

Conservation Team Scope of Work

Team Leader:

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Background:

The Conservation Team was originally formed as a Subteam of the CFWI 2015 Water Supply Planning Team, with the charge of producing estimates of the amount of conservation which could be achieved to reduce the 2035 projected demands. The group continued its work to assist the Solutions Planning Team by further refining the estimates and analysis for inclusion in Volume II of the Regional Water Supply Plan: 2035 Water Resources Protection and Water Supply Strategies (2015).

The 2015 CFWI RWSP concluded that based on achievable water conservation rates, the future demand could be reduced by 37 MGD or more through conservation. Of this, approximately 76 percent could be conserved by public supply utilities, 12 percent by agricultural users, and 12 percent by other self-supplied users. A key recommendation for the “next steps” for conservation in the 2015 CFWI RWSP is for the “formulation of a CFWI comprehensive conservation implementation scope of work that includes voluntary and incentive-based initiatives, research, education and outreach initiatives, and regulatory initiatives to achieve these savings.”

In formulating the structure for the next phase of the CFWI (CFWI 2020), the Steering Committee recognized the importance of water conservation and determined that a Conservation Team should be included as one of the main technical teams reporting directly to the Management Oversight Committee (MOC). The Steering Committee also directed this Team to “continue to advance conservation beyond the estimates established in the 2015 CFWI RWSP.”

Goal:

Continue the effort to advance conservation beyond the estimates established in the RWSP.

Team Approach:

The Conservation Team will consist of a member from DEP and DACS, representatives from each of the three water management districts, two water supply utility representatives, a representative from agriculture, a representative from the environmental community and a representative of the business community.

Three Subteams will be established to focus on water conservation for the primary user group categories as follows:

1. Public Supply
2. Agriculture
3. Other Self Supply (Landscape/ Recreation, Commercial and Industrial, Power Generation)

The Subteams will be responsible for conducting technical work and bringing draft products and options to the Conservation Team for consideration. Other topics falling outside the scope of the three Subteams, such as savings by domestic water users, will be addressed directly by the Conservation Team

Team Objectives:

1. Develop options for an implementation strategy to achieve the 37 MGD of water savings identified in the 2015 CFWI RWSP.
2. Develop options for increasing water savings in the CFWI beyond the 37 MGD identified in the 2015 CFWI RWSP.

Team Scope of Work:

Task A. Using the analysis and options from the Subteams, the Conservation Team will develop an Implementation Strategy to achieve the projected savings identified in the 2015 CFWI RWSP.

Task A.1. Conduct an assessment of the existing status of the implementation of BMPs identified in the 2015 CFWI RWSP, and the remaining potential for BMP implementation. Information will be gathered from water users/suppliers, agency funding programs, existing water conservation-related data bases, etc.

Task A.2. Identify ongoing funding programs that support additional BMP implementation, and options for increasing the effectiveness of the existing programs. Information will be gathered from water users/suppliers, agency funding programs, etc.

Task A.3. Identify geographic priority target areas for selected BMPs where the greatest savings, and water resource benefits where applicable, are likely to be achieved, and options and costs for achieving the savings.

Task B. Develop options for increasing water conservation savings beyond the estimates in 2015 CFWI RSWP including consideration of the “next steps” outlined in 2015 CFWI RWSP Volume I, Chapter 11 and Volume II, Chapter 7.

Task C. Coordinate with the Regulatory Team, as needed, on water conservation-related tasks.

Task D. Coordinate with the Communication and Outreach Team on a Water Conservation Education and Outreach initiative.

Task E. Provide Quarterly updates to MOC on Conservation Team progress.

Task F. Update the water conservation estimates for achievable water conservation, and produce a draft Water Conservation Chapter for the 2020 CFWI RWSP, consistent with the schedule established by the 2020 Regional Water Supply Planning Team, which summarizes the work and analysis of the Conservation Team.

