

ALLEGAN WASTEWATER PLANT AND SEPTAGE RECEIVING FACILITY

SEPTAGE RECEIVING OPERATIONAL PLAN July 2017

This plan has been developed in accordance to the regulatory requirements of Part 117, Septage Waste Servicers, of the Natural Resources and Environmental Protection Act, 1994 PA 451. The Allegan Wastewater Plant has been operating a septage receiving station since April 5, 2010. The Allegan Wastewater Plant will be opening a second receiving station adjacent to the first in January 2014. The second station will provide redundancy, reliability and faster offloading for septage disposal at the Allegan facility. Since the first receiving station opened, it has provided an invaluable service to the Allegan area. This Septage Receiving Operation Plan has been prepared pursuant to the requirements of Section 324.11715b.

Location

The Allegan Septage Receiving Facility is located at the Allegan Wastewater Plant located at 350 North St. Allegan, MI 49010, see attached map on page 6. The wastewater office phone number is (269) 686-1117, plant superintendent is Doug Sweeris.

Background

The Allegan Wastewater Plant average raw sewage loadings and design parameters are shown in the following chart.

	Design	Average
Flow	1.2 MGD - NPDES, 1.8 MGD Max Day	.87 MGD*
CBOD5	23,000 lbs / day	3,667 #/day *
TSS	6,005 lbs/day	3,595 #/day *

* Averages are January 2011 through July 2013.

The Allegan Wastewater Plant is a secondary aeration treatment process plant, updated in 2009 with biological nutrient removal capabilities, new headworks equipment, larger aerated sludge storage tanks, UV disinfection and a new septage receiving station. The Allegan Wastewater Plant updated treatment basin 3 in 2012 with new aeration equipment and biological nutrient removal capabilities. The Allegan Waste Water Treatment Plant is regulated by the DEQ under NPDES permit MI0020532.

Septage Receiving Stations Location and Description

The septage receiving stations will be accessed by entering the Allegan Wastewater Plant facility through the East gate. This gate is equipped with remote operation that will be able to track each truck as it enters the facility. Once the truck passes through the gate it will continue around the outside drive, around basin 3, between the facility garage and UV disinfection chamber. The receiving stations are is located behind or to the West of

the garage. The truck will turn left and pull up along the front of one of the receiving buildings. There the driver will see the receiving port and control panel for the receiving equipment and park his truck accordingly to unload. The receiving equipment consists of a rock trap, automatic flow control valve, flow meter and fine screen. Both, old and new stations will be equipped with a grinder in the receiving pipe, these will be located prior to the control valve and be operated by the septage receiving equipment control panel. The equipment was designed so an auto sampler could be added. The fine screen will convey and dewater the screenings into a receptacle for disposal at a landfill. Each truck will be issued an individual card to activate this equipment. The equipment will then track each truck load and volume discharged. The screened septage is then discharged to the waste solids mix tank. Both receiving stations will be equipped with a positive displacement blower and hose that can be connected to the suction port on the truck tank. This blower could then be turned on once the receiving equipment is activated, the blower would be used to assist in offloading the liquid in the truck tank by pressurizing the tank up to 10 psi. All the receiving equipment including the blower can be shut down by pressing either the equipment stop button on the control panel, the emergency stop button on the control panel or the emergency stop button located on the receiving screen tank. Once the septage is offloaded and the equipment stop button has been pushed, the pressure should be relieved from the tank and the hoses disconnected. The entire WWTP facility from the entrance gate to the septage receiving area will be under video surveillance and recorded at all times.

Septage Truck Cleanout

The Allegan Septage Receiving Station has a truck cleanout site available. This site is an old drying bed located in the Southwest corner of the facility, access to the cleanout site is by the South service road alongside the underground storage tanks, drive around the drying bed and the septage truck would back up to the drying bed to clean out. This cleanout area is provided to the septage haulers to serve as an area where the hauler may clean out the sand and dirt that collects in the bottom of the tank and is not removed through normal offloading procedures. Prior to using the cleanout site the driver must offload all the liquid material in the tank at one of the receiving stations. The driver would then drive around to the cleanout site, back the truck up to the drying bed and proceed to clean out the tank of the truck. The back of the tank where the material will be removed must be over the drying bed so that the removed contents are disposed of in the drying bed, the driver is responsible for cleanup of any material that comes from the truck and does not make it into the drying bed. The driver assumes all responsibility for cleaning out his truck; the Allegan Wastewater Plant and Septage Receiving Station are only providing a place for the contents of the tank being cleaned and proper disposal in a landfill of material collected in the drying bed and assumes no responsibility of the truck or driver during the cleanout process. Water to rinse the tank after the material is shoveled out is available at either of the septage receiving stations. The septage truck cleanout site is only available for use during normal weekday business hours of Monday – Friday, 7 a.m. – 3 p.m. Misuse of the cleanout site or failure to notify the City that the cleanout site was used will result in the termination of use at the Allegan Septage Receiving Station.

