Section VI: Onsite Wastewater Treatment Management

MPR 1

The local health department shall have a wastewater treatment regulation capable of protecting the public health legally adopted under enabling state legislation. The regulation shall authorize an enforcement process that is utilized and includes the capability to deny permits, issue orders for corrections of failed systems, and/or other remedies for construction without a permit or for violating an order.

References: *Sections 2433 through 2446 of the Public Health Code, 1978 PA 368, as amended; Part 31, Water Resources Protection, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended; and Part 22, administrative rules.*

Indicator 1.1

Documentation that a wastewater treatment regulation is contained in a local sanitary code or ordinance legally adopted by the authorized local governing entity.

To fully meet this indicator:

The local health department maintains on file a copy of the local sanitary code and documentation confirming it has been legally adopted.

Documentation Required:

- Local health department sanitary code, ordinance and/or other regulation(s).
- Documentation from the authorized local governmental bodies that confirms the sanitary code, ordinance and/or other regulation(s) have been legally adopted.

Compliance Measurement:

Determine that documentation is provided that demonstrates the wastewater treatment regulation, contained in the local sanitary code, ordinance, and/or other regulation(s) specific to wastewater treatment systems, are legally adopted by the authorized local governing entity.

Evaluating Compliance:

Met – The local sanitary code, ordinance, and/or other regulation(s) have been lawfully adopted.

Met with Conditions –The local sanitary code, ordinance, and/or other regulation(s) have been lawfully adopted; however, evidence exists that the agency is operating outside of the authority of the local sanitary code, ordinance, and/or other regulation(s).

Not Met – The local sanitary code, ordinance, and/or other regulation(s) are not lawfully adopted.

Section VI: Onsite Wastewater Treatment Management

Indicator 1.2

Evidence that the local wastewater treatment regulation authorizes enforcement measures including permit denials, correction orders, and/or other remedies.

To fully meet this indicator:

The local health department maintains on file the specific sanitary code provisions that define the basis of denial and enforcement.

Documentation Required:

- Local health department sanitary code, ordinance, and/or other regulation(s).
- Local health department onsite wastewater policy manual.

Compliance Measurement:

- Determine that the local sanitary code or ordinance and other regulations authorize an enforcement process that includes:
    - Capability to deny permits,
    - Issue orders for system failure corrections,
    - Other remedies for construction without a permit or violating an order.
- Determine that the local sanitary code, or written guidelines, or policies, are in existence that directs enforcement activities.

Evaluating Compliance:

Met – The On-Site Review determines all of the following:

- The local sanitary code, ordinance, and/or other regulation(s) contain provisions for enforcement.
- The local sanitary code or written guidelines or policies exist that provide direction on uniform procedures for enforcement.

Met with Conditions – The On-Site Review determines that the local sanitary code, ordinance, and/or other regulation(s) contain provisions for enforcement; however, evidence exists that the code or agency's written guidelines and/or policies provide inadequate direction on enforcement procedures.

Not Met – The local sanitary code, ordinance, and/or other regulations do not contain provisions for enforcement.

Section VI: Onsite Wastewater Treatment Management

Indicator 1.3

Evidence that actual enforcement measures are utilized.

To fully meet this indicator:

The local health department maintains on file, retrievable documentation for denials and/or enforcement actions.

Documentation Required:

- Logbooks, computer database, and/or other method used to document and track enforcement.
- Examples of enforcement.

Compliance Measurement:

- Determine if permit denials exist.
- Determine if enforcement actions exist, which could include any of the following:
    - Record of actions taken on complaints regarding onsite wastewater
    - Installation compliance orders
    - Record of actions taken against recalcitrant installation contractors
- Determine that the agency is following the code provisions or written guidelines or policies.

Evaluating Compliance:

Met – The On-Site Review determines all of the following:

- Evidence of enforcement exists in logbooks, computer database, and/or other examples of enforcement actions.
- The agency is following the code provisions, written guidelines, or policies.

Met with Conditions – The On-Site Review determines any of the following:

- There is evidence of enforcement action being taken; however, such actions are not being routinely documented.
- The agency is inconsistently following code or the written guidelines and/or policies.

Not Met – The On-Site Review determines any of the following:

- Enforcement measures as provided by the local sanitary code, ordinance, and/or other regulation(s), and/or the agency's written guidelines, and/or policies to direct staff on uniform enforcement procedures are not being taken by the agency.
- The agency cannot provide retrievable documentation of enforcement actions authorized by the code.

Section VI: Onsite Wastewater Treatment Management

MPR 2

The local health department shall evaluate all parcels of land and authorize the installation of any onsite wastewater treatment system in accordance with applicable regulation(s). The evaluation shall employ a site specific physical assessment of the soil's treatment and transport capacity and determine compliance with applicable regulations. Site conditions, including soil profile data obtained from on-site evaluations, shall be accurately documented. Documentation shall be maintained in an organized and functional filing system that provides retrievable information.

References: *Sections 2433 through 2446 of the Public Health Code, 1978 PA 368, as amended; Part 31, Water Resources Protection, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended; Part 22, administrative rules; and Part 4, Department of Environmental Quality Administrative Rules for On-Site Water Supply and Sewage Disposal for Land Divisions and Subdivisions, R 560.406 to R 560.428.*

Indicator 2.1

Documentation of a site evaluation visit, which includes the soil characteristics, seasonal high water table, slope, isolation distances, location, and available area for initial and replacement systems.

To fully meet this indicator:

The local health department maintains on file recorded results of site evaluation visits that accurately document the required information.

Documentation Required:

- Sample – Random selection of wastewater permit documents (per Appendix A – Permit Selection Protocol) inclusive of site evaluation documentation.
- Local health department onsite wastewater policy manual.

Compliance Measurement:

- Determine that documentation of all site evaluations minimally identify the following essential elements:
    - The location of the soil boring(s) or excavation(s), which establish the approved area for the proposed absorption system to be installed, shall be documented in a verifiable manner (see Appendix B).
    - Soil profile data
        - Soil texture for each distinct horizon* inclusive of topsoil to the depth of the boring or excavation.
        - The use of non-USDA textural terms in the logging of the soil profile would not result in a "Not Met" during Cycle 8.
        - The use of a generic descriptor for topsoil would not result in a "Not Met" during Cycle 8.
        - Thickness of each soil horizon to the depth of the boring or excavation.

