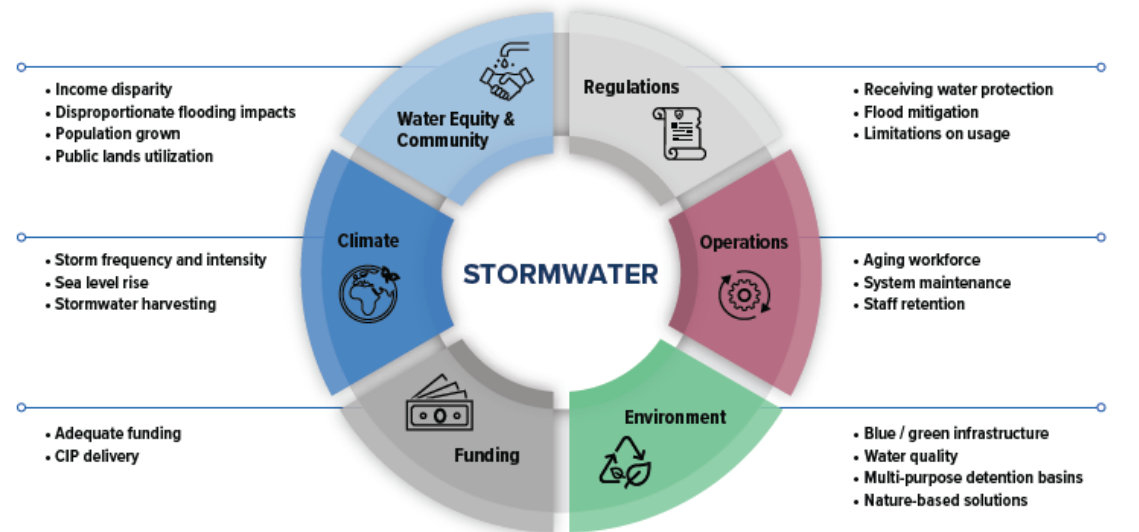
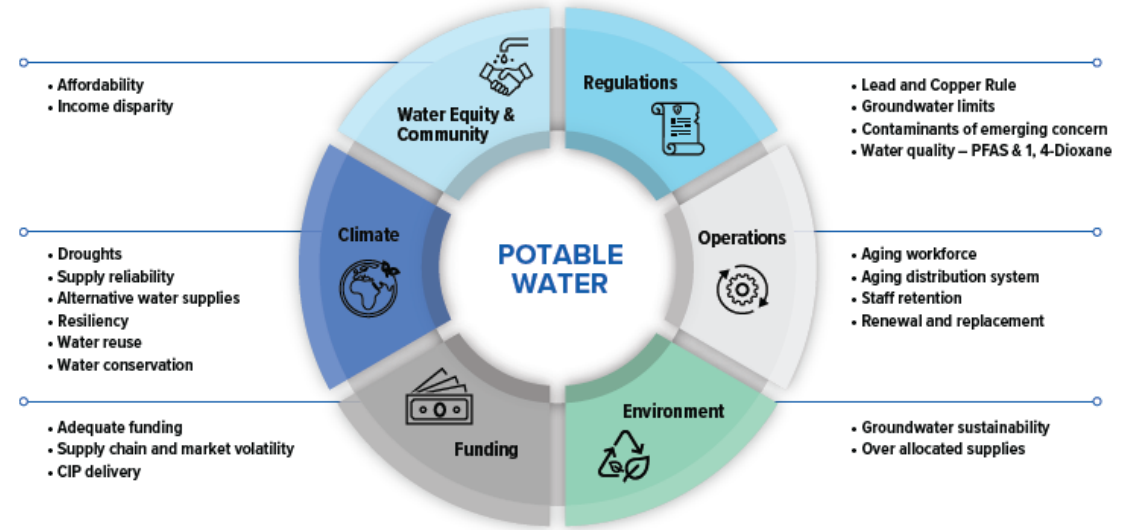
Background of the HWP Development

- Identified in 2020 by BCC as Key Strategic Priority (KSP)
- The HWP was developed to:
 - Provide long-term vision and sustainable plan to meet all water resource needs and protect natural systems
 - Break down water resources silos across departments & jurisdictions
 - Broaden water resources development
 - Integrate with the Utilities Master Plan Update (work session scheduled 9/10/24)
 - Incorporate the 2022 Water Conservation Plan Update
 - Identify specific programs and projects to meet HWP goals



