

Michigan Department of Environment, Great Lakes, and Energy
Drinking Water and Environmental Health Division

ANNUAL REPORT ON CAPACITY DEVELOPMENT PROGRAM

FISCAL YEAR 2021

December 2021

525 West Allegan Street

P.O. Box 30817

Lansing, Michigan 48909-8311

[Michigan.gov/EGLE](https://www.michigan.gov/EGLE)

List of Acronyms

ACO	Administrative Consent Order
Act 399	Michigan Safe Drinking Water Act, 1976 PA 399, as amended
AWIA	America's Water Infrastructure Act
AMP	Asset Management Plan
ASDWA	Association of State Drinking Water Administrators
AWOP	Area-Wide Optimization Program
AWWA	American Water Works Association
CEC	Continuing Education Credit
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
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
MPART	Michigan PFAS Action Response Team
MRWA	Michigan Rural Water Association
MOR	Monthly Operation Report
NCWS	Noncommunity Water Supply
NREPA	Natural Resources and Environmental Protection Act, 1994 PA 451, as amended
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
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

Table of Contents

	Page
1. Introduction.....	4
2. New Systems Program.....	4
2.1 Identify Legal Authority.....	4
2.2 Identify Control Points.....	5
2.3 List of New Systems.....	5
3. Existing Systems Program Tools and Activities Used.....	5
3.1 Sanitary Surveys to Evaluate Supplies.....	6
3.2 One-on-One TA and Consultation.....	8
3.3 Other PWS Program Efforts.....	10
3.4 Enforcement.....	14
3.5 OTCU.....	15
3.5.1 Training.....	16
3.5.2 Small CWS and NCWS Training.....	17
3.6 DWSRF.....	17
3.7 Source Water Protection.....	18
3.7.1 Groundwater Source Protection.....	18
3.7.2 Water Withdrawal Legislation.....	20
3.7.3 Surface Water Source Protection.....	20
3.8 PFAS Sampling and Outreach.....	21
3.9 Financial Assessments.....	22
3.10 Security and Emergency Response.....	23
3.11 Electronic Reporting and Data Management.....	24
3.11.1 Electronic Reporting.....	25
3.11.2 Tracking Compliance.....	25
3.11.3 WaterTrack.....	26
4. Identify Existing Supplies in Need.....	26
5. Identify Capacity Development Needs and Provide Assistance.....	26
5.1 New Rules Implementation and Training.....	27
5.2 Follow-Up on Needs Identified.....	27
5.2.1 Implement New Federal Rules.....	27

5.2.2 Capture Sanitary Survey Data	27
5.2.3 Implement Newly Revised Nonfederal Provisions of the Administrative Rules	28
5.2.4 Asset Management.....	28
5.3 Participation in National Workgroups	28
6. Review Existing Systems Program Implementation and Address Findings	29
7. Modify Existing Systems Program Strategy	29
8. Summary	30
9. Appendix A: List of New Systems	30
10. Appendix B: Outline of a Typical Financial Assessment and FAP	33
10.1 Financial Assessment	33
10.2 FAP	33
10.3 Tools Included with FAP	34

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

In response to the COVID-19 pandemic, all EGLE employees began teleworking from remote locations in March 2020. The teleworking environment resulting from the COVID-19 pandemic continued throughout FY 2021.

2. New Systems Program

2.1 Identify Legal Authority

The legal authority remained unchanged during the reporting period. The CDP is implemented by the 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 Table I below.

Table I. New and Existing Water CWSs and NTNCWSs on the ETT.

FY 2019 to FY 2021	CWS		NTNCWS	
	New	New and Existing	New	New and Existing
Number of supplies on ETT Report	12	1,380	20	1,274
Number of supplies with ETT score of 11 or more	0	9	0	33
Percent of supplies with ETT score of 11 or more	0%	0.7%	0%	2.6%

No new CWS or NTNCWS scored an 11 or higher in FY 2019 – FY 2021.

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 supply 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:

Table II. Frequency of NTNCWS surveillance visits.

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 or monthly total coliform monitoring	No visit beyond sanitary survey	Every 5 years

Table III. Number of NTNCWS Evaluations and Visits from FY 2019 – FY 2021.