*Note: A horizon for the purpose of this guidance is defined as a soil layer which has a uniform texture.

        - Seasonal high water table

For technical assistance, please contact Regina Young at 517-331-5086 or YoungR15@michigan.gov

Section VI: Onsite Wastewater Treatment Management

  - Clearly document if absent, and
  - Specific depth when present in the soil profile.

- Determine site factors that may affect system design and construction, including slope and required isolation distance, are evaluated and noted on documentation when applicable.

- Determine that the location and area available for initial and replacement systems is considered as part of the site evaluation*.

*Note: The requirement for identifying a replacement system applies to issuance of new construction permits only.

Evaluating Compliance:

Met – At least 80 percent or more of site evaluation documents reviewed contain all of the essential elements.

Met with Conditions – At least 70 percent or more of site evaluation documents reviewed contain all of the essential elements and/or greater than 30 percent of the site evaluation documents reviewed contain non-USDA soil texture terminology in the logging of the soil profile.

Not Met – Less than 70 percent of the documents reviewed contain all of the essential elements.

Indicator 2.2

Permit documentation of the system location, design installation requirements, pertinent site characteristics, and nature of the building development.

To fully meet this indicator:

The local health department maintains on file the detailed plan and specifications prepared for each system for which a permit has been issued. The plan and specifications shall accurately define initial and replacement system location*, size, other pertinent construction details, and include documentation of variances, when granted.

*Note: The requirement for identifying a replacement system applies to issuance of new construction permits only.

Documentation Required:

- Sample – Random selection of wastewater permit documents (per Appendix A – Permit Selection Protocol).

- Local health department onsite wastewater policy manual.

Section VI: Onsite Wastewater Treatment Management

Compliance Measurement:

Permit documentation includes the following essential elements:

- Absorption System Location – The approved location for the absorption system identified during the site evaluation shall be communicated by an acceptable method (see Appendix B) as part of the following:
    - Drawing, or
    - Description
- Design/Installation Requirements
    - Specifications for system components that are to be installed, including treatment units, sizing of septic tank(s) and pump tank(s); type of absorption system, size and depth; and type of fill, if needed,
    - Requirements for inspections are identified.
- Pertinent Site Characteristics
    - Isolation to water wells, surface water, slope, or other factors are identified as appropriate.
- Replacement Area - A replacement area is identified as part of a new construction permit as follows:
    - Drawing, or
    - Description

Evaluating Compliance:

Met – At least 80 percent or more of wastewater permit documents reviewed contain all of the essential elements.

Met with Conditions – At least 70 percent or more of wastewater permit documents reviewed contain all of the essential elements.

Not Met – Less than 70 percent of the documents reviewed contain all of the essential elements.

Indicator 2.3

There is evidence of an organized filing system allowing for retrieval of information.

To fully meet this indicator:

The local health department maintains an organized filing system with retrievable information.

Section VI: Onsite Wastewater Treatment Management

Documentation Required:

- Filing system, computer database and/or other method used to retain information relevant to the wastewater treatment program.
- Local health department onsite wastewater policy manual.

Compliance Measurement:

Determine that the results of site evaluations and wastewater permit information are retained in an organized manner and is retrievable.

Evaluating Compliance:

Met – There is an organized filing system, computer database, and/or other method that allows for the consistent retrieval of information.

Met with Conditions – There is an established filing system, computer database, and/or other method to retain information; however, it is not maintained up-to-date to allow for consistent retrieval of information.

Not Met – There is no evidence of an organized filing system, computer database and/or other method to retain information.

Section VI: Onsite Wastewater Treatment Management

MPR 3

The local health department shall conduct an inspection during construction or prior to covering of the system, or shall apply an alternate method to assure the completed wastewater treatment system complies with permit requirements. Documentation of an inspection or alternate approval method shall be maintained with the permit.

References: *Sections 2433 through 2446 of the Public Health Code, 1978 PA 368, as amended; Part 31, Water Resources Protection, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended; and Part 22, administrative rules.*

Indicator 3.1

Documentation of construction and/or final inspection by the local health department or record of an alternate process to support the approval of the installation in accordance with the permit.

To fully meet this indicator:

The local health department shall conduct an inspection of all systems prior to final cover. The local health department maintains on file an accurate individual record of each inspection conducted during construction of each system. Unless otherwise specifically authorized, installer affidavits, which provide an accurate record of system installation, are maintained on file in isolated cases, representing no more than 10 percent of the total number of final inspections requested, where constraints prohibit inspection by the local health department in a timely manner.

Documentation Required:

- Logbooks and/or computer database.
- Sample – Random selection of wastewater permit documents (per Appendix A – Permit Selection Protocol) inclusive of a final inspection or installer affidavits.
- Local health department onsite wastewater policy manual.

Compliance Measurement:

- Determine that the final inspection completed by the local health department includes a drawing and verification of system components including the following essential elements:
    - Septic Tank(s), pump chamber, and enhanced treatment units
        - Size (septic tanks and pump chambers), as specified on the permit and/or documentation of size installed, if different
        - Make and Model Number of treatment unit(s), if applicable
        - Location – See Appendix C
    - Absorption Area
        - Size as specified on the permit and/or documentation of size installed, if different
        - Location – See Appendix C
    - Documentation of follow-up inspections when required by the local health department
    - Date of final inspection

For technical assistance, please contact Regina Young at 517-331-5086 or YoungR15@michigan.gov

Section VI: Onsite Wastewater Treatment Management

  - Name or initials of staff person conducting the inspection

- Affidavits – If used:

  - Unless specific authorization has been granted, determine that no more than 10 percent of the total numbers of final inspections are installer affidavits through the logbook and/or database, or other method that documents affidavit use.
  - Determine that documentation of installer affidavits for final inspections include the following essential elements:
    - A drawing and component verification which identifies the essential elements and key components outlined in Compliance Measurement for Indicator 3.1
    - Date of the installation
    - The installer's name

Evaluating Compliance:

Met – The On-Site Review determines all of the following:

- No more than 10 percent of the final inspections are by affidavit without specific authorization.
- At least 80 percent of the final inspection documents (including affidavits, if used) reviewed contain all of the essential elements.

