

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

ANNUAL REPORT ON OPERATOR CERTIFICATION PROGRAM

FISCAL YEAR 2021

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

List of Acronyms

ABE	Advisory Board of Examiners
Act 399	Michigan Safe Drinking Water Act, 1976 PA 399, as amended
CEC	Continuing Education Credit
CWS	Community Water Supply
DWEHD	Drinking Water and Environmental Health Division
EGLE	Michigan Department of Environment, Great Lakes, and Energy
EIS	Environmental Investigation Section
FY	Fiscal Year
ICE	Internal Controls Evaluation
LHD	Local Health Department
MOR	Monthly Operating Report
MRWA	Michigan Rural Water Association
NCWS	Noncommunity Water Supply
NR	Not Required
NTNCWS	Nontransient Noncommunity Water Supply
OAG	Office of the Auditor General
OIC	Operator in Charge
OTCTS	Operator Training and Certification Tracking System
OTCU	Operator Training and Certification Unit
Part 19 Rules	1979 Administrative Rules promulgated under Act 399
PWSS	Public Water System Supervision
RCAP	Rural Community Assistance Partnership
SDWIS	Safe Drinking Water Information System
SME	Subject Matter Experts
TNCWS	Transient Noncommunity Water Supply
USEPA	United States Environmental Protection Agency
WSSN	Water Supply Serial Number

Table of Contents

1. Authorization 4

2. Classification of Systems, Facilities, and Operators..... 4

3. Operator Qualifications..... 6

4. Enforcement..... 7

5. Certification Renewal/Approved Operator Training/Examinations..... 8

6. Resources and Training Needed to Implement the Program 10

7. Stakeholder Involvement and Examination Question Validation 11

8. Program Review..... 12

9. Implementation Update / Summary of Major Program Activities 13

 9.1 Major operator certification activities conducted since the FY 2020 Annual Report
 13

 9.2 Major operator certification activities planned for the coming year 15

1. Authorization

Authorized by Act 399.

The most recent revisions to Part 19, *Examination and Certification of Operators*, of the Part 19 Rules occurred in 2015 and included updates to R 325.11906a, *Restricted certificates*; R 325.11910, *Application for examination; notice to accepted applicants of examination*; and R 325.11915, *Renewal requirements*. Changes included updates to restricted licenses, examination application deadlines, and minor updates to renewal category requirements.

On October 20, 2021, the Michigan Governor signed legislation (2021 PA 91) that extended the reauthorized fees for training and certification of drinking water operators. The extension allows fees to be collected through October 1, 2025. These funds assist EGLE in maintaining adequate staffing for the DWEHD, OTCU.

The OTCU strives to implement the Operator Certification Guidelines that are based on the following three public health objectives: (1) customers of any public water system be provided with an adequate supply of safe, potable drinking water; (2) consumers are confident that their water is safe to drink; and (3) public water system operators are trained and certified and have knowledge and understanding of the public health reasons for drinking water standards.

2. Classification of Systems, Facilities, and Operators

As defined in the Part 19 Rules, water systems are classified based on complexity, capacity, and/or population served. Michigan has three classification categories, and five levels within each category (level 1 is the highest, level 5 is the lowest).

Certification Classifications:

- Class F - Complete Treatment Systems (F-1, F-2, F-3, F-4, and F-5)
- Class D - Limited Treatment Systems (D-1, D-2, D-3, D-4, and D-5)
- Class S - Distribution Systems (S-1, S-2, S-3, S-4, and S-5)

Water supplies must be under the supervision of a drinking water operator certified in the appropriate system classification. This requirement applies to all CWSs, NTNCWSs, and TNCWSs that employ treatment.

In Michigan, the classification of the water supply is the responsibility of DWEHD district staff and LHD staff. Changes in classification occur infrequently and, when changes do occur, field staff work closely with the supply on any new certification requirements. Below is a table summarizing the number of certified operators in each category at the end of FY 2021.

