

# **Island County**

## **Homeowner Septic System Evaluation Certification Study Guide**



Island County Public Health  
1 NE 6<sup>th</sup> Street  
Coupeville, WA 98239

Effective: 4/30/19

## Table of Contents

<b>Introduction</b> .....	3
<b>Onsite Septic System Types Suitable for Homeowner Evaluation</b> .....	4
Conventional Gravity System.....	4
Conventional Pressure Distribution System .....	5
<b>Safety</b> .....	5
General Hygiene.....	5
Clothing.....	5
Tools.....	6
Decontamination .....	6
Pinch Points.....	7
Electricity.....	7
Gases.....	7
Open Tank Hazards .....	8
<b>Parcel Research and Preparation</b> .....	8
<b>Records Issues</b> .....	8
<b>Inspection Procedures Resources</b> .....	8
Reporting .....	9
Site Sketch.....	8
<b>Appendix A – Best Practices for OSS Owners</b> .....	10
Proper Operation/Conservation .....	10
Water Use .....	10
Check Household Plumbing .....	10
Household Chemicals.....	11
Other Waste Products.....	11
Drainage.....	12
Plantings.....	12
<b>Appendix B - Onsite Sewage System Homeowner Evaluation Form</b> .....	13
<b>Appendix C - Island County Onsite Septic Regulations</b> .....	15
8.07D.050 - Adequate Sewage Disposal. ....	15
8.07D.060 - No Discharge to Water or Ground Surface. ....	15
8.07D.070.M.3 - Licensing.....	15
8.07D.110 – Permit Requirements.....	16
8.07D.280 - Operation, Monitoring, and Maintenance—Owner Responsibilities. ....	16

## Introduction

The *Homeowner Septic System Evaluation Certification Study Guide* is to be used in conjunction with the *Washington State Department of Health Video DIY Septic System Inspection*, and the *Island County HOST Question Bank* in a self-study program for the in person certification exam proctored by Island County Staff. The test fee of \$52.00 is to be paid at the Island County Public Health Department front counter at least ten business days in advance of the quarterly exam dates.

A homeowner may inspect their on-site sewage system (OSS) for the life of that system once certified. Conventional gravity and conventional pressure systems qualify for homeowner inspection as long as the parcel is not located in a designated sensitive watershed (Maxwelton, Penn Cove, and South Holmes Harbor watersheds – please contact the Environmental Health Department office to verify). Alternative systems DO NOT qualify for homeowner inspection. Alternative systems include, but are not limited to; Glendon Biofilters, AdvanTex filters, mound systems, Aerobic Treatment Units (ATU), sub-surface drip irrigation, commercial operations, and community drainfields.

Regular evaluation of an OSS is now required both in State (WAC 246-272A) and local (ICC 8.07D) health regulations as of 2007. Properly operating and maintaining an OSS ensure that wastewater is not a source of pollution. OSS evaluations must be completed and filed with the ICHD at least once every three years for systems consisting solely of a septic tank and gravity drainfield (conventional gravity), and annually for all other system types (including conventional pressure systems and conventional pump to gravity via a distribution box).

Failing septic systems may introduce sewage containing pathogens and contaminants into both ground water (drinking water sources), and surface waters (streams and recreational beaches). Shellfish harvested from the Puget Sound marine environments can easily become contaminated by failing septic systems. Sewage-contaminated shellfish may be unsafe for humans consumption. Flies, rats, and other disease vectors can encounter sewage from a failing septic system and transmit them to humans or other animals at locations far from the failing system.

While the HOST program materials provide the basic information necessary to operate and maintain most conventional gravity and conventional pressurized septic systems, it cannot address every condition and situation that may be encountered, nor is it as thorough of an evaluation as would be performed by a licensed Maintenance Service Provider (MSP). It should therefore be noted that at the time of a property transfer, a licensed MSP must conduct a property sale inspection.

Older systems may vary in their configuration and construction and many older systems have; no record drawing (As-built), component access, or location information. There may also be circumstances where it will be difficult, dangerous, or even impossible for a homeowner to properly evaluate and maintain their OSS by themselves. In these instances, a homeowner should contact a licensed MSP for maintenance services.

