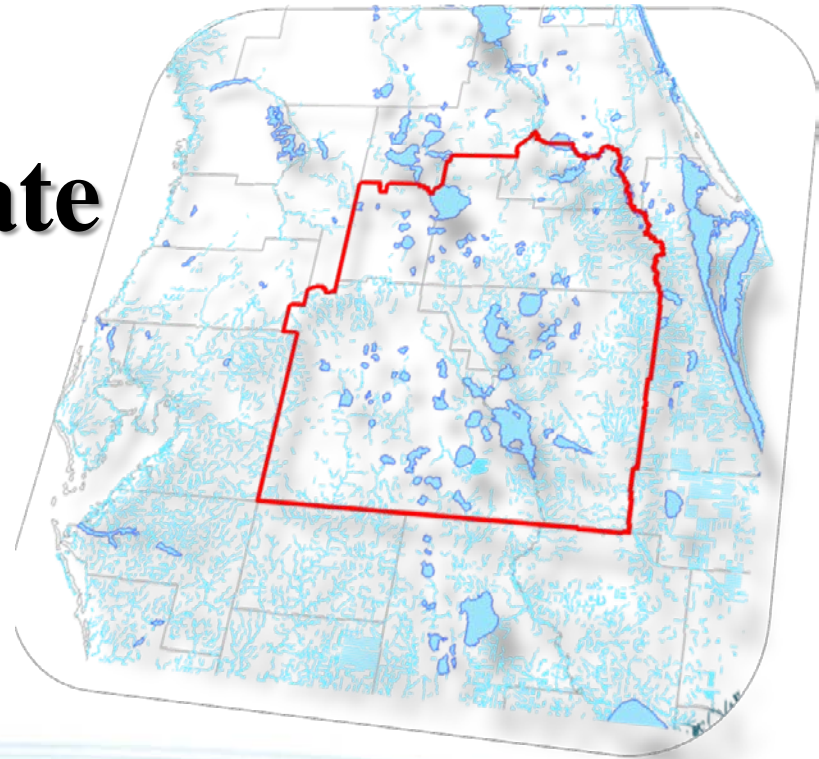


Steering Committee Meeting

Solutions Team Update

Feb. 28, 2014



Robert Beltran, P.E.

Executive Director

Southwest Florida Water Management District

Solutions Team Goals

Develop alternatives to meet water demands by optimizing the use of existing groundwater and by identifying viable conservation and other management strategies, viable alternative and nontraditional water supplies, areas that may require recovery or resource protection and areas where regulatory and water resource protection strategy consistency may be needed.

Solutions Team Schedule

■ Monthly meetings

- Sub-team reports
- Ad hoc meetings with stakeholders

■ October 2014:

- Sub-team draft chapters of the 2035 Water Resources Protection & Water Supply Strategies Plan due to Solutions Team

■ December 2014:

- Draft Plan to Steering Committee
- Public Meeting
- Solicit feedback/comments

Solutions Team Schedule


■ February 2015:

- Incorporate comments
- Develop Final Draft
- Public Meeting

■ April 2015:

- Final Draft Plan to Governing Boards
- Will work closely with the selected public involvement consultant to develop a communications plan and effectively engage all stakeholders

