Michigan Department of Environment, Great Lakes, and Energy

Drinking Water and Environmental Health Division

ANNUAL REPORT ON CAPACITY DEVELOPMENT PROGRAM

FISCAL YEAR 2020

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List of Acronyms

ACO	Administrative Consent Order
Act 399	Michigan Safe Drinking Water Act, 1976 PA 399, as amended
ALE	Action Level Exceedance
AWOP	Area-Wide Optimization Program
AWWA	American Water Works Association
CCR	Consumer Confidence Report
CDP	Capacity Development Program
CWS	Community Water Supply
DAG	Michigan Department of Attorney General
DDBPR	Disinfectants and Disinfection Byproducts Rule
DSMI	Distribution System Materials Inventory
DWEHD	Drinking Water and Environmental Health Division
DWGIS	Drinking Water Geographic Information System
DWRF	Drinking Water Revolving Fund
DWSRF	Drinking Water State Revolving Fund
EGLE	Michigan Department of Environment, Great Lakes, and Energy
EFCN	Environmental Finance Center Network
EN	Enforcement Notice
ETT	Enforcement Tracking Tool
FAP	Financial Action Plan
FY	Fiscal Year
GWR	Ground Water Rule
LARA	Michigan Department of Licensing and Regulatory Affairs
LCR	Lead and Copper Rule
LHD	Local Health Department
MCL	Maximum Contaminant Level
MDHHS	Michigan Department of Health and Human Services
MEHA	Michigan Environmental Health Association
MGMT	Michigan Groundwater Management Tool
MiEHDWIS	Michigan Environmental Health and Drinking Water Information System
MRWA	Michigan Rural Water Association
MSU-CEE	Michigan State University, Department of Civil and Environmental Engineering
MOR	Monthly Operation Report
NCWS	Noncommunity Water Supply
NTNCWS	Nontransient Noncommunity Water Supply
OTCU	Operator Training and Certification Unit
PFAS	Per- and Polyfluoroalkyl Substances
PWS	Public Water System
RCAP	Rural Community Assistance Program
RTCR	Revised Total Coliform Rule
SDWA	Federal Safe Drinking Water Act
SDWTP	School Drinking Water Training Program
SDWIS	Safe Drinking Water Information System
SWIPP	Surface Water Intake Protection Program
TA	Technical Assistance
TMF	Technical, Managerial, and Financial
TOC	Total Organic Carbon
USEPA	United States Environmental Protection Agency
WHPA	Wellhead Protection Area
WHPP	Wellhead Protection Program

ED_006324A_00001720-00002

Table of Contents

Page

1. Introduction 3
2. New Systems Program 4
2.1 Identify Legal Authority 4
2.2 Identify Control Points 4
2.3 List of New Systems 4
3. Existing Systems Program Tools and Activities Used 5
3.1 Sanitary Surveys to Evaluate Supplies 5
3.2 One-on-One TA and Consultation 7
3.3 Other PWS Program Efforts 9
3.4 Enforcement 13
3.5 OTCU 14
3.5.1 Training 14
3.5.2 Small CWS and NCWS Training 15
3.6 DWSRF 16
3.7 Source Water Protection 17
3.7.1 Groundwater Source Protection 18
3.7.2 Water Withdrawal Legislation 19
3.7.3 Surface Water Source Protection 20
3.8 PFAS Sampling and Outreach 21
3.9 Financial Assessments 23
3.10 Security and Emergency Response 24
3.11 Electronic Reporting and Data Management 25
3.11.1 Electronic Reporting 25
3.11.2 Tracking Compliance Using SDWIS 25
3.11.3 WaterTrack 26
4. Identify Existing Supplies in Need 27
5. Identify Capacity Development Needs and Provide Assistance 27
5.1 New Rules Implementation and Training 27
5.2 Follow-Up on Needs Identified 28
5.2.1 Implement New Federal Rules 28
5.2.2 Capture Sanitary Survey Data 28
5.2.3 Implement Newly Revised Nonfederal Provisions of the Administrative Rules 28
5.2.4 Encourage Asset Management 29
5.3 Participate in National Workgroups 29
6. Review Existing Systems Program Implementation and Address Findings 30
7. Modify Existing Systems Program Strategy 30
8. Summary 31
Appendix A: List of New Systems 32
Appendix B: Outline of a Typical Financial Assessment and FAP 36

ED_006324A_00001720-00003

1. Introduction

The 1996 Amendments to the federal SDWA added provisions for each state to develop a CDP. The objective of the CDP is to enhance public health protection by helping water supplies develop and maintain the 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 USEPA that the state of Michigan is implementing a capacity development strategy as required in the SDWA, Section 1420(c)(1)(C), or risk losing 20 percent of the annual 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's 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 that ends on September 30; therefore, this report is due by December 31 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.

FY 2020 presented some unique challenges due to the COVID-19 pandemic. In March 2020 all EGLE employees began teleworking from home offices and limiting field work. Although the DWEHD transitioned quickly to this new environment, the workload and many existing programs had to be altered to fit this new environment. In addition, DWEHD staff were laid off for ten days (one day per week from May 17 through July 25, 2020) to help address budgetary concerns. These factors resulted in some delays in program work.

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2. New Systems Program

2.1 Identify Legal Authority

The legal authority remained unchanged during the reporting period. The CDP is implemented by EGLE, DWEHD, through amendments to 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 CWSs, 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 NTNCWSs, the DWEHD has delegated the authority to the LHDs to review, approve, and issue construction permits. When water supplies begin the permit application process, the LHD helps them outline their TMF capacity. Prior to receiving approval to commence operation, the NTNCWS must submit both a TMF and a contingency plan, as well as designate a certified operator.

2.3 List of New Systems

The list of CWSs and NTNCWSs that became active during the last three fiscal years is in Appendix A. Each year, the list indicates which supplies, if any, scored 11 or more (indicator of noncompliance) on the ETT during the reporting period. New supply compliance data is more meaningful when compared to all supplies of the same classification, as summarized in the following table.

FY 2018 to FY 2020	**CWS**		**NTNCWS**	
	New	New & Existing	New	New & Existing
Number of supplies on ETT Report	10	1,381	38	1,293
Number of supplies with ETT score of 11 or more	0	13	0	33
Percent of supplies with ETT score of 11 or more	0%	0.9%	0%	2.6%

No new CWS or NTNCWS scored an 11 or higher in FY 2018 – FY 2020.

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 supplies 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 Supplies

Target: CWSs and NTNCWSs

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

For NTNCWSs, sanitary surveys are conducted every five years. Surveillance visits are required annually for any system with regulated treatment or that is on a reduced (annual) total coliform sampling schedule. 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 supplies are not included in the list of new supplies in Appendix A.

