Central Florida Water Initiative

TOHO Water Authority
Friday, June 27, 2014

Meeting Summary
(All presentations made to the Steering Committee have been posted on cfwiwater.com.)

Introductions

a. Drew Bartlett, FDEP Deputy Secretary for Water Policy & Ecosystem Restoration, opened the meeting. Self-introductions of Steering Committee (SC): Paul Senft for Michael Babb (SWFWMD), John Miklos SJRWMD), Drew Bartlett (FDEP), Brian Wheeler (TOHO Water), Ray Scott for Rich Budell (DACS), Blake Guillory for Dan O'Keefe (SFWMD).

b. Members of the audience introduced themselves and the sign in sheet for those in attendance has been posted to the website.

2. Consent Items

a. The April 25, 2014 Meeting Summary was approved.

b. Proposed changes to the Guidance Document dated June 27, 2014, were approved.

3. Regional Water Supply Plan

a. Joanne Chamberlain, new Team Leader for the RWSP, provided an update on the resolutions each Water Management District's Governing Boards approved since the April 25, 2014, meeting.

4. Hydrologic Analysis Team

a. Pete Kwiatkowski, new team Leader for the HAT, provided an update on recent activities of the team.

b. The Reference Condition and 2015 Scenarios are being updated with improved water demand information to achieve better match of water demands (RWSP vs. ECFT)
- Domestic Self Supply (DSS)
- Agricultural
- Rapid Infiltration Basin (RIB) flows
- Reclaimed water irrigation of groves
- Landscape/Recreation/Aesthetics (LRA)

c. Task A5 progress related to the model documentation for the water supply planning phase (including groundwater availability)
- Priority subordinated to ECFT updates and support of SPT
- Document submitted to TOC on 6/25/14
- TOC discussion and review comments on 6/30/14

d. Paul Senft questioned the agriculture water demand projections in light of the impact citrus greening is having on some crops and whether the Ag water demands will be changing throughout the planning horizon. Pete explained the Ag water demands were developed in concert with the Ag water users and DACS.

e. Ray Scott asked if the demands in the model were consistent with the CFWI RSWP. Pete said the EFCT model used the RWSP projections as model input and were therefore the same.

f. Next steps for the HAT

- Complete Updates to Reference Condition and 2015 Scenarios
- Refine Simulation Requests with SPT (Groundwater Sub team) and Conduct Simulations
- Refine influence coefficient analysis
- Finalize ECFT Model Documentation regarding groundwater availability per RWSP (Task A5). HAT expects to present the final model documentation to the SC on August 29.

5. Kissimmee River Reservation

a. Len Lindahl presented an update on the action of the SFWMD Governing Board and the schedule of the reservation.

b. The effort will begin with public workshops this summer and is expected to be completed in 2015.

6. Data Monitoring and Investigations Team

a. Mary Thomas reviewed progress to date:

- Developed a data inventory
- Developed minimum standards for data collection
- Conducted a data redundancy evaluation
- Identified additional data needs
- Evaluated data density
- Identified implementation options

b. Major findings of the Team were:

- Improve monitoring of springs and MFLs
- Better data collection information will improve model calibration
- Monitor well clustering will minimize costs
- Assess existing data collection before adding new monitoring wells

a. The Team made the Recommendations for Regional Monitoring (Task D5) for additional monitoring wells:

	Minimum	Optimum	Cost range
Surficial aquifer	165	TBD	$1.2M to?
Wetlands	107	192	$0.12M to $0.22
Upper Floridan aquifer	44	99	$4.7M to $10.6M
Lower Floridan aquifer	18	101	$5.8 to $32.3M

b. Blake Guillory asked for clarification of the costs and Mary explained the cost range reflected the best estimate for the current capital costs.

c. Prior to the individual discussion of the Report for Task D5, public comment was received.

- David Gore (Polk County) said he felt additional monitoring was needed even beyond the DMIT recommendation especially in the surficial aquifer along the central Florida ridge.

d. Mary Thomas reported on the contents of the Implementation Plan

- Suggests Phase I implementation of sites already planned by WMDs and permittees that fall within DMIT priority zones.
- Suggests Phase II implementation of sites planned by WMDs and permittees that fall outside of DMIT priority zones.
- Suggest further prioritization based on narrative guidelines.
- Provides cost estimates

e. Drew Bartlett asked what was meant by “planned” sites. Mary explained the WMDs and the water use permittees have ongoing monitoring. She said some of these have been funded and others do not have long term funding assurance.

f. Brian Wheeler stressed the importance of establishing better monitoring of the resources which is key in protecting the water resources. Additionally, the enhanced monitoring would be critical to the success of the CFWI effort including improving the hydrologic model which was based on somewhat limited data in certain areas.

g. Paul Senft stated that if we had better monitoring in place now we would be in a much better position to address the needs of the resources.

h. The Steering Committee accepted the recommendations for the range of regional monitoring sites and the contents of an Implementation Plan.

i. The SC directed the DEP and the WMDs work together to identify an appropriate process and schedule to have the Regional Monitoring program implemented.

7. Regional Consensus Building

a. Glenda Hood (triSects Inc.) provided the following report

b. Key Points Summary of Background Interviews:

- Conservation
  - The key point that ties everyone together
  - Efforts need to be maximized
  - Find a solution that will incentivize the community to increase their efforts
- Communication
  - Important to get the message out there
  - The CFWI process needs to be explained more effectively
- Representation
  - Three Water Districts should be represented at major community meetings and presentations
  - Important for county leaders to remain engaged in the process
- Monitoring
  - Monitoring of actual use is critical
  - Effective measures should be put in place for forecasting purposes
- Continual Review
  - On-going process
  - To be reviewed every five years
  - Solutions don't need to be perfect, just impactful

c. We heard many comments about the importance of a strong and constant community engagement strategy. It seems as though there are two tracts that will ultimately need to "merge" if the region and its leaders will support the efforts of CWFI for the long term:

d. Clear and extensive outreach to elected officials and key staff of cities and counties, along with key stakeholders on the value of water and the efforts of CFWI to date (targeted towards the knowledge and understanding of different groups)

e. Clear and extensive outreach to the public (business leaders, community leaders on the value of water and what we are learning about our long term needs.

f. Short term goal is to educate, engage and build consensus during the solutions phase with stakeholders (Bullet number 1).

g. The second bullet, though, for the long term, is the important one if the elected officials and key stakeholders need community buy-in and financial support.

