



MICHIGAN DEPARTMENT OF ENVIRONMENT, GREAT LAKES, AND ENERGY

Drinking Water and Environmental Health Division

Noncommunity Water Supply
Application to Construct or Improve Treatment Device

Required under authority of Act 1976 PA 399, as amended.

- Please Read Before Proceeding -

Public water supply treatment is permitted only in cases where an alternative water source is unavailable. If connecting to an existing community water supply or drilling a new well are available options, one shall be used in place of installing a treatment system.

Name of nearest community water system: _____

Distance to nearest community water system (specify units): _____

Is connection to community water possible? [] YES [] NO, explain in comments below.

Is a new well with a safe water source possible? [] YES [] NO, explain in comments below.

Comments: _____

Instructions: Complete items 1 and 2 on this page and 3 through 22 on the following pages. Upon completion of this application, submit the application and all supporting documentation and attachments to the local health department. Failure to provide information or attachments requested may result in the rejection of the application as administratively incomplete.

FACILITY AND INDIVIDUAL'S INFORMATION

1. Facility Information

Write the name, PWSID/WSSN, location and tax ID of the facility that will own and control the proposed water treatment system.

Name: _____

PWSID/WSSN: MI _____

County: _____

Address: _____

Township: _____

Tax ID: _____

Section: _____

2. Owner's Information

Write the name, address, and contact information of the owner who is responsible for compliance regarding this water supply and the proposed treatment system.

Name: _____

Address: _____

Email Address: _____

Phone Number: _____

3. Certified Operator's Information

Write the name, operator ID number, certification level, and contact information of the certified operator who will oversee the proposed treatment system and submit monthly operation reports (MOR). An operator holding a D-5 or higher certification level is required prior to final system approval.

Name: _____

Email Address: _____

Phone Number: _____

Operator ID Number: _____

Operator Certification Level: _____

4. Treatment System Designer's Information

Write the name, professional engineer license number, and contact information of the treatment system designer. Note that construction plans and specifications are a required attachment and must be prepared, sealed, and signed by a licensed professional engineer (see item 14 and 15).

Name: _____

Email Address: _____

Phone Number: _____

License Number: _____

WATER SUPPLY INFORMATION

5. Population

a) Daily number of same (non-transient) consumers served by the facility: _____

For example: employees, students, etc.

b) Daily number of transient consumers served by the facility: _____

For example: visitors, patients, customers, etc.

c) Daily number of consumers residing at the facility for more than six months: _____

For example: individuals who live at the facility.

d) Total daily number of consumers served by the facility (sum of a, b, and c): _____

For example: Total = a + b + c

6. Seasonality

Is there a portion of the water system that is not in use for part of the year?

YES NO, the entire water system is used year-round.

If yes, describe shutdown and startup procedures in the operation and maintenance plan (see item 18).

7. Current Water System

a) Water system peak demand as calculated by the local health department: _____ gpm

b) Well pump capacity as provided by the manufacturer: _____ gpm

12. Design Specifications for Treatment Systems with Filtration Treatment

Fill in the following treatment design information **only if the proposed treatment system includes filtration treatment**. Mark "NA" where information requested does not apply to the proposed filtration treatment. Leave this section blank if the proposed treatment system does not include filtration treatment. Filtration treatment includes treatment using media-based technologies (e.g., ion exchange resins, adsorptive media, filtration media, cartridge filtration, remineralization media, etc.) or membrane filtration technologies.

- a) Proposed backwash flow rate: _____ gpm
- b) Proposed duration of backwash: _____ min
- c) Proposed rinse cycle flow rate: _____ gpm
- d) Proposed duration of rinse cycle: _____ min
- e) Proposed frequency of media regeneration: _____ gallons
- f) Provide justification below for each item in parts a through e above which were marked as not applicable ("NA"):

- g) Proposed media (include also any underbedding or support media):
Fill out the below information. All lines may not be needed. One line must be filled out for each type of media utilized.

Media Name: _____	Volumetric quantity per vessel: _____	cubic ft
Media Name: _____	Volumetric quantity per vessel: _____	cubic ft
Media Name: _____	Volumetric quantity per vessel: _____	cubic ft
Media Name: _____	Volumetric quantity per vessel: _____	cubic ft
Media Name: _____	Volumetric quantity per vessel: _____	cubic ft

- h) Actual pressure in the water system upstream of proposed treatment: _____ psi
- i) If the proposed treatment system generates backwash wastewater, include in an attachment a description of backwashing procedures and the wastewater receiving system. The description should detail when backwash is conducted, if backwash is conducted at times of low water use, if vessels are backwashed separately or at the same time, where backwash wastewater is received (i.e., onsite septic system or municipal sanitary), backwash wastewater holding tanks, and any other applicable details. Backwash wastewater with contaminant concentrations above acceptable groundwater discharge limits must be discharged to a holding tank that is separate from the septic tank when municipal sanitary sewer is unavailable. Is an attachment included describing backwashing procedures and the wastewater receiving system?