The frequency of NTNCWS surveillance visits is as follows:

Type of NTNCWS	**Site Visit Frequency**	**Sanitary Survey Frequency**
Supply with regulated treatment	Once per year	Every 5 years
Supply with annual total coliform	Once per year	Every 5 years
Supply without regulated treatment and on quarterly total coliform monitoring	No visit beyond sanitary survey	Every 5 years

NTNCWS Evaluations and Visits			
	FY 2018	**FY 2019**	**FY 2020**
Number of Sanitary Surveys Conducted	240	290	272
Number of Annual Treatment Surveillance Site Visits	158	163	167

For CWSs, sanitary surveys are conducted every three years by DWEHD field staff. This frequency coincides with the requirements of the series of Surface Water Treatment Rules and the GWR. Each of the eight required sanitary survey components is rated individually and tracked in SDWIS/State.

The required components of a sanitary survey include the source, treatment, distribution system, finished water storage, pumps and controls, monitoring and reporting, supply management and operation, and operator compliance. Each component may be rated as a significant deficiency, minor deficiency, recommendations made, or no deficiencies/recommendations.

DWEHD staff detail their findings, recommendations, and deficiencies in a letter to the supply. These letters include a list of 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 TA 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 2018	**FY 2019**	**FY 2020**
Number of Sanitary Surveys Conducted	492	388	364
Number of Significant Deficiencies	32 at 20 supplies	15 at 13 supplies	34 at 29 supplies
Number of Minor Deficiencies	329	579	482
Number of Visits*	2,153	1,933	1,537
Number of Construction Permits Issued	1,015	1,046	871

*Includes Sanitary Surveys

The decrease in number of total visits in FY 2020 is partly due to restrictions put in place to reduce exposure to COVID-19. Due to the COVID-19 pandemic, the State of Michigan was in a shelter in place order for over two months. During this time, only essential visits to water supplies were allowed. Despite the restrictions on in-person visits, sanitary surveys have continued and DWEHD staff have adapted to the restrictions by using online/virtual meetings to discuss operations and administrative functions of the water supply before conducting physical site visits.

In addition to COVID-19 pandemic restrictions, the DWEHD is also experiencing staffing shortages. Although a large number of positions were authorized for FY 2020, due to the COVID-19 pandemic, all state agencies were placed under a hiring freeze and these positions were not filled. The DWEHD is hoping to fill some of these positions in FY 2021.

In addition to sanitary surveys, DWEHD staff perform routine visits to CWSs at a variety of intervals, based on the type of supply. The purpose of these visits is to continue to

build relationships between EGLE and the CWSs, as well as to ensure that supplies are not experiencing problems between the sanitary survey visits.

The frequency of CWS surveillance visits is as follows:

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

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

3.2 One-on-One TA and Consultation

Target: CWSs and NTNCWSs

DWEHD and LHD field staff are the primary implementers of the CDP. Water supply operators work with field staff who are the primary contact for capacity development. Each CWS is served by DWHED staff located in one of eight district offices, and each NTNCWS is served by staff from one of the 44 LHDs under contract with EGLE. DWEHD and LHD field staff provide continual oversight throughout the permit process to help assure new supplies can achieve capacity development requirements upon activation. Assistance is typically provided through site visits, meetings, during training events, phone consultations, or via email. DWEHD field staff attends, participates, and presents at periodic regional operator meetings to discuss upcoming regulations, regional issues, and to network with operators and managers.

DWEHD NCWS Program staff maintain 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 trainings. Also, quarterly data reviews and annual evaluations of each of the 44 LHD's performance are conducted to help maintain water supply compliance.

In order for CWS and NCWS staff to provide complete and accurate TA to water supplies, the PWS Program is committed to staff training. In FY 2020 CWS and NCWS staff participated in the DWHED Rule School, which is a division-wide training program that has been ongoing since FY 2016. The DWEHD Rule School is a series of all-day training sessions focused on details of the Act 399 Administrative Rules and related topics. Four Rule School sessions were held during FY 2020, and attendance was

required for all CWS technical staff. A variety of topics were taught by DWEHD staff as well as EGLE staff from other divisions. The topics for FY 2020 included:

- PFAS in Drinking Water
- Emergency Management and Health and Safety
- Entry Point Chemical Monitoring
- Lab Certification and Analytical Methods
- Treatment Technology and Permitting
- Water Hauler Certification
- Well Construction Product Approval and Disinfection

Sessions included a brief history, the importance of the regulation, DWEHD staff responsibilities, rule citations, policies related to the rule, and all requirements related to monitoring and reporting. All staff members were encouraged to attend in-person, but sessions were live-streamed through Skype to ensure all staff could attend. Due to the COVID-19 pandemic, all sessions that took place after March 2020 were done through a virtual online collaborative platform (Microsoft Teams). The technical knowledge gained through these training sessions will help staff explain the regulations to the water supplies in a clear and concise manner. The DWEHD will continue to provide training to program staff via Rule School sessions in FY 2021.

The following examples illustrate how the PWS Program staff provided TA to water supplies during FY 2020:

- DWEHD staff worked with a water supply previously classified as several Type II (NCWS) and Type III supplies on one large property to help the supply become a CWS. Staff worked with the well driller, maintenance staff, area organizations, and TA providers to help the water supply comply with the SDWA. The efforts are ongoing with a target to reclassify the supply as a CWS in FY 2021.
- Due to a steady increase in population, a school district needed to build additions on two schools classified as NTNCWSs. In coordination with LHD staff, the DWEHD assisted with creating a cross connection control plan for their new laboratory rooms and janitor's closets. In addition to ensuring backflow prevention devices were installed where required, changes to the sample siting plans were needed to encompass the new additions. DWEHD and LHD staff assisted the operator in updating the LCR and RTCR Sample Siting Plans to include changes at both water supplies.

These examples are only a few instances of the one-on-one TA provided by staff to help water supplies gain TMF capacity.

3.3 Other PWS Program Efforts

PWS program staff (DWEHD for CWSs and LHD staff for NTNCWSs) develop and distribute individual monitoring schedules to each CWS and NTNCWS as a tool to help supplies comply with monitoring and reporting requirements. To supplement the schedule, additional resources may be included.

Prior examples include:

- Lead and Copper Report and Consumer Notice of Lead and Copper Result Certificate. This form provides a fill-in-the-blank version of the consumer notice for the convenience of supplies with limited computer ability.
- Drinking Water Lead and Copper Sampling Instructions. The supply may provide this document to the occupants that will be performing the sampling.
- RTCR Sampling Siting Plan. This form incorporates RTCR and GWR-triggered source monitoring requirements.
- RTCR Level 1 Assessment Form. This form is completed by the PWS to determine the cause of contamination after a Level 1 Assessment is triggered.
- Stage 2 DDBPR Sampling Site Plan.
- List of approved laboratories.
- Annual Pumpage/Usage Report for CWS (applicable to CWSs that do not submit MORs with monthly pumpage).
- Cross Connection Report. Supplies use their form to demonstrate ongoing implementation of their Cross Connection Control Program.
- Water Quality Parameters Form. CWSs can use this form to report the results of any Water Quality Parameter monitoring.
- CCR Certificate of Distribution.
- EGLE Water Sampling 101 – Thermal Preservation Video.
- Noncommunity seasonal system certification form and instructions.