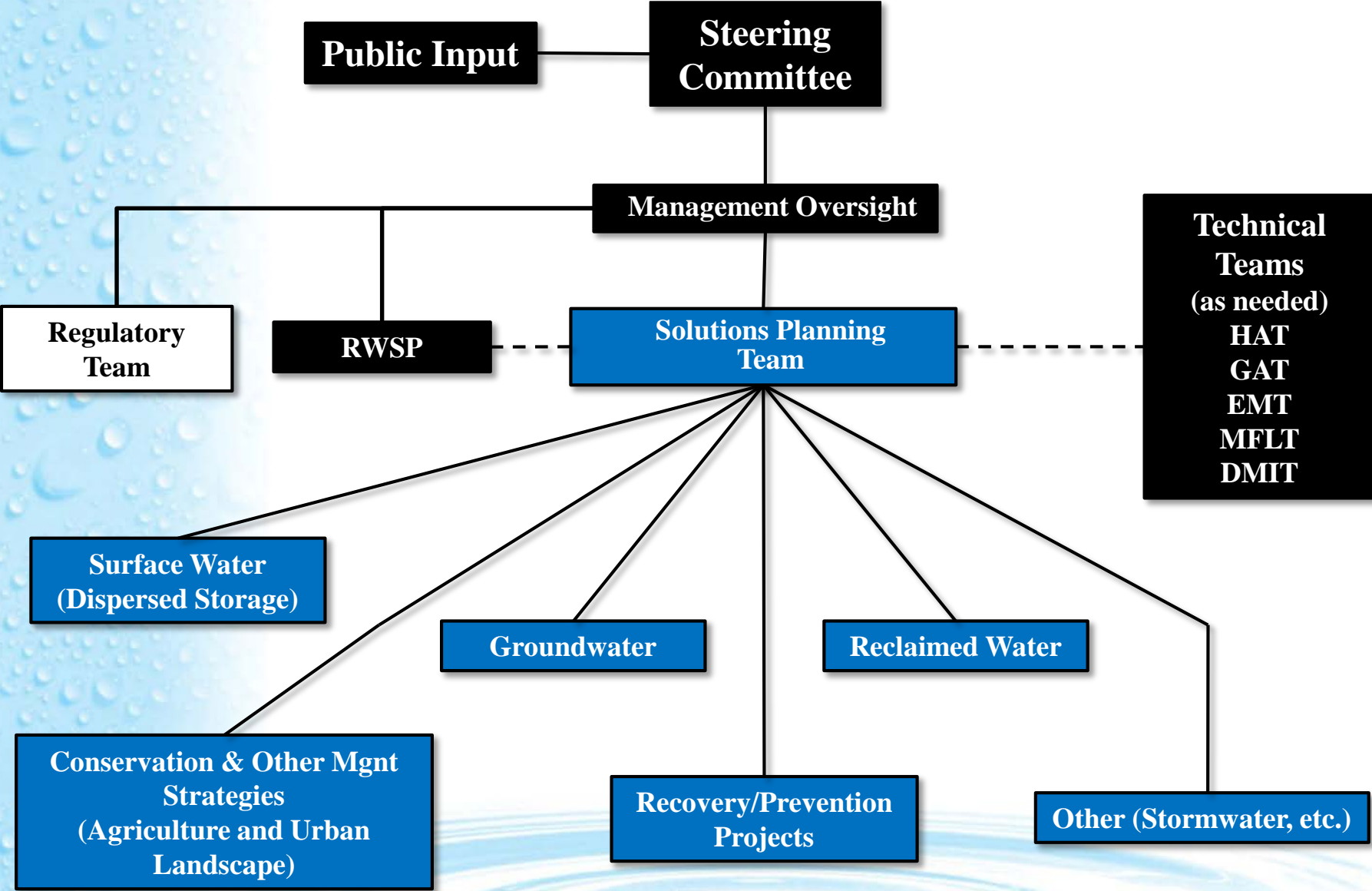
2035 Water Resources Protection & Water Supply Strategies Document

1. Introduction
 - a. Goals
 - b. Public Outreach
 2. Water Resource Assessment
 3. Regional Water Supply Plan
 4. Surface Water
 5. Groundwater
- 
- A decorative graphic at the bottom of the slide showing several concentric, light blue ripples on a white background, suggesting water.