Met with Conditions – The On-Site Review determines all of the following:

- No more than 10 percent of the final inspections are by affidavit without specific authorization.
- At least 70 percent of the final inspection documents reviewed contain all of the essential elements.

Not Met – The On-Site Review determines any of the following:

- More than 10 percent of the final inspections are by affidavit.
- Less than 70 percent of the final inspection documents reviewed contain all of the essential elements.

Section VI: Onsite Wastewater Treatment Management

MPR 4

The local health department shall respond to all wastewater system complaints and maintain records of complaint resolutions.

References: *Sections 2433 through 2446 of the Public Health Code, 1978 PA 368, as amended; Part 31, Water Resources Protection, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended; and Part 22, administrative rules.*

Indicator 4.1

Documentation that all complaints are recorded, evaluated, and investigated, as appropriate.

To fully meet this indicator:

The local health department maintains complaint forms and a filing system containing results of complaint investigations and documentation of final resolution.

Documentation Required:

- Logbooks, computer database, and/or a filing system for complaints regarding onsite wastewater.
- Sample – Random selection of complaints regarding onsite wastewater.
- Local health department onsite wastewater policy manual.

Compliance Measurement:

- Determine that a computer database, and/or filing system exists for retention of the results of complaint investigations.
- Determine that complaints regarding onsite wastewater are logged, investigated, and final resolution is documented as appropriate.
- Determine that a tracking system exists for complaints regarding onsite wastewater to assure final resolution.

Evaluating Compliance:

Met – Complaints as received are logged and investigated; an effective tracking system exists which is used to determine complaint status; and a record of final resolution is documented.

Met with Conditions – The majority of complaints as received are logged and investigated; however, the tracking system is not utilized effectively and as a result, a record of final resolution is not documented in all instances.

Not Met – Complaints as received are not logged and/or not investigated.

For technical assistance, please contact Regina Young at 517-331-5086 or YoungR15@michigan.gov

Section VI: Onsite Wastewater Treatment Management

MPR 5

The local health department shall investigate, document and evaluate the probable cause(s) of system failure.

References: *Sections 2433 through 2446 of the Public Health Code, 1978 PA 368, as amended; Part 31, Water Resources Protection, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended; and Part 22, administrative rules.*

Indicator 5.1

Approval of permits where the system has failed*, includes retrievable documentation, when available, of the age, design, site conditions, and any other pertinent data allowing for assessment of probable reason(s) for failure, and there is an annual summary of data submitted to the Michigan Department of Environment, Great Lakes, and Energy (EGLE).

*Note: For the purpose of this guidance, a system consists of a tank or tanks, absorption system, and associated appurtenances. A system is considered to have failed when sewage backs up into the home or structure, discharges to the ground surface, contaminates surface water, or drinking water supplies, any part of the system is bypassed, the system is the source of an illicit discharge, there is an absence of an absorption system, or there is a structural failure of a septic tank or other associated appurtenances.

To fully meet this indicator:

- The local health department maintains a filing system for all failed systems that includes retrievable documentation; **AND**
- Annual failed system data summaries are prepared and are on file.

Documentation Required:

- Filing system and/or computer database for retention of evaluation data regarding failed systems.
- Copy of the form that is utilized for the collection of site/system data when the available standardized form in Appendix D, is not utilized. The collection form shall contain the following minimum data elements:
    - System age
    - Design – type and sizing
    - Site conditions – soil texture and seasonal high water table
    - The probable cause(s) of failure
- Sample – Random selection of failed systems evaluation forms.
- Local health department onsite wastewater policy manual.

Compliance Measurement:

- Determine that evaluations are conducted on all failed wastewater treatment systems.
- Determine that the filing system and/or computer database or other method exists for data retention.
- Determine that annual failed system data summaries are routinely provided to the EGLE.

For technical assistance, please contact Regina Young at 517-331-5086 or YoungR15@michigan.gov

Section VI: Onsite Wastewater Treatment Management

Evaluating Compliance:

Met – The On-Site Review determines all of the following:

- A filing system and/or computer database exists for retention of evaluation information and allows for ease of retrieval.
- All of the minimum data elements are being collected on at least 80 percent of failed system evaluations reviewed.
- Annual summaries of failed system data are provided to EGLE for input into the state-wide failed system database (see Appendix D).

Not Met – The On-Site Review determines any of the following:

- Evaluations of failed onsite wastewater treatment systems are not occurring, or minimum data elements are being collected on less than 80 percent of failed system evaluations reviewed.
- A filing system and/or computer database does not exist for retention of failed system data.
- Annual failed system data submissions have not been provided to EGLE for input into the state-wide data summary system (see Appendix D).

Section VI: Onsite Wastewater Treatment Management

Appendix A

PERMIT SELECTION PROTOCOL

Goal – To collect and evaluate a representative random number of finalized wastewater permits to evaluate compliance with the Onsite Wastewater Treatment Management program Indicators VI-2.1, VI-2.2, and VI-3.1.

Method

- The sample size for permit reviews will be determined by taking an annual average of permits issued over the review cycle period (previous three years) by 4 percent, or

- Five (5) permits for each staff member with assigned responsibility for the onsite wastewater program will be sampled.

Whichever method above produces the highest permit sample population will be utilized.

Rationale: There is great variability in health departments within the State in terms of the total number of wastewater permits issued and staff members working in the Onsite Wastewater Program. This system has been developed to balance the variability and create a fair and equitable review process.