Table I. Number of Certified Operators by Classification for FY 2021

Complete Treatment (F) Licenses	Certified Operators	Limited Treatment (D) Licenses	Certified Operators	Distribution (D) Licenses	Certified Operators
F-1	178	D-1	140	S-1	661
F-2	154	D-2	226	S-2	585
F-3	245	D-3	422	S-3	1,020
F-4	333	D-4	382	S-4	1,190
F-5	57	D-5	231	S-5	482

EGLE allows complete treatment systems to request provisional certificates for operators in training at the F-4 certification level. A provisional (shift operator) certificate allows the operator to gain valuable on-the-job knowledge while also being certified to serve as a shift operator. Provisional certificates are temporary (not to exceed two years), requiring individuals to take and pass the certification examination to obtain permanent certification. Provisional certificates must be approved by EGLE. In FY 2021 there were 25 provisional certificates issued. Seven operators have taken the examination and achieved permanent certification. Several individuals have taken the examination once and not passed, and others have not yet had the opportunity to take the examination.

The State of Michigan also allows for reciprocity for out-of-state operators wishing to hold a Michigan drinking water certificate. EGLE has an application and review process for operators wanting to move to the State of Michigan to fill a job vacancy. The out-of-state certificate is compared with Michigan’s requirements and a temporary certificate may be issued by EGLE to an individual who holds a similar operator certificate in another state. The certificate is temporary and valid only until the next available EGLE examination. In FY 2021, EGLE issued one reciprocal certificate. The individual did not successfully pass the certification examination.

LHDs are contracted by EGLE to provide technical assistance and oversight to NCWSs in Michigan. Currently, there are 1,299 active NTNCWSs and 59 TNCWSs identified as requiring a certified operator.

The following table lists the number of NCWSs that employ treatment and are overseen by a Level 5 certified operator. For these NCWSs, LHDs are required to conduct treatment surveillance visits each calendar year. LHDs invite EGLE area representatives and engineers when assistance is needed for more complex treatment systems. LHDs are also required to ensure MORs are submitted monthly, and EGLE area representatives check on MORs during the quarterly review process. EGLE area representatives also look for MORs in the facility files during the annual evaluations at LHDs.

Table II. Number of NCWSs Overseen by a Level 5 Operator by Treatment Category

Treatment Category	Number of NCWSs
NCWSs using surface water or groundwater under direct influence of surface water	6
NCWS that disinfect (including hypochlorination, gaseous chlorine, or others as applicable)	87
NCWS that use other treatment to remove a contaminant with a maximum contaminant level	177
NCWS that use other chemical feeds (e.g., chlorination/permanganate feeds for iron and manganese removal, phosphate addition for corrosion control)	57

3. Operator Qualifications

To receive certification, individuals must pass an examination for each desired level of certification. To qualify for an examination, individuals must meet minimum education and experience criteria as outlined in the Part 19 Rules.

The minimum on-the-job experience required depends on the Category (F, D, or S) and Level (1-5). The table below describes the minimum experience necessary to take the examination. For example, to qualify for the F-4 examination, an operator needs a minimum of three months of full-time work experience to qualify.

Table III. Experience Qualifications

Complete Treatment (F) Licenses	Months of Experience	Limited Treatment (D) Licenses	Months of Experience	Distribution (D) Licenses	Months of Experience
F-1	60	D-1	48	S-1	48
F-2	30	D-2	24	S-2	24
F-3	15	D-3	12	S-3	12
F-4	3	D-4	6	S-4	6
F-5	NR	D-5	NR	S-5	NR

Examinations are designed to test the skills and knowledge necessary for each certification category and level. Examinations are validated per the process described in Section 7 of this report.

