

# MARLBOROUGH WATER POLLUTION CONTROL AUTHORITY

## GRINDER PUMP & GRAVITY SEWER LATERAL CONNECTION

### PREVENTIVE MAINTENANCE INSTRUCTIONS

#### CARE & USE OF YOUR GRINDER PUMP & GRAVITY SEWER LATERAL

The Grinder Pump and the gravity sewer lateral are capable of accepting and transmit wastewater through gravity flow and/or pumping a wide range of materials such as typical wastewater from your kitchen, bathrooms, and laundry. The following items should not be introduced into any sewer, either directly or through a kitchen waste disposal unit:

Aquarium Gravel/Sand/Stone	Disposable Toilet Bowl Scrubbers	Plastic Bags/Objects
Bones	Egg Shells	Prophylactics/Condoms
Candle Wax	Fire Place Ashes	Sanitary Napkins/Tampons
Cat Litter	Gloves – Latex/Rubber	Seafood Shells
Cigar/Cigarette Butts	Hair Clippings/Pet Hair	Syringes/Needles & Tip Guards
Cooking Grease/Oil/Lard	Metal Objects	Wipes – Baby, Cleaning, Sanitary
Dental Floss	Non-Dissolving Tissue/Toilet Paper	Wood Objects
Diapers, socks, rags, or cloth	Paper Towels	

These above items and similar items can damage the Grinder Pump and its controls, cause blockages and may create unsafe conditions in the sewer lines and grinder pump chambers and may damage the environment.

Never introduce any of the following into the public sewer:

Antifreeze	Gasoline/Kerosene	Paint Thinner/Turpentine
Corrosive/Acidic Material	Lubricating Oil	Solvents Cleaning/Degreasing
Explosives	Medicines	Strong Chemicals
Flammable Material	Paint	

These items may interact with other chemicals in the public sewer system and cause damage to persons and/or property. It is unlawful to have sump pumps, down spouts, and water treatment backwash connected to the public sewer system.

#### RESPONSIBILITY FOR THE MAINTENANCE & REPAIR OF YOUR GRINDER PUMP

The Marlborough Water Pollution Control Authority (MWPCA) owns and maintains the Grinder Pumps in the sewer service area as long as the Owner has signed a Grinder Pump Maintenance & Repair Agreement and adheres to all operational guidelines. The Grinder Pump Maintenance & Repair Agreement outlines the terms and conditions associated with your responsibilities for the Grinder Pump usage, as well as, MWPCA maintenance responsibilities. The long term maintenance of the Grinder Pumps relies on a cooperative partnership between the Owners and the MWPCA to assure many years worth of operations from your Grinder Pump is realized.

If the Alarm Light is still on after fifteen (15) minutes immediately contact the MWPCA Sewer Emergency Line at **860 - 537 - 3414**, and follow the instructions for a “Sewer Emergency”. Please have the address and a contact phone number available when calling and technician will respond as soon as possible.

## **HOW YOUR GRINDER PUMP WORKS**

In order to provide you with suitable wastewater disposal, your home or building is served by a low pressure sewer system versus a traditional gravity sewer system. The key element in this low pressure system is your Environment One Grinder Pump that is housed inside the pump chamber that is installed in your yard. The pump chamber collects all solid and liquid wastewater from your house or building and provides a small amount of wastewater storage capacity. When the wastewater in the chamber reaches a preset level, the Grinder Pump automatically turns on and grinds the solid materials to a small size suitable for pumping as slurry with the wastewater. The Grinder Pump generates sufficient pressure to pump this slurry from your Grinder Pump through the street lateral (pipe from Grinder Pump to the street) to the low pressure line which then transports the wastewater to the North Main Street Pump Station.

The Grinder Pump will normally run for a few minutes and automatically shut off when the chamber is empty and the activation cycle begins again once the chamber reaches the preset level threshold. For a typical household the Grinder Pump will operate approximately twenty (20) minutes a day; thus a two horsepower Grinder Pump will, on average, consume approximately 180 kilowatt hours per year. Assuming an electric rate of \$0.17 per kilowatt hour, the annual energy cost for running the Grinder Pump would be approximately \$31.00 a year.

