

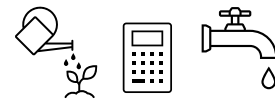
# 3

## Demand Management: Water Conservation

An important element of water supply planning is accounting for the reduction in water demands that can be achieved through water conservation efforts. Water conservation entails reducing the quantity of water required to meet demands through water use efficiency improvements, the prevention or reduction of unnecessary uses, or the cessation of water losses contributing to the sustainability of water supply resources. Section 373.709(2), Florida Statutes (F.S.), requires that water conservation be considered when determining if the total capacity of the water supply development project options included in a water supply plan (**Chapter 8**) exceeds the increase in projected demands for the planning horizon (**Chapter 2**).

### TOPICS

- ◆ Conservation Measures
- ◆ Conservation Programs
- ◆ Regulatory Initiatives
- ◆ Potential for Water Conservation Savings
- ◆ Conclusions



All water sources are finite; therefore, conservation and efficiency measures should be maximized, regardless of the water source, before more costly development options are implemented. Water conservation can reduce, defer, or eliminate the need to develop new water supply sources to meet current or future demands, which has the same effect as expanding the existing water supply. Moreover, conservation and demand management have been shown to reduce costs to utilities and customers over the long term (Feinglas et al. 2013, Chesnutt et al. 2018). Improving water use efficiency can reduce operational costs for most other users as well.

This chapter describes water conservation measures and programs and provides an estimate of potential water savings (demand reduction) achievable by 2045 in the Lower East Coast (LEC) Planning Area of the South Florida Water Management District (SFWMD or District). Additional conservation information can be found in the *2021-2024 Support Document for Water Supply Plan Updates* (2021-2024 Support Document; SFWMD 2021), in the Comprehensive Water Conservation Program (SFWMD 2008), and on the SFWMD webpage (<https://www.sfwmd.gov/conserve>).

## CONSERVATION MEASURES

The average per capita water use rate in the LEC Planning Area has decreased from about 176 gallons per capita per day (gpcd) in 2000 to about 131 gpcd in 2021 (**Figure 3-1**).

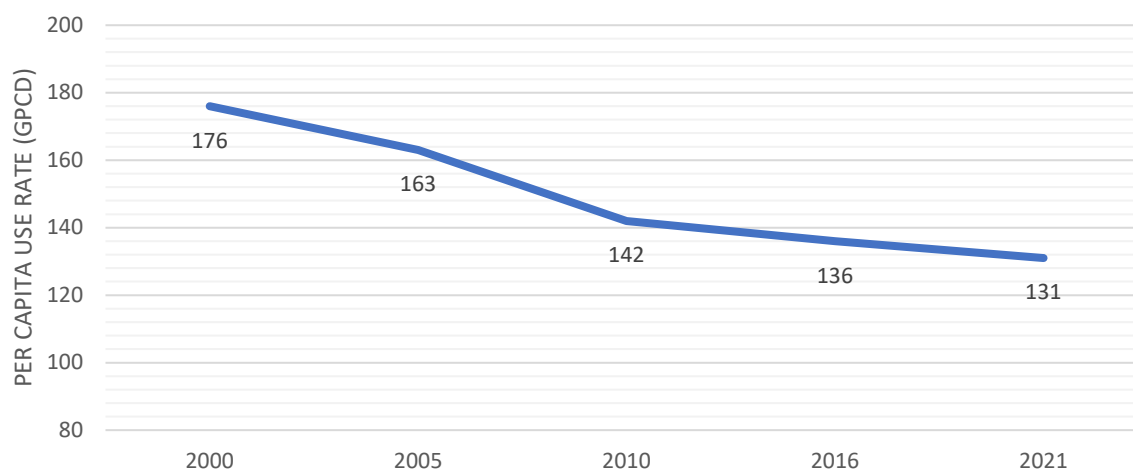


Figure 3-1. Finished Public Supply per capita use rate (in gallons per capita per day) in Palm Beach, Broward, Miami-Dade, and Monroe counties within the LEC Planning Area.

Although the reduction of per capita water use is in part due to implemented conservation measures like irrigation restrictions, it is thought to be largely due to passive water savings, which result from replacing older appliances and fixtures with more water-efficient models, and designing new homes with less irrigated green space. Federal, state, and local codes and standards promote the development and use of more efficient devices, increasing passive savings.

