GRAND TRAVERSE COUNTY
SEPTAGE TREATMENT FACILITY
OPERATING PLAN

September 13, 2006
Amended May 27, 2007
Amended February 22, 2010
Amended July 1, 2012
Amended February 1, 2013
Amended April 18, 2024

Facility Name & Address:

Grand Traverse County
Septage Treatment Facility
1717 Ahlberg Road
Traverse City, Michigan 49686

Facility Owner & Address:

Grand Traverse County
Department of Public Works
2650 LaFranier Road
Traverse City, Michigan 49686

Facility Operator & Address:

Jacobs Engineering
606 Hannah Avenue
Traverse City, Michigan 49686

Facility Emergency Contact Information

Jacobs Engineering
On – Call Staff
Phone: 231-922-2381

Regulatory Authority:

This plan has been developed in response to the regulatory requirements of Part 117, Septage Waste Servicers, of the Natural Resources and Environmental

Protection Act, 1994 PA 451. The Grand Traverse County Septage Treatment Facility has accepted septage and holding tank waste since 2005 and plans to continue to receive septage, holding tank, and grease trap wastes. Special waste may be delivered to GTCSTF on a case-by-case basis. Subsequently, this Septage Treatment Facility Operating Plan has been prepared pursuant to the requirements of Section 324.11715b.

Purpose:

The purpose of the Grand Traverse County Septage Treatment Facility (GTCSTF) is to serve the residents of participating townships by addressing difficulties associated with proper disposal of septage waste material including holding tanks and grease traps. The facility eliminates the problems associated with land application of septage waste, including frozen soil conditions in winter months, loss of required isolation areas due to continued development of neighboring properties, and loss of disposal properties due to increased public pressure.

The treatment facility was formerly constructed as a membrane bioreactor (MBR, however) due to numerous design issues the membrane portion of the facility was decommissioned and the MBR tanks were repurposed as sequencing batch reactor (SBR) tanks for flow treatment. Along with the SBR treatment system, an auto thermophilic aerobic digester (ATAD) is used for biosolids treatment and stabilization. Effluent from the SBR is discharged into the Garfield Township wastewater collection system for final treatment at the Traverse City Regional Wastewater Treatment Facility. The ATAD produces a Class B biosolids allowing for land application via subsurface injection per state and federal biosolids regulations.

Location and Surrounding Area:

The GTCSTF is located next to the Grand Traverse County Road Commission facility and across from the Grand Traverse County Humane Society. The parcel is zoned Agricultural with Industrial zoned property to the east and Agricultural zoned property on three sides. The facility is located on a ridge above the Boardman River valley.

Categories of Acceptable Material:

In general, the GTCSTF will accept domestic household septage waste, holding tank waste, grease trap material, portable toilet material and special waste. Special waste typically includes brewery, winery, and drinking water brine. Other special waste may be accepted at the facility if that material in its delivered state is not disruptive to the plant operations as determined by Grand Traverse County. All special waste is evaluated before permitting. Waste that has the potential to disrupt plant operations will not be accepted. All waste is subject to testing upon delivery and may be rejected if deemed potentially disruptive to plant operations.

Service Area:

The service area for the GTCSTF is defined as all Townships within Grand Traverse County and Elmwood Township in Leelanau County. Material from other Townships will be accepted provided the following:

1. There is available treatment capacity AND
2. After the 2010 state fiscal year, beginning on October 1, 2010, the geographic service area of the GTCSTF shall not extend more than 25 radial miles from the GTCSTF.

Fee Structure:

The GTCSTF will provide treatment on delivered material utilizing a fee structure determined by the facility's operation, maintenance, replacement, and capital costs. Special waste fees will be determined on a case-by-case basis. GTCSF may adjust the fee structure at any time. The GTCSTF currently operates under the following fee structure:

Septage:	18 cents per gallon
Holding Tank:	5 cents per gallon
Grease:	19 cents per gallon

Hours of Operation:

The GTCSTF operates to receive material seven days per week, 24 hours per day. GTCSTF may adjust the operating hours as needed.

Hauler Licensing:

Material will be received by the GTCSTF from those septage-servicing agents licensed by the State of Michigan and Grand Traverse County (GTC). The County licensing process requires each service agent to enter into a contract with GTC and receive the required training for use of the facility. A copy of the hauler contract, which includes training requirements is provided as Attachment 1.

Haulers agree to comply with the provisions of the Uniform Septage Control Ordinance of 2004 as amended from time to time. These provisions are provided as an attachment to the hauler contract. Haulers must also abide by the following general unloading bay rules:

Hauler is responsible for repair costs associated with negligent and/or intentional destruction of property.

- Offloading rates shall remain less than 300 gallons per minute to reduce the

likelihood of equipment or process failure.

- Excessive blowing off or back pressure to unload trucks is not permitted. This practice could result in equipment damage and or injury.
- Release of oil onto facility floors deliberately or unintentionally is prohibited.

- Washing of vehicles is prohibited. Water can be used for cleaning spills associated with the offloading process only.

- Haulers are forbidden from accessing facility equipment via opening inspection hatches i.e. course screens, rock traps, etc.

- Hauler must alert facility personnel prior to offloading if there is suspicion that the load may pose a threat to the treatment system (i.e., evidence or potential industrial activity noted at location of origin).

Delivery and Treatment Process:

The GTCSTF receives material from septage waste vehicles licensed and authorized to use the facility. Loads will be discharged from the vehicles and into the facility through one of two truck bays. The truck bays are drive-thru bays with automatic doors operated such that the bay is completely enclosed during the unload process.

The West unloading bay is equipped with equipment to offload grease loads independent of septage and holding tank waste. Because grease waste is delivered directly to the ATAD treatment system a hauler cannot deliver a grease load mixed with a holding tank or septage load on the same truck.

Unloading of the vehicles uses a quick connect couple hose attached directly to the vehicle. The material is processed through a rock trap, a flow meter, and finally through a ¼" screen. After passing through the screen, the material leaves the unloading building through underground piping and is sent to a 100,000-gallon influent equalization tank.

The equalization tank provides material storage capacity to allow a measured feed into the SBR vessel. Material is pumped from the influent equalization tank into an on-site pump station. The pump station then pumps the material to the SBR at a controlled rate.

The material in the SBR is subjected to a series of treatment phases starting with filling of the SBR tank, aeration / biological treatment, settling, decanting and solids removal. The treated decant is gravity fed to the post equalization tank where it can be stored until it is discharged to the sanitary sewer collection system. Discharge to the collection system typically occurs outside of peak hours.

As the concentration of solids increases in the SBR, a portion is drawn off, dewatered, and sent to the ATAD for biosolids processing.

Through aeration and extended detention time, the ATAD unit produces a Class B biosolid.

The GTCSTF utilizes a biofilter for odor control. Each component in the receiving and treatment process is covered and enclosed. The head space within each vessel is ducted to the odor control system. The air is processed through the ATAD unit for conditioning and sent on to the biofilter. The air enters the filter through a set of distribution piping located under a stock of root material. Bacterial growth on the root material provides air treatment and reduces odors. After passing through the root media, the treated air is discharged into the environment.