

**South Florida Water Management District  
Water Conservation Program Plan**

**Introduction**

*"As this drought reminds us, the days of cheap and unlimited water are over. Residents and businesses must develop a culture of conservation to protect our limited water resources. Our goal is to create a long-term water conservation program that is active all year round – not just during droughts – and results in a measurable and lasting difference."*

-- Eric Buermann, Governing Board Chairman  
South Florida Water Management District  
November 2007

Water is the essence that inextricably intertwines the environment, economy and quality of life in South Florida. Just as abundant water gives vitality to the region, a lack of water strains natural resources, stifles economic growth and periodically imposes upheavals to daily routines.

The comprehensive program embodied in this collaborative plan aims to break the current reactionary approach of focusing on the benefits of water conservation primarily in response to emergencies. The end-goal is to replace today's "as needed" thinking with a more beneficial, year-round water conservation ethic.

While the public typically responds to calls for mandatory cutbacks in water use, the assumption is that once the shortage is over, the commitment to practicing water conservation is over as well. Constantly modifying expectations during emergency situations created by rainfall deficits and low water levels does little to promote enduring changes to behavior that will better protect the resource for the long-term. Replacing short-term restrictions with a clear, consistent and broader strategy for increasing the overall efficient use of water will help bring stability and predictability to the region.

Water conservation, also known as demand management, promotes permanent water use efficiencies. Achieving long-term efficiencies will require a combination of new technology, best business and management practices and behavioral changes. Education, incentives and regulations are among the tools available to make the transition...and to continue reinforcing the importance of maintaining positive gains.

Successfully fostering a strong ethic of conservation will protect South Florida's sensitive water resources and help ensure a more sustainable supply of water for both natural systems and people. Year-round conservation is a prudent component of water resource management. Demand reduction increases the available supply of water from existing sources to support new economic growth. It is also more immediate, significantly less costly and more energy efficient than developing new sources of water.

45 An added benefit of water conservation is its supporting role in environmental  
46 conservation. Demand reduction decreases the competition for water between the  
47 needs of the urban and agricultural areas and the needs of the environment. By  
48 stretching the current supply through conservation, more water may be available to  
49 support South Florida’s diverse ecosystem, from lakes and estuaries to wetlands and  
50 watery marshland.

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### 53 **A History of Water Management in South Florida**

54 The management of South Florida’s water resources is extremely complex due to  
55 Florida’s sub-tropical climate of extreme wet and dry periods. Compounding the  
56 natural challenges to water management in South Florida is the region’s history of  
57 urban and infrastructure development.  
58

59

60 Just a century ago, water flowed – and sometimes overflowed – from the Chain of Lakes  
61 in the central part of the state, through the naturally-winding Kissimmee River into  
62 Lake Okeechobee, then spread south through the southern Everglades to the flats of  
63 Florida Bay.

64

65 While native habitats and inhabitants thrived on the sub-tropical weather extremes of  
66 flood and drought, it was not as hospitable to people.

67

68 In the mid-1800s, taming this wet wilderness was viewed as a linchpin to attracting  
69 more settlers to the state. Efforts to “dredge and drain the swamp” accelerated after the  
70 turn of the century. Drying out the wetlands created large tracts of productive  
71 farmland. Soon, cities and towns developed along the coast.

72

73 Plans to further control the flow of water intensified after deadly hurricanes in the 1920s  
74 caused floods that took the lives of nearly 2,000 people living around Lake Okeechobee.  
75 By 1937, an earthen dike (*later to be named the Herbert Hoover Dike*) encircled the huge  
76 water body, giving it more defined boundaries than nature had originally created. A  
77 succession of droughts and floods followed, culminating in catastrophic regional  
78 flooding in the late 1940s which prompted calls for more relief. In response, the U.S.  
79 Congress authorized construction of the Central and Southern Florida Project – a  
80 massive network of canals, levees and water control structures that drastically changed  
81 the watery landscape.

82

83 Completion of the water management system allowed for tremendous population and  
84 economic growth. Originally designed to meet the needs of a projected two million  
85 people, today, more than 7.5 million live and work in the 16-county region. In addition,  
86 the population annually swells with the seasonal influx of part-time residents and year-  
87 round tourists. The region also supports a major agricultural industry and other water-  
dependent businesses.

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As an unintended consequence, the success of this engineering marvel came at the expense of the natural environment – impacting water quality, reducing natural water storage capacity and interrupting flow patterns. In the vast underground aquifers, heavier saltwater began to creep farther inland.

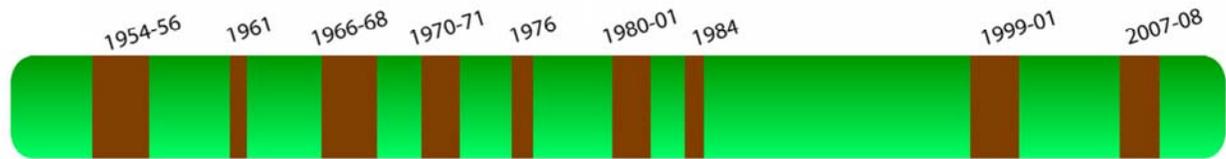
With limited surface water storage and a system designed for flood control, it is estimated that a staggering 1.7 billion gallons of water per day on average is “lost” due to diversion through the extensive canal system and discharge to the ocean – oftentimes disrupting the delicate salt and freshwater balance in coastal estuaries.

Today, the South Florida Water Management District and the State of Florida, along with the U.S. Army Corps of Engineers and other partner agencies are working to undo the damage caused by a century of drainage. Restoration of the historic Everglades “River of Grass” is the largest environmental restoration in the world. The overarching goal is to capture the fresh water that now flows unused to the ocean and the gulf and redirect it to natural areas that need it most for restoration purposes. Returning a more historic flow of water will not only revive the native habitat for 68 threatened and endangered species, it will also naturally replenish the underground aquifers that supply drinking water to the population.

Restoration progress is moving forward. More than 50,000 acres of constructed wetlands known as Stormwater Treatment Areas are successfully reducing the amount of excess nutrients flowing into the Everglades. Projects to reestablish more historic flow patterns and hydrologic characteristics are also under way. Giant above-ground reservoirs to capture and store water are being designed and built. The new water created by these and many other planned efforts will be reserved for the environment first. Any remaining available water will help enhance urban and agricultural water supplies.

In addition to the construction of new facilities, water conservation and the efficient use of water will continue to be a vital component in meeting the needs of both the environment and people.

## Drought Timeline



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### A History of Drought and Drought Management

Major statewide or regional droughts have occurred in recent decades, including the early 1970s, the early 1980s, the 1989-90 period, the 1999-2001 period, and the most recent water shortage that first saw a dramatic downturn in rainfall beginning in 2006.

The 2006-2007 drought caused serious impacts, particularly in South Florida. The lack of rain produced dry conditions that led to 4,630 wildfires in 2007. According to the Department of Agriculture and Consumer Services, 582,486 acres of state and federal lands burned that year. In July of 2007, Lake Okeechobee fell to its lowest water level in recorded history.

