

Central Florida Water Initiative

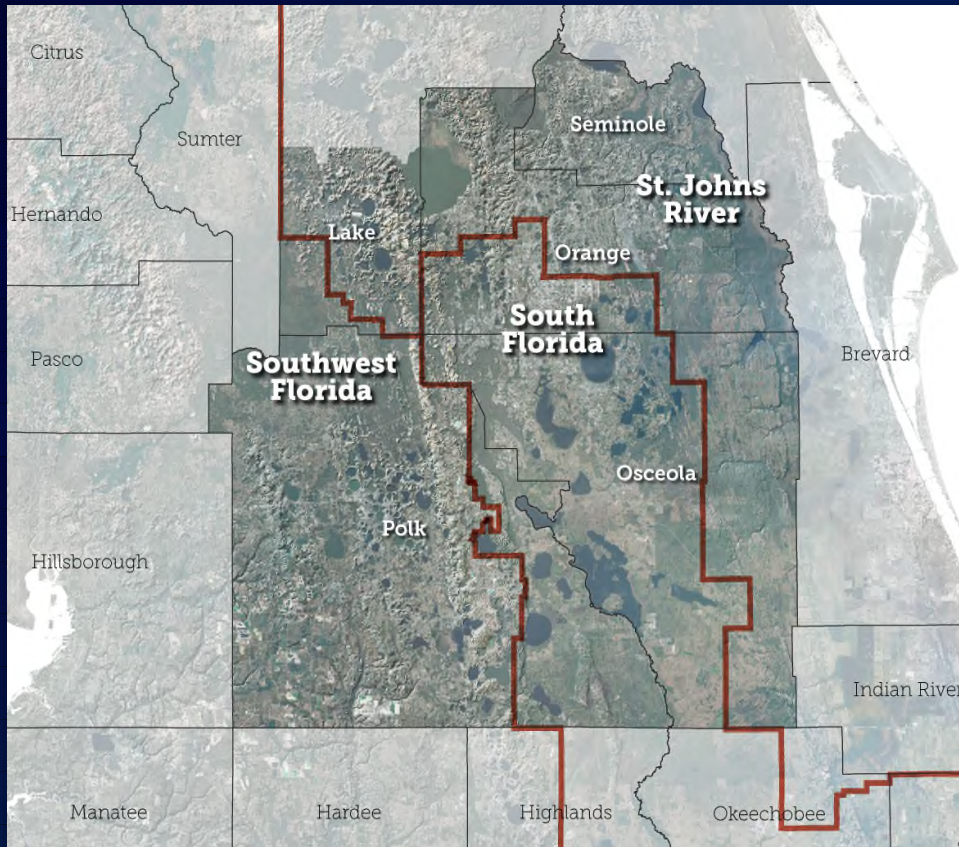
Water for Tomorrow

Water Conservation Application Workshop
Osceola Heritage Park UF/IFAS Extension Office
March 3, 2020

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Senior Project Manager
South Florida Water Management District



Central Florida Water Initiative



- Collaborative process with FDEP, SJRWMD, SFWMD, SWFWMD, FDACS, regional public water supply utilities, and other stakeholders
- CFWI Planning Area includes Orange, Osceola, Polk, Seminole, and southern Lake counties



Water Demands in the CFWI Planning Area

- Traditional groundwater resources alone cannot meet future water demands without adverse effects to local water resources
- Demand for water is projected to increase from 667 mgd in 2015 to 908 mgd in 2040
 - 36% increase



* mgd = million gallons per day

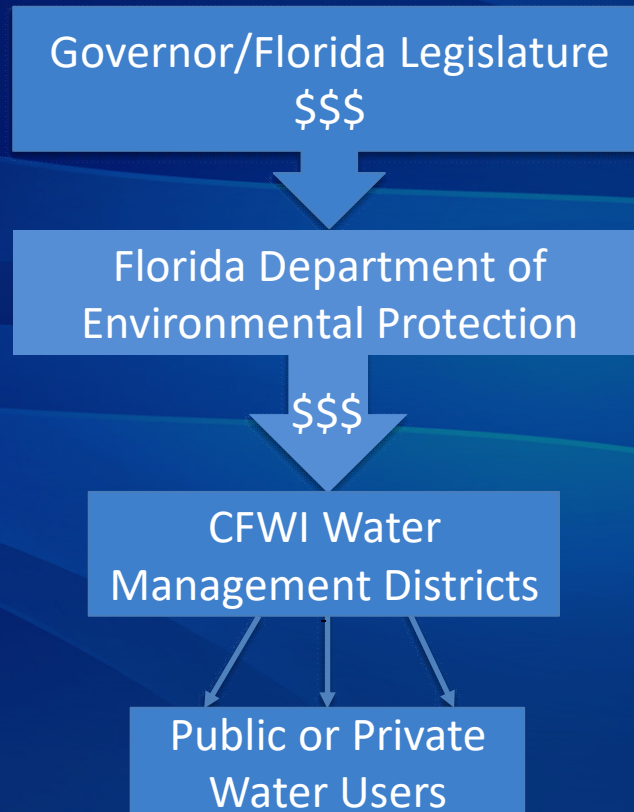
Water Conservation Projections

Category	Projected 2040 Water Demand (mgd)	Projected 2040 Water Conservation Savings (mgd)
Public Supply	592.28	41.50 – 44.16
Domestic and Small Public Supply	24.59	0.86
Agriculture	163.49	4.19
Landscape/Recreational	46.96	2.22
Commercial/Industrial/Institutional	69.00	1.55 – 4.40
Power Generation	11.27	
Total	907.59	50.32 – 55.83



