

CHAPTER 1. Introduction

The Natural Resources Conservation Service (NRCS), in cooperation with the Florida Department of Agriculture and Consumer Services (FDACS) and Florida Water Management Districts, have been able to increase technical assistance to irrigators in the wise use of water through mobile irrigation labs (MILs).

Currently, there are 16 MILs operating in Florida that serve 54 counties as listed in Table 1. Figure 1 illustrates the counties served by each MIL in Florida. MILs provide irrigation technical assistance to landowners on a volunteer basis. The MILs perform irrigation system evaluations on agricultural and urban land. Based on the evaluations, system and/or management recommendations are provided to landowners. MILs have been successful in assisting land users in the proper operation and management of their irrigation systems and in promoting water conservation. The MILs promote irrigation systems designed to meet the requirements of the NRCS Field Office Technical Guides.

1.1 Irrigation in Florida

Like many other elements of agribusiness, irrigation acreage has increased at a phenomenal rate subsequent to 1950. Florida currently ranks eleventh nationally of all states in the amount of irrigated acreage. Over 3,000,000 acres are currently irrigated in Florida. As of 2008, 1.55 million acres were irrigated in Florida for agricultural uses. This does not include urban and recreational irrigation. Also in 2005, 3,923 million gallons of water per day was used for agricultural irrigation.¹

Growth in irrigation can be contributed to the limited moisture-holding capacity of some Florida soils, increased scientific knowledge of crop requirements, uneven rainfall distribution, and demand for greater crop intensification. These factors make irrigation more appealing and economical than even before to farmers who have a high investment in crop production. Besides preventing crop-water stress, irrigation systems are used to protect the crop against heat and cold and to apply fertilizers and pesticides.

Due to uneven rainfall distribution and because a large part of the state's agricultural produce is planted, grown, and marketed during fall, winter, and spring (normally the driest part of the year), growers of high-per-acre-value crops find it almost mandatory to provide supplemental irrigation for successful crop production.

Urban irrigation has consistently increased over the years, as more people migrate to the State and commercial and housing development continues to expand. This has been compounded by the increased use of "water thirsty" varieties of grasses being used on new commercial and housing developments. Many municipalities are now restricting irrigation practices in an effort to conserve a decreasing supply of water. Urban irrigation evaluations provide information necessary to develop a water conservation plan on a site by site basis.

Sources of water for urban irrigation vary from shallow wells to utilities, to re-used resources. Typical irrigation systems consist of subzones of pop-up, sprayer or mister irrigation heads that are controlled independently via manually or electronically operated valves. Over the past 20 years, urban irrigation controllers have continued to improve to include site specific and time specific capabilities as well as automatic shutoff capabilities due to rainfall.

¹ "Water Withdrawals, Use, Discharge, and Trends in Florida, 2000": U.S. Geological Survey Water-Resources Investigations Report 2004-5151.

1.2 Mobile Irrigation Lab Handbook

The Florida Mobile Irrigation Lab Handbook (MILH) was prepared by the NRCS, in cooperation with FDACS, to provide information to new and existing MILs regarding their day-to-day operations. The MILH is not intended to replace technical references such as the Florida Supplement to the Irrigation Guide or Chapter 15 of the National Irrigation Handbook, but will refer to these and other references as needed.

The MILH:

- Provides practical techniques in evaluating irrigation systems and information on new equipment and evaluation methods;
- Provides MIL personnel with a ready-reference, to achieve a consistent operation; and,
- Is intended as a working tool for MIL personnel and it will be updated regularly.

MIL policies, procedures, equipment lists, computer software and sample forms will be developed by the NRCS State Conservation Engineer (SCE) and included in the MILH to provide standard operating procedures for MILs.

1.3 Annual Plan of Work

In 1995, the MILs, with assistance from NRCS, and several water management districts of the State, formed the Irrigation Conservation Committee (ICC). The mission of the Irrigation Conservation Committee is to promote effective irrigation water management by exchanging information and directing the future of Mobile Irrigation Labs in Florida. The ICC has adopted an Annual Plan of Work (see Appendix B) that was initially developed by the ICC, NRCS and some of the water management districts, and was recently updated (2009) by those agencies and the FDACS . The plan of work is updated annually and describes the objectives of both the MILs and the ICC.

Mission Statement

The mission of the Irrigation Conservation Committee is to promote effective water management by exchanging information and directing the future of Mobile Irrigation Labs in Florida.

Introduction

The group adopted the mission statement and the name “Irrigation Conservation Committee” on December 6, 1995. By-laws were written and accepted by the committee on August 14, 1996. The By-laws can be referenced in Appendix A of this handbook.

The Irrigation Conservation Committee has adopted this Plan of Work for FY-2010 for the Mobile Irrigation Labs of Florida.