8. Solutions Planning Team

a. Len Lindahl represented the Team in Robert Beltran's absence. He stated that "science" would guide the proposed solutions and the Regulatory Team would complement their effort.

b. In response to the SC request at their last meeting, Len indicated the SPT has recommended using the existing definition in Chapter 373.019(12) Florida Statutes for a "multi-jurisdictional project". Len indicated the Team may ask to revise the definition as the CFWI project plans are developed to include a broader range of large water users:

> *Two or more water utilities or local governments that have organized into a larger entity, or entered into an interlocal agreement or contract, for the purpose of more efficiently pursuing water supply development or alternative water supply development projects listed pursuant to a regional water supply plan.*

Brian Wheeler thought that replacing the "water utilities" with "water use entities" might address the concerns The Steering Committee accepted the statutory definition and said it would consider revising it if necessary.,

c. The SC approved the following as members of the SPT. New members shown in bold italics.

Southwest Florida Water Management District	Robert Beltran (Team Leader)
St. Johns River Water Management District	***Mike Register***
South Florida Water Management District	Len Lindahl
Florida Department of Environmental Protection	Tom Beck
Florida Department of Agriculture and Consumer Services	Ray Scott
Congress of Regional Leaders	Bob Dallari
Agriculture	Jim Fletcher
Public Water Supply Utilities	Andy Neff
	Teresa Remudo-Fries
Environmental Community	Nancy Prine
Business Community	Michael Minton

d. Prior to the individual discussion of the Sub Teams' scope of work, public comment was received.

- David Gore (Polk County) said he has been attending the SPT meetings. He stressed the importance of using science and felt conservation was important to reduce groundwater withdrawals. He was also concerned with the Lower Floridan wells and their potential impact on the Upper Floridan aquifer and even the surficial aquifer.

- Linda Bystrak (Lake County) questioned the work on conservation and the fact that the efforts of the largest water utility in Central Florida (Orlando Utilities Commission) was not used in developing the conservation evaluation metrics for other Central Florida utilities. The Steering Committee requested this issue be addressed by the Management Oversight Committee and reported back to the SC.

e. Each of the individual Sub teams' scopes of work were reviewed and discussed. After discussion, the Steering Committee approved the sub team scopes as attached to the meeting summary.

- Conservation and other management strategies.
  - Approved as presented.
- Reclaimed water.
  - Approved as presented.
- Stormwater (etc.).
  - Approved as presented.
- Groundwater.
  - Approved as presented.
- Surface water.
  - Approved as presented.
- Recovery/prevention.
  - The Steering Committee changed the name of the sub team to Environmental Evaluation
  - Scope of work was revised to clarify the intent of Task #5 to address multiple regional planning level guidelines, not just the regional aquifer level.
  - Approved as revised.

f. Len Lindahl explained the schedule was very aggressive and was based on the best estimate of timely completion. However, he felt the completion of some of the Task elements may need to be revised as progress is evaluated. The SC re-stated that all work needs to be completed in a timely manner, driven by sound science and not by unrealistic schedule demands. The completion of tasks to achieve team objectives can be revised if and when the SC feels it is appropriate. Len said the SPT will review the schedule and report before the next SC meeting.

9. Regulatory Team

a. Steven Memberg reported on behalf of Len Lindahl, Team Leader, that at the May 21st joint meeting with the SPT the RT was asked to address the following:

- Request for near–term input:
  - Water use per capita
  - Water shortage criteria comparison
  - Aquifer recharge and impact offset sources and programs

- Resource redistribution
- Caution area example review
- Interdistrict transfer of ground and / or surface water
- Public interest (3rd prong test interpretation)

- Request for potential future input:
  - Environmental strategy for projects (coordinated with Environmental Evaluation Sub Team)
  - New MFL's and Reservations during CFWI implementation
  - Permittability of Solutions Planning Team projects

b. To address a question by the SC at their April 25,2014, meeting water use per capita expressed as GPCD clarification was provided:

- All WMDs use the FDEP Guidance on Per Capita: Uniform Definitions and Performance Measures (March 3, 2008)

- The Guidance acknowledged that variations are acceptable when needed for particular purposes such as:

  - Regulation
  - Demand Projections
  - Resource Assessments

- Consistent calculation throughout the CFWI RWSP

- The CFWI demand projections based on averages from 2006 – 2010 where available

- A graphic (Figure #11 from the CFWI RWSP) was used to explain that because of aggressive conservation efforts and other factors since 1995 the residential GPCD has decreased from 160 gpcd to under 100 gpcd.

- For all Consumptive Use Permitting within the CFWI each District has consistent criteria to calculate per capita use rates and determine permit allocations.

  - Population projections
  - Historic use
  - Treatment and distribution efficiency
  - Conservation
  - Calculated on an applicant-by-applicant basis
  - Regional-specific rules such as SWUCA

c. The RT has another joint meeting planned with the SPT prior to the next SC meeting (August 29).

10. Open Discussion

- None

11. Public Comments

a. Written comments submitted by Mr. Ed MacDonald (Auburndale) to Mr. Tom Bartol (SJRWMD-former RWSP Team Leader) were forwarded to the MOC and the SC beforehand and are attached.

b. Linda Bystrak (Lake County) questioned the reasons for setting the northern boundary of the CFWI in Lake County, specifically where the boundary appears to jog around a large land parcel.

c. Tom Singleton (representing the City of Winter Haven) provided written comments (attached) and stressed importance of addressing existing impacts, encouraged the effort to engage local governments, and requested an opportunity to make a presentation on the Sapphire Necklace project in Polk County.