Team Schedule

- **Subteam Scopes of Work:** Conservation Team approval of Subteam scopes of work, including interim deliverables/schedule – April 15, 2016.

D R A F T

- **Task A:** Complete draft options for implementation strategies to achieve the 37 MGD of water savings identified in the 2015 CFWI RWSP for MOC consideration – June, 2017.
- **Task B:** Complete draft options for actions/programs to increase water savings beyond the 37 MGD identified in 2015 CFWI RWSP – TBD.
- **Task C:** On-going.
- **Task D:** On-going.
- **Task E:** On-going.
- **Task F:** Provide draft Water Conservation Chapter to the 2020 RWSP Team - December, 2018, or consistent with the schedule established by the 2020 RWSP Team.

2020 CFWI Public Supply Conservation Planning Subteam - Final Scope of Work

Subteam Goals: Develop an implementation strategy to achieve the 27.9 mgd for public supply as identified in the 2015 CFWI RWSP Vol. II and continue the effort to advance conservation beyond these estimates.

Subteam Approach: The public supply subteam of the 2020 CFWI RWSP Conservation Planning Team will consist of utility, water management district, and DACS representatives who will work independently to develop planning strategies and options which will be presented to the larger conservation team for consideration. The larger conservation team, consisting of members from FDEP, the Water Management Districts, environmental groups, and the subteam leads, will offer input and guidance to the subteam leaders. The subteam leaders will provide an update of subteam activities and progress at each meeting of the larger conservation team.

Subteam Scope of Work:

1. Develop an implementation strategy to achieve the 27.9 mgd for public supply by 2035 as identified in the 2015 CFWI RWSP.
 - Conduct an assessment of the existing status of the implementation of BMPs identified in the 2015 CFWI RWSP, and evaluate the remaining potential for BMP implementation. Information will be gathered from utilities, agency funding programs, existing water conservation related databases, etc.
 - Identify ongoing funding programs that support additional BMP implementation, and develop options for increasing participation in the existing funding programs. Information will be gathered from utilities, agency funding programs, etc.
 - Identify geographic priority target areas for selected BMPs where the greatest savings, and water resource benefits, where applicable, are likely to be achieved. Develop options and costs for achieving the savings.
2. Expand evaluation of conservation potential beyond 27.9 mgd by including consideration of BMPs that were not evaluated previously with the conservation water savings tools. Check existing conservation modeling tools for any BMPs that have been updated or added since the last estimates were completed. Review list of conservation BMPs and prioritize by anticipated level of savings effectiveness and estimated cost efficiency. Apply measurement and verification protocols to directly quantify impacts of any BMPs that are high on the priority list and are currently in practice in the CFWI, but have not been quantified using the current modeling tools. Develop costs for the new BMPs.
3. Evaluate conservation measures which were included in the conservation modeling tools but exceeded the assumed \$3.00 per 1,000 gallons limitation and assess whether these conservation measures may be cost-effective for some CFWI utilities to implement based on the cost of their next increment of water. If deemed to be cost effective for some utilities, estimate a savings potential for these measures. Explore other cost metrics which better tie to a utilities cost for their next increment of water. Describe process for performing cost benefit analyses for conservation measures including determining incentives such as rebates and discounts. Use this process on any of the new BMPs developed in scope item #2.