* mgd = million gallons per day

Alternative Water Supplies Program – CFWI Water Conservation Projects



Entities Eligible to Apply

- Public or private water providers
- Local governments
- Agricultural and nursery producers
- Industrial, commercial, or institutional users
- Large landscape irrigation users (e.g., parks, golf courses, cemeteries)
- Non-profit organizations
- Homeowners' or condominium associations



Water Sources

- Potable water from a utility
- Well water
- Surface water body or natural waterway
- Water from a canal or stormwater catchment area (e.g., a man-made lake within a housing development, agricultural area, golf course, etc.)
- Reclaimed water



General Project Requirements

- Applicants must be able to fully fund the project as this is a reimbursement program
- Total project costs must be at least \$15,000 for water supply utilities, municipalities, or government agencies
- Verification of hardware installation
- Applicants are responsible for proper disposal of all inefficient hardware/technology



Allowable Costs

- Costs related to project implementation
 - Purchase and installation of hardware and/or technology
 - Some in-kind services
 - Project administration (may include some staff time hours)
 - Advertising
- Eligible expenditures incurred between July 1, 2020 and November 30, 2022



Typical Project Types

- Indoor fixture & appliance replacements/retrofits
 - Components must be WaterSense or ENERGY STAR labeled, as applicable
- Irrigation water use efficiency improvements
 - Smart controllers
 - Rain or soil moisture sensors
 - Spray bodies upgrades
 - Weather stations
 - Agricultural irrigation system conversions
 - Components must be WaterSense labeled, if applicable



Typical Project Types (cont.)

- Florida Water Star rebates
- Utility flushing reduction infrastructure
- Advanced meter analytics and customer portals
 - Must be directly related to water conservation savings
- Other hardware and/or technology-based retrofits or applications that increase water efficiency
 - Cooling tower/HVAC water use efficiency
 - Industrial processes



Plumbing-Related Project Limitations (Non-Allowable)

- Waterless urinals
- Toilet retrofit kits to replace internal tank components
- Toilet retrofits for ≥ 3.5 gallons/flush with 1.6 gallons/flush (must be ≤ 1.28 gallons/flush)
- Dual-flush valves for commercial buildings
- Fixture “give-away” programs



Specific Plumbing Project Requirements

- Toilet china (bowl) and flushometer (flush valve) gallons/flush ratings must be compatible
- All toilet retrofit projects involving tank toilets must include an educational component addressing leak detection and proper flapper replacement selection and installation



Specific Irrigation Project Requirements

- Components must be WaterSense labeled, if applicable (e.g., non-agricultural irrigation controllers, sensors, and spray sprinkler bodies)
- Components should be installed, calibrated, and inspected by a trained professional (see guidelines)



Specific Irrigation Project Requirements (cont.)

- For projects involving soil moisture sensor-based controllers, the sensor(s) must be installed according to the manufacturer's recommendations
- For agricultural irrigation conversions and retrofits, a mobile irrigation lab or equivalent irrigation audit is encouraged to establish potential water savings and identify additional conservation measures



Application Considerations

- Quantity of water saved
- Cost-effectiveness of project in dollars per 1,000 gallons (\$/kgal) of water saved
- Quality and detail of project planning
- Project readiness
- Environmental/community benefits
- Water source
- Past performance



Application Eligibility

STATE OF FLORIDA FUNDING CONSIDERATION WATER CONSERVATION PROJECT APPLICATION

Applications are limited to 25 pages and all submittals must be uploaded at <http://www.sfwmd.gov/coopfunding> by August 16, 2019 at 6:00 PM.