Examples:

1. A department that has reported issuing 200 wastewater permits in a fiscal year with two staff members working the Onsite Wastewater Program will have a permit sample size of 10 permits.
    - 200 permits x 4% = 8 permits sampled
    - 2 staff members x 5 permits each = 10 permits sampled

2. A department that has reported issuing 1050 wastewater permits in a fiscal year with eight staff members working the Onsite Wastewater Program will have a permit sample size of 42 permits.
    - 1050 permits x 4% = 42 permits sampled
    - 8 staff members x 5 permits each = 40 permits sampled

3. A department that has reported issuing 350 wastewater permits in a fiscal year with four staff members working the Onsite Wastewater Program will have a permit sample size of 20 permits.
    - 350 permits x 4% = 14 permits sampled
    - 4 staff members x 5 permits each = 20 permits sampled

At the time of review, where information which suggests that original random sample of permits has resulted in the selection of a permit or permits which are not representative of the program, the evaluator is allowed discretion with concurrence of the local health department to eliminate and replace permits and/or increase the overall sample size.

Appendix B

For technical assistance, please contact Regina Young at 517-331-5086 or YoungR15@michigan.gov

Section VI: Onsite Wastewater Treatment Management

SOIL BORING/EXCAVATION LOCATION DOCUMENTATION

The wastewater treatment system location and design will be based on the information provided by the site and soil evaluation. A site and soil evaluator should be capable of properly conducting site and soil investigations and accurately recording required information so as to be able to communicate the location of the approved area. Various acceptable methods are utilized to record the location of soil boring(s) and/or excavation(s). Soil investigations which have been accurately located allow for the translation of this information onto the subsequent permit documentation utilized in communicating the system design to the installer.

The location of the soil boring(s) or excavation(s) which establish the area for the proposed absorption system shall be documented. Based on completed reviews of local health departments, a range of acceptable methods have been observed. Acceptable methods for documenting the soil boring/excavation location(s) as part of a site evaluation under the Onsite Wastewater Treatment Management program, indicator VI-2.1 include:

1. Two distance measurements from one or more reliable reference points* to the soil boring/excavation location(s).

2. Single compass bearing and distance measurement from a reliable reference point* to the soil boring/excavation location(s).

3. Scaled drawing which shows the soil boring/excavation location(s).

4. In cases of repair/replacement systems, a single distance measurement from an existing permanent benchmark** such as a home, garage, shed, etc. located in close proximity (50 feet) to the soil boring/excavation location(s).

5. Other verifiable method which has been authorized based upon communication with the EGLE. As an example, a number of local health departments have requested and received authorization to utilize a Global Positioning System (GPS) and/or Geographical Information System (GIS) technology to document the soil boring/excavation location(s) and related distance measurements.

*A reliable reference point is one of a permanent nature expected to be present at the time of absorption system installation.

** A benchmark is a specific point of reference from which measurements are made, which is expected to remain unchanged throughout the life of the system installation.

For technical assistance, please contact Regina Young at 517-331-5086 or YoungR15@michigan.gov

Section VI: Onsite Wastewater Treatment Management

For soil textures, the following major soil classes of the United States Department of Agriculture (USDA) Textural Classification System (Soil Textural Triangle) and the corresponding abbreviations will be the basis for reporting.

Sand (S)
Loamy Sand (LS)
Sandy Loam (SL)
Loam (L)
Silt Loam (SIL)
Silt (SI)
Sandy Clay Loam (SCL)
Clay Loam (CL)
Silty Clay Loam (SICL)
Sandy Clay (SC)
Silty Clay (SIC)
Clay (C)

Distinctions in the sand and loamy sand classes may be made to refine the major texture classes to form the following subclasses.

Coarse Sand (COS)
Fine Sand (FS)
Very Fine Sand (VFS)
Loamy Coarse Sand (LCOS)
Loamy Fine Sand (LFS)
Loamy Very Fine Sand (LVFS)
Coarse Sandy Loam (COSL)
Fine Sandy Loam (FSL)
Very Fine Sandy Loam (VFSL)

Field descriptions of soil may also include horizon designation, color, wetness (moist, dry), structure, compaction, and presence of rock fragments.

Texture Modifiers: It is recognized that a number of modifiers can be used to further describe textured soils. Typical modifiers may include, but are not limited to, Medium, Very, Extremely, Gravelly, Cobbly, Stony, and Bouldery.

Terms used in lieu of texture: Soils not defined by the USDA Soil Textural Triangle (soil particle > 2mm or organic soils) can also be described. These may include, but are not limited to Gravel, Cobbles, Stones, Peat, Muck, Marl, Fill and Topsoil with a textural class where distinguishable.

Section VI: Onsite Wastewater Treatment Management

Appendix C

FINAL INSPECTION DOCUMENTATION
Locating Key Components

Documentation obtained during the final inspection process not only assures that the system has been properly constructed in accord with the permit requirements but provides necessary information on location of key components including the septic tank, absorption system, and other specific components such as pump chambers, enhanced treatment units, etc. The availability of a final inspection drawing which accurately locates these key components serves as an important record for the homeowner, maintenance provider, and local health department necessary to provide for effective on-going system management after construction.

Based upon completed reviews of local health departments, various acceptable methods are utilized to document the location of key components which allow for them to be relocated at a later date. With rare exception, at the time of final inspection there are a variety of potential permanent benchmarks** located in close proximity to the installation. Acceptable methods for documenting the location of key components include:

1. Two distance measurements from one or more permanent benchmarks** to septic tanks, pump chambers, enhanced treatment units and absorption areas. Additional options available to absorption areas only, include:

    i. A single distance measurement from a permanent benchmark** is acceptable to the absorption area in instances where the system is located within close proximity (25') to the permanent benchmark**,

    ii. A single distance measurement from a permanent benchmark** is acceptable to a mound system which creates a distinct and separate visible land feature.

2. Single bearing and distance measurement from a permanent benchmark**.

3. Scaled drawing which shows the component location(s).

4. Notation on a drawing of general location of at-grade or above-grade septic tank risers, pump chamber lids, treatment unit access lids, or absorption system observation ports where utilized.

5. Other verifiable method which has been authorized based upon communication with the EGLE. As an example, a number of local health departments have requested and received authorization to utilize a Global Positioning System (GPS) and/or Geographical Information System (GIS) based technology to document the location of key components and related distance measurements.

** A benchmark is a specific point of reference from which measurements are made which is expected to remain unchanged throughout the life of the system installation.

