



*"One Team, One Town, One Family"*

**Morenci City Offices  
118 Orchard Street  
Morenci, MI 49256  
(517) 458-6828**

TO: Morenci City Council

FROM: Michael S. Sessions, City Superintendent / City Clerk 

DATE: 4/15/2021

SUBJECT: Sanitary Survey for the City of Morenci's Drinking Water Program

I am very excited to bring this agenda item to the Morenci City Council for review, and for proper recognition to be provided to our City of Morenci Department of Public Works (DPW) Team. The City of Morenci's Drinking Water Program has drastically improved since the dark days of November 2019. Enclosed is a letter from the State of Michigan's Department of Environment, Great Lakes, and Energy (EGLE) outlining the results of the Sanitary Survey that our municipality undertook on March 3, 2021. I have also enclosed the City of Morenci's response to such. A table of our results is the following:

Survey Element	Findings
Source	Recommendations Made
Treatment	Deficiencies Identified
Distribution System	Deficiencies Identified
Finished Water Storage	Deficiencies Identified
Pumps	No Deficiencies/recommendations
Monitoring & Reporting	Recommendations Made
Management & Operations	Recommendations Made
Operator Compliance	No Deficiencies/recommendations
Security	No deficiencies/recommendations
Financial	No deficiencies/recommendations
Other	No deficiencies/recommendations

It should be noted that work is progressing on the deficiencies identified in the Sanitary Survey. The following is the progress on such:

1. I have engaged Poggemeyer Design Group (PDG) on a quote to fix the deficiencies of the Asset Management Plan and our mapping based on EGLE's opinion that the "[report] was largely dependent on the previous operator's assessment of needs and facilities, which were not accurate;" which, therefore, made the City of Morenci's Asset Management Plan no longer acceptable. This update would be part of the new Fiscal Year 2021 – 2022 Budget.

**[www.CityofMorenci.org](http://www.CityofMorenci.org)**

## Memorandum Regarding Sanitary Survey for the City of Morenci's Drinking Water Program

2. I have inquired with Nelson Tank Engineering & Consulting, Inc. on a quote to address the non-complaint water tower vent. The proper mesh screen was installed on the water tower today.
3. We recognize that a proper valve turning program is a deficiency, and we believe this goes hand-in-hand with the Asset Management Plan update. We have found that a lot of the information that was provided regarding our water mains and valve locations to be incorrect, and our distribution maps need to be re-looked at and revised to assist our City of Morenci DPW Team while they are in the field.
4. It is true that the City of Morenci failed to complete the iron removal filter replacement. This was a project we were working on prior to the water main under Bean Creek failing. I have submitted a revised schedule to EGLE to take care of this issue.

EGLE did provide six (6) recommendations. The recommendations are accounted for in the response that was provided back to EGLE. Information on what we are doing to fix those recommendations is the following:

1. We plan to engage Michigan Rural Water Association (MRWA) in creating a Well Head Protection Program for the City of Morenci. Paul Seegert, who is in charge of this for MRWA and who was our former water operator for six (6) months, informed me today that based on his schedule this will likely happen in 2022. Utilizing MRWA is free for the City of Morenci, so I advise that the City of Morenci wait until then to complete this recommendation.
2. We have created a cross connection program and letters asking places in Morenci for the proper cross connection information for the program have been sent out. We will continue to follow-up on this.
3. We recognize that being able to calculate acceptable system water loss was a challenge in the past. We have put the proper meters in place to measure acceptable water loss and will be able to do this for 2021 at the end of the year.
4. We were unaware of the need to do daily iron readings. After being made aware of this, we have implemented daily iron readings into our bench sheet at the Water Treatment Plant and it is being track on our Monthly Operational Report (MOR).
5. These points are taken and understood. The appropriate mesh non-corrodible screen was installed on the industrial park tower (west water tower) today, and a photo was taken and sent to EGLE.

We believe that when EGLE speaks of the detention tank, that they are referring to the clearwell. We spoke at the meeting on March 3, 2021, that we suspect that the clearwell has never been inspected or cleaned before. Water Operator-in-

## Memorandum Regarding Sanitary Survey for the City of Morenci's Drinking Water Program

Charge Kipp Scott is working on obtaining some quotes to do this in the next fiscal year (starts July 1, 2021). This would be teamed up with a project to clear and repair any issues that we have with the aerator.