Methods and additional opportunities to communicate PWS monitoring and reporting requirements include:

- Efforts to remind water supplies of reporting deadlines before violations were issued.
- Distribution and entry point monitoring reminder letters. CWSs that have not completed their required distribution or entry point monitoring typically receive a reminder within 30 to 90 days before the deadline to prevent a violation.

- Lead and copper monitoring reminder letters. Due to the complexity associated with lead and copper sampling, additional guidance is provided within the notification.
- Lead and copper 90th percentile letter or ALE letters. These letters outline the results of the supply's monitoring and remind supplies of further requirements, such as distributing the Consumer Notice of Lead and Copper Results, conducting water quality monitoring, or installing corrosion control treatment.
- CCR reminder letters. By the end of May each year, DWEHD staff reminds supplies of the annual requirement to distribute the CCR by July 1 and provides tools to comply: (1) A variety of templates are made available on the CWS homepage including the Internet link to the USEPA *CCRiwriter*, as well as (2) the guidance document *Preparing Your CCR* and *Reporting TOC on the CCR*, as applicable.

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.

Examples of tools to help supplies manage operational requirements include:

- MOR templates. Staff review MORs to assure compliance with treatment techniques and to evaluate treatment processes for optimal operating practices.
- Privately-owned CWS Stipulation to Conditions. While it is clear in the administrative rules that new supplies must demonstrate TMF capacity before commencing operation, the 2009 amendments to Act 399 clarified that these requirements also apply to new owners of existing supplies. The stipulation to conditions, which 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 DWEHD field staff conduct inspections and approvals for water wells serving the NTNCWSs and CWSs, respectively.
- Guidance documents. DWEHD staff develops and distributes guidance documents as needed. Examples include:
    - *Water Well Disinfection Manual*
    - *Seasonal Public Groundwater Supply Handbook (May 2015).*
    - *Suggested Practices* outlines program requirements.
    - *New Community Water System Capacity Guideline Document,* developed in 2000, guides field staff and owners of proposed or new supplies through the process. It includes a capacity assessment

checklist, a financial workbook, policies related to new supplies, and templates and forms for planning purposes.
  - Source water protection guidance documents.
  - NCWS Program guidance documents include the *Noncommunity Staff Reference Manual* and the *WaterTrack Operators Manual* for LHD staff. An updated version of the NCWS manual is distributed to LHDs annually.
  - The *Level 5 Drinking Water Operators Guide* for those individuals pursuing certification to operate a small PWS.
  - Additional brochures and informational publications were produced to address the issue of lead and coper in household drinking water.
  - Total coliform sample collection guidance
  - Development of a PFAS drinking water rules dedicated Web site and supportive materials including: Rules Overview, Rules Quick Reference Guide, Sampling Instructions, and a sample collection tutorial video.
- USEPA tools. In addition to state-developed products, the field staff distributes, as needed, USEPA tools and guidance documents, promotes capacity development and sustainability tools, and promotes USEPA webinars.
- PWS staff presented material at meetings, conferences, and training sessions throughout the year for LHD field staff, consulting engineers, operators, and local decision makers.
- DWEHD conducted biweekly, then monthly, webinars to communicate and support CWSs on addressing day-to-day impacts that the COVID-19 pandemic and ensuing Executive Orders had on operations. This included assisting PWSs in connecting to resources like face coverings and other essential supplies that were in short supply early in the COVID-19 pandemic.

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 webinars. Specific activities in FY 2020 included:

- DWEHD staff presented the EGLE Update at the Michigan Section, AWWA regional meetings, updating participants on new rule implementation. The Division Director also presented the EGLE Update at the annual conference of the Michigan Section, AWWA.
- EGLE contributes to a quarterly newsletter, Water Works News, with the Michigan Section, AWWA. The newsletter is distributed to members and all

CWSs, including approximately 700 privately-owned CWSs, that might not otherwise receive drinking water-related information.

- The NCWS Program staff participates in association conferences relevant to NTNCWSs, such as the Michigan Chapter of the Association of Recreational Vehicles and Campgrounds, the Michigan School Business Officials, the Michigan Ground Water Association, the Michigan Association of Local Environmental Health Administrators, and the MEHA.
- DWEHD staff worked with the MDHHS, Oral Health Program, to administer a Fluoride Grant Program to promote PWS fluoridation by offering grants to water supplies wishing to purchase new or replacement fluoride feed equipment. Three water supplies were awarded grants in FY 2020, totaling $25,919 and serving a population of 13,581.
- To continue to offer quality training to DWEHD staff and water supplies, the DWEHD takes advantage of USEPA and AWWA webinars. Certified operators can meet continuing education requirements with USEPA or AWWA-sponsored webcasts. The DWEHD promotes webinars and encourages field staff to forward information to water supplies so they can participate at their site. The DWEHD will continue to take advantage of opportunities to interact with water supplies and their consulting engineers, municipal leaders, and others interested in drinking water issues.
- DWEHD staff attended the USEPA Small System Virtual Workshop in August 2020, which focuses on treatment and emerging issues for small CWSs and NCWSs.
- DWEHD staff hosted five LCR trainings through FY 2020 to continue to inform water supplies about the requirements of the Michigan LCR.
- Michigan Environmental Compliance Conference
- Michigan PFAS Summit
- Region 5 LCR/Optimal Corrosion Control Techniques (OCCT)Workgroup Calls

In FY 2020 EGLE continued its efforts to promote quality drinking water in schools that receive their water from CWSs with the Healthy Water Healthy Kids Initiative.

SDWTP wrapped up with multiple school plumbing assessments and the completion of a few instructional videos regarding do-it-yourself plumbing assessments and flushing guidance. Some assessments had to be suspended due to the COVID-19 pandemic restrictions. The SDWTP funds ended on September 30, 2020.

In FY 2020 EGLE received a USEPA grant for voluntary lead testing in schools and childcare facilities (Water Infrastructure Improvements for the Nation (WIIN) Grant). The grant period is from FY 2020 to FY 2023. Two hundred invitations to participate in

the program were mailed to childcare facilities that were considered to have the highest risk for lead exposure. Due to challenges presented by the COVID-19 pandemic, including the shutdown of many schools and childcare facility buildings, the drinking water at two childcare facilities was tested in FY 2020. Additional efforts are underway to engage more schools and childcare centers.