In many cases, major periods of drought prompted significant state or regional actions – many with water conservation implications:

1970-1972: Statewide severe drought provides impetus for September 1971 Governor’s Conference on Water Management. In response, Florida enacts Water Resources Act in 1972 creating the state’s five regional water management districts. That landmark law also established a permit system regulating consumptive use of water based on 3-pronged reasonable-beneficial use criteria.

1980-81: Severe drought leads to development of South Florida Water Management District (SFWMD) Water Shortage Plan which provides specific guidelines for water restrictions based on type of use and severity of drought – ranging from 15% to 60% cutbacks. In response to extremely low levels, the Lake Okeechobee Supply-Side Management methodology for allocating releases to lake users was also developed and initially implemented during this same time.

1985: SFWMD launches the “Stretch It” water conservation campaign on the lower west coast. Due to differences in underground geologic make-up, this area is more vulnerable to rainfall deficits and was experiencing water shortages every two years (*in contrast, regional shortages were averaging every 10 years.*)

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168 1988: SFWMD begins partnering with the U.S. Department of Agriculture-  
169 Natural Resources Conservation Service, the Florida Department of  
170 Agriculture and Consumer Services, and various soil and water  
171 conservation districts to share funding and technical expertise in support  
172 of Mobile Irrigation Labs (MILs). These specialized labs on wheels audit  
173 water use for agriculture and urban irrigation systems.

174 Since 2000, the eleven MILs currently in operation in South Florida have  
175 saved over 4.7 billion gallons per year. This is more than the average 4.5  
176 billion gallons per year used by the average Florida city of 70,000 people.

177 1990-91: Drought conditions prompt activation of residential, business and  
178 agricultural water use restrictions based on Water Shortage Plan and Lake  
179 Okeechobee Supply-Side Management. SFWMD introduces the “Turn It  
180 Off” call-to-action public information campaign to help convey  
181 mandatory restrictions. That campaign morphs into “Plant it Smart” - a  
182 longer-term outreach effort focusing on Xeriscape landscaping practices.  
183

184 1991: SFWMD formalizes rules for incorporating conservation into the Water  
185 Use Permit process.

- 186 • Local governments are required to adopt ordinances about hours for  
187 irrigation, Xeriscape landscaping, ultra-low volume fixtures and rain  
188 sensor devices.
- 189 • Utilities are required to create a water conservation-based rate  
190 structure, establish a leak detection and repair program, launch a  
191 public education program, and evaluate the feasibility of using  
192 reclaimed water.
- 193 • Commercial and industrial users are required to conduct water use  
194 audits, establish conservation awareness programs for employees, and  
195 implement cost-effective conservation measures.
- 196 • Golf courses are required to plant Xeriscape landscaping, use rain  
197 sensor devices, and limit irrigation to certain hours.
- 198 • Agricultural users are required to install micro irrigation systems for  
199 new citrus and container nursery projects.  
200

201 1997: SFWMD establishes initial Alternative Water Supply grant program to  
202 assist local governments with construction of projects that create  
203 alternative supplies to help supplement limited “traditional” supplies.  
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- 208 1999-2001: Drought/ water shortage, again prompts residential and agricultural  
209 water use restrictions per Water Shortage Plan. Based on “lessons  
210 learned” and resource needs, days and times for residential and business  
211 watering are modified based on water conditions. Methodology for Lake  
212 Okeechobee allocations also tweaked and modified.  
213
- 214 2002: The Florida Department of Environmental Protection (FDEP) launches the  
215 Florida Water Conservation Initiative to identify ways to improve  
216 efficiency in all categories of water use. The initiative called for the  
217 inclusion of conservation into the water supply planning, regulatory and  
218 utility facilities planning processes.  
219
- 220 2002: SFWMD creates the Water Savings Incentive Program (WaterSIP) cost-  
221 sharing program to assist in the funding of technology-based water  
222 conservation projects that help reduce water use. Examples include  
223 installation of rain shutoff devices for irrigation systems, plumbing  
224 retrofits and pressure stabilization valves.  
225
- 226 2003: In response to on-again/off-again water use restrictions, SFWMD adopts  
227 year-round water use guidelines for outdoor irrigation specific to lower  
228 west coast counties (*Lee, Collier, and Charlotte counties*). To inform the  
229 public, SFWMD launches “Water Wisely: Water Conservation Starts in  
230 Your Own Backyard” campaign.  
231
- 232 2004: FDEP, the five water management districts, the Florida Public Service  
233 Commission, the Utility Council of the American Water Works  
234 Association, the Florida Water Environment Association and the Florida  
235 Rural Water Association enter into an agreement to implement the  
236 recommendations of the Florida Water Conservation Initiative.  
237
- 238 Florida enacts House Bill 293, creating Section 373.227 of the Florida  
239 Statutes (F.S.), to encourage efficient, effective and affordable water  
240 conservation measures, and identifies the goals to be addressed as part of  
241 the program. In addition, it encourages conservation by utilities, and  
242 gives the statewide program legislative backing.
- 243 The cooperative effort evolves into *Conserve Florida*, which develops a  
244 standardized method of assessing water conservation programs and  
245 practices, established an information clearinghouse and pilot applications  
246 for water conservation, and developed an interactive web-based tool to  
247 measure and model conservation programs to achieve goals.

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248 2005: The Florida Legislature enacts the Water Protection and Sustainability  
249 Program which encourages cooperation between municipalities, counties  
250 and the water management districts in protecting and developing water  
251 supplies as well as promoting alternative water supply projects.

252  
253 Over the last three years, the program has provided \$212 million  
254 statewide to develop alternative water supplies, with close to \$64 million  
255 going to communities in South Florida. The SFWMD has added another  
256 \$50 million to this effort through its expanded Alternative Water Supply  
257 program.

258  
259 2006 Statewide drought and water shortage. At the Governor's direction, FDEP  
260 pulls together interagency group to develop short-term "Drought Action  
261 Plan." As follow-up to one of the recommended action steps, FDEP also  
262 convenes several work groups to consider implementing earlier *Conserve*  
263 *Florida* conservation measures that could provide immediate benefits. The  
264 effort yields the "Being Drought Smart - Recommendations for a Drought  
265 Resistant Florida" report.

266  
267 2007 South Florida is hardest hit by drought. Varying degrees of modified  
268 water use restrictions are imposed on Lake Okeechobee users and  
269 residents throughout all SFWMD 16 counties. For the first time, the  
270 agency declares Phase III (45%) cutbacks in multiple areas. New  
271 methodology for allocating lake water approved and put into place.  
272 Numerous other actions are undertaken to address the multi-year rainfall  
273 deficit and to assist communities in continuing to meet demands.

274  
275 Lake Okeechobee, the back-up water supply for 5 million Floridians,  
276 reaches its all-time record low of 8.82 NGVD.

277  
278 Calls for consistency and year-round measures prompt the SFWMD  
279 Governing Board to convene a Water Conservation Summit and a  
280 stakeholder process for exploring and developing a comprehensive water  
281 conservation program.

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283 2008 In response to the continuing water shortage, one-day-a-week landscape  
284 irrigation restrictions go into effect across the SFWMD region.

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291 **Where does Florida's water come from?**

292 Average annual rainfall in Florida is 54 inches, making it one of the wettest states in  
293 nation. However, most of the rain falls during just four summer months and much of it  
294 is "lost" to the natural hydrologic system through evaporation.