12. Next SC meetings. The following dates were confirmed for future Steering Committee meetings:

a. Aug 29 confirmed
b. Sep 26 confirmed
c. Oct 24 confirmed
d. Nov 20 confirmed
e. Dec 19 confirmed

13. Adjourn

CFWI Water Conservation Sub-Team Scope of Work

Steering Committee Guidance

Through its Guiding Document and motions passed at Steering Committee meetings, the Central Florida Water Initiative (CFWI) has provided direction to the collaborative technical teams working to achieve the goals of the CFWI. In furtherance of the stated goals, the Steering Committee created the Solutions Planning Team (SPT) and approved its associated scope of work. The SPT's scope of work, at item G3, provides for creation of various sub-teams that are to assist with all technical aspects of the CFWI 2035 Water Resources Protection and Water Supply Strategies document. This Conservation Sub-Team was created as a part of this direction and was charged with developing a sub-team scope of work geared toward providing technical support to the SPT's effort. The role of the SPT's sub-teams is technical in nature and will be limited to fact finding and technical analysis. Accordingly, all evaluations and options must be presented to the Steering Committee for consideration. The Sub-Team is not to make any policy decisions, recommendations, or prioritize options. The Conservation Sub-Team shall work pursuant to the instruction of the Steering Committee as set forth in the Guiding Document and as may occur at regularly scheduled Steering Committee meetings. The following statement of the Conservation Sub-Team's effort shall occur in accordance with the above stated principles and this Steering Committee's direction:

Team Leader: Jim Fletcher

Team Composition

The Team Leader is Jim Fletcher with the University of Florida IFAS Extension Service. The Water Conservation Sub-Team is made up of representatives from the three water management districts and technical representatives of agricultural businesses, public water supply utilities, and environmental organizations.

Team Goal

Identify and evaluate options for water conservation projects and programs that would reduce future demands by a minimum 42MGD. Projects for all water use sectors should be evaluated.

Team Approach

The team will work within a collaborative environment under the guidance and direction of the Steering Committee with open and full information sharing as well as joint responsibilities and accountability for completing team assigned work products.

Team Objectives and Team Scope of Work:

Work collaboratively with other CFWI Solutions Planning Phase Sub-Teams to execute the following scope of work:

1. For the agriculture, public supply and other self-supply categories, and sub-categories within, identify options for water conservation projects/programs.
2. Develop a comprehensive listing of potential water conservation projects/program options for each of the above-listed categories.
3. Perform a preliminary evaluation of the all projects/programs identified in 2) by quantifying the potential water savings and cost.
4. .Request the Steering Committee for input concerning whether or not the SC seeks additional evaluation of any of identified projects/programs options.
5. Perform a detailed evaluation of the projects/programs which addresses the 11 questions developed by the Solutions Planning Team. (See below.)
6. Document findings and identify options, including description of the water conservation project options and the evaluation process.

11 Questions Provided by the Solutions Planning Team

1. Identify projects/program options
2. Cost-benefit analysis
3. Cost estimates (capital and annual O&M)
4. Identify constraints
5. Identify potential partners and governance options
6. Pumping, storage and transmission configurations
7. Project feasibility
8. Funding sources
9. Project limitations or constraints resulting from rule inconsistency
10. Other considerations – public concerns or nontechnical obstacles
11. Estimated implementation schedule

Team Schedule

February-March 2014	Overview background information
March 2014	Consensus and approval of draft work plan
April 2014	Steering Committee meeting
March- June 2014	Public Water Supply Conservation
May 2014	Report Progress to Solutions team
May- June 2014	Agricultural Water Conservation
May-June 2014	Other Self-supply Water Conservation
June 2014	Steering Committee meeting
July 2014	Identify other water conservation ideas
August 2014	Discuss Education opportunities
August 2014	Report progress to Solutions team
September- November 2014	Prepare Draft Report
November 2014	Report Progress to Solutions Team
November- December 2014	Submit draft report to Solutions Team

CFWI Reclaimed Water Sub-Team Scope of Work

Steering Committee Guidance

Through its Guiding Document and motions passed at Steering Committee meetings, the Central Florida Water Initiative (CFWI) has provided direction to the collaborative technical teams working to achieve the goals of the CFWI. In furtherance of the stated goals, the Steering Committee created the Solutions Planning Team (SPT) and approved its associated scope of work. The SPT's scope of work, at item G3, provides for creation of various sub-teams that are to assist with all technical aspects of the CFWI 2035 Water Resources Protection and Water Supply Strategies document. This Reclaimed Water Sub-Team was created as a part of this direction and was charged with developing a sub-team scope of work geared toward providing technical support to the SPT's effort. The role of the SPT's sub-teams is technical in nature and will be limited to fact finding and technical analysis. Accordingly, all evaluations and options must be presented to the Steering Committee for consideration. The Sub-Team is not to make any policy decisions, recommendations, or prioritize options. The Reclaimed Water Sub-Team shall work pursuant to the instruction of the Steering Committee as set forth in the Guiding Document and as may occur at regularly scheduled Steering Committee meetings. The following statement of the Reclaimed Water Sub-Team's effort shall occur in accordance with the above stated principles and this Steering Committee's direction:

Team Leader: Jo Ann Jackson

The Reclaimed Water Sub-Team is made up of representatives from the three water management districts and technical representatives of business/industry and public water supply utilities.

Team Goal

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

Team Approach

The team will work within a collaborative environment with open and full information sharing as well as joint responsibilities and accountability for completing team assigned work products.