Septage Treatment Process

The Allegan Wastewater Plant Septage Receiving Facility will have a 400 (+/-) gpm max. unloading rate per station with an anticipated 50,000 gallons per day. Domestic septage is

anticipated at 6,500mg/l BOD and 13,000mg/l TSS. The Allegan Wastewater Plant Septage receiving does not place the initial loading of the septage into the treatment process. Instead the septage is mixed with the waste activated sludge from the secondary clarifiers. This mixture of waste sludge and septage is jet aerated in two (2) 90,000 gallon tanks. This mixture is then transferred to an aerated sludge storage tank where the sludge is aerated, mixed and thickened by settling. The decant from the aerated sludge storage tanks is then taken back to the head of the treatment process. The thickened sludge which will be a mixture of waste sludge from the treatment process and septage solids will be disposed of by land application twice per year in accordance with the state of Michigan Biosolids Part 24 Rules. See attached flow diagram on page 5.

Septage Receiving Hours of Operation

The operating hours for the receiving station will be 24 hours per day and 7 days a week with an approved application for discharge and issuance of the proper access remote and key card for operation of the receiving equipment. Each hauler will be required to fill out a credit application for proper billing, provide proof of proper insurance and provide a performance bond if required by the City. Upon approval of this the hauler will be issued a remote to access the WWTP facility and a swipe card to operate the receiving equipment. Individual dumping of recreational vehicle holding tanks will only be allowed during normal business hours. The septage truck cleanout site is only available for use during normal weekday business hours of Monday – Friday, 7 a.m. – 3 p.m.

Septage Accepted

Septage and hauled waste can be a high variety of materials, which may include grit, organics, suspended solids, and grease. The Allegan Wastewater Plant Septage Receiving facility will accept the following: (a) domestic septage pumped from home septic tanks, recreational vehicles (RV's), cesspools, portable toilets, type III marine sanitation devices or similar storage; (b) domestic treatment plant septage; (c) sanitary sewer cleanout septage; or other septage like waste that the POTW Superintendent has approved for receiving. Allegan Septage Receiving has the right to refuse any and all loads of waste delivered to the station.

Every load that is brought to the Allegan Septage Receiving station must be accompanied by a "Hauled Waste Tracking and Discharge Ticket." The information required shall include identification of the hauling company, truck and driver I.D., origin of septage discharge, including address of each location pumped in the truck load and date the septage tank(s) were pumped out.

Other Wastes Accepted

The Allegan Waste Water Treatment Plant Septage Receiving Station will accept the following wastes under the following conditions:

Recreational Vehicle (RV) holding tanks, directly from the RV, will be accepted during normal Wastewater Plant operating hours of Monday – Friday 7:00 a.m. – 3:00 p.m., no holidays or weekends.

Food establishment septage (FES) will only be accepted if it is mixed with domestic septage at a ratio of not less than 1 part grease trap waste to 3 parts domestic septage and approved by the Wastewater Plant Superintendent prior to discharge. Properly mixed food establishment septage will only be accepted during normal Wastewater plant hours of Monday – Friday 7:00 a.m. – 3:00 p.m., no holidays or weekends. These loads will need to have a sample of not less than 1,000ml taken during off loading.

Liquid industrial waste / byproducts will be accepted from a licensed industrial waste hauler (Part 121 license from the DEQ’s Waste and Hazardous Materials Division) only. Each load of industrial waste must be approved by the Allegan Wastewater Superintendent prior to delivery to the receiving station. The industrial waste may only be disposed of during normal wastewater plant operating hours Monday – Friday 7:00 a.m. – 3:00 p.m., no holidays, unless special approval is given for after hours discharge on a per load basis. All industrial waste will be sampled during off loading. A copy of all manifests for liquid industrial waste / byproducts ~~load~~ will be provided to the Allegan Waste Water Treatment Plant at the time of discharge.