295  
296 Nearly two-thirds of Florida's freshwater is pumped from vast underground reservoirs  
297 called aquifers. The deep Floridan Aquifer, which spans the majority of the state,  
298 supplies 62 percent; the Biscayne Aquifer, located completely within the jurisdiction of  
299 the SFWMD (*underlies most of Miami-Dade and Broward counties; portions of Palm Beach and*  
300 *Monroe*), provides 17 percent; the remaining 21 percent is supplied by surficial and  
301 intermediate unnamed aquifers. The state's remaining one third of freshwater is  
302 supplied from surface waters, including lakes and rivers.

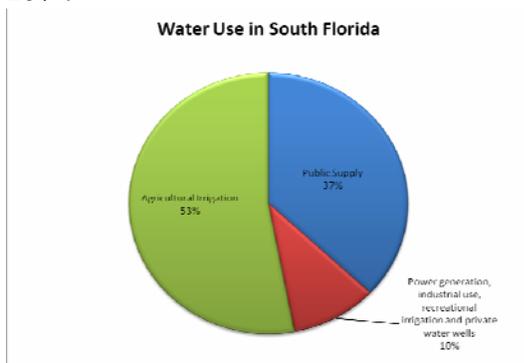
303  
304 In South Florida:

- 305 • Most (*approximately 90%*) of the water used in homes and businesses comes from  
306 groundwater sources: wells drilled into the underground aquifers; the remainder  
307 comes from surface water sources.
- 308 • Both surface and groundwater supplies are replenished primarily by rainfall.
  - 309 ○ Surface water (*in rivers, canals, wetlands and lakes*) helps store rainfall in the  
310 short term, and thereby lessen the dangers of flooding, while also working  
311 to gradually replenish ground water and prevent saltwater intrusion.
- 312 • About 70% of yearly average rainfall comes during the rainy season (*June - Nov*)
- 313 • Local government water utilities (*counties and cities*) treat and provide water to  
314 most homes and businesses.
  - 315 ○ Water use for commercial purposes, such as public supply, industrial  
316 purposes and irrigation, is regulated by the SFWMD through Water Use  
317 Permits. Applicants must request the quantity, source and purpose of the  
318 water, as well as provide detailed technical information and plans for  
319 conservation and recycling. Under state law, water use permit requests  
320 must meet a three part "reasonable and beneficial" test - water use must  
321 not interfere with other water uses in the vicinity, will not harm the  
322 environment and is consistent with the public interest.
- 323 • Lake Okeechobee, the center of the system, serves a number of purposes:
  - 324 ○ Primary drinking water source for lakeside communities
  - 325 ○ Back-up irrigation water source for agriculture
  - 326 ○ Back-up groundwater replenishment source for lower east coast
  - 327 ○ Natural ecologic environment for fish, plants and wildlife
  - 328 ○ Recreational and commercial fishing and boating resource
- 329 • Heavy rainfall along the coast, where surface storage is very limited and flooding  
330 can threaten quickly, contributes very little to overall regional storage.
- 331 • Extended periods of low rainfall, combined with high evaporation, impacts both  
332 surface and groundwater levels; high threat of saltwater intrusion into  
333 underground freshwater supplies.

334 **Water Use in South Florida**

335 Floridians use approximately 6.5 billion gallons of freshwater every day. According to  
336 the latest U.S. Geological Survey report, South Florida residents average 179 gallons per  
337 person per day – the highest usage in the state. Half of that goes to outdoor  
338 irrigation...and more than 50% of water typically applied to lawns is lost to evaporation  
339 or run-off due to overwatering. With 40% of the state’s population and a sizable  
340 agriculture industry, South Florida consumes more than half the state total – 3.4 billion  
341 gallons.

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343 Within the South Florida Water Management District’s 16-county region, agricultural  
344 irrigation accounts for 53% and public supply accounts for 37%. Power generation,  
345 industrial use, recreational irrigation and private water wells comprise the remaining  
346 10%.



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349 By 2025, demand for freshwater is projected to increase by 22 percent to 4.3 billion  
350 gallons per day. As agricultural land is replaced with urban development, public  
351 supply is expected to overtake farming as the number one use, consuming an  
352 anticipated 54% of the total. While agricultural is expected to be a smaller percentage of  
353 the overall demand – it still represents a huge slice of the water use pie and continues to  
354 be a major economic force within the state.

355 In total, the demand for urban and agricultural water uses is projected to increase  
356 significantly over the next 20 years. These water demands must be met without  
357 causing harm to our environment and water resources. Regional water supply plans  
358 concluded current District water sources will not be sufficient to meet projected water  
359 demands over the next 20 years. However, these plans further concluded that with  
360 appropriate management and diversification of water supply sources -- including water  
361 conservation – there is sufficient water to meet the water needs during a 1-in-10  
362 drought condition through 2020.

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367 **Beyond Drought - A Water Conservation Program for South Florida**

368 In 2006 and 2007, drought conditions permeated the entire southeastern part of the  
369 country. Central and southern Florida was particularly hard hit. The South Florida  
370 Water Management District proactively established an emergency response Incident  
371 Command with more than 20 drought management teams. Actions were taken to  
372 conserve as much water as possible in the regional water management system, and  
373 progressively tighter agricultural and urban water use restrictions were imposed  
374 throughout the 16-county area. The agency worked closely with its utility, drainage  
375 district and local government partners to implement and enforce legal water shortage  
376 orders.

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378 Based on records dating back to 1932, 2006 and 2007 were the driest back-to-back  
379 calendar years on record – creating a combined deficit of more than 20 inches.  
380 Dependent on rainfall to replenish supplies, Lake Okeechobee, the 730-square mile  
381 “liquid heart” of the system, plunged to its all-time record low of 8.82 feet NGVD on  
382 July 2, 2007. As groundwater levels dropped, saltwater threatened to move farther  
383 inland. District actions remained focused on efficiently and effectively managing the  
384 region’s limited water supplies for the benefit of both people and the environment.

385 In October 2007, with no immediate end in sight for the multi-year severe regional  
386 water shortage, the South Florida Water Management District Governing Board  
387 unanimously adopted a resolution calling for a Water Conservation Summit. The  
388 purpose of the public forum was to draw insight from the experience of other  
389 organizations that had developed and implemented successful year-round water  
390 conservation programs in other regions of the country. The Summit would also serve  
391 as the kick-off for the development of a comprehensive water conservation program.

392 ***A Collaborative Approach***

393 Continuing the agency policy of seeking stakeholder involvement in addressing key  
394 water resource issues and recognizing the importance of partnerships in effectively  
395 implementing plan components, the Governing Board directed that a participatory  
396 approach be utilized in developing the conservation program.  
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399 Hosted by the Governing Board’s [Water Resources Advisory Commission \(WRAC\)](#), a  
400 public [Water Conservation Summit](#) was held on December 4, 2007, to gather  
401 information and input from local, state and national experts on the components of an  
402 achievable, meaningful and lasting water conservation program. Participants  
403 highlighted case studies on water conservation programs and identified practical  
404 components, successes and obstacles that the District may face in design and  
implementation.