Section VI: Onsite Wastewater Treatment Management

Appendix D

Failed System Evaluation
Data Collection and Submissions

For the purpose of this guidance, a failed system shall be defined as follows: **A system consists of a tank or tanks, absorption system, and associated appurtenances. A system is considered to have failed when sewage backs up into the home or structure, discharges to the ground surface, contaminates surface water or drinking water supplies, any part of the system is bypassed, the system is the source of an illicit discharge, there is an absence of an absorption system, or there is a structural failure of a septic tank or other associated appurtenances.**

Indicator 5.1 (Failed System Evaluation) is comprised of three distinct components; (1) collection of failed system/site data, (2) reporting of summarized failed system data to the Michigan Department of Environment, Great Lakes, and Energy (EGLE), and (3) an annual summary report generated by EGLE and distributed to local health departments.

EGLE Failed System Data Collection Forms (Non-Residential and Residential) – are the mechanisms for capturing all the minimum data elements of this indicator. All failed system data collection forms utilized must contain the minimum data elements captured in these forms. The option to utilize the EGLE standard data collection forms is at the discretion of the local health department. Individual health departments may create and utilize their own forms to collect and analyze information in addition to the minimum elements of this indicator. Consultation with EGLE is recommended if a health department specific form will be utilized to meet this indicator.

Note: Guidance for completion of the data collection forms has been created to foster consistency in the process of data collection. See the document entitled, "Failed System Data Collection Form – Guidance".

EGLE Failed System Data Submission Forms (Non-Residential and Residential) – are the mechanisms that will be utilized to summarize the data collected on the EGLE Failed System Data Collection Forms (or equivalent forms as discussed above) and for the annual submission of failed system data to EGLE. Data submissions shall be received within 30 days after the close of each calendar year (February 1). Other methods of data summary and submission may be utilized by local health departments. Consultation with EGLE is recommended when a health department specific form/database will be utilized to meet this indicator.

The third component will be an annual report generated by EGLE that will be distributed to all local health departments. EGLE annual report will summarize all local health department data submissions.

Michigan Local Public Health Accreditation Program
Tool 2023 – MPR Indicator Guide

Section VI: Onsite Wastewater Treatment Management

☐ Failed per "failure" definition ☐ Non-Failure Date: _____

EGLE Failed System Data Collection Form – Non-Residential

Address: _____ Township: _____ County: _____

Facility Type: ☐ Church ☐ Dental/Medical ☐ Gas Station ☐ Grocery Store ☐ Industrial

☐ Multi-Family ☐ Office/Retail ☐ Restaurant ☐ School ☐ Other _____

Estimated Flows: ☐ <1,000 ☐ 1,000 – 6,000 ☐ >6,001 – 10,000 ☐ >10,000
(gallons per day)

Septic Tank Type:
☐ Single ☐ Two Compartment ☐ More Than One Tank ☐ No Tank

Septic Tank Capacity – Gallons:
☐ <1,000 ☐ 1,000 – 1,500 ☐ >1,500 – 2,000 ☐ >2,000 – 3,000
☐ >3,000 ☐ Unknown

Advanced Treatment Unit ☐ Yes ☐ No If yes, Treatment Unit Name: _____

System Design:
☐ Gravity Bed ☐ Dosed Bed ☐ Pressure Dosed Bed ☐ None
☐ Gravity Trenches ☐ Dosed Trenches ☐ Pressure Dosed Trenches ☐ Unable to Determine
☐ Gravity Mound ☐ Dosed Mound ☐ Pressure Dosed Mound
☐ Chambers ☐ Drywells ☐ Other _____

System Age: (years)
☐ 0 – 5 ☐ 6 – 10 ☐ 11 – 15 ☐ 16 – 20 ☐ 21 – 25
☐ 26 – 30 ☐ 31 – 40 ☐ > 40 ☐ Unknown

Soil Texture:
☐ Coarse Sand, Medium Sand ☐ Fine Sand, Loamy Sand ☐ Sandy Loam
☐ Loam, Sandy Clay Loam ☐ Clay Loam, Silt Loam ☐ Clay, Silt
☐ Organic soil, Fill soil

Seasonal High Water Table: ☐ 0 – 12 ☐ 13 – 24 ☐ 25 – 36 ☐ 37 – 48 ☐ > 48
(inches below grade)

System Size: Bed _____ ft² Trenches_____bottom area ft² ☐ Unable to Determine

Probable Cause(s) of Failure:

For technical assistance, please contact Regina Young at 517-331-5086 or YoungR15@michigan.gov

Section VI: Onsite Wastewater Treatment Management

- ☐ Septic Tank Failure
- ☐ Infrequent Tank Pumping
- ☐ Pipe Filled with Solids
- ☐ Damaged/Collapsed Piping System
- ☐ Hydraulic Overload
- ☐ System Undersized
- ☐ Insufficient Isolation to Water Table
- ☐ Root Intrusion
- ☐ Installation Error
- ☐ Unsuitable Fill
- ☐ Dirty Stone
- ☐ Excess Cover
- ☐ Lack of Maintenance
- ☐ Soil Clogging
- ☐ Unable to Determine
- ☐ Other: _____

Michigan Local Public Health Accreditation Program
Tool 2023 – MPR Indicator Guide

Section VI: Onsite Wastewater Treatment Management

☐ Failed per "failure" definition ☐ Non-Failure Date: _____

EGLE Failed System Data Collection Form – Residential

Address: _____ Township: _____ County: _____

Dwelling Type: ☐ Single Family ☐ Two-Family

Dwelling Size: ☐ 2 Bedrooms ☐ 3 Bedrooms ☐ 4 Bedrooms ☐ >4 Bedrooms

Septic Tank Type:
☐ Single ☐ Two Compartment ☐ More Than One Tank ☐ No Tank

Septic Tank Capacity – Gallons:
☐ <1,000 ☐ 1,000 – 1,500 ☐ >1,500 – 2,000 ☐ >2,000 – 3,000
☐ >3,000 ☐ Unknown