Some existing operators possess “grandfathered” certifications. Currently, 110 operators hold grandfathered licenses, and an additional 14 operators hold both a grandfathered license and a standard license in a different certification category. These numbers may fluctuate from year to year because, though an individual’s license may

expire, he/she can reapply during the one-year renewal grace period. These individuals must meet the same requirements as unrestricted license holders. It is no longer the practice of EGLE to issue this type of license.

4. Enforcement

EGLE provides technical assistance to address when a CWS fails to submit reports and/or required samples, submits inaccurate or incomplete reports, or there are operational concerns. EGLE monitors compliance status, issues violations, and trains owners and operators to promote compliance.

The majority of CWSs without an OIC are due to situations such as operator turnover and retirements. The DWEHD policy titled “Community and Noncommunity Water Supply Systems - Required Operations Oversight” defines minimum oversight for CWSs and NCWSs during standard operation and/or when the OIC leaves (interim operation). CWSs are required under R 325.11905 of the Part 19 Rules to have classified systems under the supervision of an OIC certified in the system classification. In addition, all CWSs are required by Act 399 to designate a backup operator to be responsible when the OIC is unavailable. For larger supplies serving greater than 4,000 people, the backup operator must hold the appropriate certification, either a treatment or a distribution license. If the backup operator does not have the required level of certification, EGLE PWSS field staff work with the water supply to establish an interim OIC while also pursuing a permanent replacement. The same applies to smaller CWSs where the designated backup operator is not required to hold any certification. In these cases, the interim solution often is to contract with a properly certified operator to provide oversight until a permanent arrangement can be made.

The amount of time a CWS may operate under an interim OIC is determined on a case-by-case basis. If a CWS has an existing employee who is eligible to take the appropriate certification examination, it is common practice to allow the supply until the next scheduled examination so the employee can take the examination and become certified. This time period should not exceed six months as examinations are usually offered twice per year. If no existing employee is eligible, then CWSs are expected to pursue a new OIC as soon as possible. What is considered timely is determined by EGLE field staff based on system-specific circumstances. If a CWS does not retain an OIC by the end of the interim period, EGLE issues a violation/deficiency for failure to have a qualified OIC. Continued failure may result in escalated enforcement such as an Administrative Consent Order or other escalated action.

There are currently 1,380 CWSs required to have a certified OIC. There were eight CWS violations issued for lack of an OIC during FY 2021. Four of the violations were resolved within two months, and three violations were resolved within approximately three to six months. One of the violations, a supply with no treatment, took eight months to resolve. Of the eight total violations, three were for supplies with no treatment. CWSs are aware of the OIC requirement and EGLE staff assist all supplies in maintaining compliance.

EGLE had two escalated operator enforcement cases in FY 2021 that involved revocation of certification. The operators involved were from the city of Benton Harbor and the village of Capac.

Additionally, if EGLE has substantial concerns about misconduct of an existing operator, a referral for investigation can be made. Investigations can be referred to the EIS of the Michigan Department of Natural Resources for potential criminal enforcement. The EIS serves as the investigative and law enforcement specialist for EGLE.

NCWS PWSS staff monitor compliance in the noncommunity program through regular communication with the LHDs. The quarterly review process for LHD data entry was modified in 2019 to include notification and follow up on operators that expired during the quarter. This new process has successfully reduced the number of supplies lacking a certified operator over the course of the fiscal year. Follow up to an NCWS lacking a certified drinking water operator is initiated and conducted primarily by LHD staff, who provide written notification to the water supply pursuant to the Part 19 Rules. Failure by the NCWS to comply within 30 days could warrant escalated enforcement by the LHD, which may involve an informal meeting or other activities as appropriate. Staff from the Noncommunity Water Supplies Unit, DWEHD, EGLE, assists LHD staff with further escalated enforcement activities. Guidance material and template letters are available to LHD staff. When LHD enforcement actions are unsuccessful, EGLE compiles the list of supplies without OICs and sends them a Notice of Violation. EGLE also hosted training for operators that work at NCWSs across the state to provide guidance and education on how to remain in compliance.