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407 The Summit also launched an intensive stakeholder-driven process to gather input and  
408 consensus from a wide variety of interests for development of a comprehensive plan.  
409 The District identified and assembled a diverse group of 21 members representing 13  
410 water use groups and interests, including agriculture, business and industry,  
411 developers, the environment, local government and public utilities.

412  
413 Led by a professional facilitator, the stakeholder group met monthly from December  
414 2007 through March 2008 with the goal of assisting the District in the development of a  
415 proactive and achievable water conservation program. Input and suggestions from the  
416 stakeholder representatives were considered and incorporated into the recommended  
417 plan of action.

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420 **Stakeholder participants**

421 Facilitator: Janice M. Fleischer, J.D., Principal, FLASH Resolutions

422

423 Agriculture:

- 424 • Tom MacVicar, P.E., President, MacVicar, Federico & Lamb, Inc.
- 425 • Charles M. Shinn III, Asst. Director, Government & Community Affairs - Florida  
426 Farm Bureau Federation

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428 Developers:

- 429 • Susan Watts, Bonita Bay Group

430

431 Environmental Organizations:

- 432 • Jacquie Weisblum, Everglades Team Leader, Audubon of Florida
- 433 • Margaret McPherson, Vice President, The Everglades Foundation

434

435 Hospitality and Service Industries:

- 436 • Rick Hawkins, Director of Materials Management, The Breakers Hotel & Resort
- 437 • Armando Rodriguez, Director of the Environmental Affairs Division for Walt  
438 Disney World Co.

439

440 Industrial and Manufacturing:

- 441 • R. Bryan Fennell, General Manager II, Florida Power & Light, Co.

442

443 Local Government:

- 444 • Tammara "Tammy" Hall, County Commissioner, District 4 - North Fort Myers  
445 and North Cape Coral
- 446 • Mark Hull, Florida League of Cities; Village of Golf (Boynton) Manager;  
447 Hypoluxo City Councilman
- 448 • Commissioner Kristin Jacobs, Broward County Board of County Commissioners
- 449 • Anne Murray, Martin County, County Hydrogeologist

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450 Nursery and Landscape Business:

- 451 • Dave Self, President, Board of Directors, Florida Nursery Growers & Landscape  
452 Association

453

454 Property Owners/Homeowners Associations:

- 455 • Andrew Lester, Regional President, The Continental Group

456

457 Parks and Recreation:

- 458 • Eric Call, Assistant Director, Palm Beach County Parks & Recreation  
459 Department; Member, Florida Recreation & Parks Association

460

461 Small Businesses:

- 462 • Kevin Cavaoli, American Society of Landscape Architects; Vice President,  
463 Florida Irrigation Society; Hoover Pumping Systems

464

465 Sports and Leisure (golf courses):

- 466 • Joel Jackson, CGCS, Executive Director, Florida Golf Course Superintendents  
467 Association

468

469 Utilities:

- 470 • Randolph Brown, City of Pompano Beach, Utilities Director  
471 • Paul Mattausch, Director, Collier County Public Utilities Division  
472 • John W. Renfrow, Director, Miami-Dade Water and Sewer Department

473

474 Wholesale Water Purchasers:

- 475 • John Stunson, City Manager, Oakland Park, Florida

476

477 State Agency Technical Resources:

- 478 • Camilo Gaitan, Senior Water Resources Engineer, Office of Agricultural Water  
479 Policy, Florida Department of Agriculture and Consumer Services  
480 • Vicki Morrison, Principal Planner, Division of Community Planning, Florida  
481 Department of Community Affairs  
482 • Tom Swihart, Environmental Administrator, Office of Water Policy, Florida  
483 Department of Environmental Protection

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490 **Governing Board Resolution**

SOUTH FLORIDA WATER MANAGEMENT DISTRICT

RESOLUTION NO. 2007- 1014

**A RESOLUTION OF THE GOVERNING BOARD OF THE SOUTH FLORIDA WATER MANAGEMENT DISTRICT AUTHORIZING A WATER CONSERVATION SUMMIT FOR THE PURPOSE OF EXPLORING AND CREATING A COMPREHENSIVE WATER CONSERVATION PROGRAM FOR SOUTH FLORIDA; PROVIDING AN EFFECTIVE DATE.**

**WHEREAS**, the Governing Board of the South Florida Water Management District recognizes the need for the development and implementation of a comprehensive water conservation program for South Florida; and

**WHEREAS**, the Governing Board of the South Florida Water Management District also recognizes that a comprehensive water conservation program would include regulatory, voluntary, incentive-based and education components; and

**WHEREAS**, the Governing Board of the South Florida Water Management District understands the importance of consensus, collaboration and public input into the development of an achievable, workable and enduring water conservation program for South Florida; and

**WHEREAS**, the Governing Board of the South Florida Water Management District recognizes extreme weather conditions have resulted in severe water supply shortage issues in South Florida; and

**WHEREAS**, the Governing Board of the South Florida Water Management District directs the Executive Director of the South Florida Water Management District to create a second water summit to be hosted by the Water Resources Advisory Commission and focused specifically on developing a comprehensive District-wide water conservation program; and

**WHEREAS**, the Summit will provide the foundation for a series of facilitated stakeholder meetings hosted by the Water Resources Advisory Commission to gain input toward a program that is built on collaboration and cooperation; and

**WHEREAS**, the stakeholder group should include representatives from a diverse array of regional water users and public interests, including, but not limited to: local governments, agriculture, nursery/landscape, utilities, developers, property owners and homeowner associations, environmental organizations, parks and recreation, sports and leisure, tourism, small business, manufacturing, hospitality and the service industry; **now therefore**

**BE IT RESOLVED BY THE GOVERNING BOARD OF THE SOUTH FLORIDA WATER MANAGEMENT DISTRICT:**

**Section 1.** The Governing Board of the South Florida Water Management District hereby authorizes a water

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conservation summit hosted by the Water Resources Advisory Commission for the purpose of exploring and creating a comprehensive water conservation program for South Florida.

**Section 2.** The Governing Board of the South Florida Water Management District hereby directs the Executive Director of the South Florida Water Management District to assemble a diverse array of regional stakeholders that will work together to provide input toward formulating and implementing a comprehensive District-wide water conservation program

**Section 3.** This resolution shall take effect immediately upon adoption.

**PASSED and ADOPTED** this 11th day of October, 2007.

(Corporate Seal)



ATTEST:

By: *Jacqui McGarty*  
District Clerk

SOUTH FLORIDA WATER MANAGEMENT DISTRICT BY ITS GOVERNING BOARD

By: *[Signature]* 10-17-07

Chair Person

APPROVED AS TO FORM:

By: *[Signature]*  
Office of Counsel

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## A 2020 Water Conservation Program for South Florida

### Vision

*Create and implement a comprehensive and enduring water conservation program for South Florida. This successful program achieves a measurable reduction in water use, inspires governments, citizens and businesses to value and embrace a conservation ethic and serves as a national model for water conservation.*

### Core Values

- *Sustainable;*
- *Science-based;*
- *Measurable;*
- *Goal-based;*
- *Environmentally-protective; and*
- *Equitable.*

### Program Initiatives and Strategies

To realize the vision of the South Florida Water Management District’s water conservation program, the plan is organized into three program initiatives: **regulatory, voluntary and incentive-based**, and **education and marketing**. Each of these major initiatives has a corresponding goal, implementation strategies and a schedule of action steps.