As for the actual water storage tanks, the plan would be to have those inspected again after July 1, 2022, which would include looking at the inside of the tanks for sediment and condition.

6. We will be tracking customers' water quality complaints. Luckily, we have not had any since the Sanitary Survey was conducted.

The results of this survey should be applauded, especially in light of the results of the 2018 survey. The results of the 2018 survey resulted in the following:

Survey Element	Findings
Source	Deficiencies Identified
Treatment	Recommendations made
Distribution System	Deficiencies Identified
Finished Water Storage	Deficiencies Identified
Pumps	Recommendations made
Monitoring & Reporting	Recommendations made
Management & Operations	Deficiencies Identified
Operator Compliance	Recommendations made
Security	Deficiencies Identified
Financial	Deficiencies Identified
Other	Not applicable

You'll see from the chart presented above that in 2018 the City of Morenci had six (6) deficiency categories and four (4) recommendation categories out of 11 total categories.

In 2021, the City of Morenci received three (3) categories that were considered deficient and three (3) categories were recommendations were made. Five (5) categories had no issues what-so-ever. The results of that chart are at the beginning of the document.

We've come a long way since the dark days of November 2019 and from the dreaded letter in July 2020, where EGLE found the following:

"Particularly troubling was the apparent falsification of monthly operating reports (MORS) by Mr. [Lonnie] Vanderpool regarding amounts of chemicals applied and results of testing. To a large degree, the success of the community drinking water compliance program depends on the truthfulness of certified operators."

"EGLE acknowledges that Morenci officials acted quickly when notified of actions/inactions of the former operator which led to violations of Act 399. Steps

## Memorandum Regarding Sanitary Survey for the City of Morenci's Drinking Water Program

Morenci took towards returning to compliance with Act 399 were hiring a certified operator as well as implementing the recommendations of the temporary certified operator and other experts. The cooperation and efforts put forth by Morenci, granted the City the opportunity to utilize scarce funds towards necessary improvements to the water system that otherwise would have been fines and penalties assessed by EGLE."

That letter also pointed out 25 further violations of Act 399 regarding the drinking water supply in Table 1 of the letter. Some notables, included:

- Operator – Operator renew certification
- Design – Meter on each well
- Treatment – Operational monitoring chlorine
- Reporting – Incorrect MOR form being used
- Sanitary defects – Leaky roof
- Sanitary defects – Poor condition of building surfaces both exterior and interior
- Operator – Inability to conduct routine operational tests or to answer basic questions about the operation
- Managerial – No hydrant flushing of distribution system
- Managerial – Lack of operator accountability to city government
- Managerial – DPW office in disarray and unsanitary
- Operator – No backup operator or training program for operator

Through the work of our City of Morenci DPW Team, our Team was able to avoid fines from EGLE for these missteps, and apparent general disregard for the importance of our drinking water supply. In addition to that, the City of Morenci is now a shining star to EGLE, and the City of Morenci is even being asked to be a pilot program for new programs that EGLE is putting out. Please see the e-mail enclosed from Taryn Simon of EGLE on April 7, 2021 inviting us to be such.

I further believe that this work done by the City of Morenci DPW Team is worthy of recognition by the Morenci City Council, and I would ask that the Morenci City Council approve a motion directing me to issue a letter of commendation to current and former City of Morenci DPW Team Members that include: Gary Pfund, Eric Emmons, D.J. Gerken, Isaiah Pruitt, Kipp Scott, Paul Seegert, and John Holland for their abilities and dedication to turning the City of Morenci's Drinking Water System from a dismal state to a state of pride. I offer the following motion:

"I move to direct the City Superintendent / City Clerk to write a letter of commendation to Gary Pfund, Eric Emmons, D.J. Gerken, Isaiah Pruitt, Kipp Scott, Paul Seegert, and John Holland for their abilities and dedication to turning the City of Morenci's Drinking Water System from a dismal state to a state of pride of the City of Morenci organization."



