

LONG-TERM PLAN

CONSERVE FLORIDA WATER CLEARINGHOUSE

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INTRODUCTION

This plan has been developed for the Conserve Florida Water Clearinghouse (<http://www.conservefloridawater.org/>) to focus activities in support of the six core service areas and eleven objectives defined below. This plan builds upon the foundation of previous work over the past seven years, including the following:

- The February 2004 “Joint Statement of Commitment for the Development and Implementation of a Statewide Comprehensive Water Conservation Program for Public Water Supply.”
- Section 373.227, Florida Statutes, enacted in 2004, which directed the establishment of a comprehensive statewide water conservation program for public water supply.
- The December 2004 “Work Plan to Implement Section 373.227, F.S.,”
- The August 2005 draft “Business Plan for the Conserve Florida Water Conservation Clearinghouse for Public Water Supply.”
- Progress of the Clearinghouse at the University of Florida since commencing work on April 25, 2006.

This plan will help achieve key Clearinghouse Goals and Objectives, including hosting and refining the water conservation EZ Guide, hosting and maintaining a web-accessible water conservation digital library, continued development of an integrated database on water conservation, providing technical assistance in using the EZ Guide, establishing and managing an active research program, and providing outreach to users. Activities for each Core Service will be defined to assist in developing the Clearinghouse Scope of Work for future years. Staffing options to ensure continued management and service support will also be presented. This will be included as Appendix A.

This plan will be updated each year, in coordination with an annual progress report.

MISSION STATEMENT

The mission of the Conserve Florida Water Clearinghouse is to develop collaborative relationships with related programs, and to collect, analyze, and make available reliable information and technical assistance to public water supply utilities and water managers for use in developing effective and efficient water conservation programs.

GOALS

The goals of the Clearinghouse are to:

- Be the premier source in Florida of water conservation information for public water supply, drawing upon information and expertise from throughout the utility sector, the water management districts, the state university system, and other sources.
- Help Florida become a national leader in water use efficiency.

- Focus directly on Florida’s needs and users, but take advantage of opportunities to build on expertise and resources outside of Florida.
- Serve public water supply utilities, water management districts, and other stakeholders in improving water use efficiency.

OBJECTIVES

The Clearinghouse, when fully implemented, will satisfy the following eleven objectives:

1. Host and refine an interactive, web-accessible, water conservation EZ Guide to assist public water supply utilities in developing goal-based water conservation plans which are tailored to their specific service areas and meet permitting requirements.
2. Host and develop an integrated statewide database with infrastructure for the collection, evaluation, and dissemination of quantitative and qualitative information on public water supply conservation programs and practices, and their effectiveness.
3. Host and maintain a searchable web-accessible library of historic and current water conservation studies and reports.
4. Provide a mechanism for benchmarking water conservation practices among utilities to determine and compare their effectiveness.
5. Provide a means for water supply and conservation professionals to obtain technical assistance for understanding, developing, and implementing effective and efficient water conservation projects or programs that will meet water management district regulatory requirements.
6. Make available analytical tools to allow the evaluation of water conservation programs and practices as an aid to selecting the best management practices. Incorporate these tools into the EZ Guide.
7. Coordinate and maintain oversight of an applied research agenda to help develop innovative water conservation programs and practices.
8. Evaluate and enhance the water conservation EZ Guide to improve results, usability and functionality.
9. Publicize the importance of water conservation and the availability of Clearinghouse services to the water utility community.
10. Establish and grow collaborative relationships with related programs to enhance the effectiveness of the Clearinghouse to achieve its goals and objectives.
11. Host and maintain a web-presence providing access to Clearinghouse tools, data, and information.

CORE SERVICES

Six services will be provided by the Clearinghouse to achieve these eleven Objectives:

1. Host and refine the web-accessible water conservation program tool known as the EZ Guide.
2. Host and maintain the water conservation Library.
3. Continue development and maintenance of an integrated Data Infrastructure.