Advanced Treatment Unit ☐ Yes ☐ No If yes, Treatment Unit Name: _____

System Design:
☐ Gravity Bed ☐ Dosed Bed ☐ Pressure Dosed Bed ☐ None
☐ Gravity Trenches ☐ Dosed Trenches ☐ Pressure Dosed Trenches ☐ Unable to Determine
☐ Gravity Mound ☐ Dosed Mound ☐ Pressure Dosed Mound
☐ Chambers ☐ Drywells ☐ Other _____

System Age: (years)
☐ 0 – 5 ☐ 6 – 10 ☐ 11 – 15 ☐ 16 – 20 ☐ 21 – 25
☐ 26 – 30 ☐ 31 – 40 ☐ > 40 ☐ Unknown

Soil Texture:
☐ Coarse Sand, Medium Sand ☐ Fine Sand, Loamy Sand ☐ Sandy Loam
☐ Loam, Sandy Clay Loam ☐ Clay Loam, Silt Loam ☐ Clay, Silt
☐ Organic soil, Fill soil

Seasonal High Water Table: (inches below grade) ☐ 0 – 12 ☐ 13 – 24 ☐ 25 – 36 ☐ 37 – 48 ☐ > 48

System Size: Bed _____ ft² Trenches_____bottom area ft² ☐ Unable to Determine

Probable Cause(s) of Failure:

For technical assistance, please contact Regina Young at 517-331-5086 or YoungR15@michigan.gov

Section VI: Onsite Wastewater Treatment Management

- ☐ Septic Tank Failure
- ☐ Infrequent Tank Pumping
- ☐ Pipe Filled with Solids
- ☐ Damaged/Collapsed Piping System
- ☐ Hydraulic Overload
- ☐ System Undersized
- ☐ Insufficient Isolation to Water Table
- ☐ Root Intrusion
- ☐ Installation Error
- ☐ Unsuitable Fill
- ☐ Dirty Stone
- ☐ Excess Cover
- ☐ Lack of Maintenance
- ☐ Soil Clogging
- ☐ Unable to Determine
- ☐ Other: _____

Section VI: Onsite Wastewater Treatment Management

Failed System Data Collection Form – Guidance

In October 2014, a workgroup, consisting of representatives of Michigan Department of Environment, Great Lakes, and Energy (EGLE) and the Michigan Association of Local Environmental Health Administrators (MALEHA) On-Site Sewage and Land Use Committee, completed an effort to revise the definition of failure under Indicator 5.1. Approval of permits where the system has failed, includes retrievable documentation, when available, of the age, design, site conditions; and any other pertinent data allowing for assessment of probable reason(s) for failure and there is an annual summary of data submitted to the EGLE. The newly revised definition not only defined what a wastewater system consisted of, but also introduced new terminology and broadened the conditions that may be observed and reported by local health departments as a failure.

During the spring of 2015, the workgroup reconvened to review and discuss the newly revised definition of failure. The workgroup recognized that consistency in data collection and reporting of failure under the new definition could be improved provided there is a clear understanding of the failure conditions discussed in the revised definition of failure. As a result of the workgroup effort, this guidance for local health departments has been expanded to clarify terminology and pertinent examples of the failure conditions that may be identified in the process of evaluating an onsite wastewater system.

> **Important!** The information collected is intended to be representative of the wastewater system which has failed and requires a permit for correction. For the purpose of this guidance, a system consists of a tank or tanks, absorption system and associated appurtenances. A system is considered to have failed when sewage backs up into the home or structure, discharges to the ground surface, contaminates surface water or drinking water supplies, any part of the system is bypassed, the system is the source of an illicit discharge, there is an absence of an absorption system, or there is a structural failure of a septic tank or other associated appurtenances.

A. **Associated Appurtenances** – Examples include:
d-box (distribution box, diverter box), aeration system and chamber, added treatment devices, pumps and pump chambers, valves, effluent filters, baffles, syphons, pump vaults, floats, sweep valves and boxes, control panels, junction boxes, or similar auxiliary devices.

B. **System Bypass** – an intentional redirecting of a system component and includes advanced treatment system is bypassed, unplugged aeration device, disconnected absorption system/drain field, overflow or cheater pipe, bypass valve, pump placed into septic tank to bypass field, or other methods of system operation not functioning as designed.

C. **Illicit Discharge** – Examples include:
wastewater sent to a storm drain, wastewater sent to surface water, an open trench discharge, wastewater sent to a field tile or other system not designed for sanitary wastewater, or other physical connection to a location or system not intended to receive sanitary wastewater.

For Non-Residential systems: Indicate the facility type and estimated gallons per day flow.

For **Facility Type**, the following further descriptions are provided:

Section VI: Onsite Wastewater Treatment Management

- **Gas Station –**
  - This category would include stand-alone gas stations and gas station/convenience stores.

- **Multi-Family –**
  - This category would include community onsite systems serving apartments/townhouses, mobile home parks, and other residential developments such as condominiums and subdivisions.

For Residential systems: Indicate the dwelling type and size.

For either Non-Residential or Residential systems, the following applies:

Septic Tank Type: Indicate the type of tank arrangement providing the primary treatment (excluding any separate pumping or dosing tanks) or the complete absence of a tank.

Septic Tank Capacity – Gallons: Indicate the total volume of the tank(s) that provide the primary treatment (excluding any separate pumping or dosing tanks).

Advanced Treatment Unit: Indicate the presence or absence of an advanced treatment unit as a component to the failed system. Provide the name of the treatment unit when present.

System Design: Indicate the type of design of the failed system when determined or if available. If no information is available, or if efforts are undertaken to locate the system at the site, such as using a tile probe or soil auger and a system is located, however the specific design cannot be determined, indicate "Unable to Determine".
Note: If it is determined that there is no system; such as a tile to a ditch or field tile or other nonexistent system, indicate "None".

- Whenever "None" is indicated, completion of the remainder of the form is optional.

System Age: Indicate the age of the failed system as appropriate. If no information is provided or available as to the system age, indicate "Unknown".

Soil Texture: indicate only the soil texture representative of the infiltrative surface of the failed system. Do not report multiple soil textures representative of a typical soil profile description. In instances where there is no soil absorption system as noted above in "System Design", "None", the reporting of soil texture is optional.