Team Objectives

Work collaboratively with other Initiative teams to:

1. Evaluate reuse projects identified within the draft Regional Water Supply Plan (RWSP)

2. Identify additional project options that should be considered that were not presented in the RWSP
3. Work with other sub teams to identify potential sources of reclaimed water to supply potential groundwater recharge projects.
4. Identify subset list of projects from 1) and 2) for further evaluation
5. Evaluate feasibility of the identified projects to present to the Steering Committee for further consideration

Team Scope of Work:

1. Identify reclaimed water project options
    a. RWSP – evaluate projects identified in the RWSP based on criteria provided by the Steering Committee:
        i. Capacity greater than 1 mgd
        ii. Multijurisdictional
    b. Other options
2. Conduct technical feasibility analyses to assess scope of project and potential quantities of potable water or groundwater offset.
    a. Identify constraints
    b. Identify projects that may apply to more than one sub-team (i.e., stormwater or surface water augmentation of reuse, groundwater recharge, etc.)
3. Complete planning level design of reclaimed water supply projects and identify options for management activities
    a. Pumping
    b. Storage
    c. Transmission configurations
    d. Other
4. Develop estimates of project cost
    a. Capital costs
    b. Annual O & M
5. Develop cost-benefit analysis
6. Assess overall project feasibility
    a. Technical
    b. Permittability
    c. Financial
7. Identify potential partners and governance options
8. Identify funding sources
9. Identify project limitations or constraints resulting from rule inconsistency
10. Identify other considerations – public concerns or non-technical obstacles
11. Estimated implementation schedule
12. Document Findings

{29079805;1}

Following are detailed tasks to address identification of reclaimed water projects (SOW item #1):

1. Review reclaimed water projects identified in the RWSP
    a. Evaluate how reuse was included in the groundwater model and how existing and future reuse projects affect demand estimates (maintaining existing per capita, reducing future per capita, offsetting groundwater withdrawal, etc.)
        i. Evaluate reclaimed water projects using the criteria provided by the Steering Committee

2. Identify reclaimed water project options not included in the RWSP
        i. Unique projects not considered that have regional impact or that may advance reuse knowledge
        ii. New projects suggested by participants (local and regional)
        iii. Recharge projects as identified in collaboration with the groundwater and other Sub Teams
3. Assemble information about projects for feasibility assessment following approval by the Steering Committee.
4. Document findings

Team Schedule

Subteam kick-off meeting	January 2014
Background investigations	February – April 2014
Obtain screening criteria from Steering Committee	April 2014
Categorize existing projects in RWSP and identify new project options	February - June 2014
Report progress to Solutions Planning Team	March 2014
Evaluate projects and develop list for assessment	April – June 2014
Report progress to Solutions Planning Team	June 2014
Conduct feasibility assessment	July - September 2014
Report progress to Solutions Planning Team	September 2014
Prepare documentation for draft report	September – November 2014
Submit draft report to Solutions Planning Team	November 2014
Report progress to Solutions Planning Team	December 2014

{29079805;1}

CFWI Stormwater and "Other" Sub-Team Scope of Work

Steering Committee Guidance

Through its Guiding Document and motions passed at Steering Committee meetings, the Central Florida Water Initiative (CFWI) has provided direction to the collaborative technical teams working to achieve the goals of the CFWI. In furtherance of the stated goals, the Steering Committee created the Solutions Planning Team (SPT) and approved its associated scope of work. The SPT's scope of work, at item G3, provides for creation of various sub-teams that are to assist with all technical aspects of the CFWI 2035 Water Resources Protection and Water Supply Strategies document. This Stormwater Sub-Team was created as a part of this direction and was charged with developing a sub-team scope of work geared toward providing technical support to the SPT's effort. The role of the SPT's sub-teams is technical in nature and will be limited to fact finding and technical analysis. Accordingly, all evaluations and options must be presented to the Steering Committee for consideration. The Sub-Team is not to make any policy decisions, recommendations, or prioritize options. The Stormwater Sub-Team shall work pursuant to the instruction of the Steering Committee as set forth in the Guiding Document and as may occur at regularly scheduled Steering Committee meetings. The following statement of the Stormwater Sub-Team's effort shall occur in accordance with the above stated principles and this Steering Committee's direction:

Team Leader: Rob Teegarden (Steve Miller)

The sub-team consists of representatives from all three CFWI Region water management districts and technical representatives of business/industry and public utilities.

Team Goal

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

Team Approach

The sub-team will work within a collaborative environment with open and full information sharing, as well as joint responsibilities and accountability for completing assigned work products.

Team Objectives

Work Collaboratively to:

1. Evaluate stormwater projects within the draft CFWI Regional Water Supply Plan (RWSP) including cost-benefit analysis of yield, sources, water resources constraints, water quality and potential hazardous materials, seasonal supply characteristics, potential partnerships, pumping and transmission configurations, feasibility, and permittability, and funding options.

2. Identify and evaluate additional project opportunities that can be considered which were not presented in the RWSP.
3. Coordinate with the Regulatory Team to identify project limitations or constraints resulting from the inconsistency of rules of the three WM Districts within the CFWI region.
4. Coordinate with the RWSP Team and appropriate affected stakeholders to identify potential future steps toward achieving sustainable, long-term, water supply alternatives.
5. Collaborate with the CFWI Surface Water and Reclaimed Water Sub-Teams to identify shared project opportunities, including jointly utilized dispersed storage, and properly evaluate options for linking project opportunities to the appropriate Solutions Sub-Team.
6. Contribute sustainable solution options for the development of the CFWI 2035 Water Resources Protection and Water Supply Strategies.