The NCWS Program had 42 water supplies that appeared on more than one missing certified operator report. The missing operator report is run quarterly. The reasons given for these 42 water supplies appearing on the list include not being entered in WaterTrack, not being certified, or having let certifications expire. At the time of this writing, 77 NTNCWSs and zero TNCWSs are without an OIC according to the NCWS database. LHDs pursue supplies without OICs as described above.

The NTNCWS Program had one system that disinfects, Northern Springs, LLC (WSSN: 2021901), that lacked a qualified operator. The certification lapsed, and the COVID-19 pandemic was given as the reason. No violations were issued nor was enforcement action taken by the LHD. The operator is currently up to date with certification and does not expire until 2024.

5. Certification Renewal/Approved Operator Training/Examinations

Michigan's Operator Certification Renewal Program is based on a three-year renewal cycle for all certification levels. The number of CECs required for renewal ranges from 24 contact hours for the highest CWS certification levels to 9 contact hours for the lowest certification levels. The OTCU manages the OTCTS to record the number of CECs awarded to certified operators.

A renewal notice is mailed to applicable operators approximately two months prior to the certificate expiration date. The mailing includes instructions for obtaining a copy of the renewal application from the OTCU website. A phone number is also provided for operators to call and request a hard copy application be mailed. An operator who allows their certificate to expire may reinstate it up to one year from the date of expiration, provided the individual obtained the additional prorated number of CECs. There were 488 operators who let their certificates lapse and were reinstated before the end of the one-year grace period. Operators that went beyond the grace period had their certifications removed from the database. If they wish to become recertified, they must reapply and retake the certification examination.

There were 1,422 operators required to renew their licenses in FY 2021 or lose certification. See Table IV, below, for FY 2021 renewal rates.

Table IV. FY 2021 Certification Renewal Rates

FY 2021 Renewals	Rate
Levels 1-4 (CWS)	942
Level 5 (NCWS and CWS with no treatment and distribution system limited in extent)	179
Total Drinking Water Renewals	1,121

The ABE advises EGLE on program implementation and revisions to the Operator Certification Program. The ABE met five times in FY 2021. A list of meetings can be found on the OTCU website at Michigan.gov/EGLEOperatorTraining.

One of the main functions of the ABE is to review and approve training courses and programs for drinking water CECs. Continuing education course approvals are granted during regularly scheduled ABE meetings and potentially between meetings using a letter ballot process. The list of courses approved by the ABE is available on the OTCU website. This makes it possible for certified operators to check the website prior to attending training to be sure a course has been approved for CECs.

As a component of their program review, the ABE recommended to the OTCU that all certified operators at CWSs be required to attend courses for CECs that are technically and/or managerially related to the operation, maintenance, or management of a drinking water system. The higher the certification level, the greater the number of technical or managerial continuing education contact hours required. Drinking water certification renewals are subject to the continuing education criteria laid out in Table V, below. Notification of the CEC category requirement is mailed to operators when they renew their current certificate or pass a new certification examination. This information is also available on the EGLE website.

Table V. Minimum Requirements for Continuing Education

Highest certification level held	Minimum number of continuing education training hours required to renew	Minimum number of continuing education training hours categorized as technical, managerial, or both
1 or 2	24	18
3	24	12
4	12	6
5	9	no minimum

Examinations are normally offered twice per year, providing two opportunities to qualify for and take an examination, or retake a previously failed examination(s). However, FY 2021 was unusual due to the COVID-19 pandemic. Spring examinations originally scheduled to take place in May 2021 were postponed until July 2021. EGLE again made significant COVID-19 pandemic-related adjustments in order to conduct the examinations. EGLE lowered group size, required masks and social distancing, required health screening forms, and followed other risk mitigation protocols. EGLE successfully administered two examination cycles, one in July 2021 and one in November 2021. The OTCU received 1,706 applications in FY 2021, an increase over FY 2020, likely due to the ability to hold two examinations again and the lifting of some COVID-19 pandemic restrictions.

