

CHAPTER 7. Resources

It is important that the Mobile Irrigation Laboratories (MILs) have the resources necessary to perform their job both in the field and in the office. Two of the most obvious resources are staff and equipment. Staffing needs and qualifications are discussed in Chapter 2 of this document. Equipment is discussed in Chapters 3 and 4 of this same document.

There are other important tools/resources that apply to all MILs, independently of their type (agricultural, urban, or both). Those common tools/resources are: ongoing educating and/or training, so that the MIL members can review their job duties and responsibilities on a regular basis and stay up to date on the latest irrigation system evaluation methodologies; providing the MILs the means to consistently and comprehensively document and record information associated with irrigation system evaluations; and providing the MILs and its supporting entities and agencies the means to keep track of all the information associated with all the water conservation evaluations through the years. Such resources are typically available in the form of training, the development and use of forms, and an evaluation tracking system.

7.1 Training

There are two main areas in which training can be provided to an MIL regarding in-office procedures and field procedures.

The in-office procedures are typically associated with ways in which the MILs can take the data/information they collected via an evaluation, and use it to determine how well or poorly the irrigation system is operating (efficiency or distribution uniformity), how to improve the irrigation system (problems and recommendations), and how much water the system could potentially save (Potential Water Savings, PWS) or actually save (Actual Water Savings, AWS) if those recommendations were implemented.

The field procedures are typically associated with the type of equipment that is used to evaluate the irrigation system (i.e., pressure gauge), the manner by which the equipment is used (i.e., where and how to use that pressure gauge), and the method of data collection using that equipment and other sources (i.e., manually or electronically, at a certain frequency, at certain locations or distributions, etc).

Both types of training are important. Only each MIL knows at any particular time what type of training its staff needs, to maximize the MIL's performance. Because of its importance, it is recommended that training expenses be included in the yearly budget of an MIL (see Chapter 3 in this document). It is also important to identify if the staff of your MIL has the education and background necessary to receive that training. In some instances, it may be necessary for some of your staff to attend certain introductory or core course(s) before he/she can attend that particular training. All MIL employees have been provided an employee development plan which is used to gauge the proficiency levels of each MIL employee to determine necessary training needs to obtain a level of consistency in evaluations performed by all mobile irrigation labs throughout the state (Chapter 2).

Once a particular training need has been identified, the MIL staff should look for a qualified provider that can offer training. A good place to start is to ask other MILs in the State about that particular training need. One of those MILs may have had that same training and could provide it to your MIL, or direct you to the provider they used to obtain the training. The internet is another source, where both private and public providers can be identified and contacted.

The Natural Resources Conservation Service (NRCS) of Florida has historically provided excellent training to MILs (when available) for both office and field procedures. Contact the state office in Gainesville to find out what training opportunities they may have at the time.

Natural Resources Conservation Service (NRCS) - Florida:

Web: <http://www.fl.nrcs.usda.gov/>

Phone: (352) 338-9500

Following are three other references where training may be provided, or where contact information for other providers may be available:

Irrigation Association (IA):

Web: <http://www.irrigation.org>

Phone: (703) 536-7080

Florida Section of the American Society of Agricultural and Biological Engineers (ASABE):

Web: <http://www.fl-asabe.org/index.html>

Phone: (863) 414-0710

Florida Irrigation Society (FIS):

Web: <http://www.fisstate.org/>

Phone: (800) 441-5341

7.2 Reports/Attachments/Forms

It is important to provide consistency and validity to the information the MILs collect during their evaluation of irrigation systems. Without consistency and validity, it will be difficult for the MILs to make the most out of the water conservation information they collect and provide.

By using standard forms in their day-to-day processes, the MILs continue to take big steps towards providing the best service they can to their customers, and the entities and agencies that support them. The MILs should strive to use as many standard and approved electronic forms as possible (as opposed to paper forms), so that the information in those forms can be shared, compiled, and retrieved as quickly and easily as possible by all interested parties.

The MILs and their partner entities and agencies continue to develop and/or update those standard forms to meet the needs of the MILs and all interested parties, for both agricultural and urban settings.

The following list includes but is not limited to the currently approved forms, which are being used by the MILs to report water conservation information to their partners:

- **Condensed Quarterly Report Form - MILs**
- **Attachment 1a** - Irrigation System Evaluations: Water Savings, Data and Results, per MIL Handbook
- **Attachment 1b** – Irrigation System Water Source, Pumping Station, and other Info
- **Attachment 2** –Tracking Table for Initial Evaluations, Follow Up Evaluations, or Replacements
- **Attachment 3** – MIL Evaluation Waiting List
- **Attachment 4** – MIL Conservation Education and Outreach Report

Attachments 1a, 1b, 2, 3, and the Condensed Quarterly Report Form are required of all MILs. The Attachment 4 form is required of some MILs.

The forms are typically in an electronic word processing or spreadsheet format, for ease of use and data transfer. Typically, the master electronic copies of those forms reside with the executive committee of the Irrigation Conservation Committee (ICC) to which most MILs belong, and the FDACS, NRCS, or a water management district. Any MIL that needs any of the forms should contact one of these institutions or agencies.

Any modifications proposed to these forms or the creation of additional forms should be discussed in advance by all interested parties (the MILs themselves, NRCS, FDACS, and/or water management districts among others). Approval of such modifications or additional forms should be formally discussed during the ICC meetings by those same parties.

The forms are included in Appendix A of this document, as a reference.

7.3 Evaluation Data Entry, Tracking, and Reporting System

The main goal of the MILs in the State is to help conserve water through their evaluations and recommendations. This goal is shared among several State and Federal agencies, including FDACS, Water Management Districts, the Department of Environmental Protection (DEP), and NRCS, among others. For example, Florida Statute 570.085 mandates the FDACS to establish an Agricultural Water Conservation Program that includes MILs.

In 2006, a Statewide MIL desktop database was developed in order for all interested agencies and parties to monitor the degree to which MILs help conserve water throughout the State. This system was cooperatively developed by the South Florida Water Management District (SFWMD), FDACS, NRCS and members of the ICC. This desktop database and tracking system has selected MIL water conservation information from 2004 to 2007 and resides with FDACS and SFWMD.

Parallel to this effort, FDACS started collecting MIL water conservation data in spreadsheet format, starting in 2006. FDACS continues to collect this water conservation data in spreadsheet format; most of the data from this same period did not make into the Statewide desktop database, because of lack of resources/funding to do so. NRCS, SFWMD, Saint John's River Water Management District (SJRWMD) and Northwest Florida Water Management District (NFWMD) continue to receive this spreadsheet-format data from the MILs.

Since 2006 FDACS has done internal compilations and reports of this Statewide (spreadsheet-based) water conservation MIL information as applicable, to justify their annual funding, support, and administration of the Statewide Agricultural MIL Program.

In 2009 the FDACS, the (SJRWMD) and IFAS entered into discussions to develop a server-based database to enter, track, query and/or report MIL evaluations via web access, with support from the ICC and its partners. In January of 2010 FDACS and IFAS Florida Automated Weather Network (FAWN) entered into a contract to develop and deploy such database, with SJRWMD providing the funding to do so and FDACS providing all in-kind services.

This server-based database is expected to be deployed by the Spring of 2011, and is intended to initially contain MIL water conservation evaluation data dating back to July 2009. The intent by the ICC and its partners is to use the remainder of 2011 to start entering into the database MIL water conservation data reported prior to July 2009, which dates back to at least 2005.