

# Sand Filter Inspection & Maintenance Checklist

## Septic tank:

- Inspect the tank lids/access risers for a tight seal and for root and/or surface/ground water intrusion.
- Monitor the inlet invert pipe for surface/ground water intrusion and/or root intrusion into the tank and check for pooling (leaking) of sewage outside the tank.
- Monitor for leaky household interior plumbing fixtures (continuous water flowing into the tank from the house). If present it could potentially hydraulically overload the system.
- Inspect inlet baffle and center baffle if visible. The top of the baffle should be above the scum layer and open to allow the tank to vent through the house roof vents.
- Remove & inspect the pump and clean the pump intake screen if needed. Turn off the electrical power to the pump and shut the ball valve located between the pump and sand filter before removing the pump and after re-installing the pump be sure to turn the electrical power on and to re-open valve. Re-coil and secure the pump and float wiring.
- Remove, inspect and clean pump vault filter/screen.
- Inspect and monitor the on/off float, the high/low effluent level floats and the high/low effluent level audible/visual alarms to determine if they are operational. The audible alarm should sound and the visual alarm should light up at the control panel.
- Inspect the splice box and wiring - check gasket and wiring seals. Dry and repair if there is a build-up of moisture or if water-logged.
- Measure the scum & sludge layers in all compartments of the septic tank (and pump tank if equipped). If combined total is more than 30% of total working depth of the tank, the tank should be pumped.

## Sand Filter:

- Inspect the top of sand filter – the best cover is gravel, if covered with grass you can leave as is or replace it with gravel. Trees, weeds, shrubs and other vegetation must be removed and the storage of any item prohibited.
- Flush the sand filter laterals if they are equipped with clean-outs by opening each valve separately and manually turning on the septic tank pump at the control box or by utilizing the on/off float. Wait until effluent clears up a second time before shutting the valve.
- Remove, inspect and clean the pump and floats if equipped. Clean the pump intake screen if needed. Turn off the electrical power to the **sand filter pump** and shut the ball valve between the sand filter and drainfield/mound prior to removing the pump. Be sure to turn the power back on and re-open the ball valve after re-installing the pump. Re-coil and secure the pump and float wiring.

- Inspect and monitor the on/off float, the high level float and the high effluent level audible/visual alarm to determine if they are operational. The audible alarm should sound and the visual alarm should light up at the sand filter control panel.
- Monitor the effluent level in pump chamber if equipped or in the observation ports. The effluent should be at or below collection pipes at bottom of pump chamber or below the lower gravel-sand interface.
- Measure the sludge at bottom of pump chamber. Pump if the sludge is 12 inches thick.
- Inspect the electrical splice box and wiring - check gasket and wiring seals. Dry out and repair if there is a build-up of moisture or if water-logged.
- Measure the pressure head (recommended) if the sand filter is equipped with clean-outs. Use capped threaded pipe nipples with a 1/8" drilled hole threaded into each clean-out to measure the effluent spray lengths. Test all laterals at the same time. Heights should be uniform (within 10%) and measurements compared to previous inspection amounts. Significant differences between the heights might be an indication of clogged orifices.

**Drainfield:**

- If the sand filter pumps to the drainfield, flush the drainfield laterals separately if equipped with clean-outs by manually turning the sand filter pump on at the control panel or by utilizing the on/off float in the sand filter pump chamber. Wait until the effluent clears up a second time before turning off the pump. Be sure to re-install the clean-out caps when finished.
- Monitor the observation/monitoring ports if equipped. Check for ponding – measure using a wood dowel or tape measure. If more than an inch monitor over next few hour and/or days. Compare to previous inspections.
- Inspect drainfield area – look for surfacing sewage, soggy, mushy or swampy areas, isolated green patches on lawn, and plants that grown in marshy environments and monitor for strong odors. If any of these conditions are present, it might indicate a failure.
- Check if drainfield and reserve drainfield area (repair area) are being properly maintained and covered with appropriate vegetation. The grazing of animals, the use of the area for storage, structures, and parking or driving vehicles within the drainfield and reserve areas should be prohibited. Grass is the best cover.
- If the sand filter pumps to the drainfield, it is recommended to measure the pressure head if the system equipped with clean-outs. Use extra threaded caps with a drilled 1/8" hole on each clean-out to measure individual effluent spray lengths/heights. Test each lateral at the same time. Lengths/height should be uniform (within 10%) and measurements compared to previous inspection amounts. Significant differences might be an indication of clogged orifices.