2035 Water Resources Protection & Water Supply Strategies Document

6. Water Conservation
7. Reclaimed Water
8. Recovery/Prevention Projects
9. Stormwater, etc
10. Regulation Component
11. Financial Assessment Component
12. Recommendations

Central Florida Water Initiative



Public Input

**Steering
Committee**

Management Oversight

**Regulatory
Team**

RWSP

**Solutions Planning
Team**

**Technical
Teams
(as needed)
HAT
GAT
EMT
MELT
DMIT**

**Surface Water
(Dispersed Storage)**

Groundwater

Reclaimed Water

**Conservation & Other Mgmt
Strategies
(Agriculture and Urban
Landscape)**

**Recovery/Prevention
Projects**

Other (Stormwater, etc.)

Central Florida Water Initiative

ORGANIZATIONAL AREAS	SURFACE WATER DISPERSED	GROUND WATER	RECLAIMED WATER	CONSERVATION & OTHER MGMT STRATEGIES (AG& URBAN LANDSCAPE)	RECOVERY/PREVENTION PROJECTS	STORMWATER, ETC.
	JOANN CHAMBERLAIN	KEN HERD	JOANN ACKSON	JIM FLETCHER	DEAN POWELL	STEPHEN MILLER
SFWMD	MARK ELSNER LAWRENCE GLENN	CHRIS SWEAZY NICK VITANI	RICK NEVLIS	JIM HARMON ROBERT WANVESTRAUT	DON MEDELLIN DEAN POWELL (TL)	ROBERT VERRASTRO
SJRWMD	JOANNE CHAMBERLAIN PAT RENISH	PATRICK BURGER JIM GROSS	LORI BURKLEW JOANNE CHAMBERLAN	LORI BURKLEW	LORI BURKLEW PAT RENISH	JOANNE CHAMBERLAIN
SWFWMD	KEN HERD JOE CARLSON	KEN HERD (TL) MARK BARCELO	JASON MICKEL ANTHONY ANDRADE	JASON MICKEL JAY HOECKER MARK LUCHTE ED CRAIG	DOUG LEEPER MARK BARCELO	LISANN MORRIS JOHN FERGUSON
DEP					KATHLEEN GREENWOOD	
FDACS				CAROL JOHNSON		
BUSINESS	STEPHEN MILLER, VHB MILLERSELLEN WILLIAM FAGAN, AQUAFIBER TECH JOHN UPTON, MOSAIC	SUBRATA BANDYOPADHYAY, MOSAIC	TINO PROVENZANO, MOSAIC	KURT THOMPSON, MASSEY SERVICES DON MADDEN, GUNSTER, Y & S		STEPHEN MILLER, VHB MILLER SELLEN (TL)
UTILITIES	P – TERRY McCUE, SEMINOLE Co P – CHRISTINE DOAN, ORANGE Co A – MIKE SWEENEY, TOHO A – BILL MARCOUS, SANFORD OTHER INTERESTED MEMBERS: CHRIS RADER - ALTAMONTE SPGS ALLAN AMBLER, CASSELBERRY JESSICA SCHILLING, APOPKA KRYSTAL AZZARELLA, POLK CO DEBBIE BRADSHAW, ORLANDO	P - JESSICA SCHILLING , APOPKA P - KIM HANSEL , WINTER HAVEN A - DEBORAH BEATTY , TOHO A - AL AIKENS , SEMINOLE OTHER INTERESTED MEMBERS: CHRIS RADER, ALTMONTE KATHY TRAEHLER , ORANGE CO TARA LAMOUREX, SANFORD KEITH BROWNING, ORLANDO	P – JO ANNE JACKSON, ALTAMONTE (TL) P - LARRY TUNNELL, ORANGE CO A -ROBERT CONNER, LAKELAND A- TERRY DYKEHOUSE, CLERMONT OTHER INTERESTED MEMBERS: JOE GRUSAUSKAS, OVIEDO BILL MARCOUS, SANFORD TERRY McCUE , SEMINOLE DAWN SWAILES , CASSELBERRY JESSICA SCHILLING, APOPKA KEITH BROWNING, ORLANDO ROBERT PELHAM, TOHO	P - JACKIE TORBERT, ORANGE P - CHRISTINE RUSSEL, ORLANDO A - ALLAN AMBLER, CASSELBERRY A - QUYEN NEWELL, TOHO OTHER INTERESTED MEMBERS: TERRY McCUE, SEMINOLE JESSICA SCHILLING, APOPKA JOANE JACKSON, ALTAMONTE JACKIE HOLLISTER, POLK CO ROB TEEGARDEN, ORLANDO	P - TONY DELGADO, LAKELAND P - KEITH BROWNING, ORLANDO A - CHRIS RADER, ALTAMONTE A - TERRY McCUE, SEMINOLE OTHER INTERESTED MEMBERS: AL AIKENS, SEMINOLE ALLAN AMBLER , CASSELBERRY CHRISTINE DOAN, ORANGE	P - KEVIN FELBLINGER, ST CLOUD P- ROB TEEGARDEN, ORLANDO A - CHRIS RADER, ALTAMONTE A - TRAVIS HOLLMAN, ORANGE CO OTHER INTERESTED MEMBERS: TANIA McMILLAN, POLK CO
ENVIRONMENTAL	LARRY ROSEN, KISSIMMEE VALLEY AUDUBON SOCIETY	NANCY PRINE, FRIENDS OF WEKIVA		DR. ROBERT STAMPS	JANE GRAHAM, AUDUBON OF FL	
AGRICULTURE	P - DAVID WRIGHT, DESERET A – LARRY WALTER , DESERET	P - LEEANN SIMMONS , ADAMS RNCH P - MIKE ADAMS, ADAMS RANCH		P - BILLY KEMPFER , KEMPFER CATTLE P -LARRY WALTER, HANSON & WALTER A - DAVID WRIGHT, DESERET A - JAMES PAYNE , DESERET		