Team Scope of Work and Timelines

1. Establish Sub-groups: **(Jan-Feb)**
   Discuss and identify the overall variety and types/ jurisdictional aspects of potential stormwater and related project opportunities. Based on sub-team members expertise and experience, assign individuals to collectively research and provide focused analysis and options for selected categories of opportunities. It is expected that three or more sub-groups will be established.
2. Gather project opportunity data and evaluate project options within sub-groups **(Feb-Mar)**
3. Overall Sub-Team discussions and identification of options/ projects to further evaluate, including: **(Mar-Apr)**
   a. Pros and cons to compare with identified stormwater and "other" projects
   b. Obstacles and challenge
   c. Linkages with other sources/ options and other sub-teams alternatives
   d. Timing
   e. Success factors and related limitations
4. Sub-groups work and focus on furthering evaluation of options **(May-Aug)**
   Possible actions include:
   a. Invite other potential partners to join in the discussions on projects
   b. Additional analysis undertaken (engineering, soils, WQ, financials, etc.)
   c. Engage permitting agencies and Regulatory Team to examine permitting likelihood
   d. Coordinate with surface water and reclaimed water sub-teams on linkages/ conjunctive use/ dispersed storage
5. Sub-team discussion and examination of feasibility, preliminary timing, and categorizing based on additional work completed **(Aug-Sept)**
6. Preparation of draft options **(Sept-Nov)**
7. Final CFWI Water Resources Protection and Water Supply Strategies to Solutions Planning Team **(Dec)**

CFWI Groundwater Sub-Team Scope of Work

Steering Committee Guidance

Through its Guiding Document and motions passed at Steering Committee meetings, the Central Florida Water Initiative (CFWI) has provided direction to the collaborative technical teams working to achieve the goals of the CFWI. In furtherance of the stated goals, the Steering Committee created the Solutions Planning Team (SPT) and approved its associated scope of work. The SPT's scope of work, at item G3, provides for creation of various sub-teams that are to assist with all technical aspects of the CFWI 2035 Water Resources Protection and Water Supply Strategies document. This Groundwater Sub-Team was created as a part of this direction and was charged with developing a sub-team scope of work geared toward providing technical support to the SPT's effort. The role of the SPT's sub-teams is technical in nature and will be limited to fact finding and technical analysis. Accordingly, all evaluations and options must be presented to the Steering Committee for consideration. The Sub-Team is not to make any policy decisions, recommendations, or prioritize options. The Groundwater Sub-Team shall work pursuant to the instruction of the Steering Committee as set forth in the Guiding Document and as may occur at regularly scheduled Steering Committee meetings. The following statement of the Groundwater Sub-Team's effort shall occur in accordance with the above stated principles and this Steering Committee's direction:

Team Leader: Ken Herd

The Groundwater Sub-Team (GST) is made up of representatives from the three water management districts and technical representatives of environmental groups, agriculture, business/industry and public water supply utilities.

Team Goal

Evaluate future groundwater supply project options that exist within the CFWI region and identify and evaluate management activities that are necessary to alleviate water resource constraints. Projects to be evaluated include projects identified in the RWSP and those identified during the evaluation process. The final work product of the GST will be consistent with the "CFWI 2035 Water Resource Protection and Water Supply Strategies" document.

Team Approach

The team will work within a collaborative environment with open and full information sharing as well as joint responsibilities and accountability for completing team assigned work products. The GST will coordinate with other sub-teams as necessary to develop the required work products.

Team Objectives

Work collaboratively with other Initiative teams to:

1. Evaluate the existing ECFT model and assess limitations and capability of the model
2. Identify groundwater supply project options from the RWSP and any other potential project options that are identified during this process.
3. Establish processes for running the model and identify groundwater withdrawal scenarios to be modeled
4. Assess modeled effects of the withdrawal scenarios (from objective 2) on the identified "measuring sticks"
5. Estimate potential additional available groundwater based upon the model results and assessed effects on the measuring sticks
6. Document findings and identify options for further implementation of project alternatives.

Team Scope of Work (SOW)

1. Identify multijurisdictional groundwater project options with a minimum capacity of 5 mgd

    a. RWSP
    b. Other options identified by participants
2. Conduct technical feasibility analyses to assess the project scope and yield
    a. Identify constraints
    b. Quantity hydrologic effects of proposed project
    c. Identify options for management activities to minimize impacts and maximize project yield
3. Planning level design of water supply project and corresponding management activities
    a. Pumping
    b. Storage
    c. Transmission configurations
    d. Land requirement
    e. Other
4. In coordination with Sub-Team leaders, develop estimates of project costs
    a. Capital costs
    b. Annual O & M
    c. Apply consistent methods and parameters for use by all sub-teams
5. Assess overall project feasibility
    a. Technical
    b. Likelihood of being permitable
    c. Financial
6. In coordination with Sub-Team leaders, develop options to evaluate benefits of potential projects
7. Cost-benefit analysis of yield
8. Identify potential partners and governance options
9. Identify funding sources
10. Identify project limitations or constraints resulting from rule inconsistency

11. Identify other considerations – public concerns or non-technical obstacles
12. Estimated implementation schedule
13. Document Findings

Following are detailed tasks to address the technical feasibility (SOW - Item #2) of groundwater projects:

1. Review ECFT Model
    a. Review updated model provided by HAT
    b. Assess availability of steady-state model (SJR/HAT) for use as a screening tool for evaluations (investigate use of influence coefficients)
2. Establish process for running the model to evaluate different withdrawal scenarios and the corresponding management activities that may be needed
    a. Establish baseline for simulating "existing" quantities (i.e., 800 mgd from RWSP vs 670 mgd from ECFT Model)
    b. Establish process to address existing impacts
        i. Work with Recovery/Prevention team to identify areas currently requiring management activities
        ii. Identify options for management activities
    c. Establish process to address impacts resulting from future projected withdrawals
        i. Identify options for management activities
3. Evaluate effects of planned/proposed brackish groundwater projects
    a. Work with HAT to identify limitations of model for use in evaluating LFA projects
    b. Quantify effects of simulating currently planned withdrawals from the LFA and assess affect on available fresh groundwater quantities
    c. Evaluate cumulative effects of projected LFA "blending" wells
4. Evaluate availability of fresh groundwater
    a. Additional groundwater withdrawals (additional 50 mgd)
        i. Work with the SPT and other sub-teams to develop options for allocating any additional withdrawals
        ii. Evaluate effects of additional withdrawals and options for management activities
    b. Additional groundwater withdrawals (additional 75 mgd above the 50 mgd)
        i. Work with the SPT and other sub-teams to develop options for groundwater withdrawal beyond the "additional" 50 mgd
        ii. Assess effects of additional quantities and options for management activities
5. Document findings