Seasonal High Water Table: Indicate the depth of seasonal high water table representative of location of the failed system, based upon the natural ground surface.

System Size: Indicate the size of the failed system when determined or if available. If no information is available from any source, indicate "Unable to Determine".

Probable Cause(s) of Failure: Indicate all elements believed to be contributing to the cause of the failure.

Section VI: Onsite Wastewater Treatment Management

Note: If desired, it is acceptable for individual county or district health departments modifying their agency's data collection form and agency guidance to capture a single, predominant cause for failure, in lieu of reporting multiple causes, as long as the agency is capable of generating the annual data summary consistent with

EGLE failed system data collection elements.

In recognition for further guidance, the following examples are provided:

- **Septic Tank Failure –**
  - There is a structural failure of the septic tank.
  - The septic tank is below its normal operating level indicating a leaking tank.
- **Hydraulic Overload –**
  - The system is receiving large quantities of ground water or surface water (could include; footing/foundation drainage via a sump pump or discharges from a water softener).
  - The design of the failed system was for a two-bedroom house, however, it is determined that the number of occupants is well beyond two people per bedroom.
- **System Undersized –**
  - The size of the failed system was based on site limitations such as insufficient space based on soils and/or space limitations.
- **Soil Clogging –**
  - The failed system is longer accepting wastewater effluent and the failure is reflective of a system that has functioned as designed during its normal life expectancy.

Section VI: Onsite Wastewater Treatment Management

EGLE Failed System Data Submission Form – Non-Residential

Calendar Year:

Local Health Department:

Total number of Non-Residential failures:

Facility Type; Totals:

- Church
- Dental/Medical
- Gas Station
- Grocery Store
- Industrial
- Multi-Family
- Office/Retail
- Restaurant
- School
- Other:_____

Estimated Flows; Totals:
(gallons per day)

- <1,000
- >1,000 – 6,000
- >6,001 – 10,000
- >10,000

Septic Tank Type; Totals:

- Single
- Two Compartment
- More Than One Tank
- No Tank

Septic Tank Capacity – Gallons; Totals:

- <1,000
- >1,000 – 1,500
- >1,500 – 2,000
- >2,000 – 3,000
- >3,000
- Unknown

Advanced Treatment Unit; Totals Yes No
If yes, Treatment Unit Name(s): _____
_____

System Design; Totals:

- Gravity Bed
- Dosed Bed
- Pressure Dosed Bed
- Gravity Trenches
- Dosed Trenches
- Pressure Dosed Trenches
- Gravity Mound
- Dosed Mound
- Pressure Dosed Mound
- Chambers
- Drywells
- None

For technical assistance, please contact Regina Young at 517-331-5086 or YoungR15@michigan.gov

Section VI: Onsite Wastewater Treatment Management

☐ Other _____ ☐ Unable to Determine

System Age Totals in Years; Totals:

☐ 0 – 5 ☐ 6 – 10 ☐ 11 – 15 ☐ 16 – 20

☐ 21 – 25 ☐ 26 – 30 ☐ 31 – 40 ☐ > 40

☐ Unknown

Soil Texture Totals:

☐ Coarse Sand, Medium Sand ☐ Fine Sand, Loamy Sand ☐ Sandy Loam

☐ Loam, Sandy Clay Loam ☐ Clay Loam, Silt Loam ☐ Clay, Silt

☐ Organic soil, Fill soil

Seasonal High Water Table; Totals:
(inches below grade)

☐ 0 – 12 ☐ 13 – 24 ☐ 25 - 36 ☐ 37 – 48 ☐ > 48

Bed Size ft²; Totals:

☐ 100 – 300 ☐ 301 – 500 ☐ 501 – 700 ☐ 701 – 900

☐ 901 – 1100 ☐ 1101 – 1300 ☐ 1301 – 1500 ☐ 1501 – 1700

☐ 1701 – 1900 ☐ 1901 – 2100 ☐ > 2100 ☐ Unable to Determine

Trench Size ft²; Totals:

☐ 100 – 300 ☐ 301 – 500 ☐ 501 – 700 ☐ 701 – 900

☐ 901 – 1100 ☐ 1101 – 1300 ☐ 1301 – 1500 ☐ 1501 – 1700

☐ 1701 – 1900 ☐ 1901 – 2100 ☐ > 2100 ☐ Unable to Determine

Section VI: Onsite Wastewater Treatment Management

Probable Cause(s) of Failure; Totals:

☐ Septic Tank Failure	☐ Infrequent Tank Pumping	☐ Pipe Filled with Solids
☐ Damaged/Collapsed Piping System	☐ Hydraulic Overload	☐ System Undersized
☐ Insufficient Isolation to Water Table	☐ Root Intrusion	☐ Installation Error
☐ Unsuitable Fill	☐ Dirty Stone	☐ Excess Cover
☐ Lack of Maintenance	☐ Soil Clogging	☐ Unable to Determine

☐ Other: _____

Section VI: Onsite Wastewater Treatment Management

EGLE Failed System Data Submission Form – Residential

Calendar Year:

Local Health Department:

Total number of Residential failures:

Dwelling Type; Totals:

Single Family Two-Family

Dwelling Size; Totals:

2 Bedrooms 3 Bedrooms 4 Bedrooms >4 Bedrooms

Septic Tank Type; Totals:

Single Two Compartment More Than One Tank No Tank

Septic Tank Capacity – Gallons; Totals:

<1,000 >1,000 – 1,500 >1,500 – 2,000 >2,000 – 3,000

>3,000 Unknown

Advanced Treatment Unit; Totals Yes No
If yes, Treatment Unit Name(s): _____

_____

System Design; Totals:

Gravity Bed Dosed Bed Pressure Dosed Bed

Gravity Trenches Dosed Trenches Pressure Dosed Trenches

Gravity Mound Dosed Mound Pressure Dosed Mound

Chambers Drywells None

Other _____ Unable to Determine

System Age Totals in Years; Totals:

For technical assistance, please contact Regina Young at 517-331-5086 or YoungR15@michigan.gov

