

**Michigan Department of Environmental Quality
Office of Drinking Water and Municipal Assistance**

**ANNUAL REPORT ON
CAPACITY
DEVELOPMENT
PROGRAM
FISCAL YEAR 2014**

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List of Acronyms

ACO	Administrative Consent Orders
Act 399	Safe Drinking Water Act, 1976 PA 399, as amended
AWWA	American Water Works Association
CCR	Consumer Confidence Report
CDP	Capacity Development Program
CWS	Community Water System
DACO	District-Initiated ACO
DDBPR	Disinfectants and Disinfection Byproducts Rule
DWGIS	Drinking Water Geographic Information System
DWRF	Drinking Water Revolving Fund
eDWR	Electronic Drinking Water Reporting
ERP	Emergency Response Plan
ETT	Enforcement Tracking Tool
FAP	Financial Action Plan
FY	Fiscal Year
GWR	Ground Water Rule
LHD	Local Health Department
MCL	Maximum Contaminant Level
MALEHA	Michigan Association of Local Environmental Health Administrators
MDAG	Michigan Department of Attorney General
MDEQ	Michigan Department Environmental Quality
MEHA	Michigan Environmental Health Association
MGMT	Michigan Groundwater Management Tool
MSU	Michigan State University
MSU-IWR	MSU-Institute of Water Research
MSU-RSGIS	MSU-Center for Remote Sensing and Geographic Information System
MHP	Mobile Home Park
MOR	Monthly Operation Reports
NCWS	Noncommunity Water Systems
NTNCWS	Nontransient Noncommunity Water Systems
ODWMA	Office of Drinking Water and Municipal Assistance
OTCP	Operator Training and Certification Program
PWS	Public Water System
RTCR	Revised Total Coliform Rule
SDWA	Federal Safe Drinking Water Act
SDWIS	Safe Drinking Water Information System
SWIPP	Surface Water Intake Protection Program
TMF	Technical, Managerial, and Financial
TTX	Tabletop Exercise
USEPA	United States Environmental Protection Agency
WHPA	Wellhead Protection Area
WHPP	Wellhead Protection Program

1. Introduction

The 1996 Amendments to the federal Safe Drinking Water Act (SDWA) added provisions for each state to develop a Capacity Development Program (CDP). The objective of the CDP is to enhance public health protection by helping water systems to develop and maintain the technical, managerial, and financial (TMF) capacity they need to consistently deliver a safe, reliable, and abundant supply of drinking water to all customers.

The purpose of this document is to demonstrate to the United States Environmental Protection Agency (USEPA) that the state is implementing a capacity development strategy as required in the SDWA, Section 1420(c)(1)(C), or risk losing 20 percent of the annual Drinking Water Revolving Fund (DWRf) allotment that the state is otherwise entitled to receive under the SDWA, Section 1452.

This report corresponds to the criteria set forth in the USEPA memo "Reporting Criteria for Annual State Capacity Development Program Implementation Reports" dated June 1, 2005. The report is due to the USEPA within 90 days of the end of the reporting period. Michigan's reporting period is the state fiscal year (FY) that ends on September 30th, so this report is due by December 31st of each year. Elements discussed in this report are:

- New Systems
 - Identify legal authority.
 - Identify control points.
 - List of new systems.
- Existing Systems
 - Identify tools and activities.
 - Identify systems.
 - Identify needs and provide assistance.
 - Review implementation and address findings.
 - Modify strategy.

2. New Systems Program

2.1 *Identify Legal Authority*

The legal authority remained unchanged during the reporting period. The CDP is implemented by the Michigan Department of Environmental Quality (MDEQ), Office of Drinking Water and Municipal Assistance (ODWMA), through amendments to the Safe Drinking Water Act, 1976 PA 399, as amended (Act 399), by application of capacity development policies and guidance documents and through cooperation and partnerships with other agencies.

2.2 Identify Control Points

The control points remained unchanged during the reporting period. As outlined in the *New Community Water System Capacity Guideline Document*, dated May 1, 2000, new systems must demonstrate TMF capacity before serving water to the public. The new systems program relies on two control points: construction permits, which are required by law, and final inspection, which is required by policy. Generally, a construction permit is issued based on the technical capacity of the proposed system. For Community Water Systems (CWS), the financial and managerial capacity requirements may still be pending while the system is under construction. Approval to commence operation is not granted until after an acceptable final inspection and approval of a financial plan and operations plan that address financial and managerial capacity. For nontransient noncommunity water systems (NTNCWS), the ODWMA has delegated the authority to the local health departments (LHDs) to review, approve, and issue construction permits. When water systems begin the permit application process, the LHD helps them outline their TMF capacity. Prior to receiving approval to commence operation, the NTNCWS must submit a technical plan, managerial plan, financial plan, contingency plan, and designate a certified operator.

2.3 List New Systems

Lists of CWS and NTNCWS that became active during the last three FYs are in Appendix A. The lists indicate which systems scored 11 or more (indicator of noncompliance) on the Enforcement Tracking Tool (ETT) during the reporting period. New system compliance data is more meaningful when compared to all systems. The following table shows the number and percent of new systems compared to all systems of the same classification.

FY 2012 to FY 2014	CWS		NTNCWS	
	New	New & Existing	New	New & Existing
Number of systems on ETT Tracker Report	9	1379	28	1310
Number of systems with ETT score of 11 or more	1	31	0	21
Systems with ETT score of 11 or more	11%	2%	0%	2%

The single new CWS with an ETT score of 11 or more has existed since the 1980s, but did not appear on the Safe Drinking Water Information System (SDWIS) inventory until 2012. Ownership of this CWS has recently transferred to the Branch County Drain Commission. As a result, compliance has improved. No new NTNCWS received a score of 11 or more during the reporting period.

3. Existing Systems Program Tools and Activities Used

The *Capacity Development Strategy for Existing Public Water Systems*, dated August 1, 2000, lists the programs, tools, and/or activities to help systems acquire and maintain capacity. This section describes each of the major program elements, the target audience, and a discussion of how each helps to achieve and enhance capacity.

3.1 Sanitary Surveys to Evaluate Systems

Target: CWS and Noncommunity Water Systems (NCWS)

Capacity of existing systems is assessed through sanitary surveys, on-site surveillance visits, and through the construction permit process.

For noncommunity water systems (NCWS), sanitary surveys are conducted every five years. Construction permits and inspections are required when new wells are installed or treatment is added. While a change in classification from transient to NTNCWS results in a capacity assessment of the existing system, these systems are not included in the list of new systems in Appendix A.

For CWS, sanitary surveys are conducted every third year by ODWMA field staff. This frequency coincides with the requirements of the series of Surface Water Treatment Rules and the Ground Water Rule (GWR). Sanitary surveys no longer result in systems being rated satisfactory, marginal, or deficient. Each of the eight required sanitary survey components is rated individually and entered into SDWIS. The required components include the source, treatment, distribution system, finished water storage, pumps and controls, monitoring and reporting, system management and operation, and operator compliance. Each component may be rated as a significant deficiency, minor deficiency, recommendations made, and no deficiencies/recommendations. The significant deficiencies were noted in the table below.