Examination offerings are promoted through targeted mailings via traditional mail or e-mail, by various associations related to the drinking water community, and on the EGLE website, which shows the examination schedule, examinations offered, and application postmark deadline for the calendar year.

6. Resources and Training Needed to Implement the Program

The OTCU meets the Baseline Standard 6 regarding resources needed to implement the program. The OTCTS database functions well; however, the OTCU is exploring other database options for an improved, modernized data system. Global Environmental Consultants has an off-the-shelf database that the OTCU will be evaluating in FY 2022. In parallel, the OTCU has submitted a request for staff at the Michigan Department of Technology, Management and Budget to assist with looking at other replacement options. The current OTCTS database tracks certification and renewal of drinking water operators. OIC designations are tracked separately in SDWIS/State (CWS database) and WaterTrack (NCWS database).

The OTCU utilizes a computer-managed Test Scoring Machine, Optical Mark Read scanner (Scantron Insight 4ES), to eliminate hand-scoring and reduce administrative workload, allowing the OTCU to combine the score of a performance-based activity with an objective score. ParTest is examination question item banking software that provides the ability to record, maintain, and inventory validated and referenced examination questions. In addition, ParTest allows the user to create examinations comprised of

multiple objectives and maintain statistical response data for each examination question, which in turn helps the examination administrator determine the level of difficulty for each examination question.

ParScore, a complement to ParTest, allows the examination administrator to grade examinations and provides a variety of reporting capabilities. ParScore also tracks individual response data and provides the ability to post statistical response data to ParTest. ParScore provides the ability to maintain individual examinations for each applicant and provides a detailed summary of examination results on each examination objective, which is provided to each examinee.

The OTCU resides in the DWEHD, which allows for coordination of training and certification activities between the OTCU and staff responsible for implementing other PWSS Program activities. It allows some OTCU activities to be distributed among other PWSS staff as needed, such as reviewing draft examinations and teaching courses. The OTCU was able to hire an engineer in FY 2021. Presently, the OTCU consists of six employees: a manager, an engineer, two analysts, an office assistant, and a technician. There will be continued review of resource sufficiency in FY 2022.

7. Stakeholder Involvement and Examination Question Validation

The primary method of stakeholder involvement is the ABE. Act 399 requires EGLE to appoint the ABE to assist EGLE in the examination of individuals as to their competency to operate public water supplies. The makeup of the ABE is such that broad-based stakeholder involvement is assured. The ABE consists of two certified water treatment operators, two certified water distribution operators, one superintendent or manager of a supplier of water, one representative of the administrative branch of a local governmental agency, two members of the public at large, and one professor of sanitary or environmental engineering at a Michigan university. The ABE is required to meet at least twice each year to advise EGLE on program implementation and any proposed revisions to the operator certification program.

Additionally, three groups of SMEs meet routinely for the development and validation of certification examination questions. Each group consists of drinking water SMEs certified at the highest level within each of the three examination classifications. The charge of the SMEs is to assist EGLE and the ABE with review and validation of existing examination questions for the Level 1 through 4 examinations and to develop new examination questions. The level of effort contributed by these stakeholder groups is significant. Examination questions validated by the various SME groups have been used since 2004. The older questions in the examination question pools are reviewed periodically for relevance to new standards, practices, and technology. New examination questions are developed in conjunction with, and reviewed by, these stakeholder groups. Existing Level 5 examination questions for the S-5 and D-5 have been developed and validated by EGLE staff. Questions for the F-5 have been written and validated by SMEs.

Examination pass rates are an indication of the overall difficulty of the test. However, it should be noted that the number of examinees for each test can skew the numbers significantly, particularly for examinations with a low number of examinees.