4. Provide Technical Assistance.
5. Update and Maintain a Research Agenda/Program.
6. Provide Outreach to users.

The relationship between the eleven Objectives and the six Core Services is shown below.

Core Service 1: A water conservation program tool known as the EZ Guide.

Objective 1: Host and refine an interactive, web-accessible, water conservation EZ Guide to assist public water supply utilities in developing goal-based water conservation plans which are tailored to their specific service areas and meet needs for permitting, planning, and/or performance tracking.

Objective 4: Provide a mechanism for benchmarking water conservation practices among utilities to determine and compare their effectiveness.

Objective 6: Make available analytical tools to allow the evaluation of water conservation programs and practices as an aid to selecting the best management practices. Incorporate these tools into the EZ Guide.

Objective 8: Evaluate and enhance the water conservation EZ Guide to improve results.

Core Service 2: A water conservation Library.

Objective 3: Host and support a searchable web-accessible library of historic and current water conservation studies, reports, models, and decision support tools.

Objective 10: Establish and grow collaborative relationships with related programs to enhance the effectiveness of the Clearinghouse to achieve its goals and objectives.

Core Service 3: An integrated Data Infrastructure.

Objective 2: Host and support an integrated statewide database with infrastructure for the collection, evaluation, and dissemination of quantitative and qualitative information on public water supply conservation programs and practices, and their effectiveness.

Objective 10: Establish and grow collaborative relationships with related programs to enhance the effectiveness of the Clearinghouse to achieve its goals and objectives.

Core Service 4: Technical Assistance.

Objective 5: Provide a means for water supply and conservation professionals to access technical assistance for understanding, developing, and implementing effective and efficient water conservation projects or programs that will meet water management district regulatory requirements.

Objective 10: Establish and grow collaborative relationships with related programs to enhance the effectiveness of the Clearinghouse to achieve its goals and objectives.

Core Service 5: Research Agenda/Program.

Objective 7: Coordinate and maintain oversight of an applied research agenda to help develop innovative water conservation programs and practices.

Objective 8: Evaluate and enhance the water conservation EZ Guide to improve results.

Core Service 6: Outreach to the water utility community.

Objective 9: Publicize the importance of water conservation to and the availability of Clearinghouse services to the water utility community

Objective 10: Establish and grow collaborative relationships with related programs to enhance the effectiveness of the Clearinghouse to achieve its goals and objectives.

Objective 11: Host and maintain a web-presence providing access to Clearinghouse tools, data, and information.

Brief descriptions of these Core Service areas are provided below.

Core Service 1: Guide

The web-accessible EZ Guide 2.0 beta was developed to aid utilities in developing goal-based water conservation programs. It possesses capabilities to do more in-depth analyses of water conservation and associated activities, and then recommends specific measures and practices for a comprehensive water conservation program. New features include:

- a calibrated water budget of existing water use including water consumption estimates for each of the major water use sectors
- evaluating the effectiveness and expected penetration of control measures based on parcel level evaluations of every user in the system
- an explicit optimization methodology that integrates end use savings performance functions with cost and savings data to find the best mix of BMPs
- adding a link to the 2009 AWWA Water Audit Spreadsheet and the AWWA Water Audit as an option for estimating water loss
- including procedures for calculating gpcd and other metrics that are based on the recent work of the DEP and water management districts to develop consistent methodologies forecasting future demands with and without conservation, and tracking the performance of implemented conservation practices.

EZ Guide 2.0 currently operates on a commercial and proprietary platform that may not be accessible by some users. The next major revision under development will further enhance the accessibility of EZ Guide 2.0 to a wider variety of platforms. The Steering Committee and Technical Advisory Group can work closely with the Clearinghouse to determine the best way to approach this activity and establish an implementation schedule.

