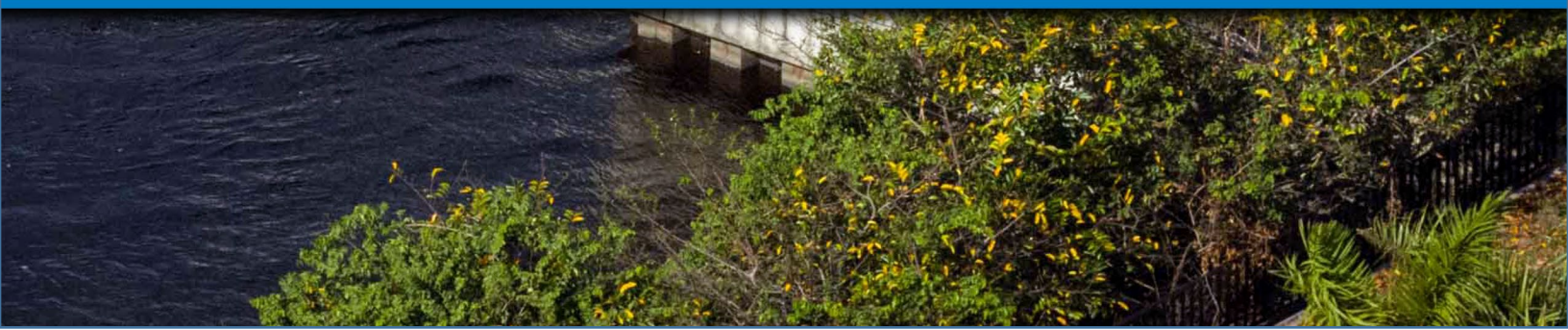




# Water Management Element



# Post-Adoption Amendments

The BrowardNEXT2.0 Comprehensive Plan was adopted on March 28, 2019 (Ordinance No. 2019-11).

Post-adoption amendments are listed below:

- Ordinance No. 2020-19; Adopted April 21, 2020:
  - Amends Policies WM2.1 and WM3.1, regarding the adoption of the 2020 Water Supply Facilities Work Plan (WSFWP) and providing level of service standards, respectively.
  
- Ordinance No. 2021-31; Adopted June 15, 2021:
  - Updates Policies WM2.8 and WM3.10.
  
- Ordinance No. 2022-02; Adopted January 25, 2022:
  - Adds text and amends to POLICY WM 1.7, 1.12, 2.8, 2.12, 3.10, 4.11-4.12, 4.16; adds text to POLICY WM 1.13, 2.5, 2.7, 2.9, OBJECTIVE WM 3, POLICY WM 3.3-3.4, 3.19, 4.7, 4.9, 4.13, 4.18-4.19; amends text to POLICY WM 3.17, regarding the peril of flood requirements of Section 163.3178(2)(f), Florida Statutes.

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# Water Management Element

The Water Management Element incorporates four major infrastructure areas—Water Supply, Drainage, Aquifer Recharge, and Sanitary Sewer. In combination, they contribute to the quality of life and health and welfare of the community, as well as protect the environment and its valuable resources. This element is focused on integrating a sustainable water management system with other components of Broward County's Comprehensive Plan and clearly defining the path to realize these policies.

Broward County agencies collaborate with the Florida Department of Health, Florida Department of Environmental Protection, South Florida Water Management District, Drainage Districts, local governments, federal agencies, and other entities to plan, develop, and maintain a water resources management system that meets regulatory requirements, serves the needs of its users, and looks to future conditions. Broward County also coordinates with these partners through conservation, reuse, recharge, and strategies to protect water quality, and ensure the maintenance of a sustainable water supply, and protect the community from potential flood impacts throughout the South Florida region.



South Florida Water Management District's gate G-56 on the Hillsboro Canal is an example of a project that supports POLICY WM2.12: Broward County will provide support to and coordinate with municipalities, drainage/water control districts, and the SFWMD in planning for climate adaptation and drainage system improvements. (Photo source: SFWMD)

## Policy History

- 1985 Florida Local Government Comprehensive Planning and Land Development Regulation Act is approved (Chapter 163, Part II, Florida Statutes) with infrastructure concurrency provisions.
- 1989 Potable Water, Sanitary Sewer and Drainage and Aquifer Natural Groundwater Recharge Elements are adopted as part of the County's first Comprehensive Plan.
- 2000 South Florida Water Management District adopts Lower East Coast Regional Water Supply Plan.
- 2007 South Florida Water Management District adopts Regional Water Availability Rule.
- 2008 First Ten-Year Water Supply Facilities Work Plans and the statewide Ocean Outfall legislation are adopted.
- 2010 Broward Countywide Integrated Water Resources Plan (IWRP) and Climate Change Action Plan are adopted with policies that support water management and resiliency considerations.
- 2015 Second Ten-Year Water Supply Facilities Work Plan includes Climate Change policies.