Table VI. Ten-Year Average Percent Pass Rate (Spring 2011 - Spring 2021)

Complete Treatment (F) Licenses	Pass Rate	Limited Treatment (D) Licenses	Pass Rate	Distribution (D) Licenses	Pass Rate
F-1	39%	D-1	43%	S-1	46%
F-2	36%	D-2	43%	S-2	46%
F-3	57%	D-3	60%	S-3	50%
F-4	55%	D-4	58%	S-4	53%

EGLE staff continues to serve as examination proctors for all examinations, creating a consistent test taking experience for examinees.

8. Program Review

The ABE, working with OTCU staff, review program activities on an ongoing basis. Reviews are primarily of activities coordinating operator certification procedures conducted by staff in the OTCU and by providing input on program policies. Internal review activities needing attention include examination formulation, examination grading, review of program policies and procedures, etc.

The examination proctoring process has recently been improved. Additional enhancements were made to the proctor process in FY 2020 due to the COVID-19 pandemic, and changes continue to be made as the pandemic remains. Proctors receive a detailed written description of the process. This year, there were additional documents to ensure the safety protocols necessary to conduct an examination safely during the COVID-19 pandemic. In addition, there was an instructional webinar to assist proctors with the FY 2021 process and allow for questions.

The examination application process is also undergoing continuous improvement. A short video was developed to assist operators with properly completing an examination application. This has improved overall application quality and reduced the number of follow-up calls OTCU staff have to make. During the COVID-19 pandemic, it was critical to communicate via the OTCU website. These web updates improved customer service during this time and reduced the amount of phone calls the OTCU would have received during this period.

Michigan’s OAG conducts periodic program reviews. Previous reviews of the EGLE operator certification program component were completed, and their recommendations were implemented. The OAG conducted a Performance Audit of select PWSS Program elements during 2016 but did not select OTCU activities as a primary focus of that audit.

EGLE routinely conducts ICE reviews of major programs. The most recent ICE reviews of the community and noncommunity water supply programs, conducted in FY 2021, incorporated review of OTCU elements.

A number of the USEPA's review activities incorporate assessment of OTCU activities. The USEPA's 2017 OTCU program review assessed elements of the OTCU and enforcement of OIC requirements, and the USEPA's annual Drinking Water State Revolving Fund set-aside review includes evaluation of OTCU program activities. Year-end reviews of this OTCU report and the PWSS year-end report also provide opportunity for the USEPA review of program activities.

Recent in-house review of the OTCU resulted in updated application forms and website, guidelines for online courses (for course providers), updates to examination application scoring guidance documents, additional review of examination denials, and a peer review process for certain examination application scoring. The OTCU is currently working on IT solutions for a new database.

9. Implementation Update / Summary of Major Program Activities

9.1 Major operator certification activities conducted since the FY 2020 Annual Report

- The COVID-19 pandemic continued to create program implementation challenges in FY 2021. Program staff spent significant time adjusting processes and procedures to address these challenges, including modification of examination hosting protocols; significant time was spent continuing to convert training to a virtual environment.
- EGLE conducted over 38 drinking water virtual training sessions for operators, LHDs, and internal staff during FY 2021. Over 5,800 individual course registrations were recorded during FY 2021. Virtual courses enabled EGLE to reach a significantly larger audience than in-person trainings. These online trainings will likely continue after the COVID-19 pandemic based on demand and the ability to reach a larger audience
- Courses offered by EGLE drinking water staff in FY 2021 include: Cross Connections, Limited Treatment, Distribution, Revised Total Coliform Rule, Lead and Copper Rule, Small Systems, Cybersecurity, CWS Updates, Water Math Basics, Principals of Chemistry, Consumer Confidence Reports, and a new Surface Water Training Series.
- Updated a web-based listing of all ABE-approved courses to assist drinking water personnel in maintaining certification. This update included newly added virtual training with over 204 approved online courses.
- Continued updates to the website format and content, with frequent updates during the COVID-19 pandemic.
- Technical assistance providers hosted several trainings. The RCAP conducted trainings in the following areas: disinfection, distribution system water quality and return to service, risk and resiliency, and emergency response planning/vulnerability assessments. In addition, the RCAP worked on ten separate community projects assisting communities with various issues (e.g.,

assisting with reports, flushing water mains, Geographic Information Systems, etc.). The MRWA offered numerous courses in cybersecurity, cross connections, corrosion control, storage tank, and risk and resiliency training to approximately 160 operators.