Core Service 2: Library

The web-accessible water conservation library has been established and will continue to be refined over the next few years. It will continue to track water conservation programs and specific water conservation measures/practices, as well as be expanded using data collected from existing water conservation programs and practices, results of utility case studies using the water conservation EZ Guide, new research conducted or supported by the Clearinghouse, and information obtained from other programs within the state university system, state agencies, the private sector, and non-governmental organizations. The library is searchable by topic, region, results, and other views. The library continues to work with other entities to expand its content, working with water management districts, utilities, the American Water Works Association program, the California Urban Water Conservation Council, and the Alliance for Water Efficiency. The Clearinghouse has established a working relationship with the AWWA's Water Research Foundation to allow university faculty and students to access their important and relevant publications.

Core Service 3: Data Infrastructure

An integrated database framework has been established with an infrastructure that encompasses accessibility, flexibility (accommodation of various data types and formats), reliability, and security. The data infrastructure can be accessed via a variety of publicly available web services as part of the Clearinghouse activities. The information in these databases is reviewed and refreshed annually to support the Guide and other Clearinghouse needs as appropriate. The following datasets are being maintained and updated as new data become available.

- Florida Department of Revenue Database. The Florida DOR database contains valuable information for every parcel in Florida. Key information includes the total parcel and developed area sizes, assessed valuations, year built, and associated GIS parcel boundaries. This database has been integrated into EZ Guide 2.0 to provide an accurate way to estimate historical water use by sector, water conservation potential based on age and type of property, and to project future water use.
- Florida Department of Environmental Protection Water Use Database. The Florida DEP publishes monthly water use data for utilities in Florida going back to January 1999. This information has been integrated into EZ Guide 2.0 to provide an inventory of water use patterns during the past 12 years.
<http://www.dep.state.fl.us/water/drinkingwater/download.htm>. Utilities report daily water use data to FDEP. This information can be obtained on a case by case basis from the utilities.
- GIS delineation of utility boundaries provided by the Water Management Districts (when available) that can be linked to the FDOR parcel data to identify parcels within a given utility boundary. The Clearinghouse attempts to get utility boundaries directly from the utility managers when possible to ensure the most accurate and recent data is utilized.

- County Tax Assessors' Databases. Tax assessor databases provide information on housing including age of house, number of bathrooms and lot sizes for estimating indoor and outdoor water use. It also includes information on whether the house has a swimming pool and the assessed valuation of the house. Some counties include information on whether the property has an in-ground sprinkler system. Information in the County Tax Assessors' databases varies from county to county but they can be linked to the DOR database using a common parcel ID. This information has been used to estimate customer attributes and develop attribute correlations as needed.
- Census Databases. Census data provide useful information on the persons per dwelling unit at the block level of aggregation. This Census data has been integrated into EZ Guide 2.0 to estimate service area population. The 2010 Census data are being released during 2011 to 2013.
- Consumptive Use Permits (CUP) Databases. Summary information from these databases is available from the water management districts at <http://www.floridawaterpermits.com>. The e-permit system provides a wealth of information regarding the status of permit applications including technical staff reports, conservation and reuse plans and historical water use information. It is somewhat tedious to search because the pdf files must be opened one at a time to determine their contents.
- Florida Department of Community Affairs Urban Planning Databases. The Florida DCA web site provides access to master plans including water plans for many Florida cities. This information is very helpful in providing a good basis for how water and conservation planning fit into the community's master plan. <http://www.dca.state.fl.us/>
- Customer Billing Databases. These databases have been utilized as part of end use studies of water uses at the individual customer level, studies of the efficiency of specific water use BMPs, and profile information for selected utilities. Linking the customer billing data with the FDOR parcel data provides an exception basis for evaluating water use patterns and water conservation potential. This information is available for several utilities in Florida on a case by case basis.
- Florida Automatic Weather Network (FAWN) Database. FAWN is a very useful database for estimating evapotranspiration and rainfall. It has 15 minute data starting in 1998 for about 35 stations across Florida. <http://fawn.ifas.ufl.edu/>. FAWN data can be downloaded for various averaging periods.

