Florida Nursery, Growers & Landscape Association (FNGLA)
Landscape Irrigation
Policy Brief & Recommendations

Florida's Water Debates Swirling for Decades

Historically, Florida's water debates centered on agriculture's use of this precious natural resource. Fortunately, Florida's innovative nursery growers are achieving significant and meaningful water savings in large part due to two compelling developments.

One is the nursery industry's adoption and implementation of best management practices (BMPs) designed purposely for nursery and greenhouse growers to optimize water management and conservation. Best management practices are every bit of water infrastructure investment as water collection and retention pond construction, wastewater treatment facilities and reclaimed water systems.

A second major factor is a welcome conversion to more efficient, lower-volume and on-demand irrigation systems, such as drip, misting, ebb and flow irrigation, retrofitting, retention and recycling. Advances in irrigation technology in nursery and greenhouse crop production continue to propel much of this welcomed progress in water savings.

Florida Is at a Crossroads

Given Florida nursery and greenhouse irrigation advancements, the focal point of today's water debates has shifted. A much greater emphasis is being placed today on the water used for lawns and landscapes by an increasingly urbanized state with more than 20 million residents. As a joint project of the 1000 Friends of Florida, the University of Florida's GeoPlan Center and the Florida Department of Agriculture and Consumer Services, the recent *Water 2070 Report* reached a core conclusion: **"*The single most effective strategy to reduce water demand in Florida is to significantly reduce the amount of water used for landscape irrigation.*"**

This report dug deep into whether there will be sufficient available water to meet the needs of Florida's people, agriculture and environment in the year 2070 when the Sunshine State's population is projected to be 35 million residents. The Florida Nursery, Growers & Landscape

Association (FNGLA) believes Florida's landscape industry has a significant and pivotal role to ensure there will indeed be a sufficient supply of water to meet Florida's diverse needs.

Irrigation Initiatives Launched by Florida's Landscape Industry

Florida's landscape industry has been initiating a series of enterprising and impactful actions to reduce water use, increase irrigation efficiencies and generate sustained water conservation:

Water Conservation Rule
FNGLA collaborated with Florida's water management districts to establish the year-round water conservation rules, as well as the tiered series of limitations during periods of drought.

Green Industries Best Management Practices (GIBMP)
FNGLA worked with the Florida Department of Environmental Protection (FDEP) to develop the *Florida-Friendly Best Management Practices for Protection of Water Resources by the Green Industries* (GIBMP). It bears repeating: Best management practices are every bit of water infrastructure investment as water treatment plants, sewer districts, pipes, canal systems and stormwater retention ponds.

Florida-Friendly Landscaping™
FNGLA teamed up with the University of Florida IFAS to develop and launch the *Florida-Friendly Landscaping™* (FFL) program whose mission is to promote the use of low-maintenance plants and environmentally sustainable practices. FFL has nine overarching principles, of which the first two are "Right Plant, Right Place" and "Water Efficiently." The FFL program oversees the GIBMP training of landscape maintenance professionals.

Florida-Friendly Landscaping™ design combines science and art to create functional, attractive and ecologically sound landscapes to complement homes, buildings and other areas. When placing plants in a landscape, the main idea is not to waste time, energy, water and money caring for plants not suited or adapted to the spots where they are planted. *Florida-Friendly Landscaping™* guidelines do not limit choices of plant color, texture, or style.

Center for Landscape Conservation & Ecology
FNGLA was a primary driver in establishing the interdisciplinary UF/Institute of Food and Agricultural Sciences' Center for Landscape Conservation and Ecology (CLCE). Its mission is to protect and conserve Florida's natural resources through research-based sustainable urban landscape practices. In 2016, CLCE's educational programs documented a savings of 65 million gallons of water in 2016.

The *Florida-Friendly Landscaping™* program is administered by CLCE. The impacts of CLCE and FFL can easily be measured as more than 41,000 landscape employees have been trained since

the GIBMP certificate requirements became mandatory. Training is offered in English, Spanish and Creole to reach broadly into Florida's diverse landscape worker population.

Florida Water Star℠

FNGLA partnered with the *Florida Water Star℠* (FWS) program to launch the professional accreditation for landscape and irrigation professionals. The objective of the FWS accreditation program is to deliver advanced education for practitioners in the landscape and irrigation fields resulting in the sustainable design and implementation of projects achieving FWS certification. *Florida Water Star℠* landscapes are also *Florida-Friendly Landscaping™* landscapes.