## **HOMEOWNER GRINDER PUMP MAINTENANCE**

To reduce costs associated with repair or maintenance of your Grinder Pump, the following procedures should be followed:

Keep the vent on the side of the pump access cover free of dirt, grass, leaves, snow, or anything that would prevent air flow to the grinder pump.

Keep the ground around the pump chamber cover sloped away from the pump chamber.

When installing landscaping please do not plant trees and bushes around or near the grinder pump chamber. There must be enough space to work on the pump station when necessary.

**Back Flow Problems:** There are two (2) check valves one at the Grinder Pump to prevent backflow to your house or building, and the other at the street to prevent back flow from the main sewer line to your Grinder Pump chamber. If you experience any back flow into your interior drains stop using water immediately and check your alarm panel and the circuit breaker that serves your Grinder Pump. If the Alarm is not on call your Plumber to check your interior plumbing lines. If the back-up problem persists call the MWPCA for inspection and services.

Never attempt to open the pump chamber cover or the electrical control box. **Caution electrical shock or damage to the system may occur as a result of such action.** If any digging, excavation, or landscaping is planned near the Grinder Pump or the Control Box, the Owner should call the MWPCA for the location of underground utilities.

## **DAMAGE CAUSED TO SEWER EQUIPMENT**

When the MWPCA repairs or services for the Owner the Grinder Pump and if all the Preventive Maintenance Instructions procedures have been adhered to by the Owner the MWPCA will absorb the cost for such work. If repairs or service for the Owner is caused by building sewer blockage, shut-off of the electrical power breakers, flushing or disposing of non-sanitary solids (see list above) or the Owner caused damage to the public sewer system, the Owner shall be responsible for full and prompt reimbursement to the MWPCA for all MWPCA staff time, contractor time, labor and/or materials incident to said operation and maintenance plus a ten (10%) percent administrative fee.

## **PERIODS OF NON-USE**

If your home or building is to be left unoccupied for longer than seven (7) days, use the following procedures prior to leaving: Run clean water (drain your bath tub) into the Grinder Pump until the pump activates. Immediately turnoff the water and allow the Grinder Pump to run until it shuts off automatically. This process will clean the pump and leave it filled with a minimum of clean water. On your return repeat the procedure to assure the grinder pump is operating properly.

Duplex Grinder Pump units need to special attention to ensure that both pumps turn on when clean water is added to the tank.

**Do not disconnect or shut-off the electrical supply to the Grinder Pump such actions can causing condensation and or freezing to take place that can damage the Grinder Pump wiring.**

## **POWER FAILURE**

Your Grinder Pump cannot dispose of wastewater without electrical power. If electrical power service is interrupted keep water usage to a minimum until electrical power is restored.

## **PUMP FAILURE ALARM**

Your Grinder Pump will produce an alarm signal of a flashing red light from the alarm box located outside your house or building in the event of a high water level in the basin. If the red light goes on proceed as follows:

Stop using water immediately (turn off washing machine, dishwasher, etc.) to prevent overflows and back-ups.

Turn of the Alarm by pushing the button on the bottom of the Control Box

Wait fifteen (15) minutes a high level of water usage such as running the washer and dishwasher at the same time will sometimes cause the alarm to activate. This situation is self-correcting. If the Grinder Pump is operating correctly, it will pump the level down and the Alarm Light will turn off.

**If the Alarm Light is still on after fifteen (15) minutes immediately contact the MWPCA Sewer Emergency Line at 860 -537 – 3414, and follow the instructions for a “Sewer Emergency”. Please have the address and a contact phone number available when calling and technician will respond as soon as possible.**

MWPCA Sewer Emergency Line is available twenty-four (24) hours a day, seven (7) days a week. Please report Grinder Pump alarms immediately; you do not have to wait for regular business hours.

If the electrical power to the Grinder Pump is shut-off the alarm will not function.

By following these guidelines, you can ensure that your Grinder Pump will provide many years of service. If you have any questions regarding your Grinder Pump, please call the MWPCA at 860 – 295 – 6202, during regular Town Hall hours.

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