Evaluations and Visits	FY 2019	FY 2020	FY 2021
Sanitary Surveys Conducted	290	272	286
Annual Treatment Surveillance Site Visits	163	167	172
Significant deficiencies	12 at 12 supplies	12 at 12 supplies	4 at 2 supplies

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. The sanitary survey letter helps the supply understand the severity of any deficiencies and prioritization of response activities.

Table IV below summarizes data on CWS sanitary surveys, visits, and construction permits in recent years.

Table IV. Number of CWS Sanitary Surveys, Visits, and Construction Permits for FY 2019 – FY 2021.

	FY 2019	FY 2020	FY 2021
Sanitary Surveys Conducted	350	369	440
Significant Deficiencies	14 at 15 supplies	35 at 30 supplies	48 at 39 supplies
Minor Deficiencies	583	514	606
Visits*	1,923	1,544	1,392
Construction Permits Issued	1,052	907	992

*Includes Sanitary Surveys

The continued decrease in number of total visits in FY 2021 is partly due to restrictions put in place to reduce exposure to COVID-19. Staff were encouraged for much of 2021 to limit in-person work to only critical tasks, which continued to limit the number of routine visits. Sanitary surveys, which are generally more involved and time consuming than a routine visit, were prioritized. Through this prioritization, staff were able to decrease the sanitary survey backlog in 2021. The DWEHD has several additional positions approved to be filled in 2022 and hopes that with increased staffing we can increase frequency of routine visits along with continuing to meet the need to conduct sanitary surveys on time.

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 policy dictating the frequency of visits was recently updated to allow for a reduction in the frequency of visits if there are resource constraints. Therefore, the table below shows the targeted frequency of CWS surveillance visits.

Table V. Targeted Frequency of CWS Surveillance Visits.

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 DWEHD 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 ensure new supplies can achieve capacity development requirements upon activation. Assistance is typically provided through site visits, meetings, during training events, phone consultations, or via e-mail. 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 LHDs’ performance are conducted to help maintain water supply compliance.

For CWS and NCWS staff to provide complete and accurate technical assistance to water supplies, the DWEHD is committed to staff training. This includes both the DWEHD Rule School, as well as quarterly analyst and engineer meetings where they discuss compliance issues, rules, and enforcement to promote consistency and enhance knowledge. The DWEHD Rule School, a division-wide training program that has been ongoing since FY 2016, is a series of training sessions focused on details of the Act 399 Administrative Rules and related topics. Four Rule School sessions were held during FY 2021, 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.

Topics for FY 2021 included:

- Capacity Development
- Surface Water Rules
- PFAS Drinking Water Rules
- Classification of PWSs
- Secondary Treatment
- Record Management
- Disinfection Byproduct Rules
- Secondary Drinking Water Standards
- Public Notice and Public Education Rules

Sessions included a brief history, the importance of the regulation, DWEHD staff responsibilities, rule citations, policies related to the rule, and requirements related to monitoring and reporting. 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 staff via Rule School sessions in FY 2022.

The following examples illustrate how the PWS Program staff provided TA to water supplies during FY 2021:

- The DWEHD worked with a transient NCWS after a well driller claimed that the drinking water aquifer was depleted of water. DWEHD staff assessed area well logs; reviewing pumping rates, well spacing, and subsurface lithology, and did not find signs that the problem was related to the availability of groundwater. Staff then met with supply representatives to assess construction/repair risks and make recommendations. After these recommendations and follow up, the supply was able to complete a series of well and distribution upgrades that led to the resumption of water service.
- DWEHD staff worked with a newly reclassified Type I water supply to resolve several violations. The violations resulted in an ACO, and staff determined that the supply might be best served by working with a TA provider. The TA provider worked with the water supply and assisted them with obtaining construction permits, coordinating activities with contractors, and is helping to bring the supply into compliance. The TA provider has also helped rebuild the relationship between the supply and EGLE.
- DWEHD staff assisted an NCWS that had been reclassified as a Type I water supply. They assisted the water supply in understanding and achieving the necessary TMF capacity.
- Continued support and TA were provided to the cities of Flint and Benton Harbor.

