Milan Wastewater Plant
And
Septage Receiving Facility

Septage Receiving Operational Plan
I. **Authority:**

This operating plan has been developed in accordance to the regulatory requirements and is established pursuant to Act 381 PA of 2004 and Part 117 of 1994 PA 451, as amended, being MC1 324.11701 et seq., and the rules promulgated there under by the Michigan Department of Environmental Quality.

II. **Definitions:**

(a) “Domestic septage” means liquid or solid material removed from a septic tank, cesspool, portable toilet, type III marine sanitation device, or a similar storage or treatment works that receives only domestic sewage. Domestic septage does not include liquid or solid material removed from a septic tank, cesspool, or similar facility that receives either commercial wastewater or industrial wastewater and does not include grease removed from a grease interceptor, grease trap, or other appurtenance used to retain grease or other fatty substances contained in restaurant waste.

(b) “Septage Receiving Facility procedures manual” means specific criteria established by the City of Milan detailing procedures for such items as; registration and insurance requirements of licensed septage haulers, sampling requirements, billing procedures, capacity priority, and general operation and maintenance for the City of Milan Receiving Facility.

(c) “Operating plan” means a plan developed in accordance with PA 381 of 2004 by the City of Milan for receiving septage waste that specifies the location; categories of septage waste that will be received; capacity; the service area; and hours of operation.

III. **Purpose:**

This Operating Plan sets forth the rules for the operation of the Facility, owned by the City of Milan, for the purpose of receiving septage waste from licensed septage waste haulers that are either contracted or registered and bonded with the City of Milan Septage Receiving Facility.

IV. **Location:**

The City of Milan Septage Receiving Facility is located at the Milan Wastewater Plant located at 75 Gump Lake Road Milan, MI. 48160. see
attached map on page . The wastewater office phone number is 734-439-2408

V. **Service Area:**

The Facility shall receive and dispose of septage waste generated in:

1. The City of Milan; and within 15 mile radius of the Facility

2. The Facility will receive septage waste generated outside the service area, provided that adequate capacity is available to collect septage waste generated within the service area defined in one above. Septage waste generated within the City of Milan shall have first priority for capacity should peak demand exceed system capacity.

3.

VI. **Categories of Septage Waste:**
The facility will only accept domestic septage.

**Sampling:**

Each load of domestic septage will require a sample and will be analyzed on a random basis. The City of Milan reserves the right to sample any or all domestic septage discharge at the Milan Wastewater Plant Septage Receiving Station.

**VII. Regulatory Structure:**

Septage haulers are regulated by the Milan Septage Receiving Station Ordinance. The Milan Septage Ordinance is posted on the City of Milan website.

**VIII. Capacity:**

The basis of design for the Milan WWTP indicates the following capacity for treatment:

The maximum 24 hour flow capacity is 6.50 MGD with an average daily flow of 2.50 MGD.

The Milan Wastewater Plant’s current average raw sewage loadings and design parameters are shown in the following chart.

<table>
<thead>
<tr>
<th></th>
<th>Design Capacity</th>
<th>Current Averages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flow</td>
<td>2.50 MGD</td>
<td>1.25 MGD</td>
</tr>
<tr>
<td>CBODs 5-day</td>
<td>3960 lbs/day</td>
<td>1647 lbs/day</td>
</tr>
<tr>
<td>TSS</td>
<td>3960 lbs/day</td>
<td>1658 lbs/day</td>
</tr>
</tbody>
</table>

The Milan WWTP is currently receiving flows and loadings of wastewater at rates considerably less than the design average capacity. The annual average load from June 1, 2016-May 31, 2017 is 1647 lbs/day for BOD and 1658 lbs/day for suspended solids. Considerable treatment capacity is currently available for assimilation of potential load increases from receiving septage.

A preliminary assessment of the potential impact of septage handling on the WWTP operations was performed in 2012. The degree of impact on the plant operation will depend on the quality of septage material received by the facility and the available treatment capacity and biomass volume on the media. The potential quality of septage that may be received on a regular basis is unknown.
The WWTP currently has sufficient reserve capacity to accept loading of a limited amount of septage waste. The current annual average BOD load to the plant from wastewater is approximately 2313 lbs/day less than the design average for the facility. The suspended solids load is approximately 2302 lbs/day less than the design average. The plant should be able to readily assimilate and treat septage loads up to the annual average design loading of the system. The BOD component of the waste would be the most critical parameter of concern regarding treatment potential.

**Testing:**

Test and cost of testing: ideally it would be preferable to sample and test each load of septage before it is dumped into the plant to determine if it would be toxic. Unfortunately, testing for individual parameters in each load is both cost and time prohibitive. It is required that we monitor to some degree everything that comes into the plant so we can meet our discharge permit limits. At a minimum, the City of Milan will randomly test each hauler four times a year for the following parameters at a cost of each test that will be borne by the hauler in the disposal fee of the septage. This testing will insure compliance and give the City a data baseline for future costing on receiving and treating septage and testing requirements. These samples will be tested at a minimum for the following parameters and their current estimated costs.

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Cost</th>
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<tbody>
<tr>
<td>Total Suspended Solids</td>
<td>$20</td>
</tr>
<tr>
<td>Phosphorus</td>
<td>$20</td>
</tr>
<tr>
<td>5-day CBOD</td>
<td>$40</td>
</tr>
<tr>
<td>Ammonia</td>
<td>$20</td>
</tr>
<tr>
<td>pH</td>
<td>$5</td>
</tr>
</tbody>
</table>

Total heavy metals specifically
- Copper $84
- Lead $80
- Mercury $80

Based on the information currently available, the following assumptions can be made.