- Continued work on a new IT system to provide electronic examination and renewal applications. Met with and provided information to IT project team. Currently, SDWIS and WaterTrack hold data on designated OICs, while the OTCTS tracks certification and renewal of operators. With the new IT system, the hope is to integrate this information.
- Facilitated workgroups responsible for updating materials and content of several multi-day operator courses.
- Updated internal guidance document detailing examination application scoring methods and criteria.
- Offered several extra basic math courses virtually during the COVID-19 pandemic, and a new basic chemistry course was offered twice in FY 2021.
- Provided training opportunities for small community and NTNCWS operators to meet renewal requirements for their certifications. Five virtual sessions were conducted in the summer of 2021.
- Maintained an intranet application allowing EGLE technical staff access to readily confirm a certified operator's status.
- Maintained a web-based application allowing certified operators to view pertinent information regarding their certifications. Operators can look up certificate renewal status, a list of courses completed, and other information.
- Provided PWSS staff a list of expired and about-to-expire operators four times each year.
- Mailed postcard notification of impending expiration to operators. When an operator's certificate expiration date is within eight weeks of the current date, a time-delayed web link allows for printing of their renewal application so the operator can more easily renew certificate(s).
- SME workgroups met twice following the November 2020 and July 2021 examinations to validate the F, D, and S examination item banks.
- Targeted notification to certified operators detailing training opportunities and program changes for both EGLE courses and USEPA contractor trainings.
- Provided certified operators with critical EGLE Laboratory information to help maintain compliance with sampling requirements.
- Provided regional training at various locations around the state of Michigan for both CWS and NCWS operators and coordinated with USEPA grant-funded contractors by cosponsoring and promoting the training to operators.
- Met with the MRWA and the RCAP to coordinate and prioritize USEPA-contracted training for FY 2022.
- Developed free webinars for small system operators.
- Ongoing work is being done to address workforce issues in the city of Flint and attract skilled workers. The city of Flint and Delta College are trying to partner to train Flint high school students to work in the drinking water field.

- EGLE suspended a course provider in 2021 after receiving complaints. The courses were reviewed, and the ABE determined the courses did not meet the minimum online guidance. The course provider is currently working with EGLE to ensure their courses meet the minimum online guidance criteria in order to reapply.
- Planned a Michigan Water and Wastewater Professionals Workforce Week for FY 2022. The Governor issued a proclamation for the week of December 13-19, 2021. Three free training webinars for operators will be offered. This proclamation highlights the hard work of operators in the industry.

9.2 Major operator certification activities planned for the coming year

- Request a Governor's proclamation for December 2022 for Water and Wastewater Professionals Workforce Week.
- Continue progress on enhancements or replacement of the OTCTS to expand/improve IT capabilities, including a robust online application process.
- Continue to update short-course training materials and have them available in a virtual environment. Convert Water Treatment I to a virtual course to offer in the spring of 2022.
- Continue to assist and facilitate in-house training for staff.
- Develop new examination questions for Scantron item bank for all levels.
- Continue SME workgroups to validate new F, D, and S examination questions.
- Continue no/low cost continuing education training opportunities for small CWS and NTNCWS operators.
- Develop a fluoridation class to pilot.
- Develop new training modules, such as chlorination basics, for small CWS and NTNCWS operators.
- Develop new webinars to help operators complete renewal applications.
- Document recommendations for potential rule updates and associated stakeholder process.
- Evaluate current fee amounts for potential fee increase proposal.

Questions about this report may be forwarded to:

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