## Focus Areas

- Evaluate and proactively plan for the County's water resources and related infrastructure
- Develop, implement, and regulate water resources and infrastructure in a sustainable manner
- Coordinate and collaborate with state, regional, and local agencies and governments on regional and local water management and infrastructure strategies
- Plan and implement adaptation strategies for short and long-term climate related events and impacts

# Legal Authority




Chapter 163.3177 (6)(c), Florida Statutes: A general sanitary sewer, solid waste, drainage, potable water, and natural groundwater aquifer recharge element correlated to principles and guidelines for future land use, indicating ways to provide for future potable water, drainage, sanitary sewer, solid waste, and aquifer recharge protection requirements for the area.

The Water Management Element includes Goals, Objectives and Policies that support the Focus Areas. Once the policies are adopted by the Board, government agencies, partners, and the community work together to advance and implement those policies.



## Water Facts

**235 MILLION**  
  
**RAW WATER**  
**GALLONS PER DAY**

**347 GALLONS**  
  
**PER DAY USE**

**80 GALLONS PER**  
  
**POTABLE**  
**CAPITA PER DAY**

**IRRIGATION**  
**57%**   
**WATER LOSS**

**1,800 MILES**  
  
**canals  
levees**  
**WATERWAYS**

**NatureScape**  
**sites**  
**4,300+**   
**CONSERVATION**

*Source: Broward County Environmental Planning and Community Resilience Division*

# Goals, Objectives & Policies

## GOAL WATER MANAGEMENT

Broward County will manage its water resources and infrastructure using a collaborative, equitable, and cost-effective integrated approach that optimizes potable water supplies, wastewater, reclaimed water, storm water, existing infrastructure, and natural systems to meet the short- and long-term needs of the County's residents, businesses, visitors, tribal communities, and the environment while addressing water management challenges associated with climate change.

### OBJECTIVE WM1 – Water and Wastewater Services

Broward County's Water and Wastewater Services (WWS) will provide raw water, potable water, sanitary sewer, surface water, and storm water management services within the agency's designated service areas that are cost-effective, equitable, adequate, and sustainable, while meeting applicable federal, state, and local design, construction, and operational standards and regulations.

**POLICY WM1.1** WWS will provide potable water and sanitary sewer to current and future customers of the WWS systems using cost-effective, equitable, and adequate potable water, and sanitary sewer infrastructure and facilities that meet applicable federal, state, and local standards.

**POLICY WM1.2** WWS will maintain funding for systems improvements identified in the Broward County Capital Improvements Program (CIP) to alleviate potable water and sanitary sewer deficiencies within its service area.

**POLICY WM1.3** WWS will work to provide potable water and sanitary sewer service to incorporated areas contiguous to the WWS service area when service is not anticipated to be provided by others and in the absence of legal constraints on the use of revenues.

**POLICY WM1.4** WWS shall identify and plan for development of alternative water supplies by the year 2025 sufficient to meet public water supply needs through the year 2045.

**POLICY WM1.5** WWS will update the Retail Water and Wastewater Master Plan by 2026 to establish projected potable water and sanitary sewer infrastructure and facility needs through 2045 and, if required, update approximately every ten (10) years to meet state and local requirements.

**POLICY WM1.6** WWS will continue to use the development review process outlined in the Broward County Land Development Code to require applicants for development permits within the Broward County utility districts to enter into an agreement to connect to existing potable water, sanitary sewer, and reclaimed facilities. When adequate facilities, based on the adopted level of service (LOS) standards, are not available and no fiscally feasible plan to construct or

expand facilities is proposed, Broward County may require the developer to construct improvements to the potable water, sanitary sewer, and reclaimed water reuse systems, as necessitated by the proposed development.



**POLICY WM1.7** WWS will identify and evaluate the costs and benefits of climate change, intensifying sea level rise, and potential flooding adaptation alternatives, implement energy and other resource efficiencies, and incorporate resilient designs, while balancing operational, economic, and environmental effects, when evaluating construction of new, or retrofit of existing, potable water facilities and infrastructure.

**POLICY WM1.8** WWS will continue to implement a leak detection program, conservation-oriented utility service rate structure, and other conservation measures required by Broward County ordinance.