However, depending solely on passive savings will delay or exclude substantial conservation savings potential. Therefore, additional proactive conservation measures and programs are necessary to encourage the use of high-efficiency equipment or improved water use behaviors that yield water savings, including increased outreach, education, and messaging to water users. Local governments, utilities, and large water users are encouraged to research which types of programs would be most appropriate and cost-effective for their residents and specific user groups and to develop goal-based water conservation plans that include development and deployment of public education and outreach materials. Cost-share funding and other collaborative opportunities may be available to help implement conservation measures and programs. The following subsections include a brief description of outdoor and indoor water conservation measures that can be implemented.

### Outdoor Water Use (Irrigation)

A significant share of water used outdoors in the LEC Planning Area is for irrigation. Lawns and landscapes are irrigated by residential and commercial property owners, while irrigation of food and other commodity crops is practiced by agricultural water users. Many irrigation efficiency principles are common across these user groups; however, patterns and scales of use, system design, hardware and components, and operator knowledge can vary widely.

## Agriculture

Many alternatives for improving irrigation efficiency and conserving water in agricultural operations are available and should be considered for implementation when economically feasible. Typically, agricultural water conservation measures fall under three categories: 1) converting from one irrigation method (or system type) to a more efficient one; 2) improving the precision irrigation management capabilities of the system; and 3) implementing best management practices (BMPs). Real-time information on soil moisture and weather conditions, along with remote operation to allow quick irrigation changes in response to changing weather, can help adjust when water is delivered to precisely meet crop needs. Hardware and technology that can improve system management, reduce water quantities required to meet crop needs, and minimize water losses include the following:

- ◆ Flowmeters
- ◆ Weather stations
- ◆ Soil moisture sensors
- ◆ Variable-frequency pump drives
- ◆ Automated control systems
- ◆ Best management practices (e.g., laser leveling, irrigation system maintenance)



## Urban

In South Florida, where irrigation occurs year-round, the largest portion of water used by urban water users often is for irrigation. Moreover, the United States Environmental Protection Agency (EPA) estimates approximately 50% of water used outdoors is wasted due to inefficient watering methods and systems. Therefore, improvements to irrigation efficiency are considered a primary target for conserving water used by urban water users.

Irrigation efficiency improvements can be achieved at single- and multi-family residences, commercial and institutional properties, recreational areas (e.g., parks, athletic fields), and other landscaped areas (e.g., roadway medians) by replacing outdated irrigation systems and timers. Automatic controllers should be tested and shown to meet the EPA's WaterSense program specifications for water efficiency and performance. More information on the WaterSense program and labeled irrigation controllers is available at <https://www.epa.gov/watersense>. In Florida, all automatic lawn and landscape irrigation systems must be properly equipped with technology that inhibits or interrupts the system's operation during periods of sufficient rainfall (Section 373.62, F.S.) and should be programmed to irrigate only as necessary to supplement rainfall following any mandatory irrigation restrictions.



Golf courses typically are irrigated with a high degree of efficiency. However, opportunities to improve efficiency may exist using the same types of hardware and technology as described above. Additional practices for efficient golf course water use can be found in *Best Management Practices for the Enhancement of Environmental Quality on Florida Golf Courses* published by the Golf Course Superintendents Association of America (2021) for golf course managers <https://www.gcsaa.org/environment/bmp-planning-guide>.

## Indoor Water Use

Another area of potential conservation savings is indoor water use in single- and multi-family residences and commercial/institutional buildings (e.g., office buildings, restaurants, movie theaters, long-term care facilities, and hospitals). Feasible measures include detecting and repairing water leaks and replacing older, inefficient plumbing fixtures (e.g., toilets, urinals,



faucets, showerheads) with models that have been tested and shown to meet the EPA's WaterSense program specifications for water efficiency and performance. For more information on the WaterSense program and to find labeled products, visit <https://www.epa.gov/watersense>. Older, inefficient appliances can be replaced with water-efficient models that have received the ENERGY STAR label. For more information on the ENERGY STAR program and to find labeled products, visit <https://www.energystar.gov>.

