# TROUBLE AT LIFT STATION #2 FAWNWOOD

## Power Outage

If the Fawnwood Lift Station is out of power, the wet well will take from two to four hours to flood, or even longer if flows are slow.

If power is out to Fawnwood, there is no generator for backup.

1. Open the main electrical panel and check for tripped breakers. Reset breakers if necessary.
2. If still no power, check the power meter box 100 feet away at the top of the gravel road. The meter should show a display. If the meter is blank, call PUD immediately and report the power outage and notify the District Manager.
3. If the breakers in the main power panel are good, proceed to the Smith and Loveless electrical panel and check the contact breakers. If no power, notify the District Manager and a certified electrician.
4. This station has an emergency bypass valve for using a trash pump to evacuate the influent.
5. To arrive at the best time to run the emergency 4-inch trash bypass pump, closely monitor this station, or wait for a high wet well alarm . Have your pump in place and ready to go if possible.
6. Hook up the trash pump, attach the garden hose to the water service on site, and prime the trash pump.
7. There is a 2-inch gate valve on the force main, just inside the wet well. It will need to be drained off, allowing for the trash pump to get an easier prime.
8. You will need at least 2 to 3 feet of tank left before running the trash pump to allow back draining of the force main. When the force main is nearly empty, open the emergency bypass valve and start the pump. Prime the pump again, if necessary. It should eventually pull influent up the suction tube and into the pump. When primed, the pump will take off and start pumping.

9. Pump down within 1.5 to 2 feet of the bottom. Stop the trash pump. Start pump again when influent level reaches within three feet from top of the tank or at the bottom of the auxillary tank inlet pipe.
10. The auxiliary tank is a second tank adjacent to the main tank. It can take on some more sewer if needed. The second tank is an overflow tank of sorts, and flows back into the main tank as the main tank empties.
11. When power is restored to the station, close the 4-inch auxiliary valve. Disconnect the trash pump and return the Smith and Loveless pumps to "Auto" setting. If power is restored while using the emergency gasoline powered trash pump, shut down the gasoline pump and close the 4-inch bypass valve. Return the station pumps to "Auto" setting.

Additional Information:

- Plugged Pumps: The Smith and Loveless Pump station can pump up to 2-inches of solids without issues; however, the pumps can get plugged with rags. The newer Smith and Loveless improved design enables access from above. There is a pump-pulling stand present at the Lift Station. A small chain hoist and a chain or strap will be required. Consult the manual at the station for tear-down procedures and troubleshooting advice.
- Priming: This station also has a compressor priming system. The compressors will prime the pump. There are two of these compressors, each with a pump and suction tube attached to them. After achieving prime, the pump will activate. Should a pump not start when needed, the "lag" pump will start when the influent reaches the "lag" float. Typical Setup. If the pump starts but does not pump, it will likely sound gravelly. It is not priming and getting influent into pump.

  The procedures for troubleshooting priming problems written into the Smith and Loveless Manual are very explanatory. Refer to the manual for priming repair or service.

- Gauges: The ability to read the gauges on these stations is important. There are "ft. lb." gauges mounted by each compressor. These gauges can tell the operator of at least three problems…pumping head, a plugged pump line, or a plugged suction line. The gauges can even show a lack of vacuum. Learn how these stations run according to the three readings on the gauges.

- Pulling the Pumps: These pumps are easy to pull. Two men can have one pulled and unplugged in a few minutes. At Fawnwood, just like the Highway Lift Station, there are no VFDs to program. These pumps will likely have to trip out on the breakers in the Smith and Loveless panel to prevent trouble. Operators will usually be able to tell in advance that trouble is coming by noting increased minutes on the pump cycles. As these are popular stations and widely used, pump parts are readily available.
- Check Valves: As with the Taylor Lift Station and the Highway Lift Station, the Fawnwood Lift Station is a Smith and Loveless station. All three stations have the same "Xpellor" impellors. These impellors are better than previous designs for dealing with rags. All three stations also have "Rapid Jack" check valves which are accessible without going down into the wet well which is a great improvement over earlier lift station designs.
- Each station has a troubleshooting manual and good technical support staff. (See Section 6 Contacts.)
- Parts: As there are three stations using the same parts, certain parts will be stocked for emergencies such as:
    (1) 2 Seal kits for pumps
    (2) 2 Primer Bulb kits, (these are plastic and develop leaks)
    (3) 1 solenoid kit
    (4) 4 Paper Pump sealing gaskets for pump interface to volute assembly
    (5) 4 rubber "Rapid Jack" gaskets for the Rapid Jack assembly
    (6) Extra air lines, and push on fittings for priming circuit