GRETCHEN WHITMER  
GOVERNOR

STATE OF MICHIGAN  
DEPARTMENT OF  
ENVIRONMENT, GREAT LAKES, AND ENERGY

JACKSON DISTRICT OFFICE



LIESL EICHLER CLARK  
DIRECTOR

March 31, 2021

Mr. Michael Sessions  
City of Morenci  
Administrator/Clerk  
118 Orchard Street  
Morenci, MI 49256

WSSN: 04490  
County: Lenawee

Dear Mr. Sessions:

SUBJECT: City of Morenci - Water System Sanitary Survey (Survey)

This letter confirms the Department of Environment, Great Lakes and Energy's (EGLE's) staff meeting with Mr. Michael Sessions, Mr. Kipp Scott, Operator in Charge and Mr. John Holland, Operator on March 3, 2021 to conduct a Survey of the City of Morenci, (City) and to present the final findings, discuss areas for improvement, and identify timelines for corrective action where appropriate. The purpose of a Survey is to evaluate the water supply system with respect to the requirements of the Michigan Safe Drinking Water Act, 1976 PA 399, as amended (Act 399). It is also an opportunity to update EGLE's records, provide technical assistance, and identify potential risks that may adversely affect drinking water quality. We also reviewed the status of the approved Compliance Schedule for the City, copy attached. Enclosed, is a copy of the Sanitary Survey Report (Report) for your reference.

Since the last sanitary survey, EGLE acknowledges that the City has completed the following improvements to the water system:

1. Updated its Emergency Response plan (ERP) 2021.
2. Updated the Sampling Site Plan for monthly bacteriological monitoring of its drinking water.
3. Installed plant tap and meter bypass in the treatment plant.
4. Developed a Cross Connection Control Program.
5. Completed pump efficiency tests on both wells.
6. Completed an inspection of the elevated storage tanks.
7. We are pleased that Monthly Operation reports, annual Cross Connection reports, Consumer Confidence reports, and Certificates of Distribution are being submitted in a complete and timely manner.

The following table summarizes EGLE's final findings from the Survey of the water system:

Survey Element	Findings
Source	Recommendations Made
Treatment	<b>Deficiencies Identified</b>
Distribution System	<b>Deficiencies Identified</b>
Finished Water Storage	<b>Deficiencies Identified</b>
Pumps	No Deficiencies/recommendations
Monitoring & Reporting	Recommendations Made
Management & Operations	Recommendations Made
Operator Compliance	No Deficiencies/recommendations
Security	No deficiencies/recommendations
Financial	No deficiencies/recommendations
Other	No deficiencies/recommendations

Deficiencies:

Deficiencies indicate non-compliance with one or more Act 399 requirements, which include defects in a water system's infrastructure, design, operation, maintenance, or management that cause, or may cause, interruptions to the "multiple barrier" protection system and adversely affect the system's ability to produce safe and reliable drinking water in adequate quantities.

During the Survey, four deficiencies were identified and are listed below:

1. Per Rules 1606 (1), a community water supply that serves more than 1,000 people shall implement an asset management program. The 2016 Asset Management Plan (AMP) prepared by Poggemeyer Design Group, Inc. was largely dependent on the previous operator's assessment of needs and facilities, which was not accurate. The AMP needed to be completely re-done. Please submit the updated AMP for our review and approval as soon as possible but no later than **September 30, 2021**.
2. Recommended Standards for Water Works (Ten States Standards) Section 7.0.9.e. states that vents shall, on elevated tanks and standpipes, open downward, and be fitted with twenty-four mesh non-corrodible screen in combination with an automatically resetting pressure-vacuum relief mechanism. The industrial tower was inspected on December 2019 by Nelson Tank Engineering & Consulting, Inc.

(NTEC) and NTEC recommends installation of a new roof vent because the current vent does not meet the 2018 Ten States Standards. Please install new vent having a frost-free design with 24 mesh non-corrodible screen and submit a schedule to address this item by **April 30, 2021**.