The ODWMA staff detail their findings and recommendations in a letter to the system. These letters may include a list of milestones with dates by which the items are expected to be addressed. Options for capacity assistance may also be offered, such as recommending a financial assessment or contacting available technical assistance providers for specific assistance. These evaluation letters help systems understand the severity of the deficiencies and prioritize response activities.

The following table summarizes data on CWS sanitary surveys, visits, and construction permits in recent years.

CWS Evaluations, Visits, and Construction Permits			
	FY 2012	FY 2013	FY 2014
Number of Sanitary Surveys Conducted	430	418	475
Number of Significant Deficiencies	9	9	3
Number of Minor Deficiencies	149	126	179
Number of Visits	1,716	1,818	1,729
Number of Construction Permits Issued	731	758	888
Number of Watermain Permits	597	593	708
Average Number of Days to issue simple Water Main Permits*	11	11	10

* We strive to issue simple water main permits within two weeks.

The frequency of surveillance visits above are as follows:

Type of CWS	Smaller/Less Complex	Larger/More Complex
Wholesale customer supplies	Once per year	Once per year
CWS with no treatment*	Once per year	Once per year
CWS with treatment*	Twice per year for systems employing treatment other than "complete treatment"	Four times per year for systems employing "complete treatment"

*Treatment employed for public health protection. Excludes water softeners or other point of entry aesthetic treatment.

In addition to scheduled surveillance visits and sanitary surveys, field staff visits water systems to investigate problems discovered as a result of routine monitoring or arise as a result of emergencies. If water system issues need to be elevated to local officials, the community leadership may include field staff on the agenda of council or board meetings.

3.2 One-on-One Technical Assistance and Consultation

Target: CWS and NCWS

The ODWMA and LHD field staff are the primary implementers of the CDP. Water system operators develop a relationship with field staff that are the primary contact for capacity development. Each CWS is served by ODWMA staff from 1 of the 8 district offices, and each NCWS is served by staff from 1 of the 44 LHDs under contract with the ODWMA. A primary objective of the ODWMA field staff and the LHD is to provide excellent customer service from the construction permit process for new infrastructure through the continual assessment and oversight process during operation. Field staff achieves that objective through assistance to systems during site visits, at meetings and conferences, during training events, and consultation by telephone and e-mail. Field staff attends, participates, and presents at periodic regional operator meetings to discuss upcoming regulations, regional issues, and to network with operators and managers.

The NCWS Program staff of the ODWMA maintains communication with each of the 44 LHDs during the year. This communication occurs routinely via phone calls, e-mail, joint office and field work, and group and individual training. Also quarterly data reviews and annual evaluations of each of the 44 LHD's performance are conducted to assure and maintain water system compliance.

Public Water System (PWS) Program field staff serves as consultants to provide technical assistance to water systems. For example:

- A customer supply of the Saginaw-Midland Water Supply exceeded the maximum contaminant level (MCL) for disinfection byproducts. The ODWMA district staff recognized that changes needed to be made in operations for both Saginaw-Midland and the customer supply due to the unique characteristics of the complete system from the raw water pipeline to the customers. The staff person organized a meeting and discussed the Operation Evaluation Level reporting requirements with all the water systems involved, recognizing there were many contributing factors. This effort provided the whole story of disinfection byproduct formation throughout these consecutive water systems making it possible for all to work together in adjusting their operations to resolve

this issue together, even though the customer supply had the legal responsibility to comply.

- The city of Greenville has an aging distribution system and had two bacteriological contamination events in 2006 and 2007. Soon thereafter, the city constructed a chlorine generation system made possible by a DWRF low interest loan, including \$300k of loan forgiveness as a green project. Early in spring 2014, district staff became aware the Greenville City Manager ordered cessation of any chlorine addition due to the cost of operation. Staff of the DEQ made numerous contacts including phone calls, onsite visits, and formal letters to communicate the importance of disinfection and potential problems of shutting down the chlorine generation system. The chlorine generation was back online soon following these discussions, and a more in depth study of the costs and benefits associated with this disinfection system was undertaken by the water supply. The city has renewed their commitment to providing this additional barrier to contamination of the water supply.

Countless other instances of one-on-one technical assistance help water systems gain TMF capacity.

3.3 *Other PWS Program Efforts*

During the year, staff reviewed the Stage 2 Disinfectants and Disinfection Byproducts Rule (DDBPR) requirements and helped Schedule 3 and 4 water systems to prepare their monitoring plan. For many consecutive systems, Stage 2 monitoring will be the first monitoring the systems have had to conduct because their supplier had previously conducted all distribution system monitoring.

Other tools to help systems comply with monitoring and reporting requirements that PWS program staff provide is:

- Individual monitoring schedules for each CWS and NCWS. These schedules are based on each system's applicable monitoring waivers and schedule in the standard monitoring framework. To supplement the schedule, staff may enclose or provide an Internet link to the following, depending on that year's monitoring requirements:
- Lead and Copper Report and Consumer Notice of Lead Result Certificate. This form provides a fill-in-the-blank version of the consumer notice for the convenience of systems with limited computer ability.
- Drinking Water Lead & Copper Sampling Instructions. The system may provide this document to the occupants that will be performing the sampling.
- Bacteriological Sample Siting Plan. This form incorporates GWR triggered monitoring requirements.
- Stage 2 DDBPR Sampling Site Plan.
- List of approved laboratories.

- Annual Pumpage/Usage Report For Community Water Supply (applicable to CWS that do not submit Monthly Operation Reports [MOR] with monthly pumpage).
- Cross Connection Report. Systems use this form to demonstrate ongoing implementation of their Cross Connection Control Program.
- Consumer Confidence Report (CCR) Certificate of Distribution.

Venues to communicate monitoring and reporting requirements include:

- Reminder phone calls, e-mails, or post cards.
- Reminder letters. Systems that have not yet completed their annual or less frequent monitoring receive a reminder within 30 to 90 days before the deadline to prevent a violation.
- Lead and copper reminder letters. Lead and copper monitoring is so confusing that this reminder letter also serves as monitoring guidance.
- Lead and Copper 90th percentile letter or action level exceedance letter. These letters outline the results of the system's monitoring and remind systems of further requirements, such as distributing the Consumer Notice of Lead Result, for conducting water quality monitoring or installing corrosion control treatment.
- CCR reminder letter. Each spring, ODWMA field staff reminds systems of the annual requirement and provides the following tools to comply. A variety of templates are made available including the Internet link to the USEPA *CCRwriter*, as well as the guidance documents *Preparing Your CCR* and *Reporting TOC on the CCR*, as applicable.
- The LHDs inform the NTNCWS of the administrative rule requirement to prepare a water quality report that contains a summary of compliance monitoring data for NTNCWS that serve K-12 schools and day care centers.
- Violation letters, discussed in Section 3.4 below, include requirements to post public notice, when applicable. Templates for typical monitoring and reporting violations, and many state drinking water violations, are available to field staff. Staff either provides the template for the system to edit and place on its own letterhead, or staff may prepare the final public notice for the system to distribute.