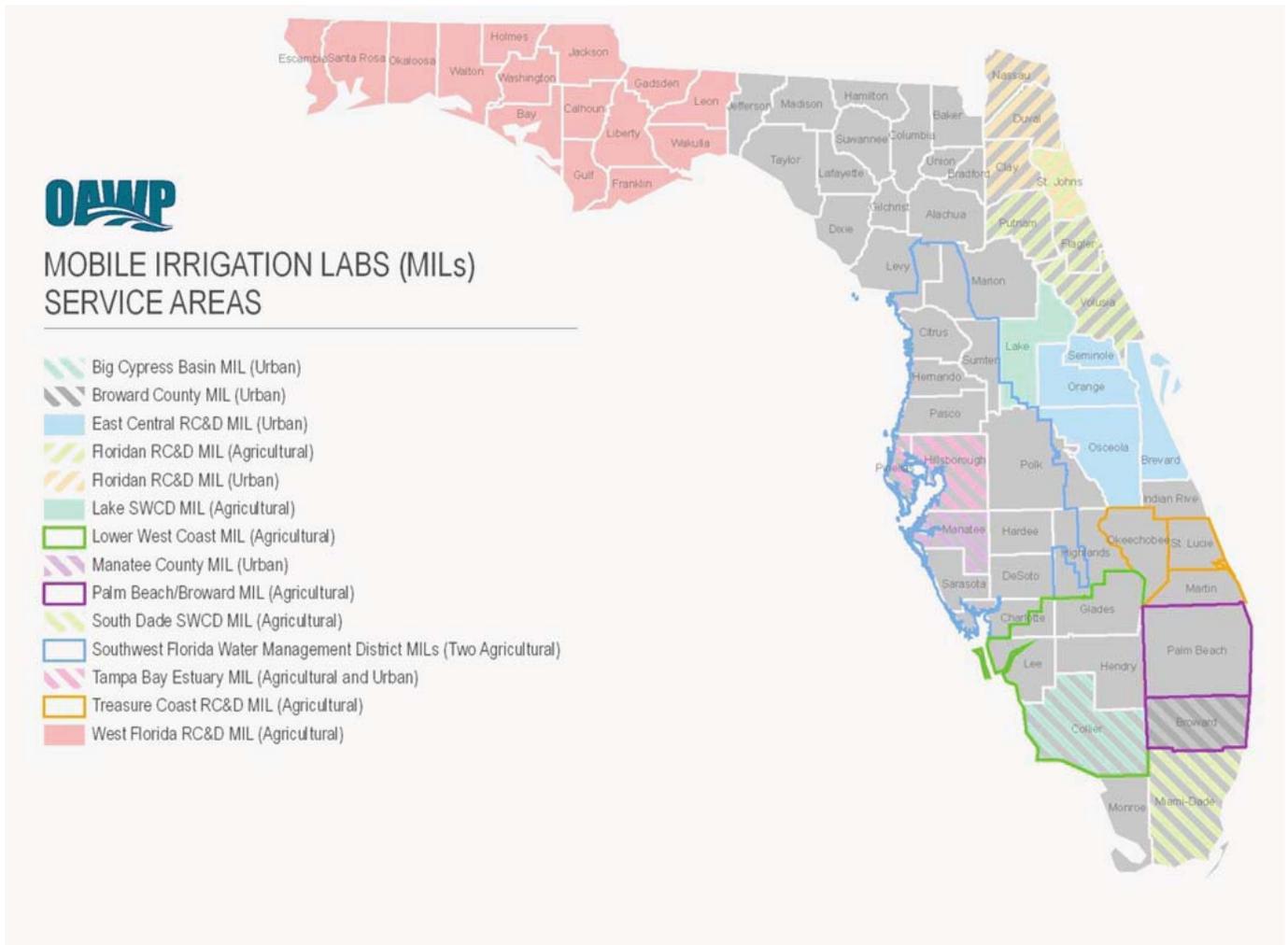
Sixteen Mobile Irrigation Labs (MIL’s) are currently operating in Florida and serve 54 counties. The MIL operators perform irrigation evaluations on both agricultural and urban lands. Based on these evaluations, systems management recommendations are given to the land user. In addition to conducting evaluations, the MIL’s hold workshops, are guest speakers, perform public relations activities with other agencies, work with teachers in the school systems and engage in other activities dealing with water conservation. There are 16 contact sites for the MIL’s operating in Florida as shown in the table 1.