3. Rule 325.11108 requires water systems to provide sufficient valves to minimize interruptions in service. In addition, *Suggested Practice for Water Works* Part 11 Section 20 states, "The supplier of water shall maintain adequate records on the operation of the water distribution system, on the location and type of maintenance performed, and on the type of material and appurtenances used. Specific items such as valves, fire hydrants, flushing hydrants, blow-offs... shall have separate individual records kept and shall show or describe their exact location and measured distances to reference points. These records must be updated as changes to the system are made." The importance of having operational valves was strikingly demonstrated earlier this year when a critically important water main broke and it was not possible to isolate the break due to nonfunctioning valves. Currently the location and condition of all valves are unknown. Therefore, the City is in violation of Rule 325.11108, and to become compliant must locate all distribution system valves, revise the general plan identifying their locations, and must implement a valve maintenance and record keeping program. It is suggested that as part of the valve maintenance program, a valve exercising, and inoperable valve replacement schedule be implemented. It is a good practice to exercise valves at least once annually. The City did not complete the requirements of the compliance schedule items 14 & 15 that was due on 12/1/2020. Please submit a schedule for implementation of the valve turning and record keeping program mentioned in items 14 & 15. Until this task is completed the City will remain in violation of the compliance schedule.
4. It is our understanding that the filter media of the Iron removal plant has never been replaced since it was installed. Filter media integrity is one of the treatment components that can affect treatment efficiency. Due to exceeding the expected useful life for iron removal media and the improper operation for years, the filter performance is unreliable. The compliance schedule agreed to by the City allowed a feasibility study of the alternatives to be prepared. The City failed to complete the requirements of the compliance schedule items 20 & 21. Please submit a schedule for implementation of the recommended improvements mentioned in item 20 as required by item 21. Until this task is completed the City will remain in violation of the compliance schedule.

Recommendations:

Recommendations are suggestions the public water supply should consider, to enhance its operations and services, and to avoid future deficiencies.

During the Survey, the following recommendations were identified:

1. Source: Well Head Protection Program

It is our understanding that the City does not have any Wellhead Protection Program (WHPP). The objective of a WHPP is to protect the groundwater formation area that serves the City's Wells from potential contamination. Please complete a Well head protection plan. Jason Berndt, of the Source Water Unit, is the contact person for Well head protection programs and can provide information on possible funding. He can be reached at 989-705-3420 or [berndtj@michigan.gov](mailto:berndtj@michigan.gov).

2. Distribution System: Cross connection

Part 14 of Act 399 requires water supply shall report annually to the department on the status of the cross-connection control program on a form provided by the department. In the annual report it shows that no inspections were done in the last few years. Please provide a written response on how Morenci intend to carry out the cross-connection control program by **April 30, 2021**.

**As a reminder, as of January 2018, testing of backflow devices in community water supplies can only be performed by professionals with the ASSE 5110 certification.**

3. Distribution System: Capacity

The City should determine the amount of the water loss in the system by comparing the amount of water pumped through the master meter and subtracting the customer meter readings. Differences may include lost water due to system leakage, meter slippage, theft, and intentionally unmetered water. Acceptable system losses are usually within 10 to 15 percent of water produced. The master meter in the well house must be professionally calibrated to ensure accurate calculations.

4. Monitoring & Reporting: Chemical Monitoring

Per Part 7(9) of Suggested Practice for Waterworks, water systems with iron removal should monitor the raw water monthly and the plant tap for iron daily and report the results on the MOR. Currently, the City monitors the raw water and plant tap for iron twice a month.

5. Finished Water Storage: Construction & Maintenance

- We recommend that the vent screens and hatches are checked, and the mud valve is exercised every year.



Mr. Michael Sessions  
Page 5  
March 31, 2021

- Please ensure that the storage tank overflow outlets are properly screened with 24-mesh stainless steel, at all times, to prevent insects from entering the water system.
- Use of a solid flapper or duckbill valve should be considered to minimize air movement and ice formation in the tank.
- The detention tank should be inspected for sediment and condition. Any maintenance needs identified, should be completed.

6. Management and Operations: Owner responsibilities

The system should keep the records of customers' water quality complaints. By recording and analyzing customer complaints, a manager can prevent problems, or address them before they get out of hand. A positive response to customer problems is a good management practice.

**Please submit a letter by April 30, 2021, that outlines City's plans and schedule to address the above items.** I would like to thank Michael Sessions, Kipp Scott and John Holland for their time and assistance in the completion of this Sanitary Survey.

If you have any questions, please feel free to contact me at the phone number listed below, or by email at [masudm@michigan.gov](mailto:masudm@michigan.gov).