The DWEHD continued to utilize YouTube videos to offer additional training and guidance to drinking water owners, operators, and staff. Videos produced in FY 2020 include:

- PFAS sampling
- CCR Basics
- Increasing Readability of CCRs
- RTCR Sample Siting Plans
- LCR Sampling Plan Overview
- LCR How to Complete the Sampling Plan Form
- LCR DSMI Overview
- LCR How to Complete the DSMI Form

Development of new videos will continue to be pursued as need is determined.

3.4 Enforcement

Target: CWSs and NTNCWSs

Evaluations and compliance information become the basis for enforcement. When a system violates a requirement, they receive a letter that clearly states what was violated, when the violation occurred, how to return to compliance, and when a response to the letter is required. It is believed that enforcement will be viewed as more predictable if the supply better understands the cause of the violation and how to prevent it. In the long run, this may result in supplies making a greater effort to comply with requirements and avoid enforcement altogether.

When supplies fail to return to compliance, escalated enforcement, including ENs, ACOs, unilateral department orders (EGLE Order), and referrals to the DAG or the USEPA, Region 5, can be initiated. Before escalated enforcement is pursued, many supplies return to compliance when they are assessed administrative fines for monitoring and reporting requirements. During FY 2020, 36 CWSs received a fine for one or more monitoring or reporting violations. Small supplies received the majority of the fines, which is expected as large supplies 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 DWEHD moves to an escalating series of enforcement actions that include an EN, ACO, and, in rare cases, an EGLE Order or referrals to the DAG or the USEPA. Copies of ENs are provided to other associated regulatory agencies, including the MDHHS, LARA, and the Michigan Department of Agriculture and Rural Development. No ENs were issued in FY 2020. All ACOs are developed and sent by an enforcement specialist in Lansing, with assistance from district staff, to ensure consistency across the state. The DWEHD entered into ten ACOs with CWSs and zero ACOs with NTNCWSs in FY 2020.

Some water supplies are not willing to enter into an ACO. In those cases, the DWEHD must escalate the enforcement level to an EGLE Order or a referral to the DAG or the USEPA. There was one EGLE Order or referral to the DAG in FY 2020.

Under the provisions of the contract to implement the NCWS Program, each LHD is required to conduct enforcement necessary to address NTNCWSs in noncompliance. DWEHD field staff assists the LHDs upon request and, in extreme cases, DWEHD central staff may take the enforcement lead or refer it to the USEPA, Region 5, when state resources are unavailable.

Typical tools used by LHDs include administrative fines, informal hearings, local license suspension procedures, and bilateral compliance agreements. Two fines were issued to NTNCWSs in FY 2020, one for a monitoring failure associated with a lead ALE and the other for a failure to monitor for some inorganic contaminants.

3.5 OTCU

Target: CWSs and NCWSs

A properly certified operator must be responsible for each of the 1,381 CWSs; 1,301 NTNCWSs; and at the 78 transient NCWSs that employ treatment for either public health purposes or aesthetic reasons. Operators maintain their certification by meeting continuing education requirements through training offered in a variety of venues.

3.5.1 Training

The DWEHD, OTCU, provides over 30 training courses each year and approves CECs for nearly 80 organizations and training providers that offer other opportunities for continuing education, including online courses. The OTCU has also approved courses in the hands-on training or “HOT” category that can provide operators with at least 50 percent practical experience in a three- or more hour training session. These courses include bacteriology and chemistry courses.

Many of the training courses coordinated by the OTCU are taught by DWEHD staff under a joint funding agreement between EGLE and the Michigan Section, AWWA. OTCU staff schedule instructors and instruct the Water Treatment and Distribution System 2.5-day Short Courses. Three of these courses were offered in-person in FY 2020: Basic Math & Hydraulics, Basic Cross Connections, and Water Treatment. A second session of Basic Math & Hydraulics, as well as Limited Treatment and Distribution, were offered online. In addition, EGLE offered the following online courses: Math for Operators and Basic Chemistry. These sessions allowed operators to earn the CECs needed to maintain their certification, qualify for exams, and increase their technical knowledge. Additionally, new DWEHD staff are encouraged to attend these training 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 OTCU works with TA providers such as RCAP, EFCN, and the MRWA to provide additional training and support to operators and systems throughout the state. Staff meets annually with these organizations to set priorities for the upcoming year and to receive a report of prior year activities.

In FY 2020 TA providers provided training and assistance such as:

- MRWA provided training on the Michigan LCR, Cross Connections, preventing catastrophic events in water or wastewater, sustainability of water storage tanks, and treatment filters.
- RCAP provided sessions on disinfection, return to service, sustainable utility management, and achieving/maintaining compliance with SDWA.

In addition, the OTCU worked closely with course providers in FY 2020 to transition their in-person training sessions to an online format to allow operators to complete their needed CECs during the COVID-19 pandemic. This required additional meetings of the Advisory Board of Examiners, as well as many meetings with individual course providers. There are now over 180 online courses approved for CECs for Michigan drinking water operators.

3.5.2 Small CWS and NCWS Training

Training targeted toward LHD staff is developed to inform, explain, and discuss new and updated program issues and procedures. This information is then relayed to the owners

and operators of NCWSs. This training occurs in many ways, including formal educational events and during the program evaluation process. Due to the COVID-19 pandemic, DWEHD staff did not conduct the annual LHD two-day NCWS training that had been scheduled for September 2020. It is unknown whether this training will be conducted in FY 2021; however, multiple online trainings covering a similar array of topics are being planned.

In June 2020 CWS staff hosted five virtual "small system" trainings. These trainings are marketed to all owners and operators of privately-owned community supplies with a population of 3,300 or less. In total, 240 people attended, which represents many more supplies as several of the attendees are "circuit rider" operators who operate more than one water supply. This year's topics included:

- Water system classification
- Common deficiencies and how to address them
- LCR
- RTCR
- Well construction and disinfection
- Emergency and contingency planning
- MISS DIG
- Pressure gauge and sampling demonstrations
- Interpreting lab results and filling out lab analysis forms

The small systems trainings were recorded and later made available through EGLE's Trainings and Workshops Web site.

3.6 DWSRF

Target: CWSs and Nonprofit NTNCWSs

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 supplies comply with the SDWA. The capacity development provisions of the SDWA are funded through the DWSRF allotment.

Michigan's DWSRF is co-administered by EGLE and the Michigan Finance Authority. EGLE handles all programmatic issues, while the Finance Authority serves the DWRF Program with its financial expertise. Prior to the creation of the DWSRF, project financing for CWSs was left largely to local unit of governments or to individuals investing in their own supplies.

In FY 2020, $123.4 million in low-interest loans were committed for 20 projects bringing the total, since the fund's inception in 1998, to $1.246 billion for 321 projects. Some supplies receive commitments from the DWRF 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 supply remains on the priority list for the next year.

Commitments in FY 2020 included watermain replacements, transmission mains, and water treatment plant upgrade projects. An example for FY 2020 is:

- $21,095,000 was awarded to the city of Kalamazoo for watermain construction to connect homes with private wells that are threatened by PFAS contamination, as well as proper abandonment of the wells. This project also included 153 lead service line replacements in the city of Kalamazoo.