Tools to help systems manage the operational requirements include:

- MOR templates. Staff reviews each MOR to assure compliance with treatment techniques and to evaluate treatment processes for optimal operating practices.
- Enhanced planning documents: As former contingency plans become outdated, staff are helping CWS to transition to the Emergency Response Plan (ERP) using a template. (See Section 5.2.1)

- Privately-owned CWS Stipulation to Conditions. While it is clear in the administrative rules that new systems must demonstrate TMF capacity before commencing operation, the 2009 amendments to Act 399 clarified that these requirements also apply to new owners of existing systems. The Stipulation to Conditions that owners must sign covers the minimum elements to ensure owners are able to provide an adequate supply of drinking water.
- Water well site inspections and approvals. The LHD and ODWMA field staff conducts inspections and approvals of water wells serving the NCWS and CWS, respectively.
- Guidance documents: The ODWMA staff develops and distributes guidance documents as needed:
 - *Water Well Disinfection Manual*.
 - *Suggested Practices* outlines design, construction, and operation criteria for CWSs.
 - The *Cross Connection Rules Manual* outlines program requirements.
 - *New Community Water System Capacity Guideline Document* developed in 2000 guides field staff and owners of proposed or new systems through the process. It includes a capacity assessment checklist, a financial workbook, policies related to new systems, and templates and forms for planning purposes.
 - Source water protection guidance documents
 - NCWS program guidance documents include the *Noncommunity Staff Reference Manual*, the *WaterTrack Operators Manual* for LHD staff (both had significant updates published in FY13),
 - The study guide *Level 5 Drinking Water Operators Guide* for those individuals pursuing certification to operate a NCWS.
- USEPA tools. In addition to state-developed products, the field staff distributes, as needed, USEPA tools and guidance documents, promotes the Check Up Program for Small Systems and other system capacity development and sustainability tools, and promotes USEPA Webinars.

Field staff hosts and presents material at meetings, conferences, and training sessions throughout the year for LHD field staff, consulting engineers, and local decision makers. Ongoing activities include serving as instructors at several operator training courses throughout the year, speaking at other meetings and conferences related to drinking water, and attending USEPA sponsored Web casts. Specific activities in FY 2014 include:

- The ODWMA field staff presented the *MDEQ Update* at each of eight Michigan Section, American Water Works Association (AWWA), regional meetings updating participants on new rule implementation. New rules updates and training was also presented at the ODWMA drinking water staff meetings, usually held quarterly. The Field Operations Section chief also presented the *MDEQ Update* at the annual conference of the Michigan Section, AWWA.

- The MDEQ contributes to a quarterly newsletter, *Water Works News*, with the Michigan Section, AWWA. The newsletter is distributed to members and all CWS, including approximately 700 privately-owned CWS that might not otherwise receive drinking water-related information.
- The NCWS Program staff participates in association conferences relevant to NCWS systems, such as the Michigan Manufactured Housing Recreational Vehicle & Campground Association, the Michigan School Business Officials, the Michigan Ground Water Association, and the Michigan Environmental Health Association (MEHA) Annual Education Conference.
- The ODWMA program staff worked with the Michigan Department of Community Health, Oral Health Program, to implement a Fluoride Grant Program to promote public water system fluoridation by offering grants to water systems wishing to purchase new or replacement fluoride feed equipment. Five water systems were awarded grants in FY 2014 in excess of \$87,000.
- To continue to offer quality training to ODWMA staff and water systems, the ODWMA takes advantage of USEPA and AWWA Webinars. Certified operators can meet continuing education requirements with USEPA or AWWA sponsored Web casts. The ODWMA promotes Webinars and encourages field staff to forward information to water systems so they can participate at their site. The ODWMA will continue to take advantage of other opportunities to interact with water systems and their consulting engineers, municipal leaders, and others interested in drinking water issues.

3.4 *Enforcement*

Target: CWS and NCWS

Evaluations and compliance information become the basis for enforcement.

When a system violates a requirement, they should receive a letter that clearly states what was violated, when the violation occurred, how to return to compliance, and when to respond. It is believed that enforcement will be viewed as more predictable; therefore, systems will make a greater effort to comply to avoid enforcement.

When systems fail to return to compliance, escalated enforcement, including administrative consent orders (ACOs), unilateral department orders (MDEQ order), and referrals to the Michigan Department of Attorney General (MDAG), or USEPA Region 5 can be initiated. Before escalated enforcement is used, many systems return to compliance when they are assessed administrative fines for monitoring and reporting requirements. Water systems generally return to and remain in compliance with monitoring and reporting requirements after receiving a fine. During FY 2014, 33 different CWS received a fine at least one time for at least one monitoring violation. Small systems represent all but two of the systems that received fines, which is expected as large systems typically have the resources and systems in place to ensure monitoring is timely and performed correctly.

When a fine is not applicable or does not prevent further violations, the ODWMA moves into an escalating series of enforcement actions that include a district-initiated ACO (DACO), traditional

ACO, and in rare cases an MDEQ Order or referrals to the MDAG or the USEPA. However, field staff prefers technical assistance over enforcement to bring systems back into compliance.

To streamline enforcement, the DACO may be used under certain circumstances instead of the traditional ACO. This process bypasses enforcement staff involvement; the ODWMA field staff drafts the DACO using templates and calculates penalties based on enforcement staff guidance. There were four DACO's entered in FY 2014 that included:

- Pleasant Valley Trailer Park, 10/22/13, requires the owner to either connect to the city of Owosso water system or install another well to meet firm capacity requirements.
- White Pine Estates Mobile Home Park (MHP), 11/13/13, required the owner to connect to the Mattawan Water System by 11/30/13 and plug wells by 4/30/14. After several delays and extensions, the park is now connected to Mattawan and in compliance with Act 399.
- Windfall Landings LLC (Portage Point Inn), 7/9/14, required the new owner to complete well #3 and a well house, and connect the well to the distribution system. The system is close to being in compliance, hopefully by the end of December.
- Washburn Lake Village MHP, 1/22/14, required installation of well appurtenances to achieve firm capacity. The MHP is now in compliance with the SDWA.

Some water systems are not willing to enter into a DACO or an ACO. In those cases, the ODWMA must escalate the enforcement level to an MDEQ Order and referral to the MDAG or the USEPA. There were no MDEQ Orders; however, there was one referral to the MDAG and the USEPA in FY 2014 that included:

Heritage Apartments was referred to the USEPA in January 2014 for failure to sample, failure to submit sample results, failure to issue a public notice, and correct other deficiencies. The owner was issued a MDEQ Order a few years ago after attempts to enter a DACO failed. He came into compliance briefly, but has since been out of compliance. The USEPA issued a Violation Notice and an Administrative Order.

Bennett MHP was referred to the MDAG for failure to respond to a positive total coliform sample, designate a certified operator, and to demonstrate firm capacity requirements. MDAG staff was preparing a complaint to file in court against the owner; however, the MDEQ just learned the park had been sold last month without approval or knowledge. District staff will be meeting with the new owner and our attorney to determine how to proceed.