YES NO, the treatment system does not generate backwash wastewater.

13. Design Specifications for Treatment Systems with Chemical Injection

Fill in the following general design information **only if the proposed treatment system includes chemical injection**. Leave this section blank if the proposed treatment system does not include chemical injection. If actual values are unknown, provide an estimate and, in an attachment, explain how the estimated value was determined.

- a) Actual average daily flow rate: _____ gpm
- b) Actual maximum daily flow rate: _____ gpm
- c) Proposed Chemical Product(s): _____

Fill out the below information. Both sections may not be needed. One section must be filled out for each proposed chemical product. Attach additional sheets if needed.

1. Chemical Name: _____

Target residual concentration: _____ mg/L

Target residual concentration range: _____ mg/L to _____ mg/L

Chemical concentration or strength (mg/L or %): _____

Required chemical feed rate: _____ gph

Operating range of chemical feed pump: _____ gph to _____ gph

Material of components and surfaces in contact with chemical:
This includes any components in direct contact with chemical solution
(e.g., tubing, feed pump, valves, suction line, etc.).

Component Name: _____	Material: _____
Component Name: _____	Material: _____
Component Name: _____	Material: _____
Component Name: _____	Material: _____

2. Chemical Name: _____

Target residual concentration: _____ mg/L

Target residual concentration range: _____ mg/L to _____ mg/L

Chemical concentration or strength (mg/L or %): _____

Required chemical feed rate: _____ gph

Operating range of chemical feed pump: _____ gph to _____ gph

Material of components and surfaces in contact with chemical:
This includes any components in direct contact with chemical solution
(e.g., tubing, feed pump, valves, suction line, etc.).

Component Name: _____	Material: _____
Component Name: _____	Material: _____
Component Name: _____	Material: _____
Component Name: _____	Material: _____

- d) Actual pressure of existing system at the proposed point(s) of chemical injection:
Fill out the below information. All lines may not be needed. One line must be filled out for each proposed point of chemical injection. Attach additional sheets if needed.
Location of Injection 1: _____ Pressure: _____ psi
Location of Injection 2: _____ Pressure: _____ psi
- e) Piping distance between injection location and first possible point of water consumption:
Fill out the below information. All lines may not be needed. One line must be filled out for each proposed point of chemical injection. Attach additional sheets if needed.
Location of Injection 1: _____ Distance: _____ ft
Location of Injection 2: _____ Distance: _____ ft

ADDITIONAL ATTACHMENTS AND SUPPORTING DOCUMENTATION

14. Construction plans which are prepared, sealed, and signed by a licensed professional engineer (PE) are required for the application review. Plans should include process flow diagrams or piping and instrumentation diagrams showing the placement and connections of the proposed treatment system and its instrumentation within the existing plumbing network, plan views of the room(s) where treatment is proposed, and detailed depictions of the treatment system(s) and all supporting components. Are PE sealed and signed construction plans attached?

YES NO, if no, explain below why sealed and signed construction plans have not been included.

15. Construction specifications which are prepared, sealed, and signed by a licensed professional engineer (PE) are required for the application review. Are PE sealed and signed construction specifications attached?

YES NO, if no, explain below why sealed and signed construction specifications have been included.

16. Attach current documentation of NSF certification from an ANAB accredited third-party certification body (NSF, WQA, UL, IAPMO, ALS, etc.) for all components, coatings, chemical additives, and construction materials in contact with potable water. Are all components, coatings, chemical additives and construction materials ANSI/NSF, or other adequate third party, certified with a copy of certificate attached?

YES NO, if no, explain below which components do not hold certification and why.

17. Are manufacturer recommended operating conditions regarding water chemistry and physical parameters (pressure, loading rate, flow, backwash rate, etc.) for the treatment system adhered to in the design and attached?

YES NO, explain: _____

18. Are manufacturer recommended maintenance activities and corresponding frequencies of maintenance included in an attached operation and maintenance plan describing routine operation, routine maintenance activities, troubleshooting and, if applicable, seasonal operations (see item 6)?

YES NO, explain: _____

19. Are manufacturer specification sheets for the proposed treatment system components, proposed chemicals, and well pump(s) attached with model numbers or model designations indicated where applicable?