Built on a set of core values, the plan’s goals and implementation strategies are designed to establish a proactive water conservation program that ensures, in conjunction with other District initiatives, an adequate and reliable supply of water to both protect the health of the ecosystem and satisfy current and future water demands.

### Implementation

Developing a reliable and sustainable funding strategy is essential for institutionalizing the components of the water conservation program. To this end and to ensure Floridians realize the most benefit from their investment in water conservation, implementation of strategies will take into account cost, ease of implementation, and potential water savings. Based on financial and stakeholder support, the program will be implemented over ten years through immediate, short-term, mid-term and long-term action steps. The program recognizes and bases decisions on the premise that water conservation is the least costly and most readily available source of water.

540 **Regulatory Initiatives**

541 From consumptive use permitting and local landscape ordinances to year-round  
542 irrigation conservation measures, rules and regulations have a role in advancing water  
543 use efficiency, promoting water conservation as the least-cost source of new water and  
544 protecting the natural environment. Reducing water use through a combination of  
545 regulations and voluntary initiatives will help to sustain our limited water supplies.

546  
547 Regulatory tools can increase water use efficiency and reduce water use by permitted  
548 water users. Chapter 373, Florida Statutes, requires a water use permit for all ground or  
549 surface water use. Permit allocations are evaluated on what has come to be known as  
550 the “three-pronged test:” that any new use be reasonable and beneficial, in the public  
551 interest, and not interfere with an existing, legal user. The requirements for permit  
552 issuance are found in the **Water Use Basis of Review and Rules 40E-2 and 40E-20 of**  
553 **the Florida Administrative Code**. Associated with water use permits are standard and  
554 particular conditions for permit issuance. Incorporating additional conservation  
555 practices into water use permits could lead to significant water savings.

556  
557 Together with State regulations, local government ordinances can also result in  
558 reductions of water use through landscape irrigation measures, assuring the planting of  
559 low-water-using vegetation and incorporating a sensible water use ethic for  
560 communities.

561  
562 ***Goal***

563 In partnership with utilities and local governments, adopt and implement goal-based  
564 water conservation regulations, local ordinances and utility practices to promote water  
565 efficiencies, further advance water management and achieve measurable reductions in  
566 public and private water use.

567  
568 ***Strategies***

569  
570 **I-A Public Water Supply**

- 571 1. Require utilities to establish conservation plans with a numeric goal for water  
572 savings that is achievable.
- 573 a. *Short-Term Action Step:* Modify the District’s Water Use Basis of Review  
574 through rulemaking to require utility-specific goal-based conservation  
575 plans.
  - 576 b. *Short-Term Action Step:* Use the Conserve Florida Guide as a tool to assist  
577 utilities in developing a conservation plan to achieve goals.
  - 578 c. *Short-Term Action Step:* Provide technical assistance to utilities for using  
579 the Conserve Florida Guide.
  - 580 d. *Mid-Term Action Step:* Work with utilities to develop goal-based  
581 conservation plans in three phases – large, medium, then small utilities.

582

- 583  
584 2. Require utilities to adopt rate structures that promote conservation as part of their  
585 conservation plan to achieve their water savings goal.  
586 a. *Short-Term Action Step:* Work with utilities to identify and define  
587 minimum standards for water conservation rate structures.  
588 b. *Short-Term Action Step:* Modify the District’s Basis of Review to adopt  
589 minimum standards for water conservation rate structures.  
590  
591 3. Require utilities to adopt hardware programs as part of their conservation plan to  
592 achieve their water savings goal.  
593 a. *Short-Term Action Step:* Work with utilities to develop and implement leak-  
594 detection programs when “unaccounted-for water” exceeds permit  
595 requirements.  
596 b. *Short-Term Action Step:* Adopt a consistent definition for the term  
597 “unaccounted-for water.”  
598 c. *Short-Term Action Step:* Develop a database of “unaccounted-for water” by  
599 utility throughout the District.  
600 d. *Mid-Term Action Step:* Work with utilities to determine and evaluate water  
601 savings from potential service-area-wide retrofit programs and implement  
602 programs within the service area where economically feasible.  
603 e. *Short-Term Action Step:* Develop guidelines and technical assistance for  
604 determining water savings of retrofit programs.  
605

#### **I-B Agricultural Irrigation**

- 607 4. Maintain current irrigation requirements for new agriculture development.  
608 a. *Immediate Action Step:* Continue to require new agricultural development  
609 to incorporate accepted and crop-specific standard irrigation systems as  
610 part of the Water Use Permitting process.  
611

#### **I-C Landscape Irrigation**

- 613 5. Establish district-wide requirements for consistent, year-round landscape irrigation.  
614 a. *Immediate Action Step:* Complete rule development and adopt a year-round  
615 landscape irrigation rule.  
616 b. *Immediate Action Step:* Develop a model year-round landscape irrigation  
617 ordinance for adoption by local governments.  
618 c. *Immediate Action Step:* Provide information and conduct workshops for  
619 local governments and enforcement officials regarding the landscape  
620 irrigation rule.  
621  
622 6. Require local governments, where applicable, to update local ordinances to  
623 incorporate landscape designs consistent with Florida Friendly landscapes.  
624 a. *Short-Term Action Step:* Modify the District’s Water Use Basis of Review to  
625 incorporate landscape standards consistent with Florida-Friendly design.

- 626                    b. *Mid-Term Action Step:* Work with local governments to adopt a model  
627                    landscape ordinance consistent with the “Landscape Irrigation and  
628                    Florida-Friendly Design Committee” (section 373.228, Florida Statutes).  
629

630 **I-D Industrial, Commercial and Institutional Uses**

- 631 7. Improve reporting of compliance with permit requirements by Industrial,  
632 Commercial and Institutional users.

- 633                    a. *Short-Term Action Step:* Expand the District’s web-based e-permitting tool  
634                    to facilitate timely self-reporting of the implementation of conservation  
635                    plans for Industrial, Commercial and Institutional Uses.  
636

637 **I-E Golf Courses**

- 638 8. Maintain current technology and landscape requirements in water conservation  
639 plans for existing golf courses.

- 640                    a. *Short-Term Action Step:* Confirm that appropriate technology, such as rain  
641                    sensors or soil moisture sensors, are installed and operational on existing  
642                    golf courses.  
643

- 644 9. Use technology and design to improve water conservation for golf courses.

- 645                    a. *Short-Term Action Step:* Modify the District’s Water Use Basis of Review to  
646                    require new golf courses and those requesting additional water to use  
647                    landscape design consistent with Florida Friendly landscaping.

- 648                    b. *Short-Term Action Step:* Modify the District’s Water Use Basis of Review to  
649                    require new golf courses and those requesting additional water to install  
650                    integrated rain sensor/weather station systems.  
651

- 652 10. Improve reporting of compliance with permit requirements by golf courses.