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 DWSRF projects in communities that are participating in a Source Water Protection Plan.

3.7 Source Water Protection

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

To educate and promote source water protection, the 2019 Source Water Protection Conference was held on October 29-30, 2019, in Mt. Pleasant, Michigan. Designed for CWSs, attendees were presented with management options for source water protection and guidance on developing or enhancing an existing program. A variety of important topics were part of the discussion, including ground and surface water protection issues, wellhead protection, risk communication, funding initiatives, emerging contaminants, and state program updates. Nearly 140 participants reflected on the accomplishments of source water protection activities over the past decade and identified the challenges and opportunities that communities are facing as they work to update existing source water protection programs and implement new and innovative concepts, strategies, and technologies. The conference was a collaborative effort by EGLE, the MRWA, and the Michigan State University Institute of Water Research.

3.7.1 Groundwater Source Protection

Target: CWSs and NTNCWSs

Minimum isolation areas around drinking water wells are established in Part 127, Water Supply and Sewer Systems, of the Public Health Code, 1978 PA 368, as amended, and in the Act 399 administrative rules. Programs in EGLE, such as the Groundwater Discharge Permit Program and the Onsite Wastewater 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 sources. Act 399 requires the isolation area around a proposed CWS water well site be owned or controlled by the CWS.

Of the 1,084 CWSs in Michigan using groundwater as their source, 231 are involved in some aspect of wellhead protection, such as performing a delineation, inventorying the potential sources of contamination, and planning for emergencies. Of those 231 systems, 158 have completed the steps to have an approved WHPP, which meets the substantial implementation standard. An additional 116 groundwater systems have attained substantial implementation by completion of a source water assessment with no issues identified. As a result, 65 percent of the population obtains drinking water from a community supply, which solely uses groundwater and is substantially implementing source water protection efforts.

The DWEHD Source Water Assessment Program redefined "Substantial Implementation," allowing smaller systems to obtain this source water protection status and increasing Michigan's population that is protected by these activities. CWSs 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 process 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. CWSs may also achieve substantial implementation status by having a source water assessment updated and having no issues identified in the process. During FY 2020, six CWSs achieved substantial implementation by having an updated source water assessment with no issues identified.

EGLE currently uses the MGMT, a software platform that utilizes spatially compiled groundwater data and allows for the automated analysis of groundwater flow. As a tool in groundwater modeling, the software allows for the interactive analysis of groundwater flow based on available data. The MGMT software has been employed by EGLE in conjunction with existing groundwater databases to analyze and assess groundwater

flow and delineate WHPAs for community and nontransient, noncommunity PWSs throughout Michigan. The DWEHD was in contract negotiations for a new software platform; however, those negotiations have been put on hold due to the COVID-19 pandemic and the subsequent budget freeze at the state of Michigan.

The DWGIS application has been updated to include chemistry data from the water supply chemical monitoring database (WaterChem), geocoding (i.e., assign latitude/longitude coordinates based on street addresses) the records, and creating a file format making the data amenable to spatial display in DWGIS. This effort should provide an extraordinarily useful tool in conducting desktop analyses of chemical occurrence in the groundwater and for comparing sites of environmental contamination with WHPAs.

To encourage and support WHPP activities, financial assistance through wellhead protections grants are available. The WHPP grant program uses a 50 percent local match to fund activities involved in protecting their PWS well capture zones (based on a ten-year time-of-travel). Grant assistance is based on the number of people served by the water supply and the number of wells the supply operates. A total of $407,000 in WHPP grants were awarded to 39 CWSs in FY 2020.

Starting in 2016, EGLE allocated additional resources and training to LHDs to aid in updating source water assessments of existing and new NTNCWSs. The source water assessment is a study and report that is unique to each water supply source and is a tool to help identify vulnerability to contamination. The assessment study and report also provide an opportunity to educate owners on protecting ground water and in identifying and managing risk. A total of 147 NTNCWS source water assessments were conducted by LHDs in FY 2020.

3.7.2 Water Withdrawal Legislation

Target: CWSs, NCWSs, and Other Interested Parties

The Natural Resources and Environmental Protection Act, 1994 PA 451, as amended, was amended in 2006 and again 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 DWEHD district staff issuing an Act 399 construction permit. Staff within the DWEHD, Source Water Unit, coordinates with district and other department staff through the process of obtaining a water withdrawal permit for a large quantity withdrawal for PWSs.

3.7.3 Surface Water Source Protection

Target: CWSs and NCWSs Using Surface Water

The 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 ten communities that have completed a SWIPP serve small- to medium-sized populations. The cities of Grand Rapids, Ludington, and Benton Harbor submitted SWIPP plans that were approved in 2020. As with an approved WHPP, an approved SWIPP will result in additional priority points being awarded to DWRF applicants, encouraging more CWSs to develop a plan. A matching grant program, equivalent to that used in the WHPP, was incorporated into the administrative rules in 2009. SWIPP grant applications were available for the first time in May 2014, and approximately $100,000 is made available to surface water systems annually.

Monitoring of surface water sources can alert utility personnel of changes in water quality in time to respond quickly and avoid public exposure to contamination. To achieve this quick response at CWSs in the connecting channels between Lakes Huron and Erie, beginning in 2008, the DWEHD 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 the Detroit River. In FY 2018 the Real Time Monitoring Network was reestablished. 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.

In 2020 there was an increased sampling effort to make our monitoring strategy similar to routine monitoring efforts in other states and provide more data to determine system susceptibilities to cyanotoxins over another bloom season. The sampling frequency for those systems that conducted monthly sampling in FY 2019 increased to every two weeks in FY 2020. Those that have historically detected cyanotoxins in their source

water collected samples weekly in FY 2020 for microcystins, cylindrospermopsin, and anatoxin-a. The increased frequency for FY 2020 further protects public health. The additional data may also allow for a tiered monitoring approach in the future, which would allow resources to be directed to surface water sources that are most susceptible to cyanotoxins. In 2020 ten systems detected microcystins in their source water and one system had two low level detections in their finished water. One system had a detection of cylindrospermopsin in the raw water tap with no detection in the finished water.

In another area of source water protection, a DWEHD staff person coordinates the notification to district staff about proposed 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 permit applications may present a concern and require further communication between district staff and a CWS to resolve the issue. A DWEHD staff person also began coordinating with EGLE's Water Resources Division to identify water bodies with cyanotoxin and perfluorinated compound (PFC) detections that may initiate additional monitoring where drinking water intakes may be impacted.

3.8 PFAS Sampling and Outreach

EGLE, DWEHD, continues to support the Michigan PFAS Action Response Team's (MPART) mission to address the threat of PFAS contamination in Michigan. In FY 2020 DWEHD's role underwent an important evolution, resulting in greater public protection through testing and reducing exposure to PFAS. New PFAS drinking water rules took effect on August 3, 2020. These rules amend current drinking water rules by establishing MCLs and sampling requirements for seven PFAS compounds.