Sampling

The sampling of domestic septage will be on a random basis. The City of Allegan reserves the right to sample any and all domestic septage discharged to the Allegan Waste Water Treatment Plant. Sampling is required for each load of domestic septage that is mixed with food establishment waste. Sampling is required for each load of industrial waste.

Regulatory Structure

Septage haulers are regulated by the Septage Receiving Station Ordinance and the Sewer Use Ordinance. The Allegan Septage Receiving Station and Sewer Use Ordinance are posted on the City of Allegan website, www.cityofallegan.org . On the web site click on Ordinances, select code of ordinances, select chapter 29 - Utilities, Article V is the septage receiving ordinance and Article III, Division 3 is the Sewer Use Ordinance.

Fee Structure

The fee structure will be set in the Allegan Municipal Policy. The basis for the fee structure will be as follows:

- 1) Individual Recreational Vehicle will pay a per time dump fee comparable to the local campground dumping station. Charge will be \$10.00 per dump.
- 2) Haulers of domestic septage as described above will pay a per gallon charge based on annual OM&R (operation, maintenance and debt repayment) this includes costs of the receiving station, a portion of the treatment facility that is handling the solid’s disposal, and the processing of supernatant from the solids handling. In addition, the rates are structured to include debt repayment from the

loan in 2009 to build the receiving station and the loan in 2013 to build the second receiving station. The rate will be based on the volume delivered by each individual hauler during the last calendar year. If the hauler is new or does not have a full year total gallons hauled they may qualify for the reduced rate if they provide proof that they can deliver the stated volume. Should a hauler not deliver the gallons required for the high volume rate in a year, they will be charged a penalty at the end of the year and will be charged the volume rate the next year.

Rates:

Volume hauler: Under 2,000,000 gallons delivered annually - \$0.06/gal.

High volume hauler: Over 2,000,000 gal. delivered annually - \$0.05/gal.

Penalty:

Penalty for not meeting high delivered volume will result in a billing for actual amount delivered times the one penny difference between the volume rate and high volume rate.

Liquid industrial waste or byproduct (LIB) shall be a combination of flow rate (commodity) and excess strength surcharge rates. Rates shall be \$4.65 per 1,000 gallons, surcharge rates shall be: BOD - \$0.438 per pound, TSS - \$0.344 per pound and TP - \$0.545 per pound. Surcharges for excess BOD, TSS and TP shall be charged if the waste is over: BOD – 200 mg/l, TSS – 250 mg/l and TP – 10 mg/l. If several loads of liquid industrial waste / byproduct are delivered on a continuous basis from the same source, a per gallon fee may be set based on the average of several prior loads, instead of the fee based on each load; both the hauler and the receiving station must agree on the average cost per gallon. Liquid industrial waste / byproduct must be pre-approved by the POTW superintendent prior to delivery, a waste profile must be provided, and loads will be sampled and tested for the surcharge parameters. Allegan Wastewater has the right to refuse any and all liquid industrial waste / byproduct delivered to the Allegan treatment plant.

High strength BOD waste (defined as BOD over 50,000mg/l) shall be a combination of \$0.07 per gallon and shall also include a surcharge for excess BOD and/or suspended solids. This excess shall be based on the defined strength of domestic septage of BOD = 6,500 mg/l, TSS 13,000mg/l. Any amount over these will be charge at a rate of \$0.07/# BOD and \$0.04/# TSS. If several loads of similar industrial waste are delivered and both the hauler and the receiving station agree, a per gallon fee may be set based on the average of past load charges. All high strength BOD waste must be approved by the POTW prior to discharge.

- 3) The fee for the truck cleanout is \$25.00 per cleanout time, billed monthly with the septage invoice.

The City of Allegan reserves the right to change any and all fees for the septage receiving facility, any increase in rates will be posted a minimum of 30 days prior to increase.

Service Area

The service area is 25 radial miles from the geographic center of the plant. This service area for the Allegan Septage Receiving Facility will include Allegan County and portions of Barry, Kalamazoo, Kent, Ottawa, and Van Buren counties. The service area will cover the 25 mile geographic area that came into effect October 1, 2010. See attached map showing service area coverage's on page 7. The Allegan Septage Receiving Station will except waste from outside of the 25 radial mile boundary line.

Resolution 17.11 February 27, 2017, effective March 1, 2017