- 653                    a. *Short-Term Action Step:* Expand the District’s web-based e-permitting tool  
654                    to facilitate timely self-reporting of the implementation of conservation  
655                    plans for golf courses.  
656

657 **Voluntary and Incentive-Based Initiatives**

658 Voluntary and incentive-based initiatives, including financial assistance, technical  
659 assistance and recognition programs, often surpass the effectiveness of the traditional  
660 command and control approach to business, industry and individual practices. Rather  
661 than solely relying on rules, cooperative public-private partnerships can supplement  
662 regulations and build goodwill, leverage investments, bring wider environmental  
663 benefits and significantly improve the quality of life of our communities. In today's  
664 environment, businesses along with governments and consumers recognize the cost-  
665 savings associated with best management and conservation practices. Consequently,  
666 individuals and commercial enterprises are voluntarily changing behaviors and  
667 adopting environmentally-conscious and best management practices not only for the  
668 social value but also because of the economic returns.

669  
670 ***Goal***

671 Expand voluntary government and industry partnerships and strengthen economic  
672 incentives to encourage public and private investments in water conservation. Create  
673 and make available to water using sectors incentive programs and technical assistance  
674 for water conservation projects and programs.

675  
676 ***Strategies***

677  
678 **II-A Leading by Example**

- 679 1. Reduce water use at District facilities.
- 680 a. *Short-Term Action Step:* Conduct water audits, update water conservation  
681 plans and implement recommendations for District facilities.
- 682
- 683 2. Reduce water use at public facilities.
- 684 a. *Mid-Term Action Step:* Provide technical assistance to State and local  
685 governments, including school districts and park and recreation  
686 programs, to develop and implement water audit programs and  
687 conservation plans for public facilities.
- 688
- 689 3. Use recognition programs to encourage water conservation beyond regulatory  
690 requirements.
- 691 a. *Short-Term Action Step:* Identify and support existing successful water  
692 conservation recognition programs to reduce overlap and duplication.
- 693 b. *Short-Term Action Step:* Provide technical assistance to support and expand  
694 water conservation recognition programs, such as the Florida Department  
695 of Environmental Protection's Green Lodging Program which promotes  
696 environmentally conscientious lodging establishments and the St. Johns  
697 River Water Management District's Florida Water Star which offers  
698 resources and incentives to builders and home buyers who value water  
699 efficiency in new home construction.

- 700 c. *Mid-Term Action Step*: Work with industries and associations to develop
- 701 criteria and standards for new recognition programs to reward water
- 702 users that achieve water savings through conservation. Recognition
- 703 programs may include utilities, government, commercial and industrial
- 704 users, golf courses, builders, restaurants and lodging establishments.
- 705 d. *Mid-Term Action Step*: Develop or support existing water conservation
- 706 programs that designate and recognize “Florida Water Wise” homes,
- 707 communities or cities similar to Certified Florida Yards.
- 708 e. *Mid-Term Action Step*: Explore integration of water audits into
- 709 complementary recognition programs and initiatives for energy
- 710 conservation, hurricane mitigation and green building.

## 712 **II-B Financial Incentives**

- 713 4. Strengthen existing and identify new financial incentives for water conservation.
- 714 a. *Immediate Action Step*: Support continued funding and technical assistance
- 715 for development of alternative water supplies including reclaimed water,
- 716 use of brackish and/or seawater sources, and aquifer storage and
- 717 recovery (ASR).
- 718 b. *Short-Term Action Step*: Identify opportunities to expand the Water Savings
- 719 Incentive Program.
- 720 c. *Short-Term Action Step*: Work with local governments and other entities to
- 721 increase funding for agricultural and urban mobile irrigation labs.
- 722 d. *Short-Term Action Step*: Identify opportunities for public/private
- 723 partnerships to fund water conservation projects and programs.
- 724

## 725 **II-C Alternative Water Sources**

- 726 5. Encourage the diversification of water supply and reduce dependence on regional
- 727 freshwater resources through development of alternative water supplies.
- 728 a. *Immediate Action Step*: Assist municipalities, utilities and other water users
- 729 with the installation and expansion of reclaimed water systems, where
- 730 appropriate.
- 731 b. *Immediate Action Step*: Include special considerations in the year-round
- 732 landscape irrigation rule for water users that utilize an alternative water
- 733 supply.
- 734 c. *Immediate Action Step*: Allow special considerations during water
- 735 shortages for water users that utilize an alternative water supply.
- 736

## 737 **II-D Public Water Supply**

- 738 6. Work with individual utilities to improve implementation of water conservation
- 739 plans.
- 740 a. *Immediate Action Step*: Encourage utilities to establish a water conservation
- 741 officer or empower a senior staff member to facilitate implementation of

742 the conservation plan and to serve as the primary liaison with the District  
743 to improve coordination.

744 b. *Short-Term Action Step:* Work with utilities to implement water audit  
745 programs and water conservation plans for high volume water users.

746

747 7. Work collaboratively with utility representatives to develop regional opportunities  
748 to enhance water conservation.

749 a. *Short-Term Action Step:* Establish a working group of utility  
750 representatives to promote information sharing and best management  
751 practices, which will facilitate implementation of individual water  
752 conservation plans.

753

754 8. Encourage utilities to use the most effective and efficient water conservation  
755 technologies.

756 a. *Short-Term Action Step:* Encourage utilities to use automatic line flushing  
757 devices to reduce water waste during maintenance operations for water  
758 quality.

759 b. *Short-Term Action Step:* Encourage utilities to use automated meter  
760 reading devices to provide real-time identification of high water usage.

761

## 762 **II-E Agricultural Irrigation**

763 9. Collaborate with the Florida Department of Agriculture and Consumer Services, the  
764 University of Florida's Institute of Food and Agricultural Sciences and the agricultural  
765 industry to implement agricultural water conservation programs and best management  
766 practices.

767 a. *Immediate Action Step:* Utilize agricultural mobile irrigation labs to conduct  
768 follow-up inspections to confirm implementation and determine  
769 effectiveness of water conservation recommendations.

770 b. *Short-Term Action Step:* Work with the agricultural industry and agencies  
771 to expand the availability of agricultural mobile irrigation labs.

772 c. *Immediate Action Step:* Encourage higher efficiency agricultural irrigation  
773 systems appropriate for the crop type.

774 d. *Mid-Term Action Step:* Develop a District-wide database to catalog soil  
775 type, primary crop, irrigation method and source of irrigation supply for  
776 the major agricultural areas within the District.

777 e. *Mid-Term Action Step:* Identify and promote new, more efficient irrigation  
778 technologies and best management practices for agriculture.

779 f. *Long-Term Action Step:* Conduct a pilot study using existing estimating  
780 methods to compare and improve agricultural water use measurement  
781 technologies.

782

## 783 **II-F Landscape Irrigation**

784 10. Work with utilities and local governments to maximize the use of urban mobile  
785 irrigation labs.

- 786 a. *Short-Term Action Step:* Work with utilities and local governments to  
787 expand the availability of urban mobile irrigation labs.  
788 b. *Short-Term Action Step:* Utilize urban mobile irrigation labs to conduct  
789 follow-up inspections to confirm implementation and determine  
790 effectiveness of water conservation recommendations.  
791 c. *Mid-Term Action Step:* Promote indoor conservation by offering simple,  
792 high-efficiency indoor devices with information on installation as a  
793 complement to urban mobile irrigation labs.  
794

795 11. Identify alternative practices to improve water conservation for landscape  
796 irrigation.