Common water efficiency improvement measures for commercial and industrial users are outlined in the SFWMD's (2013) *Water Efficiency Audit Guide*, which is discussed in greater detail in the 2021-2024 Support Document (SFWMD 2021). Measures for improving water efficiency in nonresidential settings may be applicable to specific operations or facilities such as autoclaves in hospitals; pre-rinse spray valves, food steamers, and waste grinders in restaurants; heating, ventilation, and air conditioning (HVAC) system efficiency upgrades; converting water-based cooling devices to air-based; and water reuse/recycling in industrial operations. Other applicable measures may exist for specific industrial processes.

## CONSERVATION PROGRAMS

Conservation programs help educate water users and facilitate the adoption of effective water conservation measures (e.g., specific actions or hardware that improve water use efficiency). Utilities and local governments are the primary entities that develop and implement conservation programs. Other regional and state agencies may also assume a leadership role in promoting and providing cost-share funding for water conservation. Utilities and local governments are encouraged to analyze their service areas and jurisdictions to determine potential user groups and programs that may be most suitable for them. The following subsections contain brief descriptions of established conservation programs that may be applicable to different water use categories.

### Education, Outreach, and Marketing

Although water savings attributed to education, outreach, and marketing campaigns are difficult to quantify, such campaigns are essential to reducing water use and instilling a lasting conservation ethic in businesses and communities. Developing a conservation ethic and educating water users enable people to understand why conservation is important and necessary, what conservation measures are available, and how they can implement them. Campaigns usually are conducted by regional/local agencies or utilities and are designed to reach specific user groups (e.g., residents, schools, commercial properties), providing consistent and regular messaging.

The SFWMD maintains its commitment to water conservation education through distributing educational materials, conducting speaking engagements, and utilizing social media platforms to raise awareness about the necessity of saving water.

## Cost-Share Funding Programs

### *SFWMD Cooperative Funding Program*

The Water Conservation component of the SFWMD Cooperative Funding Program (CFP) seeks to financially support projects that improve water use efficiency and conservation. The CFP provides financial incentives to local governments and utilities, homeowners' associations, commercial entities, and agricultural operations to implement technology and hardware-based water conservation projects. Historically, funding for the CFP has come from both ad valorem taxes and the Florida Legislature through the Florida Department of Environmental Protection. CFP funding is considered annually during the SFWMD's budget development process. Since the 2018 LEC Plan Update, the SFWMD has provided approximately \$2.5 million in water conservation funding for 43 projects Districtwide. Over the same period (Fiscal Year [FY] 2018 through FY2022), 20 water conservation projects were funded in the LEC Planning Area for a total of \$1.04 million with 1.13 million gallons per day (mgd) of water saved. Projects supported by the CFP between FY2018 to FY2022 are listed in **Chapter 8**. The CFP is expected to continue although future funding levels are uncertain. Beginning in FY2023, the District's Governing Board requires that local governments must have an adopted year-round irrigation ordinance that fully comports with the SFWMD's Mandatory Year-Round Landscape Irrigation Conservation Measures Rule (Chapter 40E-24, Florida Administrative Code [F.A.C.]) in order to be eligible for alternative water supply or water conservation funding through the CFP. Additional information regarding the CFP can be found on the SFWMD's webpage (<https://www.sfwmd.gov/doing-business-with-us/coop-funding>).

### *Environmental Quality Incentives Program*

The Environmental Quality Incentives Program (EQIP), implemented through the United States Department of Agriculture – Natural Resources Conservation Service, promotes agricultural production and environmental quality. Financial and technical assistance is offered to participants to address natural resource concerns and deliver environmental benefits such as improved water and air quality, conserved groundwater and surface water, reduced soil erosion and sedimentation, and improved or created wildlife habitat. From FY2018 through FY2022, EQIP has provided more than \$1.9 million in funding for irrigation projects covering a total of 1,211 acres. EQIP is expected to continue although future funding levels are uncertain.

## Certification and Recognition Programs

There are several national and statewide certification and recognition programs that direct builders, property owners, and building managers toward meeting environmentally friendly standards. Such programs include the Florida Green Building Coalition's green certification programs, the Florida Department of Environmental Protection's Green Lodging Program, the United States Green Building Council's Leadership in Energy and Environmental Design (LEED), and the Green Building Initiative's Green Globes Certification. These holistic programs typically include criteria affecting water use, energy efficiency, climate-adaptive landscaping, sustainable building material, site selection, indoor environmental quality, and greenhouse gas emissions.