Team Schedule

Overview background information	January – February 2014
Develop project scenarios for modeling	February – April 2014
Report progress to Solutions Planning Team	March 2014

Modeling performed by HAT	March – June 2014
Report progress to Solutions Planning Team	June 2014
Adjust scenarios for final modeling	May – July 2014
Perform final modeling	August 2014
Report progress to Solutions Planning Team	September 2014
Prepare documentation for draft report	September 2014
Submit draft report to Solutions Planning Team	October 2014
Report progress to Solutions Planning Team	December 2014

CFWI Surface Water Sub-Team: Scope of Work

Steering Committee Guidance

Through its Guiding Document and motions passed at Steering Committee meetings, the Central Florida Water Initiative (CFWI) has provided direction to the collaborative technical teams working to achieve the goals of the CFWI. In furtherance of the stated goals, the Steering Committee created the Solutions Planning Team (SPT) and approved its associated scope of work. The SPT's scope of work, at item G3, provides for creation of various sub-teams that are to assist with all technical aspects of the CFWI 2035 Water Resources Protection and Water Supply Strategies document. This Surface Water Sub-Team was created as a part of this direction and was charged with developing a sub-team scope of work geared toward providing technical support to the SPT's effort. The role of the SPT's sub-teams is technical in nature and will be limited to fact finding and technical analysis. Accordingly, all evaluations and options must be presented to the Steering Committee for consideration. The Sub-Team is not to make any policy decisions, recommendations, or prioritize options. The Surface Water Sub-Team shall work pursuant to the instruction of the Steering Committee as set forth in the Guiding Document and as may occur at regularly scheduled Steering Committee meetings. The following statement of the Surface Water Sub-Team's effort shall occur in accordance with the above stated principles and this Steering Committee's direction:

Team Leader: Joanne Chamberlain

The Surface Water Sub-Team consists of representatives from the three water management districts and technical representatives of business/industry, environmental groups and public water supply utilities.

Team Goal
Advance evaluation, including feasibility, of surface-water project options identified in the CFWI RWSP as well as identifying additional potential surface water options to help meet the water supply needs of the region.

Team Approach
The team will work within a collaborative environment with open and full information sharing as well as shared responsibilities and accountability for completing team assigned work products.

Team Objectives
Work collaboratively to:

1. Evaluate surface water projects identified within the draft CFWI Regional Water Supply Plan (RWSP) including cost-benefit analysis of yield, cost estimates, sources, water resource constraints, potential partnerships, additional pumping and transmission configurations, feasibility and permittability, and funding options.
2. Identify additional regional, surface water project options for consideration that were not presented in the RWSP.

3. Coordinate with the Regulatory Team to identify if there are project limitations or constraints resulting from rule inconsistencies in the CFWI.
4. Coordinate with the other SPT Sub-Teams and appropriate stakeholders to identify potential conjunctive use project options to address future demands and natural system constraints.
5. Contribute to the development of the CFWI 2035 Water Resources Protection and Water Supply Strategies (CFWI Plan).

Team Scope of Work & Timeline):

1. Establish sub-groups **(Jan / DONE)**
   Sub-groups will evaluate each major surface water project option (>10 MGD) identified in the CFWI RWSP with respect to the 11 basic questions. An additional sub-group will review smaller project options (< 10MGD) .
   Sub-Groups (Team Lead and members)
   a. Upper Kissimmee – Mark Elsner, Lawrence Glenn, Larry Rosen, Larry Walker, Brian Wheeler
   b. SJR/TCR – Christine Doan, Teresa Remudo, Debbie Bradshaw, Pat Renish, Joanne Chamberlain
   c. SJR near SR 46 – Bill Marcous, Teresa Remudo, Pat Renish
   d. SJR near Yankee Lake – Terry McCue, Pat Renish, Joanne Chamberlain
   e. Joint TBW/Polk Co – Krystal Azzarella, Joe Carlson, John Upton
   f. Dispersed storage – Damon Meiers, Mark Elsner
   g. Smaller projects – Bill Eggers, Bill Fagan, Stephen Miller
2. Gather project data and review project options within sub-groups **(Feb-Mar DONE)**
3. Surface Water Sub-team to discuss options for further evaluation **(Apr – Jun)**
   Group discussion items to consider:
   a. Pros and cons- to compare with other surface water projects
   b. Obstacles/challenges
   c. Linkages with other sources/options
   d. Timing
   e. Success factors
4. Furthering project evaluation and coordination with all SPT sub-teams **(Jun - Aug)**
   Possible actions include:
   a. Invite other potential partners to join in the discussion on projects
   b. Additional analysis (engineering, financials, etc)
   c. Engage permitting agencies to gain informal feedback on permitting
   d. Coordinate with reclaimed and groundwater teams on linkages/conjunctive use
5. Surface Water Sub-team discussion of results of additional work **(Aug – Sept)**
6. Preparation of draft Surface Water chapter for SPT review **(Sept - Oct)**
7. Draft CFWI Plan to Steering Committee **(Dec)**
8. Public review and comments **(Jan – Feb 2015)**
9. Review comments and revise CFWI Plan as needed (**Mar 2015)**
10. Final CFWI Plan to Steering Committee **(Apr 2015)**

