



COMMUNITY DEVELOPMENT AGENCY  
ENVIRONMENTAL HEALTH SERVICES DIVISION

**Marshall Community Wastewater Assessment District**

**Starting August 1, 2018**  
**New Operation and Maintenance Operator**

DT: July 26, 2018  
TO: Property Owners, Tenants, and Property Managers  
FROM: Lorene Jackson, Project Manager  
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Summer Greetings,

Starting this Wednesday, August 1, we will have ***a new operation and maintenance contractor – Natural Systems Utilities - CA (NSU). Their 24-hour number is 707-254-1931.*** Until then, continue to call SOS if you have an emergency at 800-699-7674. We will soon be placing a NSU decal with this phone number on your control panels.

Natural Systems Utility California nearest office is in Napa. Two years ago, they purchased Phillips & Associates, our previous operation and maintenance contractor. The change in contractor was a result of a routine request for proposals as SOS's contract was up for renewal. We truly appreciate the services SOS performed over the past couple of years.

We have updated the attached alarm procedures to include NSU's contact information. Please print this for handy reference. If your STEP pump alarm goes off, immediately call NSU and provide your name, call back telephone number, property address, how long the alarm has been sounding, and any other observations that may be helpful to the maintenance person.

Remember, power must be maintained for your septic pump to work properly. If the power goes out, do not do laundry, take baths/showers, or flush the toilet more than absolutely necessary. Otherwise, the septic system will fail and result in a backup into your home and potential contamination of the bay. If the power is out more than 6 hours, call NSU. The alarm will not go off if there is no power.

***IMPORTANT: For those of you that rent your property, update your emergency contact information accordingly and provide it to your property managers. Please be sure to leave clear instructions to all tenants on what to do when the power is out or the alarm goes off.***

Do not hesitate to reach out to me if you have questions.



# Marshall Community Wastewater System

## STEP System Operations and Alarm Procedures for Residents

*(For immediate 24-hour response, call 707-254-1931)*

### STEP System Operations Overview

Nearly all residencies in the Marshall Community Wastewater System service area have an individual septic tank and pump unit located on or adjacent to the property. This is called a “STEP” system, which stands for Septic Tank Effluent Pump. All sewage from the house is collected in the septic tank, where solids settle and the liquid effluent is pumped into the community sewer system. The sewer system consists of 2-inch and 3-inch diameter pressure pipe (force main) that runs along the west edge of Highway 1 and terminates at the community leachfield site south of the Marshall Post Office. The solids that accumulate in the septic tank have to be pumped out every few years by a septic tank cleaning service. Our maintenance contractor will inspect the tanks once a year to see if it’s time to pump. The cost of pumping is the responsibility of each property owner.

**Effluent Pump Operations** - In most cases, the effluent pump is located in the second compartment of the septic tank. In some cases, the pump is located in a separate, smaller pump tank near the septic tank. The pump is activated automatically by a float control system, similar to a sump pump in a basement. The floats control when the pump will go on and off based on effluent levels in the tank. The water use and resulting sewage flows from the house will dictate how often the pump runs. Under normal conditions, the effluent pump will cycle on and off two to four times per day, running typically for about 5 to 10 minutes during each cycle. Higher water use and/or leaking plumbing fixtures will cause the pump to run longer and more frequently.

**High Water Alarm and Emergency Storage** - There is also a high water (alarm) float in the tank that registers an audio and visual alarm in case of high water conditions in the tank. The alarm float is set a few inches above the normal “Pump ON” level, and is triggered when the water rises above the normal level. This could be due to a pump failure, excessive inflow of water/sewage to the tank, a float or control panel malfunction, or power outage. Above the alarm float, the tank has storage capacity for about 100 to 150 gallons of sewage (depending on tank size), which allows time (a day or more) for the problem to be diagnosed and corrected before sewage would begin to back up into the plumbing drain from the house.

**Control Panel** - Each pump has a control panel located on the outside of the house, which contains the electrical components for the pump. The pump operates off of a dedicated electrical circuit separate from the house wiring. Some of the features of the control panel include: (a) a switch to change the pump from automatic to manual on/off operation; (b) digital meters that tally the number of pump cycles and the pump run time; and (c) an audio (loud horn sound) and visual alarm (red light). There is also an audio and visual alarm located inside the house.

**Portable Generator Operation** - Another key feature of the control system is an electrical transfer switch that allows the pump electrical circuit to be disconnected from PG&E service so the pump can be operated off of power from a portable generator that is plugged into the control panel. This is intended to be used in the event of an extended power outage. It allows the pump to be operated for a short period of time to drop the effluent level in the tank down to the low “Pump OFF” level. A portable generator is kept at the community wastewater treatment site for this purpose. This is for use only by the wastewater system maintenance contractor, who is properly skilled and trained in the equipment and workings of the STEP systems. It’s important to note that if there is a power outage, the system may not work properly. **CALL the maintenance contractor if there is a power outage over 6 hours. The alarm will not go off if there is no power.**

**Note: The portable generator operation of STEP units is not intended to be carried out routinely by individual property owners or residents. However, with appropriate training and instruction, it may be possible and acceptable for individual property owners to utilize their own portable generator for temporary STEP pump operation during an extended power outage. A special training session by the maintenance contractor should be conducted for this purpose.**

## **Instructions for Alarm Conditions**

Following are instructions for residents in the event that the STEP pump alarm is observed.

### **What it Means:**

If the STEP pump alarm goes off, the effluent level in the STEP tank has risen above the “Pump ON” level, which is normally due to one of the following factors:

- Pump failure
- Malfunction of the float switch
- Restriction in the discharge line or in the community force main
- Power outage

### **What to Do:**

1. Call the system maintenance contractor (see contact information below) who has a 24-hour telephone service for emergency calls. Be prepared to provide the following information to the maintenance person or attendant taking the call:
  - Property address
  - Your name and phone number
  - How long the alarm has been sounding
  - Any other observations or situational information about the property, the conditions around the house, house occupancy, etc.

2. Answer questions and follow instructions (if any) from the maintenance person. There may be questions to help make a preliminary diagnosis of the problem or related to property access.
3. After the call to the maintenance contractor, disable the alarm by pushing the button on the outside of the control panel.
4. Curtail water use in the house and check for any leaking fixtures, especially toilets. Avoid the use of clothes washer, dishwasher and baths/showers until the problem is corrected and the pump system conditions return to normal.
5. Ensure access for the maintenance contractor, including opening gates, moving vehicles, and controlling animals, as necessary.
6. For Renters: In addition to the above, call property owner and/or property manager to advise them of the situation and for any additional instructions.

### **Operation and Maintenance Contact Information**

Natural Systems Utilities - CA, Inc. (NSU)

For immediate response, call their 24-hour number **707-254-1931**

Since this number may also be called for non-emergency questions, please specify if the call is urgent or not.