# Onsite Septic System Types Suitable for Homeowner Evaluation

## *Conventional Gravity System*

A Conventional Gravity system will likely have all of the following major components: Septic cleanout, septic tank(s), distribution box, and drainfield. A typical conventional gravity system will not have any mechanical devices to convey water or material; gravity will do all of the required work. The septic tank provides room for the solids to settle out and begin to decompose and for fats, oils, and grease to float to the top of the septic tank, thereby protecting the drainfield. This effluent is conveyed by gravity to the distribution box, which is designed to evenly distribute effluent to drainfield piping, or “laterals.” Note that level-loop drainfields are not equipped with distribution boxes because drain lines are connected in a loop at their ends.



When there are positive elevation differences between the drainfield and septic tank, gravity cannot be used for effluent transport and a pump will be necessary. Typically, a second pump tank is used for the pump, which then conveys the effluent to a distribution box for gravity distribution to the drainfield laterals. This type of system is known as a ‘Pump to D-box for Gravity Distribution’.

The drainfield is the final and the most “downstream” component in your septic system. The drainfield is where effluent is discharged into the environment. The final treatment occurs in the soil that surrounds your drainfield, where beneficial aerobic bacteria render unhealthy bacteria and pathogens harmless before the effluent returns to the groundwater.

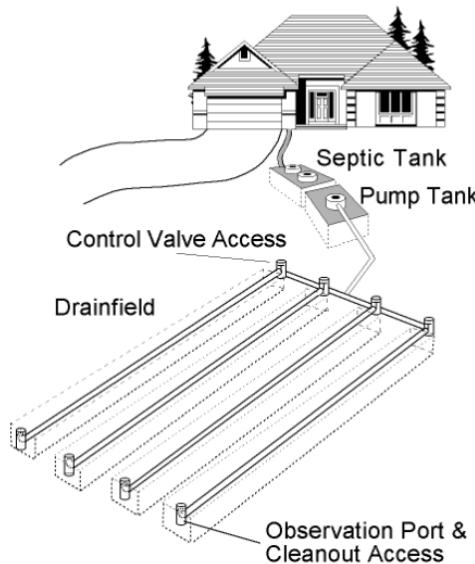
## **Conventional Pressure Distribution System**

A conventional pressure distribution system will likely have all of the following major components, each of which should be thoroughly inspected: cleanout, septic tank(s); pump tank; effluent pump, valve manifold, and a drainfield with pressurized laterals. Liquids from the house plumbing will carry solid materials out of your dwelling towards downstream components. The septic tank will provide room for the solids to settle out and begin to decompose, and for the fats and oils to cool and float to the top.

Pressure distribution systems are similar to conventional gravity systems, except that the effluent will flow out of your septic tank and into your pump tank.

The pump tank will store the effluent until it is conveyed to a drainfield by the effluent pump. The effluent is distributed via pressure throughout the drainfield by utilizing small diameter pipes with small holes to distribute the liquid throughout the drainfield. Typically, cleanouts are installed at the terminal end of the laterals for periodic flushing in addition to monitoring ports, which are used to evaluate the drainfield interface.

## **Pressure Distribution System**



## **Safety**

Evaluating and maintaining an OSS can be dangerous. Homeowners who choose to maintain and evaluate their septic systems can be exposed to disease causing agents found in human waste, hazardous gases, pinch/crush hazards, entrapment hazards, and electrical hazards. It is therefore imperative that homeowners take all necessary precautions to identify and minimize the risks of becoming sick, injured, or killed when conducting inspections.

If at any time you do not feel comfortable or confident in your ability to evaluate and maintain your septic system without the risk of becoming ill or injured, you should hire a licensed Maintenance Service Provider to perform the work. ICHD licenses these professionals, and publishes their contact information on the county website. Internet, local phone, and service directories also contain useful septic industry contacts.