Each LHD is required to conduct enforcement necessary to address NCWS in noncompliance. The ODWMA field staff assists the LHD upon request, and in extreme cases, the ODWMA central staff may take the enforcement lead or refer it to the USEPA, Region 5, when state resources are unavailable. Typical tools used by the LHD include administrative fines, informal hearing, local license suspension procedures, and bilateral compliance agreements (similar to the DACO for CWS).

3.5 *Operator Training and Certification (OTCP)*

Target: CWS and NCWS

Due to amendments to Act 399, a properly certified operator must be available at each of the 1,382 CWS and 1,321 NTNCWS, and at the 140 transient NCWS that employ treatment for public health purposes. Operators maintain their certification by meeting continuing education requirements through training offered in a variety of venues.

3.5.1 OTCP

The ODWMA, OTCP, provides over 30 training courses each year and certifies nearly 80 organizations and training providers that offer other opportunities for continuing education, including online courses. The OTCP has also approved a list of hands-on training or “HOT” programs that can provide operators with at least 50 percent practical experience in a three-or-more-hour training session.

Many of the training courses coordinated by the OTCP are taught by ODWMA field staff under a joint funding agreement between the MDEQ and the Michigan Section, AWWA. The ODWMA treatment specialist schedules instructors and also instructs both the Basic and Advanced Cross Connection Control seminars and the Water Treatment and Distribution System 2.5-day Short Courses.

During on-site visits or other consultation opportunities, field staff discusses the certification status of the operator and may suggest training sessions to hone skills or prepare for the examination required to obtain or to upgrade certification.

The OTCP annually reports to the Legislature on the program activities as a result of fees that are now collected for the program. The report details training programs offered, number of examinations provided, number of certifications given to operators, and funding balances from the operator fees.

3.5.2 Small CWS and NCWS Training

Until December 31, 2013, 12 LHDs were contracted to provide continuing education for the level 5 operators. The intent was to target NCWS, but any operator employed by a CWS with no treatment and a limited distribution system could attend. This training is now conducted primarily by ODWMA staff, with only a few LHD’s continuing to conduct this training voluntarily.

Staff of the NCWS Program conduct train-the-trainer sessions for LHD staff who will continue to host training even though the contract has expired. Topics range from current requirements and practices, to discussions of new requirements and regulations. Surveillance visits and sanitary surveys are additional opportunities for LHD staff to provide training for NCWS operators.

Training of LHD staff is conducted to inform, explain, and discuss new and updated program issues and procedures. This training occurs in many ways, including formal educational events and during the program evaluation process. In April 2014, ODWMA staff hosted a Noncommunity Drinking Water Workshop. This two-day workshop consisted of USEPA Region 5 updates, Watertrack migration to SDWIS Prime, RTCR training, and consumer lead notification. Other trainings in FY 2014 included:

- 2014 Michigan Environmental Health Association Annual Education Conference-Over 200 participants, some of whom are level 5 operators. Topics included: “Inspections for Type II Food Establishments,” “History of Water Supply Regulations in Michigan,”

“Irrigation Well Roundtable,” and “Michigan’s Cleanup Program – Implications of Restricted Closures for Local EH” to name a few.

- Six RTCR meetings were held between 7/28/2014 and 09/16/2014 (Oakland, West Branch, Cadillac, Gaylord, Iron Mountain, Newberry); 294 people attended those meetings including operators, LHD personnel, and owners of Type II Supplies; 70 Certified operators attended the FY14 RTCR training meetings listed above.

Staff of the NCWS also conducted training in three locations for level 5 operators in FY 2014. Fifty-five operators attended to get information on sampling techniques, RTCR regulations, an *E coli* case study, and other relevant information.

For the past several years, ODWMA staff has conducted training specifically for small CWS. General topics covered the SDWA, hydro-pneumatic tank inspection and maintenance, General Plans and Reliability Studies, Cross Connection Program implementation, and operational basics. Special topics change each year to keep the participants interested. A total of 106 persons attended at one of three locations around the state.

3.6 DWRP

Target: CWS and Nonprofit NCWS

The 1996 Amendments to the SDWA authorized the creation of a revolving fund to provide low-interest loans for repairs or enhancements to help water systems comply with the SDWA. The capacity development provisions of the SDWA are funded through the DWRP allotment.

Michigan's DWRP is co-administered by the MDEQ and the Michigan Finance Authority. The MDEQ handles all programmatic issues, while the Finance Authority serves the DWRP Program with its financial expertise. Prior to the creation of the DWRP, project financing for CWS was left largely to the local unit of government or to individuals investing in their own systems.

In FY 2014, \$51 million in low-interest loans was committed for 13 projects bringing the total, since the fund's inception in 1998, to \$808.7 million for 265 projects. Some systems receive commitments from the DWRP but may not be ready to proceed with the project until they are able to assure the revenues will be generated to repay the loan. In these cases, the system remains on the priority list for the next year. Of the projects committed, 233 have been completed for a total cost of \$656 million, and the loan payments are revolving back into the fund.

Commitments in FY 2014 include projects to increase systems' capacity to reliably provide an adequate supply of water. Many of the projects involve replacing aging distribution infrastructure. Two examples for FY 2014 are mentioned below:

Beecher Metropolitan District installed radio-read water meters, a water mixer in each of two elevated storage tanks, cleaned Well No. 6 and overhauled its pump, installed 550 feet of new water main for the purpose of eliminating a dead-end (looping), and replaced approximately 6,800 feet of existing cast-iron water main with ductile iron pipe. This project's cost was estimated to be \$2,300,000.

The village of Benzonia constructed a new production well, installed new 8-inch water main, cleaned and recoated the existing water storage tank, and installed a new Web-based supervisory control and data acquisition server. This project cost the village approximately \$690,000.

Michigan's drinking water program relies heavily on proper water system design and construction to prevent jeopardizing the safety of both the source and finished water. To that end, additional priority points are given to those DWRP projects in communities that are participating in a Source Water Protection Program.

3.7 *Source Water Protection*

Systems are continuing to take steps to protect their drinking water sources.

3.7.1 Groundwater Source Protection

Target: Municipal CWS and Not-for-Profit NCWS

Minimum isolation areas around drinking water wells are established in Part 127, Water Supply and Sewer Systems, of Act 368. Programs in the MDEQ, such as the Groundwater Discharge Permit Program and the On-Site Waste Water Program, reference these isolation distances as they review applications for discharge permits or site approvals to assure the facility or activity will be protective of the drinking water source. Act 399 requires the isolation area around a proposed water well site be owned or controlled by the CWS.