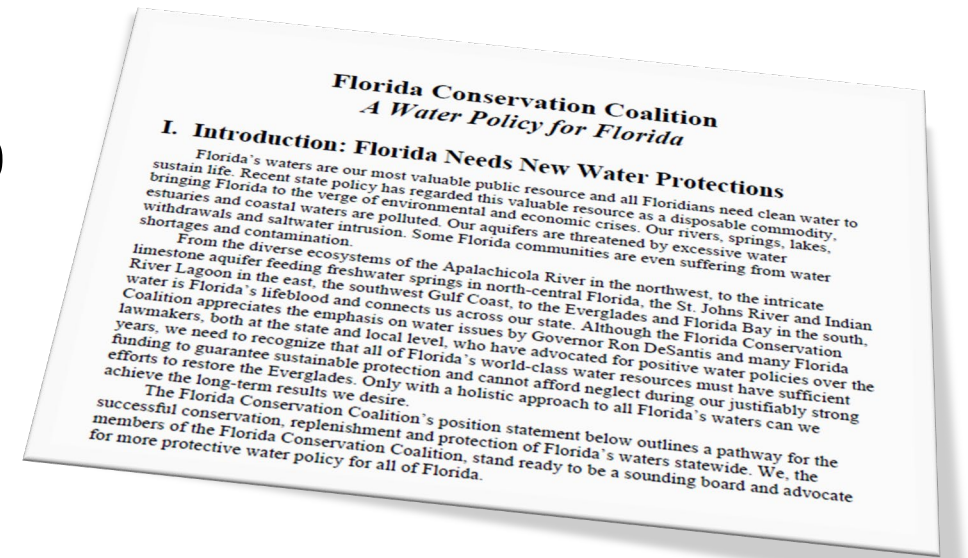
Scope of HWP

- Project is unique and is a **True Holistic Approach to Water Policy**
- Many One Water projects are narrow in scope
- The HWP is a broad assessment of water resources in the County



HWP Approach and Framework

- The Holistic Water Policy Plan was guided by the 2020 KSPs
- Internal County Team included:
 - Public Works
 - Utilities
 - Parks and Recreation
 - Communications
 - Environmental Services
 - Planning and Development
- Teamed with Jacobs to develop a road map for implementation.



All water has value.



Water challenges are interconnected.



Water solutions must be sustainable, resilient, inclusive, and equitable.

HWP Approach and Framework

- Developed Five (5) Policy and Program Categories

| Holistic Water Policy Goals | Policy and Program Categories |
|---|--|
| <i>Water Conservation</i> | Enhance Water Conservation (PW) |
| | Develop Alternative Water Supplies (AW) |
| <i>Healthy Waterways</i> | Enhance Watershed Management (SW) |
| | Mitigate Septic Tank Impacts (WW) |
| <i>Reliable and Resilient Water Utility</i> | Implement Water Utility Projects and Programs (WU) |

- Goals
 - Enhance Water Conservation
 - Protect and Enhance Healthy Waterways
 - Maintain a Reliable and Resilient Water Utility
 - Achieve a paradigm shift in how water is managed

HWP – Enhance Water Conservation

- 2022 Updated Water Conservation Plan
- Decrease water use from current level (137 GPCD) to new required level (115 GPCD)
 - Potentially ahead of Central Florida Water Initiative (CFWI) regulatory schedule
- The benefits of conserving water include:
 - Reduced withdrawals of limited groundwater resource
 - Defer/eliminate costly alternative water source development
 - Reduced energy consumption
 - Protect and improve spring flow and MFLs (min. flows & levels) – regulatory requirement
 - Extend utility infrastructure useful life

Water Conservation Goals

- Meet current and projected future water demands
- **Enact more aggressive water conservation policies**
- Implement innovated water conservation programs
- Increase reclaimed water use
- Reduce or eliminate the use of potable water for irrigation
- Address regional water use regulations

HWP – Develop Alternative Water Supplies

- The 2020 CFWI Regional Water Supply Plan found that withdrawals from the Upper Floridan Aquifer (UFA) are projected to cause environmental impacts after 2025.
- Alternative water supplies will play a role in meeting future water demands in Seminole County beyond 2025.
- The County should continue promoting water conservation to reduce groundwater withdrawals while planning for alternative water supply projects where possible.