**POLICY WM1.9** WWS will maintain comprehensive water use profiles for service area customers including customer class, utility rate profiles, water usage patterns, and seasonal variations to increase the effectiveness of conservation efforts by focusing methods on those elements with the greatest water savings potential. WWS will reference the water use profile to expand and/or implement programs that promote conservation of water resources such as toilet rebates and water use analyses.

**POLICY WM1.10** Consistent with bonding requirements, WWS will take no action by which the rights and benefits of its customers might be impaired or diminished.

**POLICY WM1.11** WWS will encourage the coordination and development of North Regional Waste Water Treatment Plant regional reclaimed water projects in accordance with Florida's Ocean Outfall Law requirements, Section 403.086, Florida Statutes.

**POLICY WM1.12** WWS will implement construction of new, or retrofit of existing, sanitary sewer facilities and collection systems in coastal areas that are identified as potentially impacted by intensifying sea level rise and potential flooding by 2045, but may limit expenditures in Coastal Storm Areas consistent with the Capital Improvements Element (Objective C12).

**POLICY WM1.13** WWS will assess, identify, and evaluate the costs and benefits of the design, construction, and operation of storm water management facilities within its jurisdiction in a manner that conserves and enhances the availability of potable water and supports environmental resources, while preventing area flooding and protecting from intensifying sea



level rise, potential flooding, and other climate change impacts when evaluating construction of new, or retrofit of existing, facilities.

**POLICY WM1.14** WWS will manage the construction and operation of drainage and flood control facilities which dam, divert, or otherwise alter the flow of surface waters to reduce damage from flooding, soil erosion, or excessive drainage.

**POLICY WM1.15** WWS will ensure that the groundwater recharge attributed to agricultural land uses is incorporated into the designs for new development as it occurs within WWS boundaries.

**POLICY WM1.16** WWS will comply with all current South Florida Water Management District (SFWMD) Consumptive Use permits requirements.

In 2012, WWS celebrated 50 years of providing safe drinking water and wastewater treatment services to Broward County residents. Our water meets or exceeds all standards of the federal Safe Drinking Water Act.



## OBJECTIVE WM2 – Planning for Water Resources and Infrastructure

Broward County's water resources planning will be guided by the goals, objectives, and recommendations provided in Broward County's Countywide Integrated Water Resources Plan (IWRP), along with related plans that provide support for climate resilience and the long-term water resource needs of the Broward community and which further support the Comprehensive Everglades Restoration Plan (CERP), SFWMD Lower East Coast Regional Water Supply Plan (LECRWSP), and South East Florida Climate Compact's Regional Action Plan (RCAP), as updated.

**POLICY WM2.1** ~~Within eighteen (18) months of the adoption of an update to the SFWMD LECRWSP, utilities located within Broward County will update and adopt their 10-Year Water Supply Facilities Work Plans, pursuant to Chapters 163 and 373 of the Florida Statutes, to incorporate the Regional Alternative Supply Plan and to evaluate water resource needs, identify water supply deficiencies, and plan for alternative water supply sources and projects to serve existing and new development within the County. Broward County hereby adopts by reference the Broward County Water Supply Facilities Work Plan (WSFWP), dated April 21, 2020 (see Attachment A of the Water Management Element), for a planning period of not less than 10 years. The WSFWP addresses issues that pertain to water supply facilities and requirements needed to serve current and future development within the County's water service area. The~~

County shall review and update the WSFWP at least every 5 years, within eighteen (18) months after the adoption of an update to the SFWMD LECRWSP. Any changes to occur within the first 5 years of the WSFWP shall be included in the annual Capital Improvements Plan update to ensure consistency between the Water Management Element and the Capital Improvements Element.

**POLICY WM2.2** In order to protect and conserve the Surficial Aquifer System and limit demands on the regional water management system, the Broward County Environmental Protection and Growth Management Department (EPGMD) will continue to investigate and promote the development of alternative water supply strategies such as:

1. Continued promotion of water conservation;
2. Brackish water aquifer development;
3. Storm water capture, storage, and reuse;
4. Aquifer recharge;
5. Aquifer Storage and Recovery (ASR);
6. Reclaimed water use;
7. Improvements to the secondary canal infrastructure;
8. Additional regional surface water storage; and
9. Other technologies and management strategies consistent with the goals of the most recently adopted LECRWSP Update and Countywide IWRP.

**POLICY WM2.3** Broward County will work with the SFWMD, municipalities, independent drainage districts, and neighboring counties to plan and support the development of additional regional surface water storage, including the C-51 Storage Reservoir in Palm Beach County and the water preserve areas in western Broward County under the CERP.