To expand beyond this long-standing but minimal concept of source water protection, the ODWMA staff are actively encouraging municipalities to conduct Wellhead Protection Program (WHPP) activities. Municipalities are encouraged to apply for a WHPP grant using a 50 percent local match to fund activities involved in protecting their public water supply well capture zones (based on a ten-year time-of-travel). Of the 434 municipal systems in Michigan using groundwater as a source of drinking water, 287 are involved in some aspect of wellhead protection, such as performing delineation, inventorying the potential sources of contamination, and planning for emergencies. Of those 287 systems, 249 have completed all the steps and have an approved WHPP. As a result, 88.6 percent of the population of the state served by municipal systems using groundwater is in communities taking action to protect their groundwater sources or purchase water from communities involved in protecting their sources. The WHPP grants for FY 2014 awarded over \$481,000 to 45 communities as compared to the WHPP grant cycle for FY 2013 that awarded \$423,000 to 32 communities.

The MDEQ, Field Operations Section, through a contract with Michigan State University's (MSU) Department of Civil and Environmental Engineering, developed the Michigan Groundwater Management Tool (MGMT), formally known as Michigan Interactive Groundwater for Wellhead Protection. The MGMT can scientifically map wellhead protection areas for public water supply wells using information from existing statewide databases such as Wellogis, Map Image Viewer, and the Groundwater Inventory Mapping project. The MGMT has developed comparably accurate predictions of spatially-detailed and representative groundwater flow patterns and wellhead protection areas (WHPAs). Most of these MGMT delineations closely parallel traditionally developed WHPA's, which cost an average \$36,000.

In the current contract with MSU, the MGMT is being enhanced and updated using the ArcGIS 10.1 language platform. There is newly acquired groundwater related data, primarily attributed

to the increase number of water well records entered into Wellogic since the development of the MGMT software. The newly acquired data will be used to develop statewide maps of hydraulic conductivity and static water elevation for both the drift and the bedrock.

Another commitment in the project is directed at enhancing the capabilities of the Drinking Water Geographic Information System (DWGIS) application, which replaced Map Image Viewer that displayed various groundwater and environmental data. The MSU Center for Remote Sensing and Geographic Information Systems (MSU-RSGIS) will be developing a set of standardized WaterChem mapping products for incorporation into DWGIS. This effort will include cleaning and geocoding records in the WaterChem database. The DWGIS will then be modified to allow for the spatial display of WaterChem data with development of a multi-function query tool capable of generating customized reports. This tool should prove very useful in providing information on chemical sampling throughout the state. The contract also calls for an effort to develop a “desk top” method for updating source water assessments using the DWGIS application and the multiple products created from MGMT.

The third effort is being orchestrated by the MSU Institute of Water Research (MSU-IWR). MSU-IWR will be coordinating the outreach, education and facilitation efforts associated with the contract. The activities associated with this phase of the contract include the establishment of a timeline and locations for four workshops on Source Water Protection. Working with ODWMA staff, MSU-IWR handles all workshop logistics including the establishment of meeting locations, the development of an agenda and the production of all training materials. In FY 14, one workshop training session was held in Lansing. To date, 895 CWS and 1394 NTNCWS systems have provisional delineations completed by the MGMT. This effort will include extensive assistance in the organizing and conducting of MGMT workshops in the Saginaw Bay, Jackson-Southeast, and Upper Peninsula districts going forward in FY 15.

The ODWMA, Field Operations Section, is in the process of redefining “Substantial Implementation,” allowing smaller systems to obtain this source water protection status, while increasing Michigan’s population that is protected by these implemented activities. Nonmunicipal water systems can obtain substantial implementation by using a self-assessment to identify specific risks to their drinking water sources. Once risks have been identified, corrective actions can be put in place to reduce risk of contamination. This allows these systems to obtain substantial implementation since they have limited control of their WHPA as compared to municipal systems that may have local control by land use planning and ordinances.

3.7.2 Water Withdrawal Legislation

Target: CWS, NCWS, and Other Interested Parties

The Natural Resources and Environmental Protection Act, 1994 PA 451, as amended, was amended in 2006 and further amended in 2008 in response to increased water use demands, pressure to divert water outside the Great Lakes Basin, and an increase in groundwater use conflicts. The legislative amendments were intended to enhance the state's ability to manage the water resources of Michigan.

Since 2006, any proposed new or increased large quantity withdrawal, defined as a water withdrawal of 70 gallons per minute or more, requires an environmental assessment and

approval prior to making use of the water resource. The new system capacity assessment checklist was amended to address large quantity water withdrawals and ensure authorization is obtained prior to ODWMA district staff issuing a permit. A staff person in Lansing coordinates with district, and other department staff, through the process of obtaining a permit for a large quantity withdrawal for public water supplies.

3.7.3 Surface Water Source Protection

Target: CWS and NCWS Using Surface Water

The Surface Water Intake Protection Program (SWIPP) is the surface water counterpart to the WHPP. Under this program, communities develop partnerships with surrounding communities to identify and take action to protect the area around the intake. The seven communities that have completed an SWIPP serve small- to medium-sized populations. No SWIPP's were submitted in FY 2014. Like an approved WHPP, an approved SWIPP will result in additional priority points being awarded to DWRf applicants, encouraging more CWS to develop one. A matching grant program, equivalent to that used in the WHPP, was incorporated into the administrative rules in 2009. SWIPP grant applications were available first time in May 2014 when approximately \$100,000 will be available to surface water systems for FY 15. The city of Detroit applied to complete protection program plans for the Fighting Island, Belle Isle, and Lake Huron intakes.

Monitoring can alert utility personnel of changes in water quality in time to respond quickly. To achieve this quick response at CWS in the connecting channels between Lakes Huron and Erie, the ODWMA worked with federal and local governmental agencies to install a continuous, real-time water quality monitoring network in the St. Clair River, Lake St. Clair, and Detroit River. In FY 2014, ten of the original thirteen drinking water treatment facilities continue to be equipped with a range of analytical devices. The monitoring system includes data transmission, data visualization, automated notification/alarm service, data archiving, and a publicly accessible Web site for data retrieval. In addition, rapid toxicity test equipment is being used to monitor water distribution systems in Southeast Michigan served by these surface water intakes. Nearly instantaneous communication is key to protecting surface water intakes in the Lake Huron to Lake Erie corridor because of the rapid rate of flow, periodic chemical spills, and corresponding changes in water quality.

The city of Monroe recently purchased and installed a Phycocyanin blue-green algae sensor to help monitor or alert staff of algal blooms occurring. Elevated levels indicate the possibility of toxins being produced to deteriorate drinking water quality and increase public health concerns. This also allows operators to implement treatment changes and be alerted to monitor for microcystin if needed.

Central staff coordinates the notification to district staff about aquatic nuisance permits to surface waters that may impact drinking water sources. Some permits have been streamlined by previous applications when it has been known to not impact a drinking water source. Other permits applications may present a concern by district staff or a community and requires further communication to resolve the issue.

3.8 *Financial Assessments*

Target: CWSs That are Either Municipally Owned or Subject to Association Bylaws

To help existing CWS improve financial capacity, the ODWMA conducts financial assessments of systems that serve a population of less than 10,000 and could benefit from a financial assessment. As a result, systems that are concerned about future challenges, such as complying with new rules, are making progress toward that end by improving their financial capacity. Funding for these assessments is from the technical assistance to small systems set-aside of the DWRP. Systems serving more than 10,000 people may also participate in the program, but the funding would be drawn from the capacity development set-aside.