In addition to one-on-one TA provided by EGLE staff and LHDs, the MDHHS Oral Health Program also provides TA for the promotion of fluoridation in water supplies. The Oral Health Program administers a Fluoride Grant Program, which offers grants to water supplies wishing to purchase new or replacement fluoride feed equipment. In FY 2021 one water supply serving a population of 4,140 was awarded a grant totaling \$15,431. In addition, staff from the MDHHS helped the Lansing Board of Water and Light negotiate with the Delta Dental Foundation for \$89,000 to put toward their fluoridation system. A total of \$3,500 was also used to purchase fluoride testing equipment for each of the eight district offices to use when working with 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.
- *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.
- Boil Water Advisory template.
- Stage 2 DDBPR Sampling Site Plan.
- *LCR 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.*
- CCR Template.
- Sampling videos, including EGLE Water Sampling 101 – Thermal Preservation, PFAS Sampling, Lead and Copper Sampling.
- 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 Action Level Exceedance 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 *CCRwriter*, as well as (2) the guidance documents *Preparing Your CCR* and *Reporting TOC on the CCR*, as applicable.
- Communicate with water supplies on sample results that cannot be used for compliance due to issues identified by the associated laboratory such as exceeds hold time, does not meet thermal preservation, bottle broke in transit, etc. These efforts are to help provide an opportunity so a new sample can be collected before the end of the monitoring period.

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 for compliance with treatment techniques and to evaluate treatment processes.

- MOR Excel Tool for Operators. This is a tool staff created to assist supplies with calculations and conversions to help them accurately complete their MORs.
- *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 aware of the requirements and have the ability 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 materials 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.
 - Drinking Water Study Guides for Community Water Supply (Level 1-4)
 - 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 copper in household drinking water.
 - Sample collection guidance.
 - Development of a PFAS drinking water rules website and supportive materials including *Rules Overview*, *Rules Quick Reference Guide*, *Sampling Instructions*, and a sample collection tutorial video.
 - YouTube instructional videos.
- 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.
- The DWEHD continued to conduct quarterly webinars to communicate and support CWSs on addressing day-to-day impacts that the COVID-19 pandemic and ensuing Executive Orders had on operations.

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 2021 included:

- DWEHD staff presented the EGLE Update at the Michigan Section, AWWA regional meetings, updating participants on 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, and the Michigan Association of Local Environmental Health Administrators.
- 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 September 2021, which focuses on treatment and emerging issues for small CWSs and NCWSs.
- DWEHD staff hosted eight LCR trainings through FY 2020 to continue to inform water supplies about the requirements of the Michigan LCR.
- Region 5 LCR/Optimal Corrosion Control Techniques Workgroup Calls.
- Region 5 Capacity Development and Operator Certification Quarterly Meetings.

In FY 2021 EGLE continued its efforts to promote quality drinking water in schools that receive their water from CWSs with the Healthy Water Healthy Kids Initiative.

The Healthy Water Healthy Kids Initiative utilized the Lead Testing in School and Child Care Program Drinking Water Grant from the Water Infrastructure Improvements for the Nation Act to conduct drinking water plumbing assessments, water management and sampling plans, lead testing, training, and guidance for schools and childcare facilities. Ninety-one eligible facilities volunteered, and 1,363 samples have been tested.

The DWEHD continued to promote existing YouTube videos that offer additional training and guidance to drinking water owners, operators, and staff. Current videos include:

- PFAS sampling
- Packing and Shipping for Thermal Preservation
- CCR Basics
- Increasing Readability of CCRs
- RTRC 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
- Lead and Copper Sampling Instructions
- OTCU Exam Application Instruction video

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

3.4 Enforcement

Target: CWSs and NTNCWSs

Sanitary surveys and compliance information become the basis for enforcement. When a system violates a requirement, they receive a letter that 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, may 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 2021, 28 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 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 may include an EN, ACO, and, in rare cases, an EGLE Order or referrals to the DAG or the USEPA. Copies of ENs may be provided to other associated regulatory agencies, including the MDHHS, the Michigan Department of Licensing and Regulatory Affairs, and the Michigan Department of Agriculture and Rural Development. 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 18 ACOs with CWSs and no ACOs with NTNCWSs in FY 2021.

In addition to the formal avenues listed above, three CWSs, the cities of Flint, Benton Harbor, and Kalamazoo, were directed to conduct TMF studies to address compliance and operational concerns. The city of Flint's TMF study is complete, and the city is being monitored to ensure they are following the results of the TMF study through an ACO. The other cities are utilizing contractors to assess all aspects of their TMF capacity and make recommendations for improving TMF capacity.