- 797 a. *Short-Term Action Step:* Explore the use of cisterns or other rain collection  
798 devices to replace the use of potable water for irrigation and supplement  
799 other sources of water.  
800 b. *Short-Term Action Step:* Collaborate with the University of Florida's  
801 Institute of Food and Agricultural Sciences on research of turf grass and  
802 evaluations of science based irrigation methods.  
803

## 804 **II-G Industrial, Commercial and Institutional Water Uses**

805 12. Work with Industrial, Commercial and Institutional water users to reduce water  
806 use.

- 807 a. *Short-Term Action Step:* Identify an appropriate entity to implement a  
808 water audit program for Industrial, Commercial and Institutional water  
809 users.  
810

811 13. Reduce water use for air-conditioning and cooling systems for Industrial,  
812 Commercial and Institutional water users.

- 813 a. *Short-Term Action Step:* Work with the Water Use Efficiency Division of the  
814 Florida Section of the American Waterworks Association to refine and  
815 recommend water conservation methods to reduce water use in cooling  
816 towers for Industrial, Commercial and Institutional water users.  
817 b. *Short-Term Action Step:* Collaborate with industrial, commercial and  
818 institutional water users to implement reuse in cooling towers.  
819 c. *Mid-Term Action Step:* Create a web based tool to demonstrate potential  
820 water and financial savings by reducing water use in cooling tower  
821 systems.  
822 d. *Long-Term Action Step:* Encourage retrofit or replacement of inefficient air-  
823 conditioning and cooling tower systems for Industrial, Commercial and  
824 Institutional water users.  
825

## 826 **II-H Golf Courses**

- 827 13. Work with golf courses to enhance water conservation.  
828       a. *Short-Term Action Step:* Encourage the most appropriate water efficient  
829       ground covers for golf courses.  
830       b. *Short-Term Action Step:* Encourage existing golf courses to use landscape  
831       design consistent with Florida Friendly landscaping.  
832

833 **II-I New Development**

- 834 15. Work with contractors, state agencies and local governments to promote the use of  
835       best available water efficient technologies in new development.  
836       a. *Short-Term Action Step:* Encourage Leadership in Environmental Energy  
837       and Design (LEED) certification of new development.  
838       b. *Short-Term Action Step:* Develop and provide a model ordinance to local  
839       governments requiring new development to install high efficiency water  
840       saving devices that go beyond requirements of the Florida Building Code.  
841

842 **II-J Hospitality**

- 843 16. Work with the Florida Department of Business and Professional Regulation, local  
844       governments and hospitality associations to improve water efficiency at restaurants and  
845       lodging establishments.  
846       a. *Short-Term Action Step:* Assist hospitality associations in creating a water  
847       auditing program for restaurants and lodging establishments.  
848       b. *Immediate Action Step:* Encourage the use of pre-rinse spray valves and  
849       other high-efficiency devices at restaurants and lodging establishments.  
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**III. Education and Marketing Initiatives**

Education, outreach and social marketing are essential for accomplishing a measurable change in water conservation and instilling a lasting conservation ethic in South Florida businesses and communities. Public information and involvement, along with education partnerships and support for existing successful local and statewide programs, are also critical to the success of South Florida’s water conservation program. Targeted education, public information and social marketing provide opportunities for building a conservation culture, instilling a stewardship ethic and permanently reducing individual, industrial and commercial water use.

***Goal***

Collaborate and coordinate with regional partners to educate and inform residents and visitors about their environmental, economic and social responsibility, foster a culture of conservation and position the State of Florida as leader in water conservation.

***Strategies***

**III-A School-Based Education**

1. Build on existing programs and initiatives to institute educational water conservation programs in public schools, educate school-aged children on the benefits of water conservation and create a consciousness for conservation for future generations.
  - a. *Immediate Action Step:* Inventory existing elementary, middle and high school-based education programs in the district, across the state and throughout the nation.
  - b. *Immediate Action Step:* Expand the District’s water conservation web site ([www.savewaterfl.com](http://www.savewaterfl.com)) to include a one-stop repository where teachers and students can download existing water conservation educational resources.
  - c. *Immediate Action Step:* Through the school districts, inform teachers and students about the availability of water conservation educational resources.
  - d. *Short-Term Action Step:* Work collaboratively with local governments and other regional organizations to identify, promote, support and, where appropriate, expand the reach of existing and successful school-based water conservation education curriculums and lessons, including the Great Water Odyssey, The Everglades: An American Treasure, Project WET, WET in the City, NatureScape and others.
  - e. *Short-Term Action Step:* Expand the District’s Great Water Odyssey educational program. The computer-based interactive curriculum for 3rd, 4th and 5th grade students is an existing multidisciplinary education experience that correlates to Florida's Sunshine State Standards with a focus on water conservation.

- 913 f. *Short-Term Action Step:* Offer Great Water Odyssey teacher training  
914 workshops annually in each of the District’s sixteen counties to promote  
915 water conservation in schools.
- 916 g. *Mid-Term Action Step:* Evaluate the effectiveness of the Great Water Odyssey  
917 curriculum in supporting the educational requirements and goals of the  
918 Florida Comprehensive Assessment Test (FCAT).
- 919 h. *Mid-Term Action Step:* Create a Water-Wise School program for high schools  
920 and ambassadorship opportunities by tapping into required community  
921 service hours. The program would encourage students to follow water  
922 conservation criteria and conduct water conservation indoor retrofits and  
923 outdoor landscaping measures to receive Water-Wise designation.  
924

### 925 **III-B Public Information**

- 926 2. Collaborate and coordinate with local governments and regional partners to inform  
927 and educate elected and community leaders, businesses and industry, along with  
928 visitors, permanent and seasonal residents, on the benefits of water conservation.
- 929 a. *Immediate Action Step:* Work collaboratively with local governments and other  
930 state, local and regional organizations and subject-matter experts to inventory  
931 and utilize water conservation public information materials and “how to”  
932 guides, including publications on water efficiency, water conservation, the  
933 use of water saving products, Florida-friendly landscaping and water  
934 efficient urban enhancements.
- 935 b. *Immediate Action Step:* Work with the U.S. Environmental Protection Agency  
936 (EPA) to become a WaterSense promotional partner; encourage local  
937 governments to become WaterSense promotional partners. EPA is building  
938 WaterSense as a national brand for water efficiency that encourages water-  
939 efficient behaviors and the purchase of quality products that use less water.  
940 Becoming a promotional partner provides free marketing tools and resources  
941 and strengthens water-efficiency outreach efforts by utilities, state and local  
942 governments with a credible, national brand and a strong, consistent  
943 message.
- 944 c. *Immediate Action Step:* Continue to develop the District’s water conservation  
945 web site ([www.savewaterfl.com](http://www.savewaterfl.com)) as a central repository and portal for public  
946 information on water conservation and existing programs.
- 947 d. *Immediate Action Step:* Continue to work in partnership with the news media  
948 and local government programming to assist in the dissemination of water  
949 conservation public information.
- 950 e. *Immediate Action Step:* Partner with the University of Florida’s Institute of  
951 Food and Agricultural Sciences (IFAS), the Florida Department of  
952 Environmental Protection and the State’s Water Management Districts to  
953 create, support, promote and distribute one comprehensive guide to Florida  
954 friendly landscaping.