A financial expert in the DWRP Program conducts the assessment of the community's existing financial health and develops a Financial Action Plan (FAP). The assessment is a review of financial and legal documents and an on-site meeting with system representatives.

An FAP is a tailor-made, comprehensive plan to strengthen the system's financial situation based on the assessment. Short- and long-range goals are identified in the FAP followed by a step-by-step process to reach the goals. Information on obtaining funding is provided with the FAP. The system is expected to carry out the FAP, and the ODWMA is available to assist when requested. An outline of a typical assessment report is included in Appendix B.

In FY 2014, three financial assessments were completed for Bear Lake, Filer Township, and Skandia West Branch Water Authority. Staff has worked with these communities to see how they are implementing their financial action plans as recommended in the assessment. Bear Lake is currently in the process of changing their rate structure to ensure the resources are available for system improvements. In addition, the CUPSS software and DEQ Asset Management Plan Workbook were reviewed during on-site visits in these communities.

New owners or developers are required to demonstrate TMF capacity before approval to commence operation. In FY 2014, four systems submitted financial capacity information and were determined to have sufficient resources to address water system costs.

3.9 *Security*

Target: CWS

The MDEQ Water Security and Emergency Management Program is responsive to the various federal programs and the needs of the public water systems. Planning, training, and coordinating are all a part of the effort to emphasize emergency management for all hazards; terrorism and malevolent acts, as well as weather-related incidents and accidents.

The USEPA eliminated the Water Sector Security funding as of FY 2010. However, the USEPA Counterterrorism grant was extended until March 31, 2014.

The tabletop exercise (TTX) contractor performed seven tabletop exercises until March 31, 2014, in order to expend the remaining grant balance. As of March 31, 2014, 75 TTX's were performed under this grant. In addition, the contractor conducted a final exercise to develop a controller-evaluator handbook and an exercise evaluation guide, which were the final

deliverables for the grant. Field staff will continue to be involved in safety and security enhancements through the construction permit process and the operation of new systems as well as during inspections.

3.10 Electronic Reporting and Data Management

Target: CWS and NCWS

Electronic reporting and data management are tools to help the central office identify and analyze statewide trends in contaminant levels, treatment, distribution operations, and compliance. This ability will allow the ODWMA to focus assistance more effectively.

3.10.1 Electronic Drinking Water Reporting (eDWR)

Target: CWS Primarily, Though Elements Designed for Laboratories That Also Serve NCWS

The ODWMA is working to develop electronic reporting systems to provide convenience and accuracy for data reporting. The successful implementation of the Internet-based reporting system for discharge monitoring reports prompted Michigan to expand the project to include an electronic drinking water report (eDWR). The eDWR system will provide for online submittal of drinking water laboratory results and treatment plant operational data. The collection of data will allow the ODWMA to query certain parameters to assess capacity on a systemwide and statewide basis. Although competing priorities have delayed the launch of this tool, progress is still being made toward implementation. Future plans include providing other required reports online.

3.10.2 Tracking Compliance Using SDWIS

Target: CWS

The federally supported database for tracking drinking water compliance activities (SDWIS), stores actual analytical results entered either manually or via eDWR reporting discussed above. This tool allows for more automated compliance determinations, which is particularly necessary when staff resources are stretched. In FY 2005, the CWS Program began tracking Total Coliform Rule compliance monitoring in the SDWIS, and in FY 2010, this was expanded to include Lead and Copper Rule tracking. In FY 2012, the CWS Program began to enter Stage 2 DDBPR Schedule 1 and Schedule 2 monitoring schedules to track compliance and adding Groundwater Rule monitoring. FY 2013 expanded tracking to include DDBPR schedule 3 and 4 monitoring. Surveillance visits and sanitary survey data was also added to the SDWIS this year.

3.10.3 WaterTrack

Target: NCWS

The LHD staff use the WaterTrack database to track NCWS inventories, certified operator information, sanitary survey reports, capacity development, construction permits, monitoring results, monitoring violations, violations of the MCL, and NCWS compliance reports. The information is monitored by the MDEQ staff that oversees the NCWS Program. WaterTrack uses an outdated platform, is largely unsupported, and does not contain capability to track all current rule requirements. The MDEQ actively participates in the discussions regarding the

development of the SDWIS Prime. While awaiting its release, the MDEQ provides alternative tracking methods when available.

4. Identify Existing Systems in Need

The strategy used to select and prioritize systems for assistance is outlined in the *Capacity Development Strategy for Existing Public Water Systems*, dated August 1, 2000, and remains unchanged. Briefly, the ODWMA looks at all of the following criteria:

- Compliance information.
- Quarterly ETT scores.
- Sanitary surveys and results of surveillance visits.
- Construction permit bans and correspondence from the ODWMA addressing potential bans.
- Operation and maintenance concerns.
- Field staff input.

The sanitary surveys and surveillance visits are ongoing, while identifying which systems may need capacity assistance.

5. Identify Capacity Development Needs and Provide Assistance

The MDEQ continues to recognize and identify capacity development needs and provide assistance in these areas identified. A new capacity development need for training in new rules including the Stage 2 DBPR compliance, asset management, and the upcoming RTCR. The ODWMA believes the areas identified below continue to be a focus and recognized the needs that exist at the national level while participating in workgroups to tackle them.

5.1 New Rules Implementation and Training

Several additional activities are ongoing:

- LHD Contract Evaluations:

The MDEQ is active in meeting with the Michigan Association of Local Environmental Health Administrators (MALEHA). MALEHA represents the Environmental Health Directors of all 44 LHDs. In FY 2014, the MALEHA and the MDEQ agreed on new minimum review standards for the private and type III drinking water program (well construction), which will start being phased in for FY 2015, and fully implemented in FY 2016. The group is now tasked with discussions specific to NCWS activities. This will include reviewing and updating contract language in regards to the level of service provided by the LHD in the NCWS program, objectives, and required outcomes. New standards (Minimum Program Requirements) will be developed to determine the measurement of compliance with the contract. Most of this process will be developing evaluation indicators that will be needed as a result of the RTCR and to

update the contract to incorporate specific indicators related to the ETT and Significant Deficiencies.

- Training of LHD staff:

The MDEQ continues to provide LHD training through many avenues. Staff is active in participating as speakers at regional MEHA seminars, locally sponsored Environmental Health meetings, and the MEHA Annual Educational Conference. The MDEQ also continues to provide Webinars as topics arise. We are fortunate to be able to archive some of these trainings on a Web site for future viewing. Staff has also written articles for the MEHA Journal regarding PWS issues. This is in addition to the training mentioned in Section 3.3.

5.2 *Follow Up on Needs Identified*

Areas identified are continuing to be addressed.

5.2.1 Implement New Federal Rules

The ODWMA program and field staff has continued to host and participate in training on new rules. As mentioned earlier, new rule information was presented at each of the eight Michigan Section, AWWA regional meetings, at quarterly field staff meetings, and during LHD visits by NCWS staff.