4. Develop options to include in a funding proposal to continue development and support of a statewide clearinghouse as a repository for PS conservation data, publications, and goal-based planning tools to optimize future conservation programs and promote consistency. Investigate the status of U of F Conserve Florida Water Clearinghouse as a first step.
5. Participate in amending Florida Building and Plumbing codes and Florida Statutes.
 - Participate in the Florida Building/Plumbing Code modification process to improve water conservation statewide by evaluating the current code provisions affecting water conservation and identify potential amendments to improve water conservation including:
 - Efficient landscape and irrigation technology (i.e. Florida Water Star outdoor provisions) for all new construction (approved design by licensed irrigation professionals)
 - High-efficiency indoor water use standards for all new construction
 - Expansion of current homeowner protection from homeowner association landscaping covenants
6. Develop options for expanding the use of advanced/ SMART meters and associated data management (hardware and software) by water utilities, to allow utilities and their customers to understand their water use practices and target more effective conservation BMPs. As a starting point, develop a list of the utilities within the CFWI currently using smart meters and quantify the number of smart meters currently being used in each system and list ways the data is being or planned to be used (beyond billing) for conservation purposes. If the technology is being used by utilities as a conservation practice, develop a process in order to quantify the water savings.
7. Develop options for testing and promoting the use of SMART irrigation technology to improve landscape irrigation efficiency. As a starting point, develop a list of CFWI utilities that have programs using smart irrigation technology and quantify the number and type of units already in-use. Provide support to the regulatory subteam addressing SMART irrigation controller technology.
8. Support and provide input and technical information to the Communications & Outreach team for developing a comprehensive public education and outreach program for promoting water conservation to residential and commercial users.
9. Update and revise conservation savings and cost estimates and the timing schedule developed during the 2015 RWSP for the MOC who will be addressing CFWI funding. Include costs for conservation projects/BMPS and other non-BMP conservation related items such as the Clearinghouse, Public Education, etc. Produce a public supply sub-chapter to be included in the draft water conservation chapter of the 2020 CFWI RWSP.

2020 CFWI Agricultural Conservation Planning Sub-team - FINAL

Sub-team Goals: Develop an implementation strategy to achieve a minimum 4.3 MGD water savings as estimated in the 2015 CFWI RWSP and continue the effort to advance conservation beyond the estimates established in the 2015 CFWI RWSP

Sub-team Approach: The Ag conservation sub-team of the 2020 CFWI RWSP Conservation Planning Team will consist of ag, industry, and government members who will develop planning strategies and options which will be presented to the larger conservation team for consideration. The larger conservation team, consisting of members from FDEP, the Water Management Districts, environmental groups, and the sub-team leads, will offer input and guidance to the sub-team leaders. The sub-team leaders will provide an update of sub-team activities and progress at monthly meetings of the larger conservation team.

Sub-team Scope of Work:

1. Refine quantification and implementation strategy to achieve a minimum of 4.3 MGD agricultural conservation savings as identified in the 2015 CFWI RWSP. This will include a review of the FARMS programmatic approach to identify specific BMP's and the target areas for their implementation to achieve the 4.3 MGD savings, as well as to identify additional BMP's to increase agricultural water savings beyond the 4.3 MGD
2. Coordinate with regulatory uniform ag demand workgroup on evaluating irrigation efficiency and crop coefficients for modeling potential agricultural water savings. Conduct additional documentation and further database review to establish baseline conditions to estimate agricultural irrigation efficiency
3. Identify ongoing funding programs that support BMP implementation and provide options for increasing the participation rates for existing programs
4. Expand evaluation of agricultural conservation potential to include consideration of BMPs that could not be evaluated previously with the conservation water savings tools to expand water savings beyond the 4.3 MGD identified in the 2015 RWSP. Check existing conservation modeling tools for any BMPs that have been updated or added since the last estimates were completed. Review list of agricultural conservation BMPs and prioritize by anticipated level of savings effectiveness and estimated cost efficiency. Attempt to quantify any agricultural BMPs that are high on the priority list and are currently in practice in the CFWI, but have not been quantified using the current modeling tools.
5. Develop options to include in a funding proposal to continue development and support of a statewide clearinghouse as a repository for agricultural conservation data, publications, and goal based planning tools to optimize future conservation programs and promote consistency.
6. Support and provide input and technical information to the Communications & Outreach team for developing a comprehensive public education and outreach program for promoting water conservation to agricultural producers.
7. Define set of measures in estimating the water savings that would be used for the purposes of this sub-team.
8. Produce agricultural sub-chapter to be included in the draft water conservation chapter of the 2020 CFWI RWSP