## **General Hygiene**

Evaluating, maintaining, or troubleshooting a septic system can expose people to the many pathogens or disease causing organisms found in wastewater. Hygienic practices mentioned herein will help homeowners protect themselves. Proper hygienic practices *minimize* the risk of infection. It is the responsibility of homeowners to use best judgement to protect themselves from exposure to wastewater and to seek medical assistance if exposed. The following practices will help minimize the risk of exposure:

## **Clothing**

Protective clothing should be worn whenever you maintain your septic system. You may get splashed or

sprayed with raw sewage. Covering the eyes, nose, mouth, and any open cuts is particularly important. Face shields or goggles are recommended. Gloves are the first line of defense for the average do-it-yourself-er. Maintaining your system will require the use of your hands to do many things including lifting lids, operating sludge and scum gauges, lifting floats, pulling filters, and adjusting valves. Gloves will minimize your exposure risk.

## **Tools**

Tools can be used to further minimize your exposure to the sewage contained in your septic system. Rakes, shovels, and poles can be used to reach components that are well below ground or out of reach. Rakes can be used to lift floats and screens. Sludge and scum sticks are used to determine the thickness of tank solids. A hose with a nozzle can be used to pre-clean risers, plumbing, and inspection ports.

**Safety Reminder:** Using hoses can create another risk; improper use of a hose can cause a cross connection, a situation where sewage and potable water become mixed. Under certain situations, waste water may backflow into the freshwater system via the hose; this can occur whenever the hose outlet is fully immersed in the wastewater. Never immerse the hose in any wastewater.

## **Decontamination**

Proper decontamination of equipment is an important task that will minimize your risk of becoming ill. While exposure to raw sewage is readily evident, exposure to *residues* from contaminated equipment or clothing may not be apparent, yet can still result in exposure and subsequent illness. For this reason, equipment, clothing, and tools that have been splashed with or immersed in effluent or sewage, must be decontaminated. Decontamination of equipment or tools should include a four-step process. Assemble the following materials.

- Garden hose for rinsing equipment
- 5 gallon buckets
- Soap or detergents
- Brush for cleaning grime and grit from tool with hard to reach places
- Sanitizing solution (5 parts water : 1 part bleach)
- Plastic cup for rinsing large tools with the sanitizer

1. **Rinse:** Start by rinsing the equipment and tools with water from your garden hose. Remove large solids from your equipment. This process may require the use of a stiff bristled brush to remove all material.
2. **Wash:** Next, immerse the equipment into the 5-gallon bucket containing a soap and water mixture. Use a brush to clean the hard to reach portions of the tools. Let the equipment soak as needed. Larger tools may require the use of a brush and a small rinse cup to completely clean areas that cannot be immersed in the bucket.
3. **Rinse:** Remove the equipment and tools from the soap and water mixture. Again, using the garden hose, rinse the soap from the equipment; this will ensure the soaps do not bind with the sanitizer.

4. **Sanitize:** After thoroughly rinsing the tools, immerse the equipment in a sanitizer. Store bought bleach is a very effective sanitizer for killing bacteria and viruses at a ratio of 1:5 bleach to water to create a strong sanitizing solution. Other products, including iodine or ammonia are also effective sanitizers. Fully immerse the tools and equipment, if possible. The longer the equipment stays in contact with the sanitizer, the more bacteria and viruses will be killed. When tools are too large to immerse in the solution, a plastic cup or similar container filled with sanitizer can be used to rinse the tools. Take special care to sanitize areas where later hand contact is likely to occur. Pour used sanitizing solution into the first compartment of the septic tank.

### ***Pinch Points***

Septic systems contain a number of potential “pinch-points”. These are areas where heavy lids or awkward doors could pinch or crush fingers or limbs. Septic tank lids are heavy and awkward. Lids can slip or slide across surfaces, pinching or crushing limbs or fingers. Valve box lids often have awkward releases that, when opened, can also pinch or crush fingers. A homeowner maintaining their OSS should always evaluate their surroundings and take all measures needed to minimize the risk of injury.

### ***Electricity***

Septic systems that contain a pump will have an associated electrical system. These can pose a risk of electrocution. A homeowner maintaining a pump system should minimize electrical hazards where appropriate.