### INFO ⓘ

Florida-Friendly Landscaping means using low-maintenance plants and environmentally sustainable landscaping practices to conserve water, reduce pollution and erosion, and create wildlife habitat.



With respect to growing development and finite water resources, there are single-focus programs that target water use efficiency. These programs often are less expensive for builders and property managers than holistic ones. Two single-focus programs endorsed by all Florida water management districts are Florida Water Star and Florida-Friendly Landscaping Recognition. More information on these programs can be found on their individual program webpages and on the SFWMD's water conservation webpage (<https://www.sfwmd.gov/consERVE>).

## Other Programs

### *Agricultural Best Management Practices Program*

The Florida Department of Agriculture and Consumer Services (FDACS) develops and adopts agricultural BMPs by rule for different types of agricultural operations. As of November 2022, there are 627,733 acres within the LEC Planning Area enrolled in the FDACS BMP program. All agricultural water users are encouraged to enroll in the FDACS BMP program and to learn about the FDACS Agricultural-Environmental Leadership Award which recognizes environmentally innovative farming practices. Local governments and agencies should consider promoting these programs to agricultural operations.

### *Agricultural Mobile Irrigation Labs*

The FDACS Mobile Irrigation Lab (MIL) program performs free evaluations of irrigation system efficiency on agricultural lands and makes recommendations for physical and operational improvements. Such recommendations may include modification of irrigation systems and equipment, alteration of irrigation scheduling, and other aspects of system management. FDACS has MIL service available for all counties within the LEC Planning Area, except Monroe County.

Two agricultural MILs serve Miami-Dade, Broward, and Palm Beach counties, operated by the Palm Beach Soil and Water Conservation District. Since the last plan update, these



agricultural MILs conducted initial evaluations on participating agricultural properties, covering a total of 4,450 acres. A potential water savings of 2,696 million gallons per year (7.39 mgd) was estimated by these MILs if all recommended irrigation improvements were implemented.

During the period from 2018 to 2022, FDACS performed follow-up evaluations of the participating agricultural properties. Based on the improvements that were made to the properties following their initial evaluations, there was an estimated actual water savings of 579 million gallons per year (1.59 mgd) for those properties.

### *Urban Irrigation Audit Programs*



There are two urban irrigation audit programs currently operating in the LEC Planning Area: one operated by Broward County's Natural Resources Division and the other operated by Miami-Dade County through the Miami-Dade Water and Sewer Department. These local programs are not affiliated with the FDACS MIL network. The goal of these programs is to increase irrigation water use efficiency in parks, government-owned facilities, commercial properties, and multi- and single-family homes. Both programs evaluate irrigation systems

and replace irrigation controllers and other hardware to produce greater water use efficiency. Since 2018, Broward County, through its NatureScape Irrigation Service program, provided assessment services to 525 single-family homes resulting in an estimated savings of more than 260,000 gallons of water per day. Since 2018, Miami-Dade County provided assessment services to 247 single-family homes and 70 large properties, resulting in an estimated savings of more than 282,000 gallons of water per day.

### *Florida Automated Weather Network*

The Florida Automated Weather Network (FAWN), operated by the University of Florida – Institute of Food and Agricultural Sciences (UF/IFAS), provides weather information throughout the state at 15-minute intervals. FAWN management tools provide decision support functions to growers using historical and real-time weather data as well as crop modeling technology to help with short- and long-term planning, thereby maximizing the efficiency of irrigation practices (UF/IFAS 2022). Currently, there are five FAWN stations (Fort Lauderdale, Clewiston, Wellington, Belle Glade, and Homestead) supported by the SFWMD in the LEC Planning Area. Additional information for these stations is available at <http://www.fawn.ifas.ufl.edu>.



## REGULATORY INITIATIVES

Regulations are useful tools to assist in the implementation of better practices and more efficient devices. The SFWMD requires that water conservation measures and programs be considered for users with water use permits. For a proposed use of water to be deemed reasonable-beneficial, water users requiring a permit must include a water conservation plan in the permit application. Section 2.3.2 of the *Applicant's Handbook for Water Use Permit Applications within the South Florida Water Management District* (SFWMD 2022a) includes specific water conservation requirements for various water use categories.