Sincerely,



Md. Abdullah Al Masud, District Engineer  
Field Operation section  
Drinking Water and  
Environmental Health Division  
269-569-4131

Enclosure(s):

Cc/enc: Mr. Kipp Scott, Certified Operator  
Cc : Ms. Martha Hall, Lenawee County Health Department



April 1, 2021

Md. Abdullah Al Masud  
Department of Environment, Great Lakes, and Energy  
Jackson District Office  
301 East Louis Glick Highway  
Jackson, MI 49201

Dear Mr. Masud:

I am in receipt of your letter dated March 31, 2021 regarding the Water System Sanitary Survey that you conducted with the City of Morenci's Department of Public Works (DPW) Team and myself on March 3, 2021. I can speak for the whole team in that we enjoyed our visit with you, Patrick Brennan, and Taryn Simon. We were also equally as excited to share the progress of the City of Morenci's drinking water system since dark days of November 2019. A month that will continue to live in the back of our minds, along with the lessons that were learned from that experience.

In response to your letter, we would like to address each deficiency and each recommendation with detailed information on how we plan to comply. We will begin with deficiencies.

Deficiencies:

1. It has become very apparent to the City of Morenci Team that the Asset Management Plan done in 2016 needs to be complete re-done, along with all associated maps. It seems that the information is either incorrect or does not contain the correct information after thorough field verification by our City of Morenci Team since November 2019. We believe it is reasonable to meet the September 30, 2021 deadline, and will keep you in the loop of our progress.
2. After reviewing your letter, we immediately contacted Nelson Tank Engineering & Consulting, Inc. regarding the installation of a new vent that has a frost-free design and meets the 2018 Ten States Standard. They are drafting a proposal to e-mail to me to consider for the engineering and bidding out of the installation of a new vent by a qualified contractor. The proper Act 399 permit will be applied for by Nelson Tank Engineering & Consulting, Inc. It is the goal to have the vent installed by August 31, 2021.

In addition to that, we are acquiring the appropriate mesh non-corrodible screen to install on the overflow pipe. Once installed, which should be within the next month, we will forward a photo of it, so that you can place in your file.

3. We believe that this item goes with Deficiency 1, and that these two (2) items are hand-in-hand. We further believe that our City of Morenci Team fully understands the need to implement and exercise a valve turning program, in conjunction with a hydrant flushing program. Both programs appear to have been non-existent at the City of Morenci. We are proud that we conduct hydrant flushing in the spring and the fall now, as evident by the information provided to you during our meeting on March 3, 2021.

As we progress with Deficiency 1, we will be working on Deficiency 3 during the 2021 calendar year and will be providing you with documentation by October 31, 2021 of our successes within our Valve Turning Program. Our goal is to avoid the issues we have in the field today, which include inadequate working valves, and struggles when attempting to make repairs due to the inadequacy in keeping these vital assets maintained.

4. As was discussed during our meeting on March 3, 2021, we continue to recognize the need to replace the filter media for each of the filters at the Iron Removal Plant. It is unfortunate that we were not able to get this complete by now, however, we were in the process of obtaining quotes when we learned of a major water main break here in Morenci. The water main break ended up taking most of the funds allocated for the filter media replacement. Filter media replacement continues to be a goal, but we are pushing this out with a goal of completion on December 31, 2021. This gives us time to gather new quotes, while building our fund balances back from the water main break invoices.

#### Recommendations:

1. As was discussed at your visit, the City of Morenci recognizes that a Well Head Protection Program is a program that would ensure our residents are receiving quality drinking water. It is the goal of the City of Morenci in the next year to establish a Well Head Protection Program through the help of Michigan Rural Water Association (MRWA).
2. We recognize that a Cross Connection Program is a vital program that should have been established and executed prior. The program is a goal for 2021 and the City of Morenci plans to send our Team off to training to ensure that they understand cross connections and how to conduct an inspection. Inspections, along with information on backflow devices, will be kept.

Your letter asks for a written response on how the plan will be executed. I did include a memorandum in the Sanitary Survey Binder (copy of memorandum

enclosed with this letter) regarding the program. The program has been broken down into High Hazard Cross Connections and Low Hazard Cross Connections. High Hazard Cross Connections are required to be inspected every year, while Low Hazard Cross Connections are required to be inspected every three (3) years. Backflow device testing results are also required to be provided to the City of Morenci. Letters have gone out to all established High Hazard and Low Hazards and documentation of such is required from them by May 1, 2021.

It should be noted that the program was being delegated to Isaiah Pruitt, DPW Laborer, to execute. Mr. Pruitt left employment with the City of Morenci in the middle of the month and a new DPW Laborer has been hired. The DPW Laborer, Timothy Schisler, comes from the Village of Fayette in Ohio, and he has experience in water operations. He will likely inherit this program to execute.