Alternative Water Supply Goals

- Mitigate the adverse impacts of groundwater withdrawals
- Expand water reclamation, stormwater, and surface water supply.
- Replace the use of drinking water for irrigation
- Secure permitted access to multiple water sources

HWP – Mitigate Septic Tank Impacts

- The Wekiwa Spring and Rock Springs Basin Management Action Plan (BMAP) estimates septic tanks contribute 29% of nutrient pollution
- House Bill 1379 enacted 5/30/2023
 - Prohibits new septic systems
 - Requires long-term planning and reporting
 - Strengthen BMAP requirements
- Regulatory Compliance Priorities:
 - Wekiwa Spring PFA/BMAP
 - Gemini Spring BMAP
- Develop/Implement the Septic to Sewer Program

Mitigate Septic Tank Impacts Goals

- Restrict expansion of traditional septic systems
- Monitor the performance of existing septic systems
- Reduce nutrient loading to Wekiwa Springs and Gemini Springs
- Reduce nutrient loading to surface water bodies
- Meeting regulatory requirements

HWP – Enhance Watershed Management

- The goal is to reduce pollution to the County’s waterways and protect water resources.
- Several programs have been implemented to address water quality protections & improvements
 - The Lake Management Program (LMP)
 - The Shoreline Protection Program
 - Biological Monitoring Program
 - Ambient Water Quality Monitoring Program
 - Seminole Education, Restoration, and Volunteer (SERV) Program
 - Environmental Compliance, Assistance, and Pollution Prevention Program (ECAP3)
 - Water Policy Program

Enhance Watershed Management Goals

- Reduce nutrients entering waterbodies
- Mitigate risks to public safety and property from flooding
- Reduce undesirable aquatic vegetation and maintain healthy aquatic ecosystems
- **Preserve natural lands**
- Meet the requirements of BMAPs

HWP – Implement Water Utility Projects and Programs

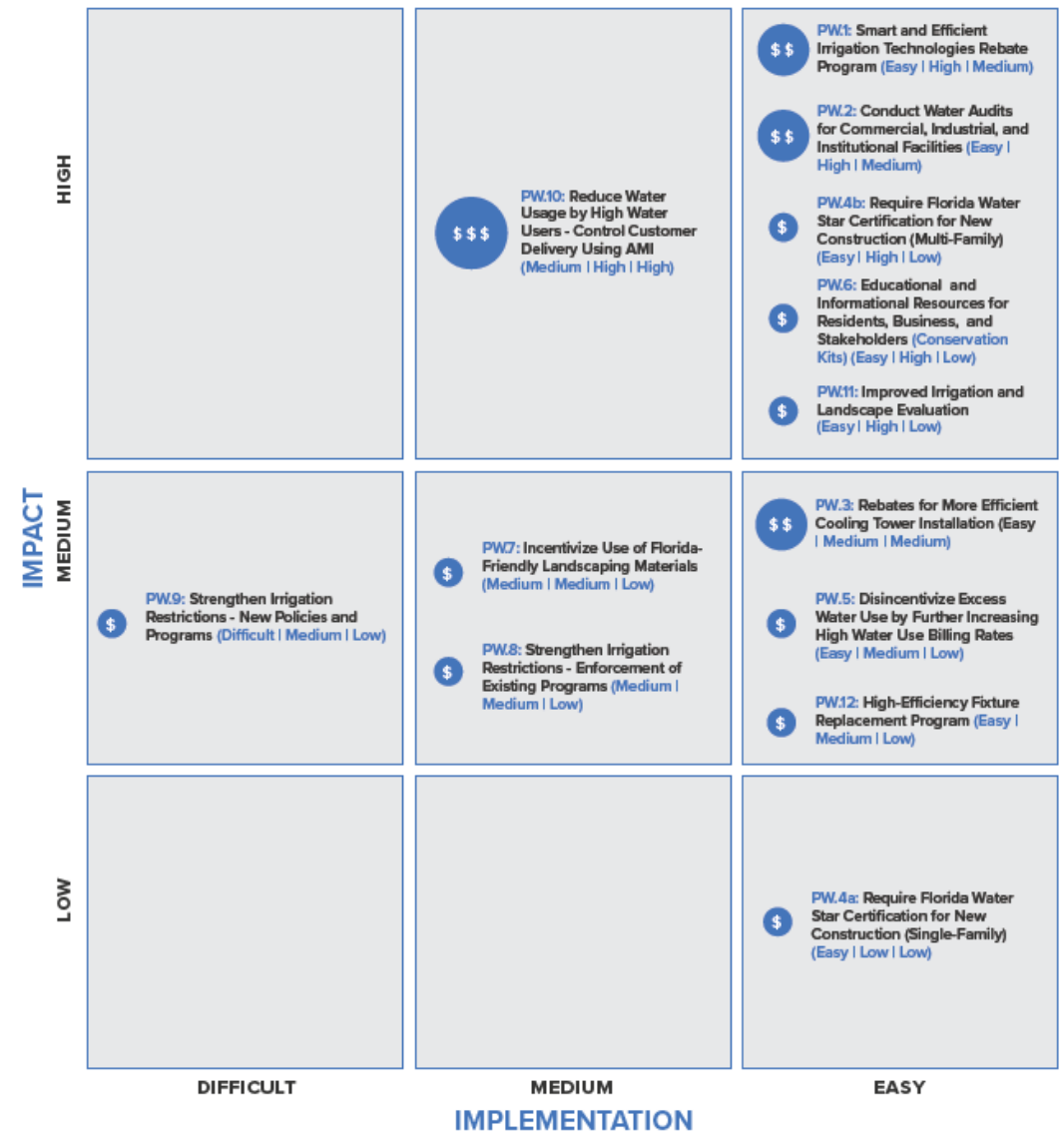
- Reliable drinking water and wastewater services represent the highest level of water management responsibility administered by the County.
- Implementation of projects to support the water utility are crucial to the HWP.
- Utility Master Plan currently being updated to assess water, wastewater, and reclaimed water infrastructure through 2045.