**POLICY WM2.4** Broward County will maintain an integrated geographic information system (GIS) and continue to improve analysis and mapping capabilities, combined with hydrologic modelling to:

1. Make standardized water resources and infrastructure map information available for local and regional planning agencies;
2. Identify areas in the County vulnerable to high tides, sea level rise, tidal, canal, and Everglades flooding, and other potential impacts of climate change; and
3. Facilitate informed decisions regarding adaptation, regionally appropriate green infrastructure and low impact design techniques, and infrastructure improvements and management strategies.

**POLICY WM2.5** Broward County will continuously update the future conditions map series, including wet season groundwater elevation and future condition flood elevation maps, to

reflect impacts of projected intensifying sea level rise, potential flooding, and climate change for planning and regulatory purposes.

**POLICY WM2.6** To guide and support local water resources planning, management, and investments for climate resilience, Broward County will work with local, State, and federal water management agencies and others to create, develop, and implement a suite of water resources and infrastructure planning tools, including the IWRP, the Countywide Reuse Master Plan, and regional and local hydrologic models of surface water and groundwater.

**POLICY WM2.7** Broward County will support ongoing and enhanced development of regional hydrologic models, the integration of downscaled climate data, and continuous data collection to help predict and track the impacts of intensifying sea level rise, potential flooding, and changing rainfall patterns on groundwater levels, saltwater intrusion, and drainage infrastructure to support local planning and projects.

**POLICY WM2.8** Broward County will use the Broward County Land Use Plan's Priority Planning Areas Map to identify assess water infrastructure at risk from ~~unified~~ projected intensifying sea level rise. ~~Projections of 9 to 26 inches (timeframe of 2010 to 2060) and other climate change related impacts by 2025 and update this assessment every 5 years or as new data is available.~~ **(20-T4: Adopted June 15, 2021)**

**POLICY WM2.9** Broward County will coordinate with the County's drainage districts, municipal governments, SFWMD, Florida Department of Health (FDH), and the Florida Department of Environmental Protection (FDEP) to study whether to build, modify, or relocate water, wastewater, and storm water transmission infrastructure to allow for strategic retreat from areas at risk from potential intensifying flooding and sea level rise.

**POLICY WM2.10** Broward County will address storm water management issues on a watershed (basin) basis as a means of advancing green infrastructure strategies and providing solutions targeting shared cost-effective water quality and water quantity concerns.

**POLICY WM2.11** Broward County will evaluate the influence of sea level rise on inflow and infiltration of chlorides in wastewater collection systems and develop economic, environmental, and technically feasible strategies for current and future reuse options.

**POLICY WM2.12** Broward County will provide support to and coordinate with municipalities, drainage/water control districts, and the SFWMD in planning for ~~climate adaptation and drainage system improvements,~~ including improvements that may be require due to intensifying sea level rise and potential flooding.

**POLICY WM2.13** Broward County will encourage and give priority to green infrastructure alternatives whenever structural drainage works are proposed and integrate wetland areas into

regional storm water drainage and water management systems, where feasible, to provide improved surface water quality and groundwater hydrology.

**POLICY WM2.14** Broward County will ensure planning and policy development for water supplies, sanitary sewer, and drainage consider methods for reducing utilities' carbon footprints, including the best management practices recommended in American Water Works Association Florida Vision 2030, which have been recognized by utilities as appropriate utility responses to climate change. Broward County will also explore the means of reducing demand for traditional energy sources at water and wastewater treatment facilities, including the production of energy through cogeneration systems.

## OBJECTIVE WM3 – Water Resources Development, Permitting and Management

Broward County will develop and manage its water resources and related infrastructure in a manner that maximizes use of existing resources; is cost-effective; provides protection for existing resources, to the maximum extent practicable; meets all applicable federal, State, and local regulations; and takes into consideration the future water management challenges associated with adaptation to intensifying sea level rise, potential flooding, and climate change.



The [Broward County Industrial Pretreatment Program Permitting Team](#) issues permits to industries in our service area and Waste Transporters who discharge at the Broward County Septage Receiving Facility, and ensures that the concentrations of any priority pollutants in the permitted users' wastewater comply with the requirements of the Broward County Sewer Use Ordinance.

**POLICY WM3.1** LOS standards for potable water and sanitary sewer facilities will be the FDEP permitted capacity of the facilities. The LOS standard for water treatment plants will be expressed as maximum monthly flow and the LOS standard for wastewater treatment plants will be expressed as average daily flow. Facility per person levels of service standards (LOSS) may vary due to water treatment type, demographics, irrigation acreage, and age and condition of the system. For planning purposes, the maximum LOSS for any County facility shall be 150 gallons/person/day.