Solutions Sub-team Draft Goals

Conservation & Other Management Strategies

- *Identify and evaluate water conservation projects and programs that would reduce future demands by a minimum of 42 MGD.*

Solutions Team Project Focus

- Conservation Project Criteria:
 - Follow 12/13/13 DEP Guidance Memo
 - Separate projects into Agriculture and Non Agriculture categories
 - Identify top ten water conservation projects and programs (Ag and Non Ag) by quantifying the potential water savings and costs
 - Develop incentive/audit program for large commercial/industrial customers

Solutions Sub-team Draft Goals

Reclaimed Water

- *Estimate additional/future feasible reclaimed water supply project options that exist within the CFWI region to help meet alternative water supply needs.*



Solutions Team Project Focus

- Reclaimed Water Project Criteria:
 - >1 MGD project capacity
 - Highest efficiency of utilization/offset (70 % Goal)
 - Mitigation/Hydrologic restoration
 - Cost / Benefit
 - Multi-jurisdictional project that encourages regional interconnects and maximizes economies of scale
 - Feasible and permittable

Solutions Sub-team Draft Goals

Other (Stormwater)

- *Identify and evaluate stormwater and other related water supply options that exist, or are under consideration, in the CFWI that could be successfully designed and permitted to help alleviate projected water supply and resource constraints.*

Solutions Team Project Focus

- Other (Stormwater) Project Criteria:
 - >1 MGD project capacity
 - Reliable (Goal 100% WS, 50% Recharge)
 - Cost / Benefit
 - Multi-jurisdictional project that encourages regional interconnects and maximizes economies of scale
 - Feasible and permittable

Solutions Sub-team Draft Goals

Groundwater

- *Estimate additional/future feasible groundwater supply project options that exist within the CFWI region and alleviate water resource constraints.*



Solutions Team Project Focus

- Groundwater Project Criteria:
 - >5 MGD project capacity
 - Cost / Benefit
 - Multi-jurisdictional project that encourages regional interconnects and maximizes economies of scale and efficiencies
 - Supported by a regional entity
 - Feasible and permittable

Solutions Sub-team Draft Goals

Surface Water

- *Estimate additional/future feasible surface water supply project options that exist within the CFWI region to help meet alternative water supply needs.*