Implement Water Utility Goals

- Maintain service infrastructure and operations to meet service standards
- Use permitted sources of water as efficiently as possible for drinking water production
- Prevent wastewater system overflows
- Produce effluent and biosolids that meet or exceed regulatory requirements
- Utilize reclaimed water efficiently for irrigation

HWP Programs and Policies

- Identified and assessed **over 40 policies and programs**
 - Evaluated based on impact, ease of implementation, estimated costs, and synergies with other programs, projects, and policies.
- Comparative evaluation
 - Policies and programs organized based on priorities and synergistic benefits



¹Programs and Policies are listed as follows: **Number: Name** (Implementation | Impact | Cost)

²Estimated costs are represented by graduated symbols as follows:



HWP Programs and Policies

- Recommendations and priorities developed to guide comprehensive water resources management
- All projects are important to the overall goal of the HWP, but some projects have a higher priority
- Synergies between projects
Example: Septic to sewer increases reclaimed water availability that can offset potable water demand and improves water quality of adjacent springs and waterbodies.

| ID | Program Name | Impact | Implementation | Cost | Synergy | Score |
|-------|---|--------|----------------|--------|---------|-------|
| PW.11 | Improve Irrigation and Landscape Evaluation | High | Easy | Low | Medium | 9.5 |
| PW.4b | Require Florida Water Star Certification for New Construction (Multi-Family) | High | Easy | Low | Low | 9.1 |
| PW.6 | Educational and Informational Resources for Residents, Businesses, and Stakeholders (Conservation Kits) | High | Low | Low | Low | 9.1 |
| PW.2 | Conduct Water Audits for Commercial, Industrial, and Institutional Facilities | High | Easy | Medium | High | 9 |
| PW.1 | Smart and Efficient Irrigation Technologies Rebate Program | High | Easy | Medium | Medium | 8.5 |
| WW.5 | Eliminate/Reduce Construction of New Septic Systems | High | Medium | Low | Medium | 8.5 |
| AW.3 | Maximize Use of Surface Water for Reclaimed Water Supply Augmentation | High | Easy | High | High | 8.2 |
| WU.7 | Water Meter Replacement Program | High | Easy | High | High | 8.2 |
| AW.1 | Expand Reclaimed Water Systems to Offset Drinking Water Use for Nonpotable Uses (For Public Access Irrigation) | High | Easy | High | High | 8.2 |
| SW.2 | Preserve Natural Lands to Buffer Surface Waters | High | Easy | High | Low | 7.3 |
| WU.1 | Implement Water Utility Projects to Maintain Level of Service (Master Plan CIP and Annual CIP Validation Updates) | High | Medium | High | High | 7.2 |
| SW.1 | Development of Watershed Enhancement Projects | High | Medium | Medium | Low | 7.1 |
| SW.3 | Development of Water Quality Enhancement Projects to Buffer Surface Waters | High | Medium | Medium | Low | 7.1 |
| PW.5 | Disincentivize Excess Water Use by Further Increasing High Water Use Billing Rates | Medium | Easy | Low | Medium | 7 |
| WU.6 | Dig Once | Medium | Easy | Low | Medium | 7 |
| PW.10 | Reduce Water Usage by High Water Users - Control Customer Delivery Using AMI | High | Medium | High | Medium | 6.7 |