Since 2018, DWEHD has administered multiple voluntary statewide public drinking water PFAS sampling efforts. These initiatives are designed to assess the presence and level of these contaminants in Michigan's public drinking water sources, which serve 75 percent of the state's residents.

The primary piece of this effort is the voluntary statewide PFAS survey, conceived as an accelerated discovery effort to test drinking water supply entry point locations across the entire state. Prior to sampling, priority for Michigan's 83 counties was assigned based on population and other risk factors. Sampling was performed by AECOM – the state's environmental consultant partner.

This statewide survey has included sampling for the following PWSs and Tribal water supplies in Michigan:

- All CWSs with their own source.
- Drinking water supplies for those federally-recognized Tribes in Michigan who participated in the statewide PFAS survey.
- Select NTNCWSs, including those which are schools, childcare providers, Michigan Head Start Programs, adult foster care providers, medical care providers, parks and recreation, motels, offices, and industry.
- Select Transient NCWSs, including children's camps and medical care providers.

Statewide survey results were reviewed and led to additional monitoring efforts designed to assess the potential of seasonable PFAS variability:

- Quarterly monitoring continued in FY 2020 for all systems tested during the statewide survey which received total PFAS results of 10 parts per trillion (ppt) or greater.
- Monthly monitoring was conducted for intake and finished water in FY 2019 at all CWS and Tribal water supplies utilizing a surface water source. Plans are in place to reinitiate this monitoring after January 2021.

Following the promulgation of Michigan's PFAS drinking water rules, the responsibility for sample collection shifted to those PWSs for whom the MCLs apply, specifically CWSs and NTNCWSs. Compliance monitoring results will be submitted to the DWEHD and LHDs, respectively. Monitoring schedules, public notification, and other requirements will be determined based on results, as laid out in the rules. Results will also be reviewed by DWEHD Emerging Contaminants Unit staff to be shared with MPART and its partner agencies.

PFAS results inform the guidance and recommendations provided to supplies and local public health partners. In all cases, considerations are made to promote monitoring and, when warranted, to minimize public exposure to the extent possible through appropriate means (treatment, alternative source, site investigation, etc.). In addition, DWEHD staff work closely with the MDHHS and LHDs, as well as water supplies, to offer assistance as needed.

Sampling results continue to inform further sampling efforts, which have included investigatory activities around systems with results over the USEPA Lifetime Health Advisory for perfluorooctanoic acid (PFOA) + perfluorooctanesulfonic acid (PFOS) (70 ppt), additional sampling and environmental review for supplies with seasonal variability of PFAS in source water and targeted source well sampling around PFAS areas of interest.

3.9 Financial Assessments

Target: CWSs Municipally Owned or Subject to Association Bylaws

To help existing CWSs improve financial capacity, EGLE conducts financial assessments for systems that serve a population of less than 10,000 that are willing to participate and could benefit from a financial assessment.

Funding for these assessments is from the TA to small systems set-aside of the DWSRF. 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 DWSRF Program conducts the assessment of the community's existing financial health and develops a FAP. The assessment is a review of financial and legal documents and an on-site meeting with system representatives. This review can identify a wide variety of problems, including water loss and its impact on rates.

A 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 DWEHD is available to assist when requested. An outline of a typical assessment report is included in Appendix B.

In the last five years, asset management has become an integrated component of the FAP, including tutorials on Check-Up Program for Small System, or CUPSS, software and the EGLE asset management workbook. With the recent EGLE initiatives for asset management planning, communities are becoming more interested in the financial assessment process and asset management. As of January 1, 2018, all CWSs with populations greater than 1,000 are required to have an asset management program. Funding to help systems with asset management is available through the State Revolving Fund when asset management is part of a proposed construction project. A key component of the drinking water asset management program is an ongoing review of a community's rate methodology to ensure sufficient revenues are being generated to cover system expenses.

While no financial assessments have been performed this year, EGLE has been monitoring and providing guidance to municipalities through the asset management program initiative noted above. The asset management requirement covers approximately 530 water systems across the state. This effort is ongoing, with reviews

taking place on a rotating basis every three to five years. A key component of the asset management program is that a municipality must demonstrate financial capacity to operate their system. To demonstrate this, the municipality submits a number of financial documents for review and approval. EGLE reviews these documents to determine whether a municipality is generating sufficient revenues to cover expenses. If it is demonstrated that the municipality does not have the financial capacity to operate their system, EGLE works with the municipality in their efforts to achieve sufficiency and long-term sustainability.

As mentioned in a previous section, new owners or developers are required to demonstrate TMF capacity before approval to commence operation or assume this role from a previous owner.

3.10 Security and Emergency Response

Target: CWSs

EGLE's Water Security and Emergency Management Program is responsive to the various federal programs and the needs of the PWSs. Planning, training, and coordinating are all part of the effort to emphasize emergency management for all hazards, terrorism, and malevolent acts, as well as weather-related incidents and accidents.

Several DWEHD staff are involved in security and emergency management activities, including:

- State of Michigan and the USEPA hosted the Incident Command System (ICS) 300-400 training for utilities and government agencies.
- USEPA, Region 5, America's Water Infrastructure Act (AWIA) training for utilities.
- DWEHD Rule School on Emergency Management and an emergency response tabletop exercise.
- Planning annual emergency training for all staff, particularly new staff.
- Participating on the EGLE Emergency Management Support Team.
- Participating in the Association of State Drinking Water Administrators' (ASDWA) Security and Resiliency Committee.
- Membership in Michigan Water/Wastewater Agency Response Network Steering Committee.
- MiWARN (Michigan Water/Wastewater Agency Response Network).
- HAZWOPER (Hazardous Waste Operations and Emergency Response).

- Involvement in PWS safety and security enhancements through the construction permit process and the operation of new systems.
- Review of PWS emergency response plans during inspections.
- Circulation of USEPA Water Security Division notifications.

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.

3.11 Electronic Reporting and Data Management

Target: CWSs and NCWSs

Electronic reporting and data management are tools to help identify and analyze statewide trends in contaminant levels, treatment, distribution operations, and compliance. This ability will allow the DWEHD to focus assistance more effectively. The DWEHD is working to adopt electronic reporting systems to provide convenience and accuracy of data reporting

3.11.1 Electronic Reporting

Target: CWSs and NCWSs

In FY 2020 the DWEHD continued to work toward use of the USEPA's new Compliance Monitoring Data Portal as a means for laboratories to report analytical results electronically to the DWEHD. The DWEHD is pursuing other electronic reporting opportunities for PWS as part of a division-wide information technology upgrade. These tools will provide for more timely and accurate collection of data and will allow the DWEHD to query additional parameters to assess capacity on a system wide and statewide basis.