Solutions Team Project Focus

■ Surface Water Project Criteria:

- >10 MGD project capacity
- Reliable (Goal 100% WS, 50% Recharge)
- Resource benefits
- Cost / Benefit
- Multi-jurisdictional project that encourages regional interconnects and maximizes economies of scale
- Supported by a regional entity
- Feasible and permittable


- # Solutions Sub-team Draft Goals
- ## Recovery and Prevention
- *Identify regions within the CFWI with existing resource (MFL and non-MFL) impacts and areas with potential for future resource impacts, correlated with withdrawals.*
 - *Evaluate whether the existing and potential future impacts can be recovered or prevented by existing programs or need additional strategies for recovery/prevention.*

Solutions Team Project Focus

- Recovery and Prevention Criteria:
 - Identify most impacted regional areas and regions with potential for future impacts
 - Determine if existing programs will be sufficient or if additional strategies will be needed for prevention and/or recovery
 - Evaluate all available data in the Upper Floridan aquifer
 - Develop a sustainable aquifer level target range to correlate with impacted areas

Solutions Team Sub-teams

Basic Project Questions

1. Identify regional water supply project
(Provide a concept diagram and description)
 2. Cost-benefit analysis of yield (\$/1000 gallons)
 3. Cost estimates (Capital & Annual O&M)
 4. Identify water resource constraints
 5. Identify potential partners and governance options
 6. Pumping, storage and transmission configurations
- 
- A decorative graphic at the bottom of the slide showing concentric blue ripples on a light blue background, resembling water being disturbed.

Solutions Team Sub-teams

Basic Project Questions

7. Project feasibility and estimated property requirements
8. Funding sources
9. Identify regional water supply project limitations or constraints resulting from the inconsistency of the rules
10. Other considerations – public concerns or non-technical obstacles
11. Estimated implementation schedule

CFWI Water Supply Summary

Gross total water needs by 2035	1083 MGD	Draft RWSP for all water uses
Demand Management	42 MGD	Minimum conservation per draft RWSP
Net Total water needs by 2035	1041 MGD	Draft RWSP for all water uses
Sustainable groundwater use	850 MGD	By CFWI Steering Committee
Current groundwater use	800 MGD	15 year average
Additional groundwater available	50 MGD	Regulatory Team to address
Potential additional groundwater available	75 MGD	Solutions Planning Team to address
Alternative water supply needs	158 MGD	AWS need; Solutions Planning Team to address
Current permitted water use	1050 MGD	See FDEP Interim Guidance memo (12/13/2013)