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. No fines were issued for NTNCWSs in FY 2021.

3.5 OTCU

Target: CWSs and NCWSs

A properly certified operator must be designated for each of the 1,380 CWSs; 1,301 NTNCWSs; and at the 59 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 OTCU, with support from the DWEHD, provided 36 separate training sessions in FY 2021. Training course topics included: Water Math Basics, Principals of Basic Chemistry, CCRs, Distribution Short Course, Limited Treatment Short Course, RTCR, Basic Cross Connections, and a new surface water training session on disinfection and contact time. All training sessions were offered virtually which was very successful and allowed for many more operators to attend than when courses were only offered in person.

In addition to EGLE trainings, the OTCU 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.

EGLE staff instructed the following courses in FY 2021: Math for Water Operators, Limited Treatment, Distribution, Basic Chemistry for Water Operators, and Basic Cross Connections. These sessions allowed operators to earn the CECs needed to maintain their certification, qualify for exams, and increase their technical knowledge.

During on-site visits or other consultation opportunities, field staff discuss 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 at least annually with these organizations to set priorities for the upcoming year and to receive a report of prior year activities.

In FY 2021 TA providers offered training and assistance such as:

- The MRWA provided training on cyber security, cross connections, corrosion control, risk and resilience assessment, sustainability of water storage tanks, and regulatory monitoring and sampling.
- The RCAP provided sessions on disinfection, distribution system water quality, and large building water quality.

In addition, the OTCU continued to work with course providers in FY 2021 to transition their in-person training sessions to an online format and develop new online courses. This has given operators more training opportunities and the ability to complete required CECs during the COVID-19 pandemic. There are now over 200 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 would have taken place in FY 2021. Online and one-on-one TA with LHDs took the place of the annual conference. In August 2021 DWEHD 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. This year there was also an emphasis on including NCWSs in the training by including NCWS references in each presentation. Staff from the NCWS program were also in attendance and presented and answered questions. In total, 104 people attended, including EGLE staff, 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:

- Understanding Transfer of Ownership
- Complete DSMI
- RTCR
- PFAS sampling
- Cross connection control program
- Interpreting lab results and filling out lab analysis forms
- Permitting of treatment system and operator oversight requirements
- Operator Oversight Ethics and Safety
- Guidance on resources to maintain compliance

The small systems trainings were recorded and are available through EGLE’s Trainings and Workshops website.

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 Michigan 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 2021, \$183.2 million in low-interest loans were committed for 16 projects, bringing the total since the fund's inception in 1998 to \$1.437 billion for 337 projects. Some supplies 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 supply remains on the priority list for the next year if they so choose.

Commitments in FY 2021 included distribution system improvements, watermain extensions to connect residential wells in areas with PFAS contamination, water treatment plant upgrades, and lead service line replacement. An example of an FY 2021 project is:

- \$10,000,000 was awarded to the city of Ferndale for the replacement of approximately 1,200 lead service lines with copper material. \$400,000 was awarded as principal forgiveness.

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 by implementing a comprehensive, multi-faceted Wellhead and Source Water Protection Program.

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 ensure the facility or activity will be protective of the drinking water sources. Act 399 required that the location of the well and surrounding area be controlled and protected from potential sources of contamination.

Of the 1,084 CWSs in Michigan using groundwater as their source, 265 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 265 systems, 148 have completed the steps to have an approved WHPP, which meets the substantial implementation standard. An additional 117 groundwater systems have attained substantial implementation by completion of a source water assessment with no issues identified. As a result, of the population served by a CWS using groundwater as a source, 60 percent are served by a supply 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 via land use planning and ordinances. CWSs may also achieve substantial implementation status by having a source water assessment updated and having no issues identified.

The DWGIS application has been updated to include chemistry data from the drinking water sampling 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 is 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. The grant program did not award grants in FY 2021 due to implementation of changes identified by the grant program Lean Process Improvement project. Grants will be awarded in FY 2022 using the new process.

Since 2016, EGLE has allocated 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 groundwater and

identifying and managing risk. A total of 56 NTNCWS source water assessments were conducted by LHDs in FY 2021.