**POLICY WM3.2** Prior to approval of a building permit, Broward County Environmental Engineering and Permitting Division (EPPD) will require the appropriate water and sanitary sewer supplier(s) to submit a signed form that states whether adequate water supplies and

sanitary sewer collection services will exist and be available to serve the new development no later than the anticipated date of issuance of a certificate of occupancy.

**POLICY WM3.3** Potable water facilities will be designed, constructed, maintained, and operated with consideration given to the potential intensifying impacts of sea level rise, potential flooding, and climate change and in such a manner as to protect the functions of natural groundwater recharge areas, natural drainage features, and groundwater levels, without inducing the inland movement or upwelling of saline water into Underground Sources of Drinking Water (USDW), as defined in Chapter 62-528, FAC, and SFWMD Basis of Review



for Water Use, as referenced in Chapter 40E-2, FAC.

**POLICY WM3.4** Broward County will work to protect existing wellfields, water supplies, surface or subsurface storage facilities, control structures, water and wastewater treatment plants, and transmission infrastructure from increased coastal or inland flooding, intensifying sea level rise, saltwater intrusion, and other potential future climate change impacts, and support utility efforts to plan infrastructure replacement and relocation, as needed.

**POLICY WM3.5** Broward County will continue to coordinate with municipalities and other agencies on source-water (wellfield) monitoring and protection programs, and proactively address potential impacts on the coastal aquifer from increased chlorides due to flooding of coastal and tidally influenced bodies of water that may occur with more intense storms, rising sea levels, increased drought, and other impacts of climate change.

**POLICY WM3.6** Broward County will continue to maintain, implement, and enforce the County Wellfield Protection Ordinance (Wellfield Protection, Article XIII, Chapter 27, Broward County Code of Ordinances), will conduct wellfield inspections to locate possible contamination sources, and ensure abatement of identified sources. The County will also revise, as necessary, its Wellfield Protection Ordinance to reflect results from modeling studies and revisions to delineation criteria.

**POLICY WM3.7** Broward County will continue to implement regulations governing storm water management in conjunction with the Wellfield Protection Regulations and prohibit direct storm water discharges to surface and ground water within Zone 1 and Zone 2 of wellfield zones of influence, as designated on the Wellfield Protection maps.

**POLICY WM3.8** Broward County will continue to collaborate to maintain and enhance groundwater recharge to the Surficial Aquifer System to maintain all the functions of the

Biscayne Aquifer, including potable water supply, the abatement of saltwater intrusion, and reduction of seepage from the Regional System and Water Conservation Areas, while ensuring the necessary water quality protections.

**POLICY WM3.9** Broward County will protect the water storage and water quality enhancement functions of wetlands, floodplains, and aquifer recharge areas through acquisition, enforcement of rules, and the application of best land and water management practices.

**POLICY WM3.10** Broward County will collaborate with utilities, drainage districts, and the ~~SFWMD~~ South Florida Water Management District to ensure the adequacy of water supply facilities and infrastructure to effectively capture, store, treat, and distribute potable water under variable climate conditions, including changes in rainfall patterns, unified sea level rise projections, ~~of 9 to 26 inches from 2010 to 2060, and~~ flooding, and associated water quality and quantity impacts. **(20-T4: Adopted June 15, 2021)**

**POLICY WM3.11** Broward County will continue to protect water quality through licensing programs that regulate the design, construction, maintenance, and operations associated with sanitary sewer collection and transmission, storm water, and surface water management systems.

**POLICY WM3.12** Broward County will administer and enforce the domestic wastewater collection facilities and surface water management permitting programs, as delegated by FDEP and SFWMD. EEPD will continue to protect groundwater and surface waters and to assess adequacy of service and concurrency for municipal wastewater treatment facilities.

**POLICY WM3.13** Broward County will continue to comply with and implement the National Pollution Discharge Elimination System - Municipal Separate Storm Sewer System (NPDES-MS4) Permits issued by FDEP or United States Environmental Protection Agency (EPA), as the lead co-permittee.

**POLICY WM3.14** Broward County will ensure that the construction and operation of storm water management systems comply with all applicable provisions within Chapter 27, Article V, "Water Resource Management", Broward County Code of Ordinances, which includes water quality standards and a provision for adequate area and easements to accommodate a storm water management system in accordance with current drainage standards.

**POLICY WM3.15** The Broward County Planning Council and the Planning and Development Management Division (PDMD) will require applications for land use plan amendments in the flood-prone portions of the County to contain sufficient data and analyses for the County to make a determination that the subsequent development: (1) will be served by adequate storm water management and drainage facilities; (2) will not adversely affect ground water quality,

environmentally sensitive lands, or wetlands; and (3) will not lead to increased saltwater intrusion or area-wide flooding.