3. This is another item that we recognized was an issue for the City of Morenci. We have taken the appropriate steps to work on fixing this issue by issuing that our master meters on our wells are in working order, and that we have a master meter for our finished water. After having a few months of actual data, we will be able to gauge our true water loss in the next few months.
4. We were unaware of the need to take daily samples of plant tap iron on your visit on March 3, 2021. After discussion that day with you guys, I made the immediate decision to require operators to obtain daily iron readings of the plant tap. This has been implemented and is ongoing. Results will be reported each month on the Monthly Operational Report (MOR). Periodic raw water iron readings were always being taken.
5. These points are taken and understood. Once the appropriate mesh non-corrodible screen is installed on the industrial park tower (west water tower), a photo will be taken and sent to you.

We believe that when you speak of the detention tank, that you are referring to the clearwell. We spoke at the meeting on March 3, 2021, that we suspect that the clearwell has never been inspected or cleaned before. Water Operator-in-Charge Kipp Scott is working on obtaining some quotes to do this in the next fiscal year (starts July 1, 2021). This would be teamed up with a project to clear and repair any issues that we have with the aerator.

As for the actual water storage tanks, the plan would be to have those inspected again after July 1, 2022, which would include looking at the inside of the tanks for sediment and condition.

6. This point is well taken and a spreadsheet will be generated with customer water quality complaints, what we did to resolve the complaints, and the outcome of the

complaints. This spreadsheet will be included in our Sanitary Survey Binder and kept up-to-date.

Conclusion:

I have included an updated Compliance Schedule based on our phone conversation on March 29, 2021. This includes dates that items have been completed, along with new dates for items that have not been completed.

Additionally, we recognize through the Michigan Safe Drinking Water Act, 1976 PA 399, as amended (Act 399), that a Water System Sanitary Survey is to occur every three (3) years. The City of Morenci respects that, however, with our attention to our water system, we would ask that you consider conducting another Water System Sanitary Survey in March of 2022. We believe that your knowledge and expertise of water systems would behoove us in continuing to create an environment of compliance, along with ensuring that our residents are being provided with quality drinking water.

Sincerely,

<<copy of letter>>

Michael S. Sessions  
City Superintendent / City Clerk  
City of Morenci

CC: Morenci City Council  
Kipp Scott, Water Operator-in-Charge  
John Holland, MRWA  
City of Morenci DPW Team



GRETCHEN WHITMER  
GOVERNOR

STATE OF MICHIGAN  
DEPARTMENT OF  
ENVIRONMENT, GREAT LAKES, AND ENERGY  
JACKSON DISTRICT OFFICE



LIESL EICHLER CLARK  
DIRECTOR

July 9, 2020

Michael Sessions, City Administrator  
City of Morenci  
118 Orchard Street  
Morenci, Michigan 49256

SUBJECT: Compliance Communication – City of Morenci Compliance Schedule; WSSN: 04490

Mr. Sessions:

This letter serves as a follow up from the Department of Environment, Great Lakes, and Energy (EGLE), Drinking Water and Environmental Health Division (DWEHD) to the City of Morenci (Morenci) for the violations of the Michigan Safe Drinking Water Act, 1976 PA 399, as amended (Act 399), and the administrative rules promulgated thereunder. Also included in this letter is a schedule for returning the Morenci community water system (CWS) to compliance with Act 399.

EGLE Jackson District staff discovered violations of Act 399 while tracking the routine submittals for the district. In a February 1, 2019, letter from EGLE, Morenci was notified that it failed to submit results for nitrate and for disinfection by-product monitoring, as required by Act 399. In subsequent violation notices dated October 24, 2019 and October 25, 2019, EGLE notified Morenci that it was still in violation of Act 399 and directed Morenci to public notice the violations.

In the course of investigating Morenci's monitoring and reporting violations, staff discovered that the operator, Mr. Lonnie Vanderpool, failed to renew his operator certification and that the certification expired in July 2018. In a November 15, 2019, violation notice EGLE notified Morenci of the violation of Act 399 for failure to obtain a certified operator. Morenci subsequently obtained the services of Mr. Paul Seegert, USDA Rural Water, a properly certified operator, to operate the water system on a temporary basis and to provide training for Morenci employees. EGLE staff conducted a inspections on November 18, 2019 and January 29, 2020, and met with Morenci on December 13, 2019, to determine the full extent of noncompliance.