CFWI Environmental Evaluation Sub-Team Scope of Work

Steering Committee Guidance

Through its Guiding Document and motions passed at Steering Committee meetings, the Central Florida Water Initiative (CFWI) has provided direction to the collaborative technical teams working to achieve the goals of the CFWI. In furtherance of the stated goals, the Steering Committee created the Solutions Planning Team (SPT) and approved its associated scope of work. The SPT's scope of work, at item G3, provides for creation of various sub-teams that are to assist with all technical aspects of the CFWI 2035 Water Resources Protection and Water Supply Strategies document. This Sub-Team was created as a part of this direction and was charged with developing a sub-team scope of work geared toward providing technical support to the SPT's effort. The role of the SPT's sub-teams is technical in nature and will be limited to fact finding and technical analysis. Accordingly, all evaluations and options must be presented to the Steering Committee for consideration. The Sub-Team is not to make any policy decisions, recommendations, or prioritize options. This Sub-Team shall work pursuant to the instruction of the Steering Committee as set forth in the Guiding Document and as may occur at regularly scheduled Steering Committee meetings. The following statement of this Sub-Team's effort shall occur in accordance with the above stated principles and this Steering Committee's direction:

Team Leader: Dean Powell

Background:
The Environmental Evaluation Sub-Team is one of six sub-teams that supports the Solutions Planning Team (SPT) and is comprised of representatives from the three water management districts, Florida Department of Environmental Protection, an environmental group, and public water supply utilities. After evaluation by several technical teams associated with the CFWI, facts have been gathered that indicate numerous water resources (including MFL and non-MFL water bodies) throughout the region are in need of recovery or protection. This information was provided to the Steering Committee. Pursuant to the scope of work for the Solutions Planning Team, the potential effects on these water resources associated with withdrawals must be considered when evaluating water supply development projects associated with meeting future water supply demands. Methods that were developed during the Regional Water Supply Planning process will be used.

Goals:

- Work within the CFWI process to develop and assess water supply and water resource development project options for the protection or restoration of water resources. This includes projects identified in the Regional Water Supply Plan (RWSP) and other projects developed during the solutions phase.

- Provide technical support to the Solutions Planning Team on potential environmental effects of various project options.

Team Approach:

The Environmental Evaluation Sub-Team will interact with the other CFWI technical teams and Solutions Planning Team (SPT) sub-teams and work under the guidance of the SPT, Management Oversight (MOC) and Steering Committee (SC). The Environmental Evaluation Sub-Team will evaluate alternative options for recovery and protection of MFL and non-MFL water bodies using methods that were developed during the RWSP process.

Team Objectives and Scope of Work:

Task 1: Review and assess areas of environmental sensitivity identified in the draft CFWI RWSP.

Task 2: Work with other sub-teams to spatially evaluate projects identified in Appendix F of the draft CFWI RWSP and other potential projects with areas of environmental sensitivity identified for the CFWI area.

Task 3: For MFL Water bodies, work with the Minimum Flow and Levels and Reservations Team (MFLRT) to evaluate projects identified in the draft CFWI RWSP (Appendix F) or other projects identified in the process to quantify the effects in the CFWI area.

- Using the existing measuring sticks established for MFL water bodies that were developed during the RWSP process.
- Work with other sub-teams to develop groundwater model runs for project evaluations.
- Coordinate with other sub-teams and provide project options to the SPT.

Tasks 4: For non-MFL water bodies, work with the Environmental Measures Team to evaluate projects identified in the draft CFWI RWSP (Appendix F) or other projects identified in the process to quantify the effects in the CFWI area.

- Using the statistical methods developed for non-MFL water bodies during the RWSP process.
- Work with other sub-teams to develop groundwater model runs for project evaluations.
- Coordinate with other sub-teams and provide project options to the SPT.

Task 5: Work with other sub-teams to initiate development of options for sustainable environmental measures and identify additional data requirements to assist in the implementation of the Solutions Phase.

Task 6: Support other sub-teams in addressing the “Basic Project Questions:”

- Identify regional water supply projects
- Complete cost-benefit analyses of project yields
- Develop project cost estimates
- Identify water resource constraints
- Identify potential project partners and governance options
- Evaluate project pumping, storage and transmission configurations
- Assess project feasibility and estimated property requirements
- Identify project funding sources
- Identify regional water supply project limits or constraints resulting from rule inconsistencies
- Address other considerations, including public concerns or non-technical obstacles
- Develop estimated project implementation schedules

Task 7: Provide technical support to the SPT in the development of the CFWI 2035 Water Resources Protection and Water Supply Strategies document. Describe existing projects and programs associated with recovery and protection of MFL and non-MFL water bodies within the CFWI area.

Technical Collaborative Team	Key Components	Start	Stop
Recovery-Prevention Sub-Team (X)	Review and assess areas of environmental sensitivity identified in the draft CFWI RWSP where existing and/or future stress caused by withdrawals occur or are projected to occur to MFL and non-MFL water bodies. (Task 1)	3/11/2014	6/30/2014
	Work with other sub-teams to spatially evaluate projects identified in Appendix F of the draft CFWI RWSP and other potential projects with areas of environmental sensitivity identified for the CFWI area. (Task 2)	3/11/2014	8/11/2014
	For MFL Water bodies, work with the Minimum Flow and Levels and Reservations Team (MFLRT) to evaluate projects identified in the draft CFWI RWSP (Appendix F) or other projects identified in the process to quantify the effects in the CFWI area. (Task 3)	7/14/2014	8/29/2014
	For non-MFL water bodies, work with the	7/14/2014	8/29/2014

	Environmental Measures Team to evaluate projects identified in the draft CFWI RWSP (Appendix F) or other projects identified in the process to quantify the effects in the CFWI area. (Task 4)		
	Work with other sub-teams to initiate development of options for sustainable environmental measures and identify additional data requirements to assist in the implementation of the Solutions Phase. (Task 5)	3/26/2014	TBD
	Support other sub-teams in addressing the "Basic Project Questions" identified by the SPT. (Task 6)	6/302014	8/29/2014
	Provide technical support to the SPT in the development of the CFWI 2035 Water Resources Protection and Water Supply Strategies document. Describe existing projects and programs associated with recovery and protection of MFL and non-MFL water bodies within the CFWI area. (Task 7)	6/30/2014	4/30/2015

Mr. Tom Bartol

St. Johns River Water Management District

4049 Reid Street

Palatka, Florida 32177

Mr. Bartol,

This letter is written in response to the document released by the Central Florida Water Initiative Steering Committee that show public comments to the draft issue of the CFWI RWSP and CWFI's responses to those comments.