Section VI: Onsite Wastewater Treatment Management

☐ 0 – 5 ☐ 6 – 10 ☐ 11 – 15 ☐ 16 – 20

☐ 21 – 25 ☐ 26 – 30 ☐ 31 – 40 ☐ > 40

☐ Unknown

Soil Texture Totals:

☐ Coarse Sand**,** Medium Sand ☐ Fine Sand, Loamy Sand ☐ Sandy Loam

☐ Loam, Sandy Clay Loam ☐ Clay Loam, Silt Loam ☐ Clay, Silt

☐ Organic soil, Fill soil

Seasonal High Water Table; Totals:
(inches below grade)

☐ 0 – 12 ☐ 13 – 24 ☐ 25 - 36 ☐ 37 – 48 ☐ > 48

Bed Size ft²; Totals:

☐ 100 – 300 ☐ 301 – 500 ☐ 501 – 700 ☐ 701 – 900

☐ 901 – 1100 ☐ 1101 – 1300 ☐ 1301 – 1500 ☐ 1501 – 1700

☐ 1701 – 1900 ☐ 1901 – 2100 ☐ > 2100 ☐ Unable to Determine

Trench Size ft²; Totals:

☐ 100 – 300 ☐ 301 – 500 ☐ 501 – 700 ☐ 701 – 900

☐ 901 – 1100 ☐ 1101 – 1300 ☐ 1301 – 1500 ☐ 1501 – 1700

☐ 1701 – 1900 ☐ 1901 – 2100 ☐ > 2100 ☐ Unable to Determine

Section VI: Onsite Wastewater Treatment Management

Probable Cause(s) of Failure; Totals:

☐ Septic Tank Failure	☐ Infrequent Tank Pumping	☐ Pipe Filled with Solids
☐ Damaged/Collapsed Piping System	☐ Hydraulic Overload	☐ System Undersized
☐ Insufficient Isolation to Water Table	☐ Root Intrusion	☐ Installation Error
☐ Unsuitable Fill	☐ Dirty Stone	☐ Excess Cover
☐ Lack of Maintenance	☐ Soil Clogging	☐ Unable to Determine

☐ Other: _____

Section VI: Onsite Wastewater Treatment Management

Appendix E

Onsite Wastewater Treatment Management Program
Self-Assessment Review Option

Michigan local health departments (LHDs), in partnership with the Michigan Department of Environment, Great Lakes, and Energy (EGLE), are committed to the protection of public health and the environment through the effective Onsite Wastewater Treatment Management Programs. Structured evaluations of LHDs by EGLE staff on a 3-year basis, as part of the Michigan Local Public Health Accreditation Program (MLPHAP), have been utilized to measure the success of programs in meeting minimum program requirements (MPRs). Historical reviews clearly confirm that a commitment to ongoing quality assurance at LHDs have consistently resulted in accreditation reviews where there were few, if any, major deficiencies noted. It is the purpose of this guidance to establish the alternative option for accreditation review based upon annual LHD self-assessment and reporting which effectively communicates ongoing compliance status.

A significant component to the success of a self-assessment approach is the designation at the LHD of a key staff person or persons responsible for program training, oversight, and monitoring. They would be relied upon as the in-house expert related to program implementation consistent with the MPRs and ongoing quality assurance monitoring. Designated staff would also be expected to serve as the primary point of communication and reporting to EGLE in all matters related to accreditation specific to the Onsite Wastewater Treatment Management Program. This would include submission of annual self-assessment reports, failed system data summaries, and quarterly onsite wastewater program activity reports.

All LHDs are encouraged to utilize the self-assessment approach. However, a LHD best prepared to use this option is conducting thorough routine and ongoing quality assurance program reviews. For LHDs wishing to be authorized to utilize this approach, a written request must be submitted to EGLE for a case-by-case review. The quality assurance process, designed to meet LHD needs, is expected to be outlined by the LHD in the written request to EGLE. At the time of the scheduled accreditation review, the LHD must be prepared to discuss the specific activities being carried out.

LHDs desiring to utilize the self-assessment option are encouraged to submit their request. The self-assessment review option becomes stand-alone where a LHD has requested and been granted EGLE authorization at least 12 months prior to the scheduled accreditation review date.

Under this option, the overall accreditation review shall consist of the following elements:

- Annually, the LHD is expected to submit a program self-assessment to EGLE. The report will follow a standardized format that is available from EGLE. Annual assessments shall be transmitted each year to the EGLE in the same month as the scheduled accreditation review.
- EGLE will be responsible for providing a timely review and provide a formal response to the LHD for each self-assessment report submitted.
- As part of the ongoing self-assessment process, during the time period leading to the scheduled accreditation review by EGLE, a LHD may determine that one or more indicators are "not being met" or "met with conditions." The LHD has full discretion to:
    - Put a corrective plan of action in place, the details of which shall be communicated with EGLE.
    - Show 90 days of compliance with the plan.

Section VI: Onsite Wastewater Treatment Management

- At the time of the scheduled accreditation review, the LHD shall receive a "Met" or "Met with Conditions" on that MPR, where EGLE verifies corrective actions have resulted in compliance.

- At the time of the scheduled accreditation review, the LHD will arrange to meet with EGLE to review and discuss the documentation outlining the Onsite Wastewater Treatment Management Program's compliance. It is anticipated that the meeting would be arranged at a time, date, and location selected by the LHD and attended by the evaluator, designated LHD quality assurance staff, and others chosen by the LHD. Discussions at that time would focus on:
    - Quality assurance activities
    - Self-assessment and compliance rating against established program standards. On or before the time of the scheduled accreditation review, the current year self-assessment document will be presented to EGLE by the LHD staff to verify that the self-assessment was completed accurately and properly.
        - The LHD will receive the rating it gave itself on any MPRs, providing EGLE verifies the rating as correct.
        - Should a LHD assess any indicators as "Not Met," which are verified at the time of accreditation review, they will be subject to the established formal accreditation Corrective Plan of Action process.
        - Should the self-assessment show an incorrect rating or a program element that was not properly or completely reviewed, that element shall be jointly reviewed with EGLE and LHD staff to determine the correct rating.
        - EGLE may review a number of the original documents assessed to determine if the self-assessment is correct and accurate.