Staff of the ODWMA has finalized the Stage 2 DDBPR monitoring plan template to make it shorter and more concise. Additionally, staff have helped schedule 3 and 4 CWS comply with Stage 2 DDBPR requirements and assist in completing their monitoring plans. Reminders of new rule changes are included in correspondence with water systems whenever possible.

In late FY 2014, ODWMA began meeting with a stakeholder group comprised of LHD staff to begin discussions on the implementation of the RTCR at NCWS. The findings whitepaper was made available in February 2014. This group continued to meet on a regular basis to identify barriers to implementation and coordinate efforts to make this transition successful. It is clear that the RTCR will have significant impact on program implementation at the State and Local level. Systems are expected to struggle to maintain compliance with the increased monitoring and reporting obligations, especially those required of seasonal systems.

Staff of the ODWMA will continue training in FY 2015 targeting small system and NTNCWS certified operators. Training programs will include modules developed by the MDEQ, also being used by LHDs, and they will develop new training modules to keep certified operators updated with regulatory compliance, roles, responsibilities, and latest trends and technology in operating, maintaining, and managing public water supplies.

5.2.2 Capture Sanitary Survey Data

Detailed sanitary survey data is captured on individual Excel spreadsheets for every groundwater and surface water CWS. To create a tool to enhance decision making, the ODWMA program staff is continuing to investigate options to capture that data in a queryable format.

Currently, ODWMA staff track basic survey data, specifically survey date, rating of the eight required elements, and significant deficiency tracking in a central database. The ODWMA has transferred this basic survey tracking and all surveys conducted since FY 2013 have had information entered into SDWIS/State.

5.2.3 Implement Newly Revised Nonfederal Provisions of the Administrative Rules

The ODWMA is continuing to implement nonfederal provisions of the administrative rules that were revised along with the adoption of the new federal rules in 2009. The purposes of these revisions, which were discussed more fully in the 2010 report, are listed below:

- Improve capacity in very small systems.
- Provide oversight to NCWS that treat to improve aesthetics.
- Diversify the type of operator training received and update operator certification rules.
- Enhance planning by requiring a capital improvement plan for publicly owned CWS by January 1, 2016,
- Provide a source water protection grant program for surface water systems.
- Enhance technical capacity.

The ODWMA has drafted new provisions in the Administrative Rules for cross connections, asset management, and operator certification. Meetings were held in June to communicate the proposed rule concepts and to receive comments from stakeholders. A final public hearing will be scheduled in February 2014. A brief description of each provision is listed below:

- Cross Connections - Administrative rules currently require community water supplies to establish a program to control cross connections in the water supply system. The proposed rules establish a minimum frequency to test backflow preventers and requires testing be conducted by an individual certified to test preventers.
- Asset Management - The proposed rule clarifies that an asset management program is an integral part of developing an adequate capital improvements plan and requires the implementation of an asset management program for supplies that serve more than 1,000 people. In addition, the proposed rule extends the requirement for an asset management program and a capital improvements plan to privately owned community water supplies that serve more than 1,000 people.
- Operator Certification – The proposed revisions change the deadline by which individuals must submit an application for a certification examination. This will allow for the additional processing necessary due to the passage of certification fees in effect as a result of the 2011 amendments.

5.2.4 Encourage Asset Management

As the infrastructure funding gap continues, field staff is stressing asset management concepts during interactions with CWS and their local decision makers. Good water system operation

and management cannot be mandated, though the ODWMA hopes the proposed rules will foster better water system management.

5.3 *Participate in National Workgroups*

Program staff in the ODWMA is involved in national workgroups with other states, USEPA headquarters and regional offices, and others to improve implementation or affect change to federal regulations and national policy.

A NCWS Program representative has provided ongoing input to those working to revise the Total Coliform Rule.

A NCWS Program representative participates in an USEPA workgroup to develop a resource to assist NCWSs with compliance problems. The workgroup determined the necessity of a tool for water supply owners when faced with a Nitrate MCL. The workgroup created a Compliance Options Decision Narrative in a MS Word format. The document format is question/answer and guides water supply owners through the determination of treatment types.

An ODWMA manager has been participating in a National Drinking Water Infrastructure Needs Survey workgroup and with a perchlorate workgroup consisting of USEPA and state representatives assessing the need for a drinking water standard. Staff of the ODWMA participated in a national asset management workgroup to identify what states are doing in asset management and encourage water system owners to implement asset management practices. Participating in national efforts to improve implementation of the drinking water program will assist in improving overall capacity.

6. Review Existing Systems Program Implementation and Address Findings

Sanitary surveys are the primary tool to evaluate capacity and identify needs for specific systems. A long-standing MDEQ policy dictates sanitary survey frequencies for all types of CWS and NCWS. Follow-up on deficiencies in any system has been a long-standing practice and is required of the LHD under contract with the MDEQ. As stated in last year's edition of this report, the ODWMA was driven by the federal GWR and the requirement to identify and pursue resolution of significant deficiencies to draft two policies. The first policy sets frequencies for sanitary surveys and the second sets criteria to identify significant deficiencies and establishes procedures to resolve them. Both policies became effective in January 2010. There have been nine significant deficiencies identified in FY 2013. All CWS have met their deadlines or escalated enforcement is in place with an acceptable compliance to resolve the deficiencies.

Between sanitary surveys, ODWMA field staff makes routine on-site visits to review the technical, managerial, and sometimes financial aspects of a CWS and to establish channels of communication with the CWS. The knowledge and familiarity gained by both parties as a result of routine visits are keys to maintaining a cooperative relationship in achieving mutual goals. The frequency of these visits has been dictated in policy based on long-standing practice.

Requests for financial assessments continued to remain minimal this year. Rather than attempt to increase the number of financial assessments, the ODWMA has continued to follow up with previously assessed water systems informally during routine on-site visits by field staff and more formally by the financial expert that conducted the original assessment. Three communities

have been revisited to follow up on how they have implemented their FAPs and four new systems completed a financial capacity assessment prior to being permitted to operate.

7. Modify Existing Systems Program Strategy

The strategy remained unchanged during the reporting period. The MDEQ is continuing to implement the original strategy of moving from capacity assessment through assistance to development.

8. Summary

Michigan is continuing to implement a program for new systems and a strategy for existing systems as set forth in May and August 2000, respectively. The new systems' program retains the legal authority and the control points established in 2000. A list of new systems in the last three years is included in this report. Only one new system has appeared on the FY 2012-FY 2014 ETT.

The strategy for existing systems established in 2000 has remained the same, though the specific tools and activities used to implement the strategy have been added, removed, or altered as needed. The drinking water program continually identifies systems in need of capacity development primarily through the sanitary survey process. During the reporting period, needs were identified and discussions were held to determine what areas could be enhanced. A review of implementation of various activities of the strategy occurred and changes were made. The strategy was not modified.