First I would like to provide my interpretation of the general nature of those comments.

1. The CFWI should place a much greater emphasis on water conservation.
2. The water management districts have a creditability problem as perceived by the public.

My personal opinion of the document is that many questions were left unanswered with the promise that they will be addressed by the Solutions Team and the Regulatory Team. What opportunities will the public have to play an active role in the conclusions and recommendations contained in the documents produced by these two sub-groups? I am not saying that commenting on this draft issue of the CFWI RWSP was a waste of time, but clearly the important work is yet to come.

The CFWI RWSP public comment and response document include hundreds of comments from average citizens, local governments, governmental agencies, agricultural consumers, public utilities, environmental advocacy groups and many others. In total the document was over 400 pages in length. What was the impact on the draft issue of the CFWI RWSP due to these 400 pages worth of comments? Let's list the promised changes. They are:

1. In Chapter 5 added a paragraph on Building Codes and Development Regulations.
2. In Chapter 5 added a paragraph on Local Incentives.
3. Updated the Yankee Lake project (#135) and changed the capacity from 30 to 50 MGD.
4. On page 115 corrected a citation to show the correct name of "CH2M/PB Water Joint Venture" and corrected the corresponding reference.
5. Revised wording that describes the upper Peace River MFL restoration project to address the public supply capacity of the river.
6. Removed Indian River Lagoon from the list of possible sources of seawater.
7. On page 9 added the clarifier "semi" before the term "confined".
8. Added clarification that per Florida Statutes AWS options for Ag self-supply are limited.
9. Will update the names of the members of the Water Cooperative of Central Florida.

10. For the area of the Green Swamp Area of Critical State Concern, changed the reference to recharge from “high” to “important”.
11. Changed the City of Sanford’s per capita water use rate to 137 gallons per day.
12. Delete specific reference to Lake Apopka and the City of Winter Haven when discussing areas susceptible to harm along the Lake Wales Ridge.

There may be additional changes to the draft issue of the CFWI RWSP that were initiated internally, but the 12 listed above were all that I could find that were in direct response to comments from the public.

I will let everyone draw their own conclusions concerning the impact that the public comments had on the content of the RWSP.

I have included a disk of the Public comment document. I have used the “sticky note” feature of Adobe Reader to add addition comments to this document based on my opinion that many questions are still left unanswered.

Due to the diverse nature of the commenters and the “political” nature of water management not everyone will be satisfied with the work of the Solutions Team and the Regulatory Team. It’s my observation that unless there is a substantial change in the direction from an emphasis on AWS projects to conservation projects these documents will never receive public support. In addressing the credibility issue, I would advise that the RWSP, all models and studies receive an independent, third party peer review by experts that have no bias as to the results. There is also still a very clear inconsistency of approach and maybe even a little mistrust amongst the three, participating water management districts. For the sake of a comprehensive water supply plan for the CFWI Planning Area, these “disagreements” need to be resolved. You might want to consider the establishment of an “independent” governing board that reviews and approves all CUP applications for the planning area.

Water management is a very complicated issue because there are two competing interests. One group is concerned about growth and sees anything that might impede growth as a negative that will degrade the quality of life. Another group views water as the most important factor in the maintaining of a healthy environment and views anything that impacts the natural balance as a negative that will degrade the quality of life. The real questions then become how do you balance these two competing interests, what are you willing to sacrifice and who gets to make these decisions?

Thank you for providing the opportunity for public comment.

Edward McDonald

Auburndale, Florida

Public Comments by Tom Singleton on behalf of the City of Winter Haven
Presented to the CFWI Steering Committee
June 27, 2014

Good morning. My name is Tom Singleton. I am here today representing the City of Winter Haven, along with Mike Britt from the City.

We would like to acknowledge the difficulty of the problems you are trying to solve and thank the three water managements for the technical contributions you are making as a team. Your work is unprecedented.

We have a paper we would like to share with you today offering six recommendations to the Initiative. They draw upon lessons learned in 40 years of water management in the state and the work the City is doing to protect its lakes and water resources.

In the brief time permitted today, I would like to speak to two of the recommendations. The first is the need for the CFWI to address existing impacts through hydrologic restoration projects and water reservations. These actions will protect existing water uses and prevent impacts from future water demands. Unless this is done, the water that communities and natural resources depend upon today will literally be pulled out from under them to meet the water needs of other communities. This has already happened in Winter Haven and along the Lake Wales Ridge, where lake levels and water quality have been impacted by regional declines in aquifer levels.

The second recommendation is for the CFWI to actively engage local governments as full partners in the Initiative, not just permittees. This is important, as local governments have the tools and ability to link land use and water resource management, along with intimate knowledge of their communities, both of which the water management districts do not have. They also have the ability to develop incentives and market-based solutions to problems for engaging stakeholders and the free market as full partners in the process. This is important, as the effects of regional water management decisions are felt first and most profoundly by local communities who are ultimately accountable for the decisions and their impacts to local economies and community quality of life. In Winter Haven, this means bearing the cost of restoring native hydrology to restore lake levels and water quality in 25 of its 50 lakes. As you will read in the recommendations, this is one of several impacts addressed by the City's regional water infrastructure improvement and ecosystem restoration project, known as the "Sapphire Necklace."

You have an enormous challenge before you and we want to acknowledge the importance and timeliness of your work. The City would like to assist you as a partner and we respectively request the opportunity to formally present our recommendations to you at your August meeting.

Thank you for your time and consideration.

Tom Singleton
tom@tlsingletonconsulting.com
285 Taylor Road, Monticello, FL 32344
(850) 556-9733