The SFWMD's Mandatory Year-Round Landscape Irrigation Conservation Measures Rule (Chapter 40E-24, F.A.C.) was adopted to help protect South Florida's water resources by addressing landscape irrigation (the largest portion of residential water use and the greatest opportunity for viable water use reduction). In short, the rule limits landscape irrigation to 2 or 3 days per week, depending on location and local circumstances; restricts irrigation between the hours of 10 am and 4 pm; and contains provisions for new landscaping and other situations that require a deviation from the rule requirements.

Adoption of local ordinances that comport with Chapter 40E-24, F.A.C., and associated outreach and education to residents, is crucial to reducing landscape irrigation water use. When local governments implement irrigation ordinances, it demonstrates a commitment to water resource protection through conservation.

To assist local governments in adopting such an ordinance, the SFWMD has created a model ordinance, a model code, and several customizable outreach materials designed to educate residents on their local irrigation ordinance. As of March 2023, 69 of 116 local governments within the LEC Planning Area, which includes approximately 84% of the population, had adopted a year-round irrigation ordinance. Additional information and example documents for local implementation are on the SFWMD's webpage Local Government Model Ordinances and Codes available at <https://www.sfwmd.gov/consERVE>.

## POTENTIAL FOR WATER CONSERVATION SAVINGS

Potential water savings of 62.13 mgd for the LEC Planning Area were estimated for the following water use categories: Agriculture (AG), Public Supply (PS), Domestic Self-Supply (DSS), and Landscape/Recreational (L/R). **Table 3-1** summarizes prospective savings for each category. For the Commercial/Industrial/Institutional (CII) and Power Generation (PG) water use categories, potential water savings were estimated only for potable indoor water use, which was assumed to be provided by a PS utility. Therefore, those potential savings are accounted for under PS. The methods used to estimate the savings for each category are discussed in each subsection.



## Public Supply and Domestic Self-Supply



PS is the largest water use category in the LEC Planning Area, and water use demands are projected to increase through the planning horizon. PS accounted for an estimated 807.52 mgd of finished water demands in 2021 and 944.70 mgd of projected demands in 2045 (**Chapter 2**). DSS is estimated to have demands of 9.98 mgd in 2021 and projected to have 13.59 mgd in 2045. Historical conservation efforts in PS are reflected in the per capita use rate, which has declined 26% between 2000 and 2021. This decline likely is the result of new construction

using higher-efficiency fixtures and/or designed for more efficient water use, the SFWMD's Mandatory Year-Round Landscape Irrigation Conservation Measures Rule (Chapter 40E-24, F.A.C.), the adoption of local ordinances modeled on this rule, conservation rate structures, public education, and other conservation factors.

Estimates of active and passive water conservation potential for each county in the LEC Planning Area were made for residential and nonresidential users (in both PS service areas and DSS areas) using the Alliance for Water Efficiency Conservation Tracking Tool (AWE Tool), Version 4.0 (AWE 2021). The AWE Tool calculates active water savings for user-selected conservation measures based on the number of measures implemented annually over the planning horizon, and the per unit savings and service lives of each measure. Passive savings are generated by the AWE Tool based on natural replacement of toilets, showerheads, and water-using appliances at the end of their service lives, whose current or future minimum efficiency is dictated by national, state, or local code requirements. Baseline data include Florida Department of Revenue parcel information, University of Florida Bureau of Economic and Business Research household data and population projections, and Florida Department of Environmental Protection finished water monthly operating reports (as used in this plan update for demand projections; **Appendix A**). Conservation potential for DSS was analyzed along with PS users and extracted in proportion to its percentage of the total population in each county.

For this 2023 LEC Plan Update, seven frequently implemented measures were selected and quantified to generate the potential water savings for the PS and DSS user groups. Conservation measures utilized in the estimates for residential users supplied by PS utilities and DSS users were as follows: high-efficiency toilets, showerheads, clothes washers, irrigation audits, landscape evaluations, advanced irrigation controllers, and water use audits. For many types of permit holders, including CII and PG, indoor potable water use often is provided by a PS utility. Conservation measures for nonresidential users served by PS utilities were limited to high-efficiency toilets and urinals.