Together, FWS and FNGLA deliver two types of accreditation: *Florida Water Star℠ Accredited Irrigation Professional* and *Florida Water Star℠ Accredited Landscape Professional*. Such accreditations are available for irrigation professionals, landscape design professionals and licensed landscape architects in the areas of irrigation and/or landscape design and installation.

Landscape Irrigation Technician Certification

FNGLA has launched development of a new Landscape Irrigation Technician certification to strengthen entry-level expertise for performing regular irrigation service and installation. This certification adds to FNGLA's portfolio of five professional landscape and horticulture certifications. They are explicitly recognized and embraced by several state agencies, including: Florida's Department of Environmental Protection; Florida's Department of Transportation; Florida's Department of Education; and, Florida's water management districts.

"Flip My Florida Yard"

FNGLA is the signature sponsor of several episodes of "*Flip My Florida Yard*" - a television series airing in all Florida major metropolitan markets in 2017. Teaming up with an Emmy Award-winning producer, the overarching purpose of "*Flip My Florida Yard"* is to show homeowners how landscape professionals can create "right plant, right place" landscapes to increase irrigation efficiency and save water. These shows also educate consumers about the proper use of plant nutrients in beautiful and environmentally-friendly landscapes using high quality Florida plants and trees.

FNGLA's professional members flipped the old landscapes and installed new *Florida-Friendly™* ones with many low-water use plants and other local sustainable products. These "*Flip My Florida Yard*" shows convey positive messaging and create enthusiasm for irrigation efficiency and water conservation, as well as easy-to-maintain, beautiful, environmentally-functioning Florida residential landscapes.

Investments in Research

FNGLA often provides funding enhancements to support scientific research into water management in landscapes and plant production. FNGLA also funds research into the ongoing development of new varieties of water-efficient, drought tolerant, cold hardy, pest resistant,

non-invasive and easy-to-maintain landscape plants and trees. Scientific research underscores how properly designed and installed landscape designs and installations are exceptional in addressing Florida's urban, suburban and rural water challenges. Landscape plants play highly significant roles in ecological restoration, wetland mitigation, bioswales, stormwater ponds and similar green infrastructure projects. Landscape professionals strategically use plants, soils and microbes in healthy soil to capture, cleanse and manage stormwater and nutrient runoff.

New Irrigation Delivery Tools and Technologies

The landscape irrigation industry is a forward-thinking, high technology industry. Technological advances are being achieved with control units which are a sometimes-overlooked component of irrigation systems. Smart controllers today can communicate with weather stations while Wi-Fi remote control units allow for easy seasonal adjustments. Even, drones are now in use.

The landscape irrigation industry is developing a wide variety of low-volume and micro-irrigation systems to distribute water slowly and in small amounts while directly targeting the water to the root zones of plants. Among these on-demand irrigation tools are: drip emitters; trickle sprayers; micro or mini-spray sprinklers; mist emitters; soil moisture sensors; and, rain and wind shutoffs. Also available now are evapotranspiration-based controllers labeled as *WaterSense* products meeting U.S. Environmental Protection Agency's specifications for water efficiency and performance.

Readily-Available Consumer Products

There are now many readily available consumer products which can be added to the soil to absorb water. For example, there are wetting agents and superabsorbent polymers. There is also a product which acts as a magnet attracting unused water molecules in air pockets within the soil. It aggregates this moisture back into a liquid form and efficiently transfers this water directly to the roots of plants. Tapping into the wide range of available products, consumers can use water more efficiently by extending the period of time between needed irrigation.

Mulching and the use of composted materials are commonly used and effective in reducing outdoor irrigation needs. Rain barrels and cisterns are also examples of easy ways to collect rainwater for reuse on plant beds, gardens and landscapes.

Water 2070 Report Aligns with FNGLA's Policy Positions & Recommendations

FNGLA welcomes the *Water 2070 Report*. It reflects many of FNGLA's policy positions which similarly seek to maximize irrigation efficiency and achieve significant reductions in water demand. FNGLA concurs with the *Water 2070 Report's* recommended initiatives as excerpted below:

Expand Public Water Conservation Efforts

- "Increase funding and outreach for the *Florida Water Star℠ and Florida-Friendly Landscaping™* programs to promote greater water conservation in new and existing development."

- "Require *Florida-Friendly Landscaping™* manual irrigation, soil moisture sensors, or comparable water technology for all new development."

- "Update the Florida Building Code to require outdoor water efficiency standards for new construction and major remodeling."