YES NO, explain: _____

20. Are manufacturer provided specification sheets attached for the proposed onsite test kit(s) to be used for measurements of chemical residuals and contaminant concentrations?

YES NO, explain: _____

21. Installation of treatment has the potential to affect a supply's ability to meet its peak instantaneous demand (PID) requirements. The PID is calculated by the local health department and is listed on the well permit. The designer of the treatment system is responsible for showing that the treatment will still allow the well pump(s) to maintain enough total dynamic head (TDH) to meet PID. Calculation methods for TDH are provided in the Michigan Water Well Manual, linked below. This application should include pump curves with the available TDH and operating point for the pump(s) with the treatment installed. Are the well pump curves and calculations demonstrating the TDH of the well pump is adequate to meet PID flowrate attached?

YES NO, explain: _____

Guidance Documents and Websites:

2022 Recommended Standards for Water Works | [Recommended Standards for Water Works](#)

Suggested Practice for Water Works Design, Construction, and Operation | [Suggested Practice](#)

NSF International | [Certified Products and Systems | NSF](#)

Water Quality Association | [Find WQA Certified Products - Water Quality Association](#)

IAPMO | [IAPMO R&T Product Listing Directory](#)

UL iQ | [UL iQ™ for Certified Water Products](#)

ALS Truesdail | [ALS-Truesdail Product Listing Search | ALS Laboratories Irvine](#)

Michigan Water Well Manual | [Michigan Water Well Manual](#)

22. Owner's Certification

The owner of the facility or the authorized representative shall complete the owner's certification below.

I, _____, acting as the owner/owner's
(print name)

representative for _____ certify the following:
(print facility name)

1. I have reviewed and approved this application for water treatment for the noncommunity public water supply listed herein and understand that regulated treatment is being proposed.
2. The proposed treatment system, as detailed by the plans and specification submitted under this application, is compliant with the requirements of Act 399, as amended, and its administrative rules.
3. I understand that an EGLE recommendation is not a permit and receiving a permit from the local health department will be required prior to installing this proposed treatment or modifying existing treatment.
4. I understand that a D5, or higher level, certified drinking water operator will be required to operate this proposed treatment system.

Signature

Date

Phone

Point of Use (POU) Device Adequacy of Quantity and Location

POU devices can be used to provide limited treatment only under certain conditions. When limited treatment POU devices are installed, all consumers, whether transient, nontransient, or residential, must be served treated water (R325.10313(2)d).

If POU treatment devices are proposed in this application, local health department staff shall review the proposal and verify the items below. If review of the proposal reveals concerns, or if the below points cannot be verified, the treatment application should be rejected and a point of entry (POE) treatment system required. Leave this section blank if POU treatment devices are not proposed.

Is the **quantity** of proposed POU treatment devices sufficient to provide easily accessible treated water to all populations served?

- YES, the quantity of POU devices is sufficient. NO

Is the **location** of proposed POU treatment devices sufficient to provide easily accessible treated water to all populations served?

- YES, the location of POU devices is sufficient. NO

Are there any locations which may be used for consumptive purposes where a POU device is not proposed? (If yes, the applicant must propose additional POU devices at these locations.)

- YES NO, POU devices are proposed at all locations used for water consumption.

Are there any concerns with the strategy of implementing POU devices as opposed to a POE treatment system for this facility? (If yes, please explain in the comments below.)

- YES NO, implementing POU devices is adequate for the facility.

Comments:

Signature

Date

Application Administrative Completeness

Local health department (LHD) staff shall review and verify all applications are administratively complete before forwarding the application, attachments, and any supporting documentation to EGLE. For a point of entry treatment application to be considered administratively complete, the application package submitted to EGLE must include peak demand calculations provided by the LHD. Are calculations of peak demand attached?

YES NO, the proposed treatment system is point of use treatment only.

If you need assistance in determining if this application package is administratively complete, please see the Administrative Completeness Review Checklist in Appendix K09.1 of the Noncommunity Manual or any questions may be directed to your EGLE representative.

By signing below, the local health department staff agrees that they have reviewed the application and all attachments and to the best of their knowledge, the application is administratively complete.

The below signature from the local health department in this section does not indicate approval of the treatment system, nor that the need for treatment has been fully determined.

Sanitarian Name: _____

Phone Number: _____

Email Address: _____

Signature

Date

Local health department to submit completed treatment applications to EGLE-DWEHD-NCEU@Michigan.gov.

Upon receipt and review of a submitted application, either department may contact the supply owner, operator, or designer for further information.

People with disabilities may request this material in an alternate format by emailing EGLE-Accessibility@Michigan.gov or calling 800-662-9278.

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