CFWI Water Supply Project Summary

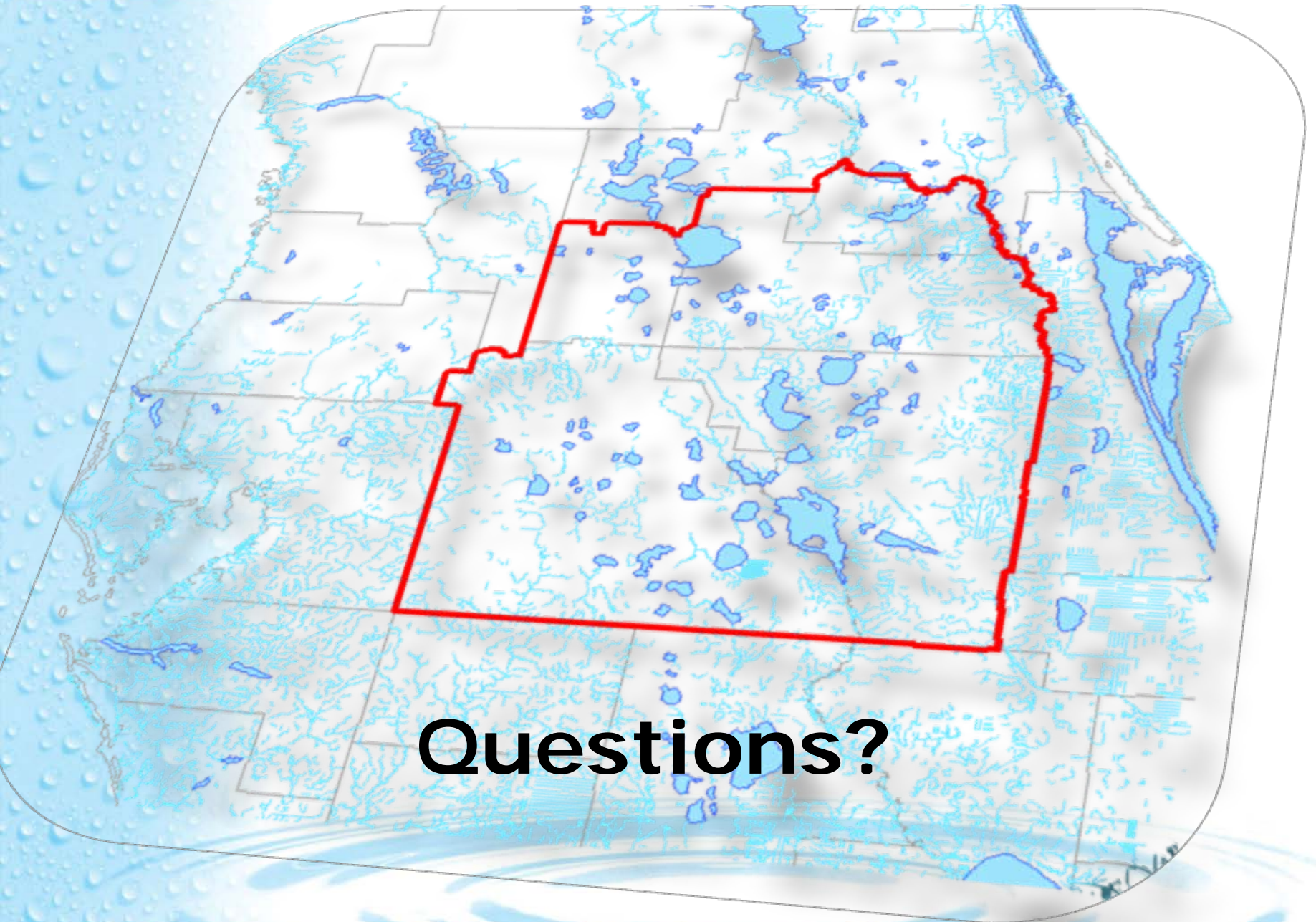
Project Category	Project Options	Estimated Water Generated (mgd)	Total Capital (\$M)
Surface Water	15	184 to 209	\$1,871 to \$2,035
Brackish Groundwater	35	45 to 75	\$482
Fresh Groundwater	TBD	0 to 75	TBD
Reclaimed Water	TBD	TBD	TBD
Conservation & Other Management Strategies (AG & Urban Landscape)	TBD	42	\$451
Recovery/Prevention	TBD	TBD	TBD
Other - Stormwater, etc	2	4	\$27
TOTAL	139	275-405mgd	\$2.8B- \$3.0B

Solutions Team Top Projects

Project Category	Project Options	Estimated Water Generated (mgd)	Total Capital (\$M)
Surface Water	5	182	\$1,522 to \$1,687
Brackish Groundwater	2	45 to 60	\$330
Fresh Groundwater	TBD	0 to 75	TBD
Reclaimed Water*	3	8	\$22
Conservation & Other Management Strategies (AG & Urban Landscape)	TBD	42	\$451
Other - Stormwater, etc.	1	4	\$12
TOTAL	8	281-371mgd	\$2.3- 2.5B

*Potential projects include residential, recreational, industrial/commercial and recharge, which will be evaluated by the Reclaimed Sub-team.

Central Florida Water Initiative



Questions?