3.7.2 Water Withdrawal Legislation

Target: CWSs, NCWSs, and Other Interested Parties

The NREPA 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, coordinate with district and other EGLE staff through the process of determining that the proposed new or increased CWS will not cause an adverse resource impact, as defined in MCL 324.32701(1)(a) of Part 327, Great Lakes Preservation, of the NREPA, and, if applicable, the decision standards in MCL 324.32723 of Part 327 for new or increased withdrawals.

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, water supplies develop partnerships with surrounding water supplies to identify and take action to protect the area around the intake. Fourteen water supplies have completed a SWIPP, and represent a range of sizes, from smalls, all the way up to the state's largest supplier of water. Blissfield, East China, Holland, and the Great Lakes Water Authority had SWIPPs approved in 2021. As with an approved WHPP, an approved SWIPP will result in additional priority points being awarded to DWRP 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. Approximately \$100,000 is made available to surface water systems annually, except for FY 2021, due to implementation of changes identified by the grant program Lean Process Improvement project.

Monitoring of surface water sources can alert utility personnel to 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 website 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 2021 the sampling effort remained the same as in FY 2020 to make the monitoring strategy similar to routine monitoring efforts in other states and provide more data to determine system susceptibilities to cyanotoxins over another bloom season. Those that have historically detected cyanotoxins in their source water collected samples weekly in FY 2021 for microcystins, cylindrospermopsin, and anatoxin-a. The increased frequency for FY 2021 further protects public health. The additional data may also allow a tiered monitoring approach in the future, allowing resources to be directed to surface water sources that are most susceptible to cyanotoxins. In 2021, 23 systems detected microcystins in their source water and 4 systems had two low level detections in their finished water. There were no systems that detected cylindrospermopsin or anatoxin-a in their source water in 2021.

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

In FY 2020 greater public protection was achieved through testing and reducing exposure to PFAS. New PFAS drinking water rules took effect on August 3, 2020. These rules amended current drinking water rules for CWSs and NTNCWSs by establishing MCLs and sampling requirements for seven PFAS compounds. The rules also include monitoring schedules, public notification, and other requirements. PFAS sample results are also being reviewed by DWEHD Emerging Contaminants Unit staff and shared with MPART and its partner agencies.

PFAS results dictate the guidance, recommendations, and requirements provided to supplies. 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.

In FY 2021 funding made available through USEPA Public Water Supply Supervision Funds was used to provide a one-time PFAS sample analysis at eligible CWSs and NTNCWSs. The eligibility criteria used for CWSs was population served, specifically those serving less than 100 persons. The NTNCWSs identified for the one-time assistance included schools, childcare centers, and adult foster care centers. Funding for this one-time sampling was made available to approximately 304 CWSs and 607 NTNCWSs.

Also in FY 2021, EGLE Statewide Municipal Sampling contract funds were utilized to monitor PWS surface water intakes for PFAS in raw water. Approximately 70 supplies participated in this voluntary sampling effort. These results were shared with designated operators, DWEHD staff, other EGLE divisions, and MPART, to assess PFAS contamination and guide decision making related to PFAS in Michigan's surface water resources.

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 DWSRF set-aside. Systems serving more than 10,000 people may also participate in the program, but the funding would be from the capacity development set-aside.

A financial expert in EGLE 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. 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.

No financial assessments were performed in FY 2021; however, 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:

- USEPA, Region 5, AWIA training for utilities.
- DWEHD Rule School on Emergency Management and an emergency response tabletop exercise.
- Planning emergency training for all staff, particularly new staff.
- Participating in the EGLE Emergency Management Support Team.
- Participating in the ASDWA's 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.
- Providing information as needed and keeping State website up to date on Hauled Water operators and sanitary operations for emergency situations.
- Providing assistance to the USEPA in following up with water supply completion of the Risk and Resiliency Assessment and Emergency Response Plan requirements.
- Worked with the USEPA in dissemination of training information on the AWIA's Risk and Resiliency Assessment Virtual Training for Water Supply owners and water operators.
- Collaborated with United States Water and Wastewater Agency Response Network (USWARN) to hold a virtual meeting and collaboration with water supplies and local emergency management teams to discuss and enhance role coordination during water emergencies.
- Coordinating with other divisions within EGLE in hosting cross training on topics impacting the emergency response across multiple divisions.

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

The DWEHD is working to modernize IT systems, including electronic reporting capability to improve timeliness and accuracy of data reporting. Electronic reporting and

data management improvements will help identify and analyze statewide compliance more efficiently.