Electrical connections are typically buried and run underground from the dwelling to the pump tank. You may find junction boxes, wires, or other electrical connections in the pump chamber. Ideally, these connections, when found in the pump tank, will be located in a junction box that keeps wire connections protected from breakage and keeps the wires organized. Electrical connections should need very little maintenance if the pump controls and alarms are functioning as designed. If electrical problems are identified, a homeowner should contact a licensed Electrician. The Washington State Department of Labor and Industries govern electrical rules and requirements.

Most pumps are wired directly into the dwelling fuse/breaker box. Power can usually be disconnected at your home’s circuit breaker. If there is a need to discontinue power, the safest approach is to de-energize the main breaker to the dwelling, though this is not a guarantee that the system is de-energized. Take additional steps to verify that the system has been de-energized upon securing the electricity. If there are any indications that the panel is still energized, consult a licensed electrician for assistance.

### ***Gases***

Septic systems produce gases that can be explosive or are capable of displacing oxygen. For these reasons, a person should do everything possible to minimize risk of exposure to gas and have a safety observer present. Prior to using any electrical device (screwdrivers, drills, flashlights, etc.), all septic system components should be vented thoroughly.

**A person should never, for any reason, enter the confines of a septic system, especially tanks.**

Methane and hydrogen sulfide gases are produced by the decomposition of organic materials and are found in the septic system. A properly functioning septic system will allow for the proper venting of these gases, either through a dwelling's plumbing system or through vent pipes located near your septic system. Some gases found in properly functioning septic systems have different densities. These gases can sink or rise, displacing oxygen that you need to breathe. While leaning over the system, be sure to recognize that gases may have accumulated around where you are breathing. These gases can be odorless and may cause a loss of consciousness or death due to asphyxiation.

### ***Open Tank Hazards***

Take great care when septic tanks are open. Best practices include having a second person onsite when the tank lids are open, making sure pets and children are properly monitored, and be aware of the risks associated with septic tank entrapment.

### **Parcel Research and Preparation**

The first step in maintaining your septic system is obtaining your septic permit. Your septic permit will include an "as-built" or "record drawing"; as-builts or record drawings are drawings are typically drawn to scale or otherwise help describe the location of your septic system. Old homes may not have a septic permit on record or the as-built may be unreliable. As-built drawings are available at the Island County Health Department for \$0.15 per page, or on the public web portal:

<https://permits.islandcountywa.gov/SMARTGovPortal/Public/Home>

### **If There is No As-Built or Record Drawing**

If the Health Department does not have a record for your septic system, it does not mean that you do not have a septic system or that it is failed or illegal. It probably means that the system was installed prior to any requirement to create an as-built. If there is no record drawing or permitted as-built, you face additional challenges. In these instances, Island County Public Health recommends hiring a licensed professional to locate and properly document the system as installed.

### ***Site Sketch***

If there is no permit available for the system, Island County Public Health requests that the homeowner submit an OSS drawing (site sketch). An OSS drawing is a basic site plan illustrating the location of the OSS components (tanks and drainfield) in relationship to the house. The drawing should be done on 8.5" x 11" paper and include a north arrow, building location, and location of OSS components. Attach this document to the OSSHE.

Alternately and preferably, a licensed Onsite Septic Designer can document the system components officially via an 'Asbuilt Cert'.

### **Inspection Procedures & Resources**

The Washington State Department of Health has produced video tutorial and field guide PDF for how to perform a standard system evaluation of a conventional gravity septic system and a conventional pressure distribution system.

## **Do-it-Yourself Septic System Inspection Field Guide PDF**

<https://www.doh.wa.gov/Portals/1/Documents/Pubs/337-121.pdf>

## **Do-It-Yourself Septic Inspection Video**

<https://www.doh.wa.gov/CommunityandEnvironment/WastewaterManagement/SepticSystem/DoItYourselfInspectionVideo>

### **When to Consult a Professional**

If your system has a control panel associated with your pump tank, consult your asbuilt for information about your control panel and associated dose timer. Note: ICPH strongly discourages adjusting your dose timer settings, as incorrect settings may shorten the life of your system and components. Please consult a professional to perform a drawdown to assess pump function and drainfield performance.