PROJECT SUMMARY

Project Name: Scott Groves # 3	
Applicant: Scott Groves, Inc.	
Authorized Representative: Tom Mitchell	Project Manager (PM) (if different): Ken Scott
Address: PO Box 2457	PM Address: PO Box 2457
City/Zip: Fort Pierce, FL 34954	PM City/Zip: Fort Pierce, FL 34954
Telephone: 772-528-6718	PM Telephone: 772-216-0707
Email: tomm@riverfrontpacking.com	PM Email: kscott@scottctrus.com
Federal ID Number: 59-2484169	Type of Organization: Limited Liability Company
Project Latitude: 27 29'05.84" N	Project Longitude: 80 35'38.67" W
*LOCATION IS APPROXIMATELY IN THE CENTER OF THE CITRUS GROVE	
Total Project Cost (\$): 108,379.12	
Requested State Funding (\$): 54,189.56	Applicant Match Funding (\$): 54,189.56
Third Party Match (\$): Enter text.	State Appropriation Funding (\$): Enter text.
SFWMD Planning Regions: Upper East Coast	County: St. Lucie County
Multi-year project?: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Anticipated Start Date: 9/2019	Anticipated Completion Date: Before 6/2020
Estimated Water Savings (gallons/day): 108,493	Cost Effectiveness (\$/kgals) (must use provided calculator): 5.3184
gallons/day or 39.6 mgd	
Are there other agencies contributing funding to this project? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
If yes, source(s): Enter text.	
If yes, amount(s): Enter text.	
Does any contractor or other affiliate of the Applicant have a financial interest in this project, the property associated with this project or with any party that may profit financially from this project? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
If yes, list the parties and interests: Enter text.	
Is the project part of your institution/facility's conservation plan? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
This is a State of Florida reimbursement program with the entire project scope expected to be completed within the funding period, regardless of amount awarded. There is no guarantee the Applicant will be awarded the amount requested. Are budgeted funds available to pay for the entire scope of the project? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Does the applicant understand that if for any reason, the project scope is not fulfilled to 100% completion as outlined in the statement of work, the funding amount will be reduced to match the original percentage of funding in the contract/purchase order based on the estimated project cost provided in the Application? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Does the applicant understand that funds are only for expenses incurred or obligated during the funding period? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Is the Applicant a REDI Community? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Has this project received previous SFWMD or State funding? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	

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- Project must be within the CFWI Planning Area
- Adhere to the application instructions
- Adhere to applicable laws and regulations
- Comply with allowable funding costs



Application Eligibility

- Water savings assumptions and calculations **MUST** be shown in the space provided in the application
- Guidance for some project types are shown in the Districts' cost-effectiveness calculator

5. State the estimated water savings resulting from this Project and show how this estimate was calculated. Express estimated water savings in million gallons per year (mgy). Be as specific as your available data allow. Base your calculations on the minimum number of dwelling units affected (for residential projects) or devices installed (for non-residential projects). You must state any assumptions included in your calculations. If you answered "Yes" to question 4, you must use the minimum number of dwelling units or facilities entered into 4c.

See attachments. Current water use came from the Blaney Criddle Analysis
18.42 inches for a 3-month vegetable crop. Coefficient Multiplier for Seepage irrigation is 2.00 and for Linear is 1.33 taken from SFWMD water use permit handbook page 29 (page 39 in the pdf).

$18.42 \text{ inches} \times 285 \text{ acres} \times 2.00 \times 0.02715 \text{ MG/A} = 285 \text{ MGY}$. Linear = $18.42 \times 285 \times 1.33 \times 0.02715 = 189.6 \text{ MGY}$.
Saves 95.4 MGY. $95.4 / 200 = 33.47\%$.

The system can irrigate 2 crops per year which will be 570 acres once it is installed, but for this application only one 285-acre celery crop is calculated.



Application Eligibility

- All applicants **MUST** include the Districts' cost-effectiveness calculator
- This creates one metric applicable to all project types
- District staff can provide guidance on how to properly use the calculator

Applicant Agency/ City Name

Project Title

Conservation Items	TOTAL Project Cost	Annual Savings (MGY)	Service Life (in years)	Total Project Gals Saved per Day	Total Gallons saved over Service Life (MG)	Cost Effective \$/gal
Irrigation System	\$654,550	32.9	10	90,137	329.00	\$2.31
				-	-	\$0.00
				-	-	\$0.00
				-	-	\$0.00
				-	-	\$0.00
				-	-	\$0.00
				-	-	\$0.00
				-	-	\$0.00
				-	-	\$0.00
				-	-	\$0.00
(Weighted cost effectiveness for all items)						\$2.3145

If your conservation item is not listed, enter it in the "Other" cell.
Provide documentation supporting the savings values and number of service years you enter.

Discount Rate (Default value)

Residential Measures	Service life (Residential) in years
Tank-Type High-efficiency Toilet	25
Valve-Type High-efficiency Toilet	25
High-Efficiency Aerator	8

Commercial and other Measures	Service life (Commercial) in years
High-Efficiency Urinal	25
Tank-Type High-efficiency Toilet	25
Valve-Type High-efficiency Toilet	25



Other Specifications May Apply

- The applicant is ultimately responsible to design and present its project in accordance with all standards and specifications as they appear in the program guidelines document
- Do **NOT** consider this presentation as a full or complete guide to the program or application standards, requirements, or specifications



How to Apply & Key Dates

- All applications must be submitted via the SFWMD website: www.sfwmd.gov/doing-business-with-us/coop-funding
- Application released February 17, 2020
- Applications must be uploaded by 5:00 PM on March 27, 2020
- Eligible project expenditures must be incurred between July 1, 2020 and November 30, 2022



District Contacts

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