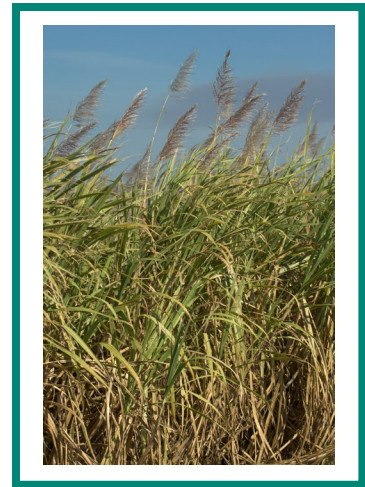
For all measures, the conservation (demand reduction) estimate assumes a participation rate of 10% of the total annual potential implementations for each applicable measure. This assumption means 10% of all possible implementations would be accomplished over the planning horizon (2021 to 2045), which is thought to be an achievable participation rate for most conservation measures. The combined estimated conservation potential by PS and DSS (active and passive savings) in the LEC Planning Area in 2045 is 39.59 mgd. However, while

a 10% participation rate is achievable, a review of conservation projects funded by the SFWMD's Cooperative Funding Program reveals local governments in the LEC Planning Area have reached fewer than 10% of the prospective participants. Assuming the same participation rate as previously implemented programs, the combined expected savings for PS and DSS would be around 18.55 mgd over the planning horizon.

## Agriculture

AG is the second largest water use category in the LEC Planning Area, accounting for an estimated 645.19 mgd of the total demand in 2021, which is projected to decrease to 637.65 mgd in 2045.

As discussed in **Chapter 2** and **Appendix A**, the annual Florida Statewide Agricultural Irrigation Demand (FSAID) report published by FDACS (2022) includes 20-year estimates and projections of agricultural acreage and water demands. Estimated efficiency improvement (i.e., conservation estimate) is one of the parameters calculated by the FSAID model, and the spatially based data that contribute to the water demand estimates and projections are available by water management district planning area. The potential AG conservation savings within the LEC Planning Area were determined using the FSAID geodatabase (<https://www.fdacs.gov/Agriculture-Industry/Water/Agricultural-Water-Supply-Planning>). The methodology for calculating the potential AG conservation savings is more fully described in Appendix E of the FSAID IX report (FDACS 2022), but generally is based on estimated historical use determined from the United States Department of Agriculture's Farm and Ranch Irrigation Surveys and actual water savings data from MILs. The projected conservation savings are based primarily on irrigation system changes, changes in scheduling, and sensor-based automation.



The total savings calculated by the FSAID model for any given year depends on the crops produced, the acreage of each crop, and the irrigation systems employed, as projected to exist in that year. Because these variables change over the planning horizon (2021 to 2045), projected savings also change and may be nonlinear. The estimated conservation potential for the AG water use category in 2045 is 16.15 mgd (**Table 3-1**).

## Landscape/Recreational

The L/R use category is the third largest water use category in the LEC Planning Area and includes irrigation of landscaped areas such as parks, athletic fields, roadway medians, commercial spaces, large private residential properties, and golf courses. Because their projected demands are estimated in different ways, golf course potential water savings are discussed separately from other permitted landscape irrigation.

L/R irrigation is projected to use a total of 199.18 mgd in 2045. There are approximately 8,000 active landscape irrigation water use permits in the LEC Planning Area, which were estimated to have used approximately 100 mgd in 2020 (SFWMD 2022b). To estimate the potential water conservation savings for landscaped areas, the average water use per permit

by county was determined. Then the average water savings attributed to installing a smart controller (16% savings) was applied to 30% (participation rate) of the available permits by county. This yields an estimated conservation potential for landscape irrigation of 4.69 mgd over the planning horizon.

## Golf Courses

There are 159 active water use permits for golf courses in the LEC Planning Area (101 in Palm Beach, 33 in Broward, 24 in Miami-Dade, and 1 in Monroe counties) for golf course irrigation. Indoor potable water use at golf courses is assumed to be provided by a PS utility. There are no active golf course permits in the portion of Hendry County within the LEC Planning Area boundary.



Irrigation demands for golf courses in the LEC Planning Area are projected to increase by 2% as acreage devoted to golf courses is projected to rise from 21,032 acres in 2021 to 21,347 acres in 2045. Most golf courses are irrigated with a high degree of efficiency. According to a 2019 statewide survey of Florida Golf Course Superintendents Association members, 55% of golf courses use advanced irrigation controllers (Irwin and Wanvestraut 2020). A conservation program would therefore aim to affect the golf courses not yet using advanced irrigation controllers.