Appendix A: List of New Systems

Systems in ***Bold Italics*** Received an ETT Score of 11 or More

PWSID	PWS NAME	TYPE	FIRST REPORTED TO SDWIS	SEE NOTE
MI0000088	ALBEE TOWNSHIP	CWS	05/20/11	
MI0002356	FORESTER TOWNSHIP	CWS	2/14/13	
MI0003694	LAKE ANGELA CONDO APTS #4	CWS	11/16/11	
<i>MI0004778</i>	<i>ARBOR VIEW CONDO OWNERS ASSOCIATION</i>	<i>CWS</i>	<i>8/21/12</i>	<i>1</i>
MI0005555	POWDERMILL INN CONDO ASSN	CWS	8/20/13	
MI0006693	TULLYMORE CLUBHOUSE AND CAMELOT VILLAGE	CWS	11/18/10	
MI0007064	WHITE LAKE ASSISTED LIVING CENTER	CWS	11/19/12	
MI0007134	WISNER AREA WATER SYSTEM	CWS	8/20/13	
MI0120219	NORTHERN SPRINGS, LLC	NTNCWS	11/28/12	
MI0120220	CRYSTAL SPRINGS ESTATES	NTNCWS	12/9/10	2
MI0820408	DAR HASTINGS	NTNCWS	2/29/12	
MI1120719	LAKE UNION CONFERENCE OF SDA	NTNCWS	8/30/13	3
MI1620460	FERNELIUS AUTO	NTNCWS	11/29/11	
MI1620462	RIVER'S EDGE COMMUNITY ASSOCIATION	NTNCWS	8/23/12	
MI1620468	KEN'S VILLAGE MARKET	NTNCWS	6/6/13	
MI1820290	FARWELL ALTERNATIVE EDUCATION	NTNCWS	2/29/12	
MI2420384	CONCORD CONDOMINIUMS	NTNCWS	6/1/11	
MI2521607	ULTRA DEX TOOLING SYSTEMS	NTNCWS	3/16/11	4
MI3020309	COUNTRYSIDE MONTESSORI SCHOOL	NTNCWS		5
MI3320205	MUNTERS	NTNCWS	12/9/10	
MI3420270	SCHOOL OF MISSIONARY AVIATION TECH.	NTNCWS	11/28/12	
MI3820836	GERDAU MACSTEEL	NTNCWS	2/29/12	
MI3920491	VDS FARMS, LLC FULTON	NTNCWS	8/23/12	
MI4120960	RIVERIDGE PACKING - WORTH BLDG (NORTH)	NTNCWS	12/9/10	
MI4120961	CAL PLEX	NTNCWS	6/1/11	
MI4120973	TRUSS TECHNOLOGIES	NTNCWS	11/28/12	
MI4120980	ELITE APPLE COMPANY	NTNCWS		6
MI4520271	GLEN LAKE TRAILER PARK	NTNCWS	2/29/12	
MI4620666	LISD CENTER FOR SUSTAINABLE FUTURE	NTNCWS	8/23/12	
MI4720641	STEP BY STEP EARLY LEARNING CENTER	NTNCWS	12/9/10	
MI4720642	ALWAYS UNIQUE CHILDCARE	NTNCWS	12/9/10	
MI4720644	DYNAMIC TECHNOLOGY, LLC	NTNCWS	3/16/11	
MI4720657	HOFFMAN FILTER CORPORATION	NTNCWS	2/29/12	
MI4720658	ASPEN TECHNOLOGIES INC.	NTNCWS	2/29/12	
MI5220202	RIO TINTO - EAGLE MINE	NTNCWS	2/29/12	
MI5220203	RIO TINTO HUMBOLDT MILL	NTNCWS	3/5/13	

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PWSID	PWS NAME	TYPE	FIRST REPORTED TO SDWIS	SEE NOTE
MI6120470	OAKRIDGE LOWER ELEMENTARY SCHOOLS	NTNCWS	2/29/12	
MI6322896	ADEPT PLASTIC	NTNCWS	5/30/12	
MI7020654	CONSUMERS ENERGY TRAILER WELL	NTNCWS	11/29/11	
MI7620249	COUNTRY VIEW LLC	NTNCWS		7
MI8020565	MBG MARKETING	NTNCWS	3/16/11	
MI8120604	JELLYBEAN DAYCARE AND PRESCHOOL	NTNCWS	12/9/10	
MI8120608	CHAMPION WATER	NTNCWS	5/30/12	

FY 2011 to FY 2013	CWS		NTNCWS	
	New	New & Existing	New	New & Existing
Number of systems on ETT Tracker Report	8	1,382	35	1,321
Number of systems with ETT score of 11 or more	1	26	0	22
Systems with ETT score of 11 or more	13%	2%	0%	2%

Notes to Table of New Systems

1. ARBOR VIEW CONDO OWNERS ASSOCIATION received an ETT score of 11 or more during the last 3 years. This system existed since the 1980s, but did not appear on the SDWIS inventory until 2012.
2. CRYSTAL SPRINGS ESTATES existed prior to 10/01/2010, but was not classified as a NTNCWS.
3. LAKE UNION CONFERENCE OF SDA is inactive as of 10/28/2013.
4. ULTRA DEX TOOLING SYSTEMS is no longer a nontransient system. It was reclassified to transient as of 10/10/2013.
5. COUNTRYSIDE MONTESSORI SCHOOL was added to the SDWIS inventory on 09/18/2013 and has not yet appeared on the ETT Score Tracker.
6. ELITE APPLE COMPANY was added to the SDWIS inventory on 09/18/2013 and has not yet appeared on the ETT Score Tracker.
7. COUNTRY VIEW LLC was added to the SDWIS inventory on 09/04/2013 and has not yet appeared on the ETT Score Tracker.

Appendix B: Outline of a Typical Financial Assessment and FAP

Financial Assessment

Introduction: Population, location, transportation routes, and community characteristics; description of the water system and major projects or concerns such as expansion, securing loans, and meeting new drinking water standards; and major financial shortfall such as the need for a rate methodology.

Requested Information: Budget, last two years of audited records, water use and water rate ordinances, latest rate ordinance or resolution, recent rate or feasibility study, and contract or service agreements with outside customers.

Submitted Information: List of information provided.

Analysis: Summary or highlights of each of the documents provided by the supply.

On-Site Meeting: Date and attendees; and list of items discussed, such as the financial concerns, the billing method, and major recent projects.

FAP

Goal One: Develop the financial capability to fund present and future needs.

Task 1: Develop a capital improvement projects plan.

- Step 1: List anticipated water projects.
- Step 2: Estimate the cost of each project to be funded.
- Step 3: Project the anticipated date the project is to begin.
- Step 4: Calculate the dollar amount necessary to be set aside annually.
- Step 5: Establish a line item in the budget for capital improvement expenditures.

Task 2: Develop and implement a rate setting methodology.

- Step 1: Identify water system expenses.
- Step 2: Identify replacement expenses and fund the replacement account.

Goal Two: Establish the legal and managerial capability to protect the water system.

Task 1: Develop a penalties section in the water ordinance.

Task 2: Adopt the amendment to the ordinance.

Tools Included With FAP

Sample resolution, sample water use and rate ordinance, service agreement checklist, DWRf informational brochure, project plan preparation guide, and securing a DWRf loan fact sheet.