### ***Reporting***

The final step to evaluating your system is completing the approved Island County Health Department Onsite Sewage System Homeowner Evaluation Form (OSSHE). The OSSHE is available at 1 6th St NE, Coupeville, WA 98239, online, or in Appendix B of this guide. Return the completed evaluation within 20 days of the system evaluation for review by Island County Staff. If discrepancies are noted, Island County Staff may perform a site visit for verification. Be sure to include the parcel number, site address, and asbuilt number.

The most important section is the *overall system status* section. If during inspection no issues are observed, the homeowner should mark “Satisfactory”. The homeowner must mark “Maintenance Needed” if the inspection indicates that some type of maintenance is required, but could not be corrected prior to submitting the report to the Health Department. Some of the most common maintenance needed items are pumping the septic tank, replacing a float, repairing a leaking riser, or replacing a baffle. If you addressed the maintenance needed item, mark “Maintenance Performed.” Examples of failure include: sewage surfacing on the ground, sewage backing up into the house due to a saturated drainfield, or sewage leaking from the septic tank or pump chamber.

# Appendix A - Best Practices for OSS Owners

## *Proper Operation/Conservation*

Operation and maintenance of your home septic system begins with your actions inside the home. What you flush, how much you flush, and how much water you run down the drain will affect the function and performance of your septic system.

### **Water Use**

Water usage is usually the most significant contributor to a failed septic system. Every drip, drop, sprinkle, or spray of water that goes down a shower, sink, toilet, or drain will end up being processed by your septic system. Reducing water use will limit the demand you place on your septic system. Faucets and toilets should be free of any leakage. Most people perceive a slow dripping faucet as nothing more than a nuisance. A septic system will be burdened by this nuisance.

A slow dripping faucet can and will lead to premature failure of your septic system. It is easy to think about this in terms that describe a real situation: The slow drip (one every five seconds), drips 12 times per minute, for 60 minutes, 24 hours a day, 365 days of the year. These slow drips will accumulate over time into thousands of gallons of water. The septic system must process and dispose of these thousands of gallons of clean water unnecessarily.

Flow restrictors are an easy and effective means to reduce water consumption. Flow restrictors on showers and other high volume water fixtures can dramatically reduce your consumption of water. Many flow restrictors have no mechanical parts while others reduce flow based upon pressure. They can be purchased at your local hardware store and are easy to install in most faucets.

If there is a water meter on the property, a homeowner can easily determine household water usage. If the water meter has a counter, write the number down, along with the time and date. Several days later, read the meter again. Subtract the smaller number from the larger; the difference is the amount of water used since the previous meter reading.

Determining daily water usage allows homeowners to evaluate septic system loading. Be aware that meter readings will typically represent all of the water used, including irrigation. If a homeowner has been watering lawns and other landscaping on the property, meter readings may not accurately reflect all of the water processed by the septic system.

### **Check Household Plumbing**

Some plumbing fixtures (like toilets) can leak so slowly that it is difficult to hear or see signs of a leak. There are a number of things you can do to check for leaks. One way to identify a very slow leak is by shutting all faucets off and keeping them off for a period of time. Read the meter once all faucets are off, and then wait a few hours and check the meter again. If the meter has moved and no water was used during that time, the house have a very slow leak.

Individual faucets can be evaluated for leaks by placing a dry bowl or plate under each faucet. Place the dry bowl directly under the faucet. Do not use the faucet for as long as possible. After several hours,

check the bowl for any signs of water. If there is water in the bowl, the plumbing fixture is leaking and needs repair.

Toilets can also be tested for leaks. Open the lid to the toilet tank and pour a good amount of food coloring into the tank water. If there is a slow leak, the food coloring will show up in the toilet bowl. This is a cheap and easy way of assessing toilets for leaks, which may otherwise be difficult to detect visually.