To estimate the potential water conservation savings for golf courses, 45% of the active permits were assumed not to be using advanced irrigation controllers. Then the average water use per permit by county was determined. Applying the average water savings attributed to installing a smart controller (16% savings) to 30% (participation rate) of the available permits by county yielded an estimated conservation potential for golf courses of 1.70 mgd over the planning horizon. Those savings combined with the potential savings for landscape irrigation (4.69 mgd) is a total savings of 6.39 mgd for the L/R use category (Table 3-1).

## Commercial/Industrial/Institutional

For CII permit holders, indoor potable water use is assumed to be provided by a PS utility. Therefore, conservation savings estimates were captured during the PS analysis by the measures targeting nonresidential users (i.e., high-efficiency restroom fixtures). CII permitted water use was not analyzed for conservation potential as those uses were assumed to be process-specific and, therefore, difficult to estimate within the scope of a regional analysis.

## Power Generation

PG facilities use large quantities of water for cooling, but most of the water is returned to the source from which it was obtained. As a result, there are minimal efficiency gains to be had from the cooling process. Potential savings for PG were not estimated as part of this analysis. As with the CII use category, indoor potable water use at PG facilities is assumed to be

provided by a PS utility. Therefore, conservation savings estimates were captured during the PS analysis in the AWE Tool by the measures specifically targeting nonresidential users (i.e., high-efficiency restroom fixtures).

## CONCLUSIONS

**Table 3-1** summarizes potential water savings for the LEC Planning Area in all use categories using common water conservation measures. Greater conservation savings may be possible if additional measures are implemented or if increased participation rates are realized. Participation rates can be influenced by ineffective marketing and high implementation costs. The estimates presented in this report are conservative and not intended to represent the full conservation potential utilizing all measures available. Studies have found adoption of demand-side water conservation is highly variable (Rasoulkhani et al. 2018). A comprehensive list of conservation measures and applicable water use categories can be found in the 2021-2024 Support Document (SFWMD 2021).

Table 3-1. Potential water saved (in mgd) in the LEC Planning Area based on demand reduction estimates achievable by 2045.

Use Category	County					2045 Total by Sector
	Broward	Hendry <sup>a</sup>	Miami-Dade	Monroe	Palm Beach	
Public Supply <sup>b</sup>	12.20	0.04	16.93	1.67	8.03	<b>38.88</b>
Agriculture	0.27	1.96	9.43	0.00	4.49	<b>16.15</b>
Landscape/Recreational <sup>c</sup>	1.76	0.00	0.80	0.01	3.82	<b>6.39</b>
Domestic Self-Supply <sup>b</sup>	0.07	0.20	0.13	0.00	0.32	<b>0.71</b>
<b>Total</b>	<b>14.30</b>	<b>2.20</b>	<b>27.29</b>	<b>1.68</b>	<b>16.66</b>	<b>62.13</b>

LEC = Lower East Coast; mgd = million gallons per day.

<sup>a</sup> Values listed for Hendry County are only for the areas within the LEC Planning Area boundaries.

<sup>b</sup> Includes passive savings.

<sup>c</sup> Includes golf and landscape/recreational savings.

The largest projected savings were identified for the Public Supply (utilities) sector. Utilities should develop, fund, and implement comprehensive water conservation plans, particularly in areas where water demands are projected to exceed the available supply of traditional sources of water. Reducing demands through water conservation is almost always less expensive than developing new alternative water supply sources and associated treatment facilities. Utilities should consider the use of conservation planning tools, develop a robust public outreach and education component, and target high water users with water conservation messaging and measures. Lastly, utilities should take advantage of funding opportunities like the District’s Cooperative Funding Program to assist individual users to make the necessary investments in conservation. Agricultural and landscape users should perform water use audits to identify leaks, poor design, and inefficient irrigation equipment and methods. Domestic users should identify opportunities, both outdoors and indoors, to replace inefficient, outdated hardware with more efficient WaterSense labeled equipment. All landscape irrigation should be conducted while following watering restrictions for both times and days. Finally, District staff are available to assist conservation program developers with technical support, collaborative program implementation, ordinance review, and long-term demand management planning.

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