HWP – Steps to Implementation

- Implementation roadmap developed to outline solutions for short-term and long-term management
- These are tangible projects that can be completed and measured for performance (KSPs and Dashboards)
 - Water conservation actions (audits, controller rebates, etc.)
 - Number of septic tanks inspected, repaired, or removed

| Project No. | Project Description | 0 to 5 yrs | 6 to 10 yrs | 11 to 15 yrs | 16 to 20 yrs |
|-------------|---|------------|-------------|--------------|--------------|
| PW.1 | Smart and Efficient Irrigation Technologies Rebate Program | █ | | | |
| PW.2 | Conduct Water Audits for Commercial, Industrial, and Institutional Facilities | █ | | | |
| PW.3 | Rebates for More Efficient Cooling Tower Installation | | █ | | |
| PW.4a | Require Florida Water Star Certification for New Construction (Single-Family) | █ | | | |
| PW.4b | Require Florida Water Star Certification for New Construction (Multi-Family) | █ | | | |
| PW.5 | Disincentivize Excess Water Use by Further Increasing High Water Use Billing Rates | █ | | | |
| PW.6 | Educational and Informational Resources for Residents, Businesses, and Stakeholders (Conservation Kits) | █ | | | |
| PW.7 | Incentivize Use of Florida-Friendly Landscaping Materials | █ | | | |
| PW.8 | Strengthen Irrigation Restrictions - Enforcement of Existing Programs | | █ | | |
| PW.9 | Strengthen Irrigation Restrictions - New Policies and Programs | | | █ | |
| PW.10 | Reduce Water Usage by High Water Users - Control Customer Delivery Using AMI | | █ | | |
| PW.11 | Improve Irrigation and Landscape Evaluation | █ | | | |
| PW.12 | High-Efficiency Fixture Replacement Program | █ | | | |
| AW.1 | Expand Reclaimed Water Systems to Offset Drinking Water Use for Nonpotable Uses (For Public Access Irrigation) | | █ | | |
| AW.2 | Expand Reclaimed Water Systems to Offset Drinking Water Use for Nonpotable Uses (For Example, Toilet Flushing) | | | █ | |
| AW.3 | Maximize Use of Surface Water for Reclaimed Water Supply Augmentation | | █ | | |
| AW.4 | Augment Groundwater Supplies Using Aquifer Recharge and Storage | | █ | | |
| AW.5 | Augment Water Supplies Using Stormwater Harvesting | | █ | | |
| SW.1 | Development of Watershed Enhancement Projects | | █ | | |
| SW.2 | Preserve Natural Lands to Buffer Surface Waters | █ | | | |
| SW.3 | Development of Water Quality Enhancement Projects to Buffer Surface Waters | █ | | | |
| SW.4 | Lake Management Enhancement Program | █ | | | |
| SW.5 | Reduce Nutrients in Stormwater Runoff - Shoreline Restoration Projects and Policies | █ | | | |
| SW.6 | Promote Blue/Green Stormwater Infrastructure | █ | | | |
| SW.7 | Reduce Nutrients in Stormwater Runoff - Reduce Landscape Fertilizer Use | █ | | | |
| SW.8 | Flood Mitigation - Improve Stormwater Resilience | █ | | | |
| SW.9 | Flood Mitigation & Surface Water Quality Enhancement - Implement CIP in Drainage Basin Studies | █ | | | |
| WW.1 | Septic Tank Conversion Pilot Project/Implement Selected Technologies | █ | | | |
| WW.2 | Investigate Septic Tank Inspection & Repair Program | █ | | | |
| WW.3 | Replace Septic Systems with New Sewer Collection System | █ | | | |
| WW.4 | etrofit Septic Tanks with Onsite Nutrient Treatment | █ | | | |
| WW.5 | Eliminate/Reduce Construction of New Septic Systems | | █ | | |
| WU.1 | Implement Water Utility Projects to Maintain Level of Service (Master Plan CIP and Annual CIP Validation Updates) | █ | | | |
| WU.2 | Regulatory Compliance/Drinking Water Quality | █ | | | |
| WU.3 | Secure Drinking Water Supply | █ | | | |
| WU.4 | Enhanced Inspection, Construction, Operation, and Maintenance Program to Reduce Leakage, Releases, and Overflows | █ | | | |
| WU.5 | Renewal and Replacement of Sanitary Sewer System | █ | | | |
| WU.6 | Dig Once | █ | | | |
| WU.7 | Water Meter Replacement Program | █ | | | |
| WU.8 | Temporary Bill Pay Assistance for Low-Income Customers | █ | | | |
| WU.9 | Water Billing Structure Reassessment | █ | | | |