To ensure the protection of public health certain requirements are to be met by a community water supply. These requirements are taken from Act 399; Recommended Standards for Water Works (Ten States Standards); and Suggested Practice for Water Works Design, Construction and Operation For Type I Public Water Supplies (Suggested Practice). Based on the aforementioned inspections and meetings, EGLE staff prepared a list of requirements the Morenci community water system failed to meet. The list categorizes the requirements into groups: operator, monitoring, reporting, safety, sanitary defects caused by neglect, managerial, design, and treatment. Note that there is some overlap in groups as the same failure may affect many aspects of the water system. Some of the violations were noted in sanitary surveys held in 2009, 2014 and 2018, including the failures to provide a reliability study and an updated general plan. The list of deficiencies is attached as Table 1 Morenci Community Water System Violations.

Particularly troubling was the apparent falsification of monthly operating reports (MORs) by Mr. Vanderpool regarding amounts of chemicals applied and results of testing. To a large degree,

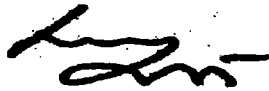
Michael Sessions, City Administrator  
Page 2  
July 9, 2020

the success of the community drinking water compliance program depends on the truthfulness of certified operators.

EGLE acknowledges that Morenci officials acted quickly when notified of actions/inactions of the former operator which led to violations of Act 399. Steps Morenci took towards returning to compliance with Act 399 were hiring a certified operator as well as implementing the recommendations of the temporary certified operator and other experts. The cooperation and efforts put forth by Morenci, granted the City the opportunity to utilize scarce funds towards necessary improvements to the water system that otherwise would have been fines and penalties assessed by EGLE.

At the same time, the extensive list of failures indicates that Morenci lacked the technical, financial, and managerial capacity to meet all requirements of Act 399. While Morenci has made many improvements since November 18, 2019, a compliance schedule will help ensure a full return to compliance with Act 399. Table 2 Compliance Schedule for Morenci Community Drinking Water System (attached), was prepared by EGLE to identify specific improvements with proposed corrective measures and actual dates of completion. Please review the Compliance Schedule and reply in writing to affirm Morenci's acceptance of the schedule. This letter of warning does not preclude nor limit EGLE's ability to initiate any enforcement action, under state or federal law, as deemed appropriate. If you have any questions, please feel free to contact me by telephone at (269) 569-4131, by email at [masudm@michigan.gov](mailto:masudm@michigan.gov), or in writing at EGLE, Jackson District Office, 301 E. Louis Glick Highway, Jackson, Michigan 49201.

Sincerely,



Md. Abdullah Al Masud  
District Engineer  
Jackson District Office  
Drinking Water and Environmental  
Health Division

Attachments

cc: Mr. Kipp Scott, Morenci  
Mr. Brian Thurston, EGLE  
Ms. Maureen Nelson, EGLE

Table 1. Morenci Community Water System Violations

Category	Requirement	Act 399	Act 399 Rules	Ten States	Suggested Practice
Operator	Operator renew certification	Sec 9. (6)			
Monitoring	Monitor Disinfection By Products and compare to MCL		610b		
Monitoring	Monitor DBP and CI residual in accord with approved plan by 9/30/2019		719e(1),(3),(5)		
Reporting	DBP Monitoring report due by 10 <sup>th</sup> of month following		719f		
Design	Meter on each well		829(1)(a)		
Treatment	Means to measure volume & rate of finished water		1005		
Reporting	Measure treatment pumpage daily		1502(1)(c)		
Treatment	Add disinfectant with aeration			Sec. 4.7.8	
Treatment	Operational monitoring chlorine		1502.(1)(e)		Part 7(9)
Treatment	Operational monitoring iron removal		1502.(1)(e)		Part 7 (9)
Reporting	Prepare and submit MOR on form approved by department. Approved form in 12/14/2014 email		1502.(1), (2)		
Permit	Permit obtained before alteration of water system by discontinuing disinfection. -By definition of Rule 102.(d), Alteration includes change in treatment	Sec 4. (6)			
Sanitary defects	Leaky roof	Sec. 15			
Sanitary defects	Openings in building allowing vectors entry	Sec. 15			
Sanitary defects	Poor condition of building surfaces both exterior and interior	Sec. 15			
Sanitary defects	Insufficient valves in distribution system due to failure to turn valves and maintain them.		1108.(1)		
Safety	Gaseous chlorine disinfectant equipment inoperable, resulting in overfeed	Sec. 15			
Treatment	Not backwashing iron filters	Sec. 15			
Operator	Inability to conduct routine operational tests, or to answer basic questions about the operation		1917.1(a)(c)		
Treatment	Iron media not replaced on schedule as recommended	Sec. 15			
Managerial	No hydrant flushing of distribution system			Sec.8.4.1 (b)	
Managerial	DPW office in disarray and unsanitary	Sec. 15			
Managerial	Lack of operator accountability to city government	Sec. 4			
Managerial	Insufficient distribution system records		1111		
Operator	No backup operator or training program for operator		1906b(2)		