3.11.2 Tracking Compliance Using SDWIS

Target: CWSs and NCWSs

The federally supported database for tracking drinking water compliance activities (SDWIS/State), stores analytical results entered either manually or via an electronic reporting tool as discussed above. This allows for more automated compliance determinations. Utilization of SDWIS/State to track water compliance activities has been expanded to include the following activities:

- FY 2005 – Tracking of Total Coliform Rule compliance monitoring
- FY 2010 – Lead and Copper tracking
- FY 2012 – Stage 2 DDBPR Schedule 1 and 2 monitoring schedules and GWR monitoring
- FY 2013 – Expanded tracking to include DDBPR Schedule 3 and 4 monitoring, tracking surveillance visits and sanitary surveys
- FY 2016 – Implementation of RTCR and tracking of L1 and L2 assessment compliance schedules and site visit data associated with the assessments
- FY 2020 – Migration of entry point monitoring schedules from legacy database into SDWIS/State, including: Metals, Volatile and Synthetic Organic Compounds, Radiological, Inorganic Compounds, etc.

A large percentage of the federal reporting data needed for the NCWS Program is being migrated into the SDWIS-Noncommunity database. The NCWS Program is currently migrating violation data from WaterTrack into SDWIS-NC and is continuing to conduct testing to verify that all data migrates properly, and that SDWIS-NC is functioning as intended.

In FY 2018 the DWEHD was awarded a $6.1 million grant from the state of Michigan to build a new data system. The new system is intended to interface with the USEPA's revised SDWIS platform when available, as well as support the OTCU and NCWS Program. In FY 2019 the project was put out to bid and a vendor was selected. In FY 2020 the DWEHD began working on the Information Technology Modernization Project and development of the MiEHDWIS.

The first release of MiEHDWIS occurred in September 2020. A majority of the functionality within the first release was for other DWEHD program areas; however, it did include the development of a submission portal for CWSs. External utilization of the submission portal is intended to be made available in FY 2021.

3.11.3 WaterTrack

Target: NCWSs

LHD staff use the WaterTrack database to track NCWS inventories, certified operator information, sanitary survey reports, capacity development, construction permits, monitoring results, monitoring violations, MCL violations, and NCWS compliance reports. The information is monitored by EGLE 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. WaterTrack will continue to be used until such time as an alternative platform, such as SDWIS Prime, is made available. Until such time, EGLE will continue utilizing alternative tracking of rule requirements not captured within WaterTrack.

4. Identify Existing Supplies in Need

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

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

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

5. Identify Capacity Development Needs and Provide Assistance

EGLE continues to recognize and identify capacity development needs and provide assistance in these areas. A new capacity development need is for training on new rules including capital improvement planning, asset management, and understanding the new responsibilities of owners and operators under the revised Michigan LCR requirements and the new Michigan PFAS rules. The DWEHD believes the areas identified below continue to be a focus and recognizes 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:

EGLE 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. EGLE also continues to provide webinars as topics arise and has archived some of these trainings on a Web site for future viewing. This activity is in addition to the training mentioned in Section 3.3 of this report.

EGLE reviews operator training courses on an ongoing basis to update information and improve quality. OTCU staff reviews and updates certification examinations to ensure questions reflect new or changing regulations.

EGLE staff continued to offer training on recently promulgated rules, including the Michigan Revised LCR, Michigan PFAS rules, Capacity Improvement Plan, and Asset Management Plan requirements. Much of this training took place in a virtual format in FY 2020 due to the COVID-19 pandemic. Training is also offered in a one-on-one setting with the individual water supplies.

5.2 Follow-Up on Needs Identified

Areas identified are continuing to be addressed.

5.2.1 Implement New Federal Rules

While no new federal rule implementation occurred in FY 2020, the DWEHD program and field staff continued to host and participate in trainings on the more recent rule changes such as the RTCR.

5.2.2 Capture Sanitary Survey Data

Detailed sanitary survey data is captured in SDWIS and on survey questionnaires for every CWS. To enhance decision-making, the CWS program is continuing to investigate options to capture data electronically in a format that can be more readily queried. Currently, CWS staff track basic survey data, specifically survey date, rating of the eight required elements, and deficiencies in SDWIS.

NCWS sanitary survey data is tracked in WaterTrack but will be tracked in the USEPA's revised SDWIS platform once available and adopted.

5.2.3 Implement Newly Revised Nonfederal Provisions of the Administrative Rules

In FY 2018 Michigan promulgated revised lead and copper provisions of the Administrative Rules, adopting additional, more stringent requirements. These include, but are not limited to:

- Mandatory lead service line replacement
- Enhanced sampling protocols and frequencies for lead, copper, and water quality parameters

- Mandatory submittal of updated DSMIs and sampling pools
- Reduction of the lead action level from 15 to 12 parts per billion (ppb) in 2025
- Enhanced transparency

In FY 2020 Michigan promulgated new PFAS drinking water rules for community and NTNCWSs. The rules include, but are not limited to:

- Monitoring and reporting requirements
- MCLs for seven PFAS compounds
- MCL compliance determination
- Public notice requirements

5.2.4 Encourage Asset Management

As the infrastructure funding gap continues, field staff is stressing asset management concepts during interactions with CWSs and their local decision makers. Good water system operation and management cannot be mandated, though the DWEHD hopes the asset management requirements, which went into effect January 1, 2018, will foster better water system management. DWEHD staff are tracking the preparation of Asset Management Plans at water supplies and monitoring the success of these requirements. In addition, DWEHD staff have been encouraging Asset Management for supplies under the 1,000 population limit which was established as the number for requirement asset management by meeting with water supply administrators and boards to education them about the benefits of asset management. EGLE staff have also worked in partnership with TA providers to encourage asset management throughout the state.

5.3 Participate in National Workgroups

Program staff in the DWEHD 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.

The DWEHD engineering manager is participating in AWOP and has involved several other surface water engineers and analysts in AWOP training and implementation.

In addition, members of the CDP assisted with the planning of the Region 5 Capacity Development and Operator Training and Certification conference in February 2020. CDP and OTCU staff were also members of the National Capacity Development and Operator Training and Certification Collaboration workgroup, and CDP staff served on the tabletop exercise subcommittee.

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 EGLE policy dictates sanitary survey frequencies for all types of CWSs and NCWSs. Follow up on deficiencies in any system has been a long-standing practice and is required of the LHDs under contract with EGLE. There were 34 significant deficiencies at 29 different CWSs, 437 minor deficiencies at 171 different CWSs, and 12 significant deficiencies at 12 NCWSs, identified in FY 2020. The deficiencies are in varying states of resolution; many of them have already been resolved.

Between sanitary surveys, DWEHD 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; however, those that have participated have made significant improvements. Rather than attempt to increase the number of financial assessments, the DWEHD 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. A brief assessment of this effort was mentioned in Section 3.9 of this report.