Table 1 – MIL Offices and Counties Served

Location	Phone Number	Counties Served	Lab
Big Cypress Basin Urban MIL Naples, FL	(239)455-4100	Collier	Urban
Broward County (EPD) MIL Ft. Lauderdale, FL	(954)519-1281	Broward, Palm Beach	Urban
Broward Palm Beach BMP MIL Royal Palm Beach, FL	(561)683-2285 x 108	Broward, Palm Beach	Ag
Broward SWCD MIL Davie, FL	(954)873-7594	Broward	Urban
East Central RC&D MIL Orlando, FL	(407)896-0353	Seminole, Orange, Brevard	Urban
Floridan RC&D MIL St. Augustine, FL	(904)471-1063	St. Johns, Flagler, Volusia, Putnam	Ag
JEA Lawnsmart Urban (Floridan RC&D) MIL St. Augustine, FL	(904)471-1063	Duval, Nassau, St. Johns, Clay	Urban
Lake SWCD MIL Tavares, FL	(352)343-2481, x 6	Lake	Ag
Lower West Coast MIL Naples, FL	(239)455-4100	Collier, Hendry, Lee, Charlotte, Glades	Ag
Manatee County Palmetto, Florida	(941)722-4524	Manatee	Urban
Miami-Dade SWCD MIL Florida City, FL	(305)242-1288	Dade	Ag and Urban
ProMIL (SWFWMD) Bradenton, Florida	(941)920-2458	Manatee	Ag
SWFWMD MIL Wauchula, FL	(863)773-4764, x 3	Levy, Marion, Citrus, Lake, Sumter, Hernando, Pasco, Polk, Pinellas, Hillsborough, Highlands, Manatee, Hardee, Sarasota, DeSoto, Charlotte	Ag
Tampa Bay Estuary MIL Plant City, FL	(813)759-6450, x. 3	Hillsborough, Pinellas	Ag
St. Lucie SWCD Ft. Pierce, FL	(772)461-4546, x 113	St. Lucie, Martin	Ag
West Florida RC&D MIL Marianna, FL	(850)482-5888	Bay, Calhoun, Escambia, Franklin, Gadsden, Gulf, Holmes, Jackson, Leon, Liberty, Okaloosa, Santa Rosa, Wakulla, Walton, Washington	Ag

U = Urban Lab A = Agricultural Lab N = Nursery Lab
 Shaded MILs do not participate in the Irrigation Conservation Committee

Figure 1 – MIL Locations and Counties Served



ICC Objectives

Objective #1: Engage in public relations activities that promote water conservation practice and the use of Mobile Irrigation Labs in the state of Florida.

Objective #2: Provide advice, assistance, and technological support to Mobile Irrigation Labs in the state of Florida.

Objective #3: Promote the ICC Mobile Irrigation Labs by acting as a liaison between State and Federal agencies that fund, manage, and support the MIL water conservation program.

ICC Objectives

OBJECTIVE # 1: Engage in public relations activities that promote water conservation practices and the use of Mobile Irrigation Labs in the state of Florida.

TASK	RESPONSIBILITY	START	END	COMPLETION	PURPOSE
1. Educate the public on water conservation through press releases, newsletters, workshops, and participation at conferences.	All MILs	01/10	12/10	Ongoing	Promote water conservation to the public.
2. Educate the public on the use of IWM tools	All MILs	01/10	12/10	Ongoing	Promote water conservation to the public
3. Assist schools with environmental education activities, such as career days, science fairs, and class presentations	All MILs	01/10	12/10	Ongoing	Educate youth at an early age to instill water conservation.
4. Provide assistance in system design on an optional basis when requested.	All MILs	01/10	12/10	As requested	Ensure that water conservation practices or methods were included to allow optimal use of water.
5. Develop, promote, and distribute irrigation pamphlets and fact sheets	All MILs	01/10	12/10	Ongoing	Promote water conservation to the public.
6. Update MIL Brochures	All MILs And NRCS	01/10	12/10	Ongoing	Allow the public to see the most up to date water savings values and to be aware of the MIL personnel and the benefits that are provided.
7. Update MIL state map	FDACS			1/10	Allows the public to identify which coverage area their property is located.
8. Develop and publish a combined report to show accomplishments of all MIL's	FDACS?? and MILs	01/10	12/10		Allows the public to see the benefits of the MIL.

ICC Objectives

OBJECTIVE # 2: Provide advice, assistance, and technological support to Mobile irrigation Labs in the State of Florida.

TASK	RESPONSIBILITY	START	END	COMPLETION	PURPOSE
1. Provide training as necessary to personnel as requested by other Agricultural or Urban MIL's using instructors for Ag / Urban MIL Certification.	All MILs	01/10	12/10	Ongoing	To provide consistency between all labs.
2. Committee will meet quarterly at central locations in the state to discuss new technology.	All MILs	01/10	12/10	Ongoing	To stay current with irrigation technology
3. Provide training on new technology to improve knowledge, skills, abilities and techniques of MIL Team members.	All MILs NRCS FDACS	01/10	12/10	Ongoing	Learn new tools and ideas to assist in water conservation
4. Investigate, transfer, and share new MIL technology with other MILs in the State.	All MILs NRCS	01/10	12/10	Ongoing	To provide consistency between all labs.

ICC Objectives

OBJECTIVE # 3: Promote the ICC Mobile Irrigation Labs by acting as a liaison between State and Federal agencies that fund, manage, and support the MIL water conservation program.

TASK	RESPONSIBILITY	START	END	COMPLETION	PURPOSE
1. Committee will meet with agency representatives on a quarterly basis to discuss progress, current events, and funding with regard to water conservation, and the MIL projects.	All MILs	01/10	12/10	Ongoing	To provide updates to funding agencies.
2. Participate in activities and network with organizations such as IFAS, CES, WMDs, FIS and other states with MILs	All MILs	01/10	12/10	Ongoing	Enhance partnership with other entities and institutions of higher education.
3. Participate as requested in investigations, studies, inventories, field trials, and demonstration projects conducted by NRCS or in partnership with other organizations.	All MILs	01/10	12/10	Ongoing	To enhance partnership with NRCS and other organizations.