**Table 2 Compliance Schedule for Morenci Community Drinking Water System**

Action	Proposed Date	Actual Date
1. Obtain properly certified temporary operator	11/18/2019	11/18/2019
2. Obtain properly certified permanent operator	6/1/2020	5/11/2020
3. Begin routine operational monitoring of disinfection by products and chlorine in accord with approved plan	9/30/2019	
4. Install meter on each well and for finished water	3/1/2020	2/13/2020
5. Repair gaseous chlorine system	9/1/2020	
6. Add disinfectant to aeration system		
7. Begin routine operational monitoring of iron and chlorine, in accord with Suggested Practice	12/1/2019	
8. Begin routine submittal Monthly Operating Report on form approved by the department	12/10/2019	
9. Replace valves in iron removal plant	3/1/2020	2/26/2020
10. Prepare and submit permit application for liquid chlorine		
11. Replace leaky roof on iron removal plant		1/29/2020
12. Repair walls and paint exterior and interior of iron removal plant.	2/1/2021	
13. Begin routine cleaning and organizing DPW office including water system records.	1/1/2020	11/20/2019
14. Assess condition of distribution system valves and submit schedule for necessary repairs and replacement.	12/1/2020	
15. Develop and implement valve turning and record keeping program	12/1/2020	
16. Develop and implement routine hydrant flushing and record keeping program	7/1/2020	6/3/2020
17. Revise city government structure to make water system operator accountable to city administrator	1/1/2020	12/16/2019
18. Establish training program for operator training	11/20/2019	11/20/2020
19. all new and existing hires within the Morenci Department Public Works (DPW) are required to obtain certification in water operations and distribution within two (2) years of proposed date	7/1/2022	
20. Address the defective iron removal media. Possible options include renovating the filters, new filters, or some other type of treatment that meets Morenci's water quality goals. Include a schedule for implementation of the recommended improvements	12/1/2020	
21. Implement the approved schedule for correcting the defective iron removal media.	3/1/2021	
22. Replace defective controls with a SCADA system	3/1/2020	2/28/2020
23. Generator Upgrades – transfer switch, block heater, radiator, etc.	10/1/2020	
24. New Generator	10/1/2024	
25. Improve security of water treatment plant	2/1/2020	1/18/2020
26. Install a plant tap for sample monitoring	12/1/2020	

## Michael Sessions

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**From:** Simon, Taryn (EGLE) <SimonT5@michigan.gov>  
**Sent:** Wednesday, April 7, 2021 12:49 PM  
**To:** Michael Sessions  
**Subject:** MiEHDWIS Pilot - Community Water

Hi Michael,

EGLE is creating a new web-based application that will help community water supplies with permitting, reporting results, and uploading documents. The system is called Michigan Environmental Health and Drinking Water Information System or MiEHDWIS. The Jackson District has been chosen to pilot the system with a few of our supplies. Currently, we can only give access to administrative contacts who would then need to upload the documents for the water supply.

Will you be willing to participate in the pilot? Or at least be on the list of "interested" supplies once I receive more information and guidance.

Thanks,  
Taryn

Taryn Simon  
Environmental Quality Analyst  
Jackson District Office  
Drinking Water and Environmental Health Division  
Michigan Department of Environment, Great Lakes, and Energy  
Cell: 517-257-7465  
Fax: 517-780-7855