3.11.1 Electronic Reporting

Target: CWSs and NCWSs

In FY 2021 the DWEHD continued to work toward use of the USEPA's 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 PWSs 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

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 by the CWS program has been expanded to include the following activities:

- FY 2010 – Lead and Copper tracking
- FY 2012 – Stage 2 DDBPR Schedule 1 and 2 monitoring schedules and GWR monitoring
- FY 2013 – DDBPR Schedule 3 and 4 monitoring, tracking surveillance visits and sanitary surveys
- FY 2016 – RTCR tracking, including L1 and L2 assessment compliance schedules and site visit data associated with the assessments
- FY 2020 – Entry point monitoring schedules including: Metals, Volatile and Synthetic Organic Compounds, Radiological, Inorganic Compounds, etc.
- FY 2021 – Entry point sampling data, including PFAS

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 in order to conduct quarterly federal reporting.

Beginning in FY 2018, the DWEHD was awarded funding from the State of Michigan and set-aside funds to update the division's IT systems. This includes building a new data system, MiEHDWIS (Michigan Environmental Health and Drinking Water Information System), as well as entering into a contract with Global Environmental

Consulting for management of SDWIS, as well as adoption of the Compliance Monitoring Data Portal (CMDP). These updates are expected to assist in data and record management, as well as allow for greater transparency for water supplies, LHDs, and EGLE staff. Work will continue on all systems through FY 2022.

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 oversee the NCWS Program at the LHD. WaterTrack uses an outdated platform, is largely unsupported, and does not contain capability to track all current rule requirements. Planning is underway for replacing WaterTrack with a combination of SDWIS/State and other applications designed to interface with SDWIS/State. The intention is to stop using WaterTrack and begin implementing SDWIS/State-based applications waiting for the federal replacement for SDWIS/State.

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 provides assistance in these areas. Current capacity development needs include training on recently promulgated rules (Michigan PFAS, revised Michigan LCR, and Michigan Asset

Management Requirement), as well as financial capacity. The areas identified below continue to be a focus.

5.1 New Rules Implementation and Training

EGLE continues to provide LHD training. Typically, staff participate as speakers at regional MEHA seminars, locally-sponsored environmental health meetings, and the MEHA Annual Educational Conference. Due to the COVID-19 pandemic, many of these events were cancelled or postponed. EGLE continues to provide webinars as topics arise and has archived some trainings on a website for future viewing. This activity is in addition to the training mentioned in Section 3.5 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, and RTCR. All training took place in a virtual format in FY 2021 due to the COVID-19 pandemic.

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 2021, the DWEHD program and field staff continued to host and participate in trainings on the more recent rule changes such as the RTCR, and we are keeping abreast of proposed federal rules changes, including federal LCR Revisions.

5.2.2 Capture Sanitary Survey Data

Sanitary survey data is captured in SDWIS/State 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/State.

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 in 2025
- Enhanced transparency

In FY 2020 Michigan promulgated new PFAS drinking water rules. 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 Asset Management

As the infrastructure funding gap continues, field staff are stressing asset management concepts during interactions with CWSs and their local decision makers. The DWEHD believes the asset management requirements, which went into effect January 1, 2018, will foster better water system management. DWEHD staff are tracking the preparation of AMPs at water supplies and monitoring the success of these requirements. In addition, DWEHD staff have been encouraging asset management for supplies serving fewer than 1,000 people by meeting with water supply administrators and boards to educate them on the benefits of asset management. EGLE staff have also worked in partnership with TA providers to encourage asset management throughout the state. The DWEHD is also completing updates to the capacity development strategy, which includes work on asset management promotion for all water supplies. Including this in the strategy will highlight its importance and encourage additional work on ensuring water supplies have AMPs and adequate capacity.

5.3 Participation in National Workgroups

Program staff in the DWEHD are involved in national workgroups with other states, USEPA headquarters and regional offices, as well as the ASDWA 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.

6. Review Existing Systems Program Implementation and Address Findings

Sanitary surveys are a primary tool to evaluate capacity and identify needs for specific systems. Administrative rules dictate 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. The number of minor and significant deficiencies for CWSs and NTNCWSs in FY 2021 can be found in Table IV and Table III, respectively. The deficiencies are in varying states of resolution; many of them have already been resolved.

