

## **Gull Lake Sewer & Water Authority**

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37<sup>th</sup> Street + Sherman Lake Area

Grinder Pumps Overview and Information

2018

### General information

The low-pressure sewage system servicing your home is part of the larger Gull Lake Area Sewage Collection System. Every day of the year our miles of pipelines carry sewage to the Kalamazoo City Water Reclamation facility in Kalamazoo.

The Grinder Pump System around Sherman Lake is a pressurized system and has been designed to best serve the customers in your area. Topography, the physical features of the earth, played an important role in the design selection. In areas where sewage cannot flow downhill by gravity, pumps are used to force sewage through the lines to Kalamazoo.

Your home is one served by the pressure system, which uses the grinder pump to grind the sewage from your home (much like the garbage disposal in your kitchen) and push the sewage through small diameter pipes to the larger lines in the street.

Low-pressure sewage systems have been proven as economical solutions for areas which cannot be readily served by gravity lines. However, a grinder pump system does require that the homeowner take a more active role than required for a property served by gravity.

The Gull Lake Sewer and Water Authority owns and operates “your” grinder pump. Technically, you own the 4” pipe between the home and the Basin, however, if you experience problems, please phone our office first. It is important that you understand how your home sewer system operates and that you notify the Authority if a problem occurs. Assuming you provide reasonable access to the unit in your yard, the Authority service technicians provide maintenance and service at no additional cost to you, except however, we do not provide electrical power during power outages. You may have a generator that may or may not be powerful enough to power the pump unit.

Please be reminded electrical power and alarm wires are buried under the ground between the control panel and the tank as well as the discharge pipeline running through your property to the street or easement where the main pressure line is located. Regardless of the durability of these items, before any type of excavation (digging) in the area, call MISS DIG at 1-800-482-7171 (or 811) to have technicians locate the lines. MISS DIG allows for three business days for staking.

The Authority owned grinder pumps are placed in an area near your home and we attempt to place it out-of-the way (usually). It is not advisable to plant expensive flowers or shrubs or place such items as fences, decorative pilings, fish ponds, etc. within the grinder pump area in order to maintain ease of service when such service is needed. The Authority is not obligated to repair or replace any damage to

landscaping or items placed near or around the system, but will attempt to minimize any disturbance when performing any maintenance function.

With your cooperation, your low-pressure system will provide many years of safe, reliable service.

Please take a few moments to reading the following information to insure the proper functioning of your pump.

#### If the Red Light turns on ...

If there is a grinder pump failure, the basin which contains the pump will become too full. A high water alarm light will automatically turn on when this occurs. There is no audible buzzer or alarm.

If the alarm light is on, you should:

- Discontinue all water use within the home to prevent overflows.
- Make sure any automatic water devices such as water softeners are turned off.
- Check the breaker box within your home to make sure the power hasn't been tripped off. If off, reset the breaker (turn off then back on).
- Wait ten minutes before taking further action. A high level of water use or power failure will sometimes cause the alarm condition. This situation may well be self-correcting. If the pump is operating correctly, the wet well will automatically be pumped down and the alarm light will then turn off.
- If the alarm light is still on after ten-fifteen minutes, you should call our office at 731-4595. If after hours, the voice mail system will direct you to appropriate maintenance contact. If not a serious emergency or if related to a power outage you could leave us a message for the next business day.
- If, for some reason, the phone system at our office is not working and a true sewer emergency exists, you should call 269-998-4588 or 269-806-1387 or 269-998-0399.
- Never attempt to open the tank cover or the electrical panel box. CAUTION: Electrical shock or damage to the system may occur.

Authority emergency personnel crews are on-call 24 hours a day, seven days a week and will respond as best they can to your emergency.

#### Protect Your Pump

The grinder pump can handle any wastewater that is normally discharged to the sewer from the kitchen, bathroom or laundry. Some chemicals and materials may cause operating problems or safety hazards. It is advisable to check labels on chemicals prior to their disposal. Never connect a *groundwater sump pump* or eaves troughs into the grinder pump as storm water or groundwater is not acceptable into the System.

CAUTION: Never put any of the following materials into sinks, toilets or drains:

- Condoms + Feminine product – plastics, etc.
- Papers, socks, rags or fibrous cloth of any kind
- Fibrous - heavy duty paper towels
- Plastic objects (toys, eating utensils, etc.)
- Any strong chemical, toxic, caustic, or poisonous substance
- Degreasing solvents

- Any explosive or flammable material
- Gasoline, kerosene, fuel oil, paint thinner and anti-freeze
- Lubricating oil or grease
- Cooking fat (lard, oil, grease)

These materials may clog the system, cause undue maintenance or create unsafe conditions in your lines and tank. Continuous difficulty from a single homeowner may result in miscellaneous charges to cover repeat visits.

### Nuts and Bolts: Technical Details

A high-strength fiberglass tank has been installed underground on your property and a sewage grinder pumps is submerged within the tank. The tank cover is round, 2 foot diameter and is the only part that shows above the ground. All of the wastewater from your home is required to flow into the buried tank. When the tank fills to a pre-set level, the grinder pump automatically turns on, grinds the waste and forces it out of the tank and into the sewage collector system.

The grinder pump normally will run for one or two minutes and will automatically turn off when the water level is 18" deep within the tank. The pump is programmed to operate in cycles, rather than continuously. Cycles are determined by the amount of water used, usually after twenty – thirty gallons has entered the tank. During a usual day, the grinder pump will turn on and off approximately 10 times, dependent upon your water use. Excessive discharge (wash machine plus large bathtub) simultaneously, may temporarily cause an alarm condition.

The grinder pump is powered by electricity from your home and our control box is connected to the service disconnect usually on the outside wall of your home. Grinder pump electricity charges are estimated to be less than two dollars per month for normal operation and will be included on your monthly electric bill. The cost of electricity is paid by you, not the Authority. If you notice a high electric bill, you may want to phone us to check our pump unit as it is possible it could run excessively or have electrical problems.

### In case of Power Failure

If there is a power failure which affects your home, your grinder pump will also experience a loss of power and not be able to operate. The grinder pump tank has a certain amount of holding capacity (30-40 gallons usually), but interior water use should be severely limited until power has been restored. When the power comes back on, you may have a temporary "high water" situation for several minutes.

### While on extended Vacation or Winter leave

If you are going to be away from home for more than 20 days, there are no preventive measures that need to be taken, except to ensure all water using devices are turned off, including water softeners (prevent automatic recycling). Always leave the electrical power on.

By following these guidelines, you can ensure that your low-pressure system will provide many years of safe, reliable service.

As always, if there are questions, please do not hesitate to phone.