**POLICY WM3.16** No new solid-fill transportation facilities or similar structures, which contradict the efforts of the Federal Water Resources Development Act of 2000, and the Florida Everglades Forever Act, will be permitted within Broward County's water conservation areas, as defined in the Broward Municipal Services District (BMSD) Element, without provisions for maintaining the freshwater sheet flow.

**POLICY WM3.17** Broward County will encourage the use of storm water best management practices (BMPs) in accordance with its regulations and those of the FDEP and SFWMD ~~in order to mitigate potential impacts of floods and protect water quality.~~

**POLICY WM3.18** Broward County will continue to protect water quality by maintaining and enforcing a licensing and compliance program for hazardous materials facilities, solid waste facilities, hazardous material and sewage haulers, solid waste transfer stations, filling of surface water bodies, storage tanks, and utility electrical equipment, and maintaining an inspection program to abate potential threats to groundwater.

**POLICY WM3.19** Broward County will continue to monitor the quality of waters flowing into the Broward County coastal ecosystems and implement strategies to maintain protection or improvement of the system, considering potential contamination resulting from floods, inundation, structural failure, or abandonment of residential, industrial, and municipal assets resulting from intensifying sea level rise, storm events, or other climate related impacts.

**POLICY WM3.20** Broward County will require that sanitary sewer facilities be provided to meet the Total Maximum Daily Load (TMDL) fecal coliform reduction criteria by implementing a septic tank reduction program.



**POLICY WM3.21** Where a centralized wastewater system is available, the Land Development Code will continue to require the property to connect to the wastewater line unless exempted. Exemptions from the connection requirement may be granted where the connection charge is

not just and reasonable and for residential uses within areas designated Rural Ranches and Rural Estates, provided such exemption does not endanger the public health, safety, and welfare. Broward County will continue to maintain land development codes allowing the construction, use, maintenance, and repair of septic tanks in those areas where a centralized wastewater system is not available, provided all legal requirements are met.

**POLICY WM3.22** PDMD will continue to use the development review process of the Land Development Code to ensure the completion of the drainage system to support the BMSD as development proceeds.

**POLICY WM3.23** PDMD will recommend the denial of future land use map amendments that could result in increased densities or intensities if:

1. Plans do not demonstrate that adequate water supplies, available sanitary sewer and potable water infrastructure, and associated public treatment and disposal facilities will be available to meet projected growth demands;
2. There is not a reasonable expectation that a permit for water supply, water, and wastewater treatment, and wastewater disposal will be issued by the appropriate agency having jurisdiction for the proposed facilities;
3. There is a significant increase in flood risk; or
4. Plans to extend and/or develop water supply, potable water, sanitary sewer, or stormwater management infrastructure and facilities in order to meet the adopted LOS standards are not listed in the five-year CIP.

**POLICY WM3.24** PDMD will recommend denial of future land use map amendments to an industrial classification when sanitary sewer facilities for disposal of non-domestic wastewater are not available.

**POLICY WM3.25** Broward County will encourage the use of reclaimed water as an integral part of its wastewater management program and evaluate the costs and benefits of adaptation alternatives to increase efficiency and optimize the capacity of existing reclaimed water facilities where economically, environmentally, and technically feasible.

**POLICY WM3.26** Broward County will continue public education, coordination, and program support for the expansion of beneficial use of reclaimed water, while encouraging regional reuse projects.

**POLICY WM3.27** Broward County will advocate for water conservation measures in building practices and will implement programs to support plumbing retrofits, toilet rebates, Florida-friendly landscaping and Florida Yards and Neighborhoods best management practices (BMPs), and water conservation education.



**POLICY WM3.28** Broward County Building Code Services Division will enforce Florida Building Code Chapter 6, Section 604.4, which contains standards for ultra-low volume plumbing fixtures to be used in all new construction, and Chapter 9, Section 908.5, which contains water supply efficiencies for new or replaced cooling towers.

**POLICY WM3.29** Broward County will continue to require a minimum 8 cycles of concentration for cooling towers and the reuse of concentrate from air handlers with a 4-ton BTU capacity or greater as cooling tower make-up water, as required by the Florida Building Code as a condition for the receipt of Certificates of Occupancy, per Chapter 9, Section 908.5.

**POLICY WM3.30** Broward County will identify and meet the water deliveries and elevations of urban natural areas and provide for adequate hydrology for protected wetlands by establishing minimum water flows and levels for protected wetlands during license application review.

