

# **Best Management Practices For Private Pumping Station Owners**



## **Howard F. Curren Advanced Wastewater Treatment Plant**

If you have any questions on the proper maintenance and operating condition of your private pumping station, please contact the City of Tampa's pumping station Operation and Maintenance team at (813) 247-3451 X270.

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### **What is a pumping station?**

A pumping station collects the wastewater (sewage) from your property and then pumps the wastewater from your property to the City of Tampa sewer system. A pumping station is made up of a wetwell (in-ground tank), pumps and an electrical control panel

### **How do I know if my property is connected via a "pumping station"?**

Somewhere on your property you will see a metal box (pump control panel) elevated on supports with a red light on top. Directly below that box is a metal lid with locks on it. If you have a pumping station, you've probably seen the red light.

Many food oriented businesses and commercial establishments have the potential to introduce harmful wastes into your sewer system and pumping station.

If the property you own or manage is connected to the City sewer system by way of a pumping station, then you need to know the following.



*Photo of a typical private pumping station*

- **What is harmful waste and how does it affect the pumping station?**

Harmful waste is anything that can harm, clog, or damage the plumbing or pumping system. Examples are grease, food waste, paper products, petroleum-based waste, sand, etc.

- **Don't all food service establishments have grease traps and shouldn't that protect my pumping station?**

Florida Plumbing Code requires food service establishments to have a properly sized grease interceptor or trap. However, failure to properly maintain the trap and allow harmful waste to enter your pumping station is a violation of the City's Code.



*Typical small grease interceptor*

- **What can I do to keep the restaurants in compliance so that my pumping station stays clean?**

Make sure the tenants have their grease traps pumped regularly. Regularly inspect the outlet piping and have your private pumping station professionally maintained. If you need the services of a maintenance company, please look in the yellow pages of the phone book under "Sewage treatment, equipment, & supplies".

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The City of Tampa's pumping station Operation and Maintenance team has compiled a list of suggested tips to assist you in maintaining your pumping station. These suggestions are not intended to be all-inclusive but will provide basic guidance.



*The inside of a private pumping station that has been neglected and is heavily coated with grease and debris. Not acceptable!*

Performance of routine and preventive maintenance can save you from costly repair bills. In an effort to eliminate overflows, the City of Tampa pumping station maintenance department has developed a list of suggested maintenance tips and odor control measures that you should follow.

**These are suggestions** that may assure fewer breakdowns and problems.

- To prevent solids and grease build-up, wet wells should be pumped out and cleaned at least four times a year or more often if necessary.
- Inspection of submersible pumps should be performed quarterly. Inspections of the impeller should be performed quarterly or when motor run times are not within 10% of each other. The inspections will assure that the impeller is free of debris.
- You will save electricity if an inspection of the check valve is performed at least twice a year to assure proper operation and to prevent backflow from the force main to the wet well.
- Cleaning and inspections of the floats four times a year assure proper performance. The build up of grease prevents floats from working properly.

- An alarm system in working order can alert you to problems immediately. An inspection of the light and alarm system should be performed monthly.
- Installation of hour meters on each motor will provide an accurate record of how often each motor is cycling and hence, the amounts of water being pumped through the system. A logbook of motor hours, dates and maintenance performed should be kept.
- Amp readings should be taken at least twice a year on each motor in the pumping station. If the amp readings do not meet the manufacturer's specifications, it is an indication that debris is lodged in the impeller, or that water has entered the motor housing or wiring.
- A semi-annual inspection of all electrical motor control equipment to find poor connections and worn parts should be performed.
- Control access to your station to prevent vandalism and accidents.
- FAC 62-604 requires an Operation & Maintenance Manual. This manual will provide important information on the Operation and Maintenance of your pumping station.

#### WHY IS MAINTAINING A PUMPING STATION IMPORTANT?

The Clean Water Act prohibits the discharge of wastewater onto the ground or any body of water. Therefore, you must maintain your private pumping station at all times. If the pumping station fails and wastewater overflows into the parking lot, retention ponds or storm water system, you may be liable for environmental fines by the Hillsborough County Environmental Protection Commission.

#### THINGS YOU NEED TO KNOW ABOUT PUMPING STATION PROBLEMS.

- **What happens when the red light comes on?**  
It means that the pumping station is not working and the sewage that is generated on your property is backing up and overflowing! This may lead to enforcement and penalties.
- **What causes a private pumping station to fail?**  
Usually, it's lightning or a power outage, which is sometimes beyond your control. Checking a pumping station after a storm or power failure is important. However, the most common factor is neglect.
- **What does "neglect" mean?**  
This can mean no regular inspections of the pumping station by a professional who is knowledgeable in pumping station maintenance; it can mean allowing too much fats, oils, grease, and debris to accumulate in the wet well which sticks to the floats and pumps causing a malfunction.
- **When or how should I replace pumps?**  
Prior to replacing pumps, the City's Wastewater Engineering Department should be notified in order to ensure the new pumps operate properly. Please call 274-8052 for information and assistance on pump replacement.