7. Modify Existing Systems Program Strategy

The strategy remained unchanged during the reporting period. EGLE is continuing to implement the original strategy of moving from capacity assessment through assistance to development. However, the DWEHD began the process of updating the strategy in FY 2020. The updated strategy will include the DWEHD's asset management promotion activities in accordance with the requirements in the AWIA, as well as reflect the current activities and capacity development goals of the division. EGLE has engaged the EFCN to assist with the effort which will continue through FY 2021.

8. Summary

Michigan is continuing to implement a program for new systems and a strategy for exiting 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 supplies in the last three years is included in Appendix A of this report.

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, and that will now be supplemented by the information gained through Asset Management Plans. 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.

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Appendix A: List of New Systems

New system compliance data is more meaningful when compared to all systems of the same classification, as summarized in the following table. One CWS system that became active during the last three fiscal years scored 11 or more on the ETT.

FY 2018 to FY 2020	CWS		NTNCWS	
	New	New & Existing	New	New & Existing
Number of supplies on ETT Report	10	1,381	38	1,293
Number of supplies with ETT score of 11 or more	0	12	0	33
Percent of supplies with ETT score of 11 or more	0%	0.8%	0%	2.6%

PWS ID	PWS Name	PWS Type	First Reported to SDWIS
MI0000503	BEACON HOME AT COLBY	CWS	8/20/19
MI0002657	GLEN OAKS COMMUNITY COLLEGE	CWS	11/29/17
MI0003563	KAREGNONDI WATER AUTHORITY	CWS	5/31/18
MI0005349	COTTAGE HS, LLC (PINEVIEW COTTAGE)	CWS	11/20/18
MI0005566	PRAIRIE VILLAGE APARTMENTS	CWS	8/20/19
MI0006101	SOUTH HAVEN AREA WATER & SEWER AUTHORITY	CWS	12/5/19
MI0006446	SUGAR LOAF TOWNHOUSES	CWS	2/21/19
MI0007063	WHITEFORD TOWNSHIP	CWS	5/30/19
MI0062955	HEARTLAND HEALTH CARE CENTER	CWS	9/23/20
MI0066700	THE PORCHES	CWS	5/21/20
MI0070005	ST. JOSEPH MERCY HEALTH SYSTEM	NTNCWS	6/3/20
MI0070006	MCLAREN FLINT HOSPITAL	NTNCWS	6/3/20

PWS ID	PWS Name	PWS Type	First Reported to SDWIS
MI2012657	BIEWER LUMBER	NTNCWS	6/28/19
MI2014327	EXTREME TOOL & ENGINEERING	NTNCWS	3/9/18
MI2019005	EAST JORDAN FOUNDRY	NTNCWS	11/28/18
MI2021015	NORTHERN EXPLORERS CDC	NTNCWS	9/11/18
MI2022733	DIVINE NEST	NTNCWS	9/11/18
MI2023233	DART CONTAINER	NTNCWS	6/28/19
MI2023353	MICHIGAN FOOD PROCESSORS CO-OP	NTNCWS	3/12/19
MI2023420	BEAVER CREEK/GRAYLING TWP UTIL AUTH	NTNCWS	3/12/19
MI2025269	NAI GROUP	NTNCWS	9/11/18
MI2029334	BOYCE ELEMENTARY SCHOOL	NTNCWS	6/28/19
MI2030718	MAGNUS CENTER	NTNCWS	3/9/18
MI2030883	BAKER COLLEGE OF CADILLAC	NTNCWS	6/21/18
MI2034164	WILLOW COLD STORAGE	NTNCWS	6/21/18
MI2042008	HASTINGS MEDICAL	NTNCWS	9/11/18
MI2044313	EATON CORPORATION-TECH BUILDING	NTNCWS	6/21/18
MI2047772	SPICERS BOAT CITY	NTNCWS	3/12/19
MI2048072	MICHIGAN STATE POLICE POST	NTNCWS	3/12/19
MI2048172	CHARLTON HESTON PRESCHOOL	NTNCWS	6/28/19
MI2048428	CENTRAL DAY CARE CENTER	NTNCWS	3/12/19
MI2052039	KIDS COURT, LLC	NTNCWS	3/12/19
MI2052239	ST ANN CHURCH - LOC ACADEMY	NTNCWS	11/28/18
MI2061047	WELKER WAREHOUSE - ETERNAL INK	NTNCWS	9/11/18

PWS ID	PWS Name	PWS Type	First Reported to SDWIS
MI2064181	FINE ARTS ACADEMY	NTNCWS	6/21/18
MI2067070	LITTLE TYKES UNIVERSITY LLC	NTNCWS	6/21/18
MI2067947	BEN FRANKLIN BUILDING	NTNCWS	3/9/18
MI2068247	PLAZA GROUP LLC - BLDG #15	NTNCWS	3/9/18
MI2068303	LITTLE VIKINGS LEARNING CENTER	NTNCWS	3/9/18
MI2068503	KONOS, INC./VANDE BUNTE EGG FARM	NTNCWS	11/30/17
MI2069503	DYKHUIS FARMS, INC.	NTNCWS	3/12/19
MI2070203	MATERIAL TRANSFER	NTNCWS	6/28/19
MI2101541	MOIRON INC	NTNCWS	9/11/18
MI2292263	SHANNON DISTRIBUTION	NTNCWS	11/30/17
MI2292463	PURE FOODS KITCHEN LLC	NTNCWS	3/9/18
MI2293263	HOLTZ DR SW, LLC	NTNCWS	3/12/19
MI2293863	ANDERSEN MATERIAL HANDLING	NTNCWS	11/28/18
MI2294463	MICHIGAN CAT CORPORATE SERVICES	NTNCWS	6/28/19

Notes:
The following supplies were listed as new in the ETT Scores Tracker. However, they are existing supplies as explained below and are, therefore, not new for the purpose of capacity development and not included in the above table.

MI0004596, MYSTIC VIEW, was regulated as three different Type III water supplies starting in the mid-1990s. A resident collected a nitrate sample that exceeded the MCL in FY 2018. DWEHD staff worked with the LHD and a contract operator and determined that the supply should be regulated as a Type I supply. No new infrastructure was brought online with the classification change.

MI00066695, THE PINES OF GOODRICH, is a supply that had been operating as a Type III water supply and was brought to the attention of EGLE staff by an LHD. The supply had an arsenic MCL violation. EGLE staff are working with them to install an arsenic treatment system, and hope to have it in place by July 2021. The supply is currently providing bottled water.

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 or 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 line 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.

Goal Three: Implement an asset management program.

- Task 1: Investigate and establish an asset management program that will identify and analyze the utility assets, develop a rate methodology to sustain the system, and implement a capital improvement plan.

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, Asset Management Program Workbook, and Asset Management Program Guide.