The Library and Data Infrastructure Core Service areas are being integrated as appropriate in recognition of the need to integrate the historical separation of text and qualitative information that is typically stored in libraries with numerical and quantitative information stored in conventional databases.

Core Service 4: Technical Assistance

The Technical Assistance function has several elements. Help desk support for people using the EZ Guide has been established, with internal tracking systems in place to ensure all requests are addressed in a timely manner. This support includes providing information about Signatory agencies (such as water management district staff contacts and website links), personal assistance to EZ Guide users on matters such as utility profile data collection, review of implementation results, and presentation to utility decision makers, and information about specific evaluation methodologies such as water audit studies. Pre-populated EZ Guide water budgets are also available, customized for each utility upon request. One-on-one assistance is available to these users to help calibrate and optimize their EZ Guide. Resulting recommendations are then evaluated for inclusion in a goal-based water conservation plan. This type of technical assistance will be expanded as new evaluation modules are completed. Additional assistance includes training programs in the use of the EZ Guide and Guide modules for utilities, water management district staff, Florida Rural Water Association Circuit Riders, and consultants.

Core Service 5: Applied Research Agenda/Program

The Clearinghouse will coordinate and maintain an applied research agenda that identifies and prioritizes applied research as needed to further the state of knowledge regarding effective water conservation programs and practices in Florida. The research agenda will be periodically updated, in coordination with the Conserve Florida Water participants.

Core Service 6: Outreach

In order for the Clearinghouse to be successful, potential users and beneficiaries, including utilities, water management district staff, Florida Rural Water Association staff, and consultants, must be made aware of its existence and the availability of the resources it offers. In addition, these users also need to be consulted to assure that the Clearinghouse is providing the right mix of products and services to meet their current and anticipated needs. In coordination with the Conserve Florida participants, a draft outreach plan was developed that identifies, prioritizes, and implements a full range of strategies that include marketing and branding activities for Conserve Florida, recruiting strategies for EZ Guide users, and educational outreach programs for public utilities, water management district staff, Florida Rural Water Association staff, and consultants. Some of the avenues used to market the Clearinghouse have included the booths at professional meetings, conference presentations, articles in professional journals, individual meetings with potential partners, brochures, direct mailings, workshops, and website development.

GUIDANCE

A Steering Committee has been established to approve updates to the Clearinghouse's long-term plan, annual budget, scope of work for contractual services, approve major changes to the EZ Guide, and review and approve documents and other work products. A Technical Advisory Group will be established

to assist the Steering Committee on technical matters, including providing expert input regarding water conservation practices and providing review of Clearinghouse documents. These groups will meet at least three times a year, and develop a working relationship with the Clearinghouse to provide timely responses to issues at hand. The Steering Committee and Technical Advisory Group will make recommendations to the Department Contract Manager on any matter that would require modification of the Department's contract with the Clearinghouse. In the event the Steering Committee is disbanded, or unable to render a timely decision on any issue under its purview, approval authority will vest in the DEP Contract Manager.

PUBLICATIONS

The Clearinghouse continually develops a variety of publications to document work on activities, and present results and recommendations. With the establishment of the Steering Committee and Technical Advisory Group, these publications will now go through a review and approval process prior to being officially released with acknowledgment of Conserve Florida support. Depending on the situation, this acknowledgment may state that the "publication" does not necessarily reflect approval by the agencies, but that it has been reviewed and approved by the Steering Committee or the Technical Advisory Group, and/or that approval does not necessarily reflect adoption of a policy by an agency.

COLLABORATION

The Clearinghouse will actively seek the participation and synergy of other centers, departments, and staff within the entire state university system and elsewhere to help achieve the goals and objectives of the Clearinghouse, including directly undertaking some tasks in the long-range plan, and the research agenda where appropriate and where funding is available. This could include such things as BMP evaluation and development, research, technical assistance to utilities, outreach, and benchmarking. Close links with national organizations such as AWWA, WRF, CUWCC, and AWE are important to maximize the utilization of available information and data.