1. Adequate septage treatment capacity is available at the WWTP.
2. Sampling of every truck would be prohibitively expensive. Each hauler will be sampled a minimum of once per year for routine parameters would be sufficient unless adverse impacts are noted.
3. No waste classified as hazardous under RCRA will be permitted for disposal at the WWTP.
4. All domestic septage haulers will be permitted, prior to dumping any septage at the WWTP.
Hydraulic Capacity

The Facility has an average design hydraulic capacity of 2.50 million gallons per day. Contained septage will be introduced into influent flow during periods of low flow or low strength of waste. The septage will be stored and delivered intermittently into the influent sewer coming into the Milan WWTP for final treatment and disposal in accordance with the City’s NPDES permit.

Nutrient/Organic Capacity

The City of Milan Septage Receiving Station is a manhole immediately at the head of the plant. The Facility is a collection and transport node to the City’s Wastewater Plant, which ultimately treats the septage waste. The Milan Wastewater Treatment Plant is governed by its current NPDES discharge permit, which defines the allowable loading rates. Projected loadings from the septage facility are within the allowable loadings in the current City’s NPDES permit.

IX. Facility Features

Receiving: Deliveries are received at the City’s existing wastewater treatment plant, using a drive-thru pattern. Access to the facility is made by use of access to the site from Gump Lake Road. Once inside the grounds, the driver will follow the driveway around to the septage receiving site located past the administrative building toward the North side of the plant. The hauler connects the septage truck to the station via the use of a cam-lock coupling and a 4” discharge hose provided at the site. The hauler must pull up around the corner of the primary service building for disposal and cleanup operations of equipment where a hose and disposal drain will be located to catch any washings from the truck or equipment.

Treatment: Waste passing through the screening unit is directed below into a currently unused equalization tank which will hold up to 750,000 gallons of wastes to be treated. This waste will then mix with the incoming influent into the plant ahead of the primary tanks. Septage screenings out of the screening box along with those removed from the raw wastewater are manually deposited into a dumpster for disposal.
X. Hours of Operation

Currently, the hours will be limited to the hour’s plant personnel are on site. These hours of operation for the facility are Monday – Friday 7:00 a.m. to 3:00 p.m. For any emergency disposal of septage wastes you will have to call the Superintendent @ wk. 734-439-2408 or after hours @ 734-829-8084 to get approval and access to the site.

XI. Septage Waste Haulers

The Facility shall only receive septage waste from a licensed septage waste hauler using a licensed septage waste vehicle. Each hauler must also be registered with the City of Milan. Each septage waste hauler disposing of septage waste in the Facility shall submit proof of insurance listing City of Milan as an additionally insured and carrying the following policies:

(a) Vehicle Liability: $300,000 Limit of Liability per occurrence.
(b) Commercial General Liability: Bodily Injury, Property Damage & Property Damage per occurrence and/or aggregate: $1,000,000.
(c) Worker’s Compensation: in accordance with all applicable statutes of the State of Michigan.

XII. Operator

The Facility will be operated by the City of Milan.

XIII. Operating Conditions

(a) Access: Access to the Facility by licensed septage waste haulers shall be made solely from Gump Lake Road.

(b) Transfer: The transfer of septage waste from a septage waste vehicle to the Facility will occur at the Facility using a drive-through traffic pattern. Each transfer of septage waste from a septage waste vehicle will be through a 4” hose firmly connected to the Facility.

(c) Discharge: Septage waste received at the Facility will be discharged into the City of Milan sewer system immediately upstream of the City’s Wastewater Treatment Plant for treatment.

(d) Testing: Septage waste received at the Facility will be tested by the City and an outside lab of their choosing at a minimum for the parameters listed above.
(c) Maintenance: All components of the Facility will be operated and maintained in good condition and repair, per manufacturer's recommendations, and in compliance with local, state and federal standards, rules and regulations generally applicable to septage waste receiving facilities. Due care will be taken to prevent nuisance conditions, including but not limited to the use of odor control technologies, good housekeeping practices, and the initiation of a preventative maintenance program.

XIV. Fees and Billing

All fees / account will be paid / processed at City Hall located at 147 Wabash street Milan MI, 48160. Prepay tickets will be issued for disposal, account holders will be billed monthly for disposal fees. The WWTP does not accept payment. Staff at the treatment facility will mark tickets with the capacity of the tank as the disposal amount. All tanks will be billed as full, regardless of any empty space in the tank.

1) Hauler of domestic septage as described above will pay fixed charge based on the full capacity of the haulers tank multiplied by the appropriate gallon rate. The gallon rate annual OM&R (operation, maintenance and debt repayment) this will include the cost of a receiving station to be built in the near future. The Facility will charge a fee for receiving septage waste, which fee shall not exceed the actual costs of operating the Facility, including the reasonable cost of doing business as defined by common accounting practices. A fee for processing and truck registration fees will be assessed at the time of application submittal. Truck fees cover registration, stickers, proximity cards, and the administration associated with tracking individual trucks and accounts. Additionally, these fees are designed to cover City Pollution Liability Insurance. Consequently, the Hauler is not responsible for maintaining a pollution liability insurance policy, or for posting a bond with the City. The initial charge per gallon of septage is estimated at $0.075 ($7.50 per 100 gal), and may be subsequently modified.

XV. Approval and Modification
This Operating Plan shall not take effect until approved by the Michigan Department of Environmental Quality (MDEQ). Any major modifications to this Operating Plan must also be approved by the MDEQ.