- 955 f. *Short-Term Action Step:* Partner with the University of Florida’s IFAS  
956 Extension -- a partnership between state, federal, and county governments to  
957 provide scientific knowledge and expertise to the public -- to utilize an  
958 existing network of scientists, educators and volunteers, support Florida-  
959 friendly landscaping programs and educate the public about water-wise  
960 irrigation practices.
- 961 g. *Short-Term Action Step:* Work with nursery and grower commodity groups to  
962 develop water wise signage for Florida-Friendly plants in nurseries and other  
963 retail outlets, promote their benefits and increase consumer knowledge and  
964 success in plantings.
- 965 h. *Short-Term Action Step:* Work collaboratively with the Governor’s Office, the  
966 Department of Environmental Protection, water management districts, local  
967 governments and other appropriate organizations to encourage consistency  
968 in the branding, messaging and public information collateral used to promote  
969 water use efficiency and conservation across the state.
- 970 i. *Short-Term Action Step:* Based on any identified public information needs,  
971 develop any additional necessary collaterals in collaboration and partnership  
972 with the Department of Environmental Protection, water management  
973 districts, local governments and other appropriate organizations; ensure  
974 public information materials can be readily adapted and adopted and  
975 replicated in all regions of the state.
- 976 j. *Short-Term Action Step:* Maximize resources by engaging community colleges  
977 and university students in the development of water conservation public  
978 service announcements for broadcast, if needed.
- 979 k. *Short-Term Action Step:* Collaborate and coordinate with local governments to  
980 develop consistent and effective enforcement through education and public  
981 information to promote compliance with landscape irrigation restrictions.
- 982 l. *Short-Term Action Step:* Identify utilities that are implementing informative  
983 billing; work with large, medium and small utilities to phase in informative  
984 billing on water use, where possible.
- 985

### 986 **III-C Professional Development**

- 987 3. Offer voluntary training and certifications, where appropriate, to business and  
988 industry sectors (e.g. turf and landscape industries, plumbing, general contractors,  
989 educators, HVAC) on implementing conservation changes, water efficiencies and  
990 best management practices.
- 991 a. *Immediate Action Step:* Work with the U.S. Environmental Protection Agency  
992 (EPA) to encourage landscape irrigation professionals (including irrigation  
993 designers, irrigation contractors, golf irrigation auditors, landscape irrigation  
994 auditors and landscapers) to become certified through a WaterSense labeled  
995 certification program and to implement water-efficiency best practices  
996 according to specifications set by EPA in specific professional categories.

- 997           b. *Immediate Action Step:* Work with the U.S. Environmental Protection Agency  
998           to promote WaterSense landscape irrigation professionals including  
999           designers, auditors, and installation and maintenance professionals that are  
1000           certified to implement water efficiency best practices.  
1001           c. *Short-Term Action Step:* Inventory existing programs in the district, across the  
1002           state and throughout the nation.  
1003           d. *Mid-Term Action Step:* Work with professional organizations, including the  
1004           Florida Section American Waterworks Association and the Alliance for Water  
1005           Efficiency, to develop conservation courses for CEUs, and other continuing  
1006           educational credits for water conservation professionals, planners, design,  
1007           building and landscape professionals.  
1008           e. *Long-Term Action Step:* Partner with trade schools, colleges and service  
1009           industries to provide water conservation certifications to professionals.  
1010

### 1011 **III-D Social Marketing**

- 1012 4. Develop and implement an effective social marketing campaign that inspires an  
1013 enduring water conservation ethic. Different to public information, social marketing  
1014 uses the principles of commercial marketing to influence social behaviors and bring  
1015 about permanent behavior change.  
1016           a. *Immediate Action Step:* Identify government, corporate and institutional  
1017           partners.  
1018           b. *Immediate Action Step:* Inventory existing social marketing campaigns centered  
1019           on water conservation in the district, across the state and throughout the  
1020           nation. As appropriate and available, the inventory would include messages,  
1021           market share, sponsors, paid and earned media tools, budget, funding  
1022           sources and empirical data demonstrating success.  
1023           c. *Immediate Action Step:* Make existing resources available on  
1024           [www.savewaterfl.com](http://www.savewaterfl.com).  
1025           d. *Immediate Action:* Assess adaptability of messages and tools employed in  
1026           existing campaigns to Florida markets.  
1027           e. *Immediate Action Step:* Collaborate with the Department of Environmental  
1028           Protection and the State's Water Management Districts to evaluate the  
1029           potential for partnership and consistency in branding and messaging at the  
1030           state and regional level.  
1031           f. *Short-Term Action Step:* Identify target audiences.  
1032           g. *Short-Term Action Step:* Conduct market research to understand the audience,  
1033           identify barriers to change ways to eliminate the obstacles to adopting  
1034           everyday, individual water conservation habits.  
1035           h. *Short-Term Action Step:* Set goals for behavioral change within each target  
1036           group based on market research.  
1037           i. *Short-Term Action Step:* Develop water conservation messages; select mediums  
1038           (including print, electronic and broadcast media) and tools for inspiring  
1039           behavioral change.

- 1040 j. *Short-Term Action Step*: Pre-test the campaign.
- 1041 k. *Short-Term Action Step*: Implement a multi-media social marketing campaign
- 1042 to effect individual behavior change.
- 1043 l. *Short-Term Action Step*: Maximize earned media.
- 1044 m. *Mid-Term Action Step*: Develop and incorporate a voluntary water
- 1045 conservation challenge, encouraging Floridians to “reduce their use” as a part
- 1046 of the social marketing campaign.
- 1047 n. *Mid-Term Action Step*: Evaluate the results and adapt the campaign as new
- 1048 information and data on the effectiveness of the campaign becomes available.
- 1049

### 1050 **III-E Volunteer Activities**

- 1051 5. Augment District water conservation education, public information and outreach
- 1052 efforts by developing a grassroots, volunteer corps of “water ambassadors” that will
- 1053 leverage available resources and strengthen the District’s ability to reach different
- 1054 water using audiences about the value of water conservation.
- 1055 a. *Immediate Action Step*: Inventory existing programs in the district, across the
- 1056 state and throughout the nation.
- 1057 b. *Immediate Action Step*: Support existing and successful local volunteer
- 1058 programs that promote water conservation, where appropriate.
- 1059 c. *Immediate Action Step*: Identify the scope, target audience for a pilot volunteer
- 1060 initiative and professional/educational requirements for volunteers.
- 1061 d. *Short-Term Action Step*: Identify a District program coordinator.
- 1062 e. *Short-Term Action Step*: Develop a recruitment strategy, training curriculum
- 1063 and implementation strategy for the pilot program.
- 1064 f. *Short-Term Action Step*: Recruit first corps of volunteers.
- 1065 g. *Short-Term Action Step*: Conduct “water academies” to develop the knowledge
- 1066 base of recruited volunteer water ambassadors.
- 1067 h. *Short-Term Action Step*: Task trained ambassadors with supplementing the
- 1068 District’s outreach activities and engaging and sharing information with their
- 1069 peers, communities and business sectors.
- 1070 i. *Mid-Term Action Step* Evaluate the effectiveness of the pilot volunteer
- 1071 initiative; adapt initiative as necessary and expand based on public/industry
- 1072 outreach needs.
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