HWP – Steps to Implementation

- Management of the Holistic Water Policy
 - Successful implementation requires Departmental Cooperation and a County advocate for the Holistic Water Policy.
 - Departmental Cooperation – Establish a Holistic Water Policy panel or committee comprised of County Department representatives
 - **Program Manager for the HWP (Completed)** – A Water Policy Program Manager was hired to:
 - Lead implementation
 - Bridge departments for interdisciplinary projects
 - Commit to the policy's success
 - Communicate the policy's vision
 - Collaborate with internal and external stakeholders
 - Report to the Board of County Commissioners on status of program implementation

HWP – Steps to Implementation

- Connect with Stakeholders and Establish Partnerships
 - The Holistic Water Policy is designed to be inclusive of all municipalities and utilities within the County
 - Coordination with local and regional municipalities can help create solutions that benefit the entire region
 - The County can increase regional coordination with water management focus groups
 - Possible external stakeholders include:
 - Residents and rate payers
 - Local municipalities and their utilities
 - Private water utilities
 - Regulatory Agencies (SJRWMD, FDEP)
 - Environmental Groups (Friends of the Wekiva, etc.)
 - Soil and Water Conservation District
 - Development Advisory Board
 - Chamber of Commerce

HWP – Implementation Plan

- Adapt for Success!
 - The Holistic Water Policy was developed as a living document
 - As conditions change, the implementation plan and project list should be updated
 - The policy should be reviewed and comprehensively updated every 3 to 5 years
 - Continue to integrate Master Planning
 - Include policies and programs in the County’s Comprehensive Plan
 - Decision making will need to be flexible



Summary

- The County’s vision for creating a Holistic Water Policy
- Framework of the Holistic Water Policy and guiding principals
- Review of the Five Program and Policy Categories
- Results of the Holistic Water Policy Development Process
- Review of the Implementation Roadmap
 - Short-Term and Long-Term Management
 - Measures Performance
 - Management of the Holistic Water Policy
 - Connecting with Stakeholders
 - Adapt for Success!

An effective conservation program could offset alternative water supply projects costing in excess of \$100 million.

*More than **40** policies and programs were developed in this Holistic Water Policy to enhance water conservation and watershed management, address septic tank adverse impacts to water quality, develop alternative water supplies, and maintain a resilient and reliable water utility.*

A key objective of the Holistic Water Policy is to identify synergistic and multi-benefit solutions to maximize their beneficial impact to the environment, residents, businesses, and visitors of Seminole County.

Next Steps

- Engage with Stakeholders
 - Citizens
 - Cities, utilities, and regional partners
 - St Johns River Water Management District (SJRWMD)
 - Florida Department of Environmental Protection (FDEP)
 - East Central Florida Planning Council
 - Development Advisory Board
 - Soil and Water Conservation District
 - Environmental Groups (i.e., Friends of the Wekiva, Friends of Lake Jesup)
- Update BCC after stakeholder engagement completed