- "Construct and incentivize the use of reclaimed water facilities."

Reduce Personal Water Use

- "Use *Florida Friendly-Landscaping™* and other measures to reduce landscaping water use."

- "Lessen irrigation by using the right plants in the right locations; grouping them according to water needs; and, using rain barrels or cisterns to capture rainwater for irrigation."

- "Reduce stormwater runoff by mulching plant beds; using porous surfaces for patios, walkways and driveways; and, creating swales or low areas to hold and filter water."

- "Ensure automated irrigation systems (such as drip systems, soil moisture sensors and automatic rain shutoff sensors) are correctly installed, operated, calibrated and maintained to significantly reduce water use."

- "Do not water if it rained in the last 24 hours or rain is forecast in the next 24 hours."

FNGLA Offers Even More Landscape Irrigation Policy Recommendations

FNGLA believes the *Water 2070 Report* outlines a set of solid recommendations noted above and FNGLA urges their adoption. Yet, given the Florida landscape industry's commitment to increase irrigation efficiency and achieve more water savings, FNGLA offers the following ***additional*** public policy recommendations:

FNGLA-1 Require irrigation zones for plant beds be separate from the zones for lawns in all new developments to reduce water usage because established landscape plants, shrubs and trees generally need less water than lawns.

FNGLA-2 Adopt statewide exemptions in day-of-the-week watering restrictions when using proven smart controllers, such as soil moisture sensors and evapo-transpiration controllers.

FNGLA-3 Increase outreach to builders and developers leading to production of a comprehensive, incentive-based framework for *Florida Friendly Landscaping™* and/or *Florida Water Star℠* certification and continuous recertification of new residential developments. (For instance, utilities might offer discounts on developers' hook-up fees in exchange for quantifiable water savings which benefit the utility's strategic water supply plan).

FNGLA-4 Develop and implement statewide landscape irrigation standards.

FNGLA-5 Amend Appendix F in the Florida Plumbing Code to cover landscape irrigation systems as recommended by the Plumbing Technical Advisory Committee and then transform such appendix into an actual chapter within the Florida Building Code to reflect the increasingly prominent role of landscape irrigation in delivering irrigation efficiency and reducing water demand.

FNGLA-6 Recognize FNGLA professional certifications as fulfilling the prerequisites to apply for the State of Florida's voluntary irrigation specialty contractor's license exam. Once earning this state license, professionals would be authorized to perform irrigation work throughout Florida without having to fulfill any additional local competency requirements.

FNGLA-7 Strengthen Florida's voluntary irrigation specialty contractor's license by converting it into a state requirement and by adding horticultural expertise which it lacks. Knowledge of plants and their different watering needs is essential to proper installation of landscape irrigation systems.

FNGLA-8 Establish a state landscape contractor license to assure residents their contractors are professionally trained and certified to design, install and maintain landscapes which can maximize water savings and irrigation efficiency. FNGLA's Certified Landscape Contractor (FCLC) exam is tailor-made to be the prerequisite for state license application or to serve as the state license test. Once earning this state license, professionals would be authorized to perform

landscape contracting work throughout Florida without having to fulfill any additional local competency requirements.

FNGLA-9 Encourage sound scientific research into how soil conditions impact the short and long-term irrigation needs of landscape plants and turf prior to installation, as well as sound scientific research into the development of turf grass varieties which require less irrigation and are aesthetically pleasing. These research initiatives may produce flexible alternatives to imposing limits on turf or permeable surfaces.

FNGLA-10 Develop design templates to encourage creation of rain gardens and bioswales in parking lot islands and other "forgotten landscaped" areas to capture, filter and absorb stormwater runoff from these and other impervious urban areas (e.g., driveways, walkways).

Floridians Can Use Water More Efficiently in Their Landscapes and Generate Water Savings

Professionally designed, installed and maintained landscape areas can actualize significant water efficiencies and savings without sacrificing landscape quality or quantity.

Florida's landscape professionals are educated, trained and certified to "put the right plants in the right places" - an integral key to increasing irrigation efficiencies and generating water savings. With many new, creative and corrective remedies, landscape and irrigation professionals are eager and well-positioned to build on their recent track record to help Floridians use landscape irrigation more efficiently and generate substantive water savings.

FNGLA stands ready to collaborate and forge ahead with Florida's lawmakers, state agencies and local officials on the above recommendations to help Florida make compelling inroads into solving some of its vexing water challenges.

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