## **Household Chemicals**

Harsh chemicals including acids, bases, pesticides, herbicides, oils, paints, and varnishes should never be introduced to a septic system. The chemicals can alter the natural biological conditions found in the tank and soil. Altering the biological balance may discourage the natural proliferation and growth of bacteria found in the system, which will not allow for normal and productive decomposition of the solids present in the tank.

Some chemicals, like those found in pesticides, herbicides, and oils are persistent and cannot be processed by a septic system. These chemicals can pass through the septic system with little or no treatment or can remain in the system for years.

These pollutants contaminate ground and surface waters. Most household wastes, such as harsh chemicals, paints, and oils can be disposed of at your local transfer station or solid waste facility. Dispose of household toxic waste at the Coupeville Solid Waste Complex at 20018 WA-20, Coupeville, WA 98239.

## **Other Waste Products**

Everything that enters the house plumbing system will ultimately end up in the septic system. Septic systems are not capable of handling many wastes that are generated in the home. Cat litter, pet waste, tampons, sanitary napkins, disposable diapers, paper towels, facial tissue, hand wipes, cigarette butts, and coffee grounds are only some of the items people flush into their septic systems, but shouldn't. Many of these products can clog the plumbing and septic system. These materials do not decompose in the septic tank. Flushing them will increase the need to pump, maintain and repair your system.

Grease is a common household waste product that many people flush or rinse down the drain. Greases can congeal anywhere in a plumbing or septic system. Once these products congeal, they can build up in sewer lines. Materials that are flushed may get caught up on this congealed ooze and worsen the blockage. Grease can also clog the pores in the drainfield and may shorten its service life.

Here is an easy and simple way to dispose of household grease: If still warm and in liquid form, the grease can be poured off easily into a water-tight container such as a coffee can and disposed of in the trash. Another way to dispose of grease is to let the grease cool in the pan, where it can be scraped off using a paper towel. The grease laden paper towel can then be disposed of in the garbage.

Some household products are advertised as "septic safe". While they may not have a negative effect on your system, they do fill the septic system with wastes that require removal through pumping. Additives

and old “cures” such as using cabbage, hamburger, yeast, etc., have no beneficial effect on your septic system, but will lead to more frequent pumping of the septic system.

Garbage disposals are frequently installed in new homes. Using a garbage disposal on a septic system is not recommended. A garbage disposal adds more undigested solid material to the septic system. In addition, some garbage disposals are capable of grinding or shredding material to a very fine size. These small bits of ground-up material are often difficult to settle out and these unsettled particles can pass through the septic tank, eventually damaging pumps or clogging the soil beneath the drainfield.

Additional tank capacity is recommended if a garbage disposal is used.

### **Drainage**

Directing surface water away from the tanks and drainfield will help your drainfield function as designed. Water coming from roof drains, driveways or other surfaces should be directed away from the septic system. Remember, the soil where the drainfield is located is capable of disposing of a limited amount of liquid. Additional water, clean or not, taxes the soil’s ability to accept wastewater.

French drains, curtain drains, or shallow diversion ditches can help move water out and around the septic system. Septic systems that have a curtain drain installed around them, are often dependent on a functioning curtain drain. Curtain drains may require some maintenance themselves. Keeping drains free from blockage ensures that surface water is being moved properly around the septic system.

### **Plantings**

Landscaping in and around the septic system is important. Poor landscaping can cause septic system problems, including premature failure of the septic system. The rule of thumb for planting is to use only shallow-rooted plants such as grasses. A willow or cedar planted near a septic system will seek the water found in the tanks and pipes. Drainfield pipes have been completely blocked by tree roots, resulting in the failure of the septic system. Roots can grow through cracks around septic tank, septic tank lids, distribution boxes, and drainfield laterals causing failure or an inability to access and maintain the system.

Local landscapers or nurseries can help homeowners select plants that are appropriate for the areas around their septic system. Make sure the nursery understands the need for plants that do not seek water or require frequent or substantial watering.

## **Appendix B.**

### **Onsite Sewage System Homeowner Evaluation Form**



**Island County Public Health  
Onsite