Between sanitary surveys, DWEHD field staff make 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 is dictated in policy. 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. 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. In FY 2021 the DWEHD held two internal stakeholder sessions and also worked with the EFCN to host an external stakeholder session to gather feedback related to proposed changes to the capacity development strategy. The updated strategy will include the DWEHD's asset management activities in accordance with the requirements in the AWIA. Other proposed changes include combining the *New Community Water System Capacity Guideline Document* and the *Capacity Development Strategy for Existing Public Water Systems*, including plans for promoting technical capacity through workforce development, promotion of water supply partnerships, and implementing a periodic review of TMF capacity. Work on updating the capacity will continue into FY 2022 with additional internal reviews and completion of the updates by the deadline of December 31, 2022.

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 AMPs. 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.

9. 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 2019 to FY 2021	CWS		NTNCWS	
	New	New and Existing	New	New and Existing
Number of supplies on ETT Report	12	1,380	20	1,274
Number of supplies with ETT score of 11 or more	0	9	0	33
Percent of supplies with ETT score of 11 or more	0%	0.7%	0%	2.6%

Annual Report on Capacity Development Program – Fiscal Year 2021

PWS ID	PWS Name	PWS Type	First Reported to SDWIS
MI0005349	COTTAGE HS, LLC (PINEVIEW COTTAGE)	CWS	11/20/18
MI0006446	SUGAR LOAF TOWNHOUSES	CWS	2/21/19
MI0007063	WHITEFORD TOWNSHIP	CWS	5/30/19
MI0000503	BEACON HOME AT COLBY	CWS	8/20/19
MI0005566	PRAIRIE VILLAGE APARTMENTS	CWS	8/20/19
MI0066700	THE PORCHES	CWS	5/21/20
MI0062955	HEARTLAND HEALTH CARE CENTER	CWS	9/23/20
MI0004920	OCEANA ACRES	CWS	5/27/21
MI0007186	WOODS OF LOHAVEN	CWS	5/27/21
MI0005209	PAW PAW APTS - WEST MAPLE LAKE	CWS	5/27/21
MI0003215	HOLTON COTTAGES	CWS	9/1/21
MI2293863	ANDERSEN MATERIAL HANDLING	NTNCWS	11/28/18
MI2019005	EAST JORDAN FOUNDRY	NTNCWS	11/28/18
MI2052239	ST ANN CHURCH - LOC ACADEMY	NTNCWS	11/28/18
MI2023420	BEAVER CREEK/GRAYLING TWP UTIL AUTH	NTNCWS	3/12/19
MI2023353	MICHIGAN FOOD PROCESSORS CO-OP	NTNCWS	3/12/19
MI2048072	MICHIGAN STATE POLICE POST	NTNCWS	3/12/19
MI2047772	SPICERS BOAT CITY	NTNCWS	3/12/19
MI2048428	CENTRAL DAY CARE CENTER	NTNCWS	3/12/19
MI2069229	MILKSTAR LLC	NTNCWS	3/12/19
MI2069503	DYKHUIS FARMS, INC.	NTNCWS	3/12/19
MI2293263	HOLTZ DR SW, LLC	NTNCWS	3/12/19
MI2052039	KIDS COURT, LLC	NTNCWS	3/12/19
MI2294463	MICHIGAN CAT CORPORATE SERVICES	NTNCWS	6/28/19
MI2023233	DART CONTAINER	NTNCWS	6/28/19
MI2012657	BIEWER LUMBER	NTNCWS	6/28/19
MI2029334	BOYCE ELEMENTARY SCHOOL	NTNCWS	6/28/19
MI2070203	MATERIAL TRANSFER	NTNCWS	6/28/19
MI2048172	CHARLTON HESTON PRESCHOOL	NTNCWS	6/28/19
MI0070005	ST. JOSEPH MERCY HEALTH SYSTEM	NTNCWS	6/3/20
MI0070006	MCLAREN FLINT HOSPITAL	NTNCWS	6/3/20

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.

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.

MI0006101, SOUTH HAVEN AREA WATER AND SEWER AUTHORITY, is an authority formed out of existing water supplies for consolidation purposes. Because all the water supplies that formed the authority are existing water supplies, South Haven Area Water and Sewer Authority is not considered a new supply.

10. Appendix B: Outline of a Typical Financial Assessment and FAP

10.1 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.

10.2 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.

10.3 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.