**POLICY WM3.31** Broward County will use, preserve, restore, and enhance natural water bodies and water body functions by encouraging non-structural and structural erosion control devices and discourage the channelization, installation of seawalls, or other alteration of natural rivers, streams, and lakes.

**POLICY WM3.32** Broward County will protect aquifers from depletion through water conservation and preservation of the functions of high recharge areas including, but not limited to, the water conservation areas and water preserve areas.

**POLICY WM3.33** Broward County will continue to enforce Chapter 39, "Zoning," Article VIII, "Landscaping for Protection of Water Quality and Quantity," of the Broward County Code of Ordinances, which reflects the NatureScape Broward program principles that promote the use of native and Florida Friendly landscaping and the preservation of native habitats in support of sustainable urban landscapes and the conservation of water resources.

**POLICY WM3.34** Broward County will coordinate with municipalities and regional partners to continue to develop standards and programs to mitigate increasing flood risk from sea level rise and climate change impacts.

## OBJECTIVE WM4 – Intergovernmental Coordination

Broward County will collaborate with local governments, water managers, drainage and water control districts, and federal, state, and regional agencies to develop and implement diverse water management strategies, water resource assessments, policy coordination, and outreach and education, and coordinate policies to support local and regional water management.



The [Broward Water Partnership \(BWP\)](#) is a partnership of local governments including 18 municipalities and water utilities who have come together to help save water, save money, and protect the environment.

**POLICY WM4.1** Broward County will continue to lead collaborative intergovernmental practices to advance strategies, programs, and other sustainable initiatives throughout the County and region that protect the quantity and quality of groundwater and surface water resources, inclusive of efforts endorsed by the County's Water Advisory Board.

**POLICY WM4.2** Broward County will continue to coordinate the provision of potable water and sanitary sewer services within its service areas and the BMSD through agreements with the municipalities and other service providers in Broward County.

**POLICY WM4.3** Broward County will work cooperatively with the SFWMD, municipalities, and independent and dependent drainage districts to investigate application of the basin-wide protocols and develop and implement plans for additional surface water storage to improve the volume of regional water available for the purpose of maintaining canal levels and surficial aquifer recharge.

**POLICY WM4.4** FDOH in Broward County will continue to use the development review process of the Land Development Code to require applicants for development permits to use existing potable water and sanitary sewer facilities, if lines are available, as defined by [Chapters 62-550, 62-555, 62-560, and 64-E-6, Florida Administrative Code](#) (FAC).

**POLICY WM4.5** FDOH in Broward County will assist with the reduction of potential groundwater pollution sources and protect groundwater supplies by continuing to implement Broward County Code of Ordinances, Chapter 34, Article II, "Water and Sewer Connection Ordinance," and Article II 1/2, "Water, Sanitary Sewer and Septic Tank Ordinance."

**POLICY WM4.6** Broward County will participate in the Federal Emergency Management Administration (FEMA) Community Rating System (CRS) program as it relates to flood plain management.

**POLICY WM4.7** Broward County will coordinate regionally to advance the use of the IWRP and Countywide Reuse Master Plan tools to increase flood protection, water quality treatment, water supply sources, storm water storage, wetland sustainability, ground water recharge, use of reclaimed water for irrigation, aquifer recharge, and environmental enhancement, where

technically, environmentally, and economically feasible, to protect water resources and develop climate change, including potential flooding and intensifying sea level rise resilience.

**POLICY WM4.8** Broward County will coordinate with Broward County entities, FDEP, and EPA in the implementation of Florida's Ocean Outfall Law requirements, per Section 403.086, Florida Statutes, and support and promote collaborative regional and sub-regional water resource and supply strategies, water resource development, conservation, and reclaimed water projects that provide economies of scale and regional benefits, with special emphasis on those areas that currently contribute to the volume of wastewater being discharged through open ocean outfalls, with the goal of achieving 60% reuse of water currently discharged via outfalls by the year 2025.

**POLICY WM4.9** Broward County, in cooperation with its municipalities and appropriate local agencies, will evaluate water and storm water management systems operation strategies in the context of potential flooding or intensifying sea level rise to: lessen negative impacts to parks and open spaces, wetland mitigation areas, and other natural systems; improve the ability of these systems to adapt to climate change, including potential flooding and intensifying sea level rise; and optimize the ability of these systems.

**POLICY WM4.10** Broward County will continue to encourage the SFWMD and other governmental entity's efforts to acquire private property and mineral rights in the water conservation areas, as defined in the BMSD Element.

**POLICY WM4.11** Broward County will work with the SFWMD and drainage districts to implement applicable portions of the most recent LECRWSP Update, intended to reduce losses of excess storm water to tidal runoff, recharge the Surficial Aquifer System, and provide additional storage of surface waters ~~in the context of sea level rise~~, in order to improve the ability of these systems to adapt to climate change, including potential intensifying flooding, sea level rise, and ~~prevent~~ saltwater intrusion.

**POLICY WM4.12** Broward County will participate in intergovernmental coordination of sub-regional water supply projects and the development of alternative water supply projects to:

1. ensure adaptation to climate change impacts, including potential intensifying flooding and especially adopted sea level rise projections, is incorporated into the project planning, siting, construction, replacement, and maintenance ~~of water supply infrastructure~~;
2. ~~in a manner that is~~ ensure projects are cost-effective; and,
3. ~~and that~~ maximizes the use of the infrastructure throughout its expected life span.

**POLICY WM4.13** Broward County will collaborate with local, regional, state, and federal agencies and others on potential impacts of intensifying flooding and climate change on the region's water resources and support the development of local integrated models and

continuous data collection to help predict and track the impacts of sea level rise on groundwater levels, saltwater intrusion, and drainage infrastructure.

**POLICY WM4.14** Broward County, in cooperation with the United States Geological Survey (USGS) and the SFWMD, will support the maintenance and expansion of the regional groundwater monitoring network to assess groundwater levels, movement of the saltwater front, mitigate water supply loss due to saltwater intrusion, and ensure adequate data for modeling the predictive progression of the front in response to sea level rise, variable climate and water management operations, and for the development of adaptive strategies.

**POLICY WM4.15** Broward County will continue to support a geotechnical analysis of the upper Floridan Aquifer with the USGS, local municipalities, and the SFWMD to identify layers of permeability and enhanced hydraulic conductivity to help guide regional Aquifer Storage and Recovery projects and development of the brackish water upper Floridan Aquifer as an alternative water supply.

**POLICY WM4.16** Broward County will coordinate with local municipalities and water and wastewater utilities to develop, by 2025, policies and plans that set short-, intermediate-, and long-range goals and establish adaptive management implementation strategies for water and wastewater resources under their jurisdiction to address the potential operational, economic, and environmental impacts of intensifying floods, sea level rise, and climate change. ~~and its operational, economic, and environmental effects.~~

**POLICY WM4.17** Broward County, in partnership with local municipalities and water and wastewater entities, will continue to develop and implement programming for Countywide water conservation and initiatives, including the Conservation Pays Program, Water Matters education and outreach programs, [NatureScape Broward](#), and the NatureScape Irrigation Services, to promote water and energy conservation.



Broward County's NatureScape Irrigation Service (NIS) is a water conservation program offered in partnership with 20 county and municipal agencies to reduce urban water consumption and improve the quality of waters through efficient irrigation and environmentally friendly landscape practices.

**POLICY WM4.18** Broward County will coordinate with the SFWMD, local utilities and neighboring counties to develop regional water demand projection scenarios over a 100-year planning horizon that account for potential impacts of intensifying floods, sea level rise, and climate changes including changes in: (1) population and rates of water consumption; (2)

municipal, industrial, and agricultural demands; and (3) energy generation water demands due to the possible use of new fuel sources.

**POLICY WM4.19** Broward County will collaborate with local, regional, state, and federal partner agencies to develop the scientific and technical knowledge needed to understand the potential impacts of intensifying floods, sea level rise, and climate change on the region's water resources, evaluate various adaptation technologies, and, by 2025, create an adaptive response plan. Advanced hydrological modeling and engineering evaluations by SFWMD, USGS, and U.S. Army Corps of Engineers (USACE) will be especially critical to this effort.

**POLICY WM4.20** Broward County will work in coordination with local utilities and municipalities to maintain infrastructure protection and adaptation through infiltration and inflow program development to reduce the flow of groundwater and storm water to wastewater collection and treatment facilities.

**POLICY WM4.21** Broward County shall continue to apply regulations that require new construction, redevelopment, additions, retrofits or modifications of property to incorporate porous materials, reduce total impervious area, and employ other techniques to reduce runoff, capture and reuse rain water, water in accordance with the Broward County Code of Ordinances, Land Development Code, Chapter 5, Article IX.

**POLICY WM4.22** Broward County will work with municipalities to encourage reduction of golf course impacts to local water resources by incorporating the Best Management Practices outlined in the FDEP September 2012 report "Best Management Practice for the Enhanced Environmental Quality on Florida Golf Courses", such as efficient water usage, reclaimed irrigation, reduced fertilizer and pesticide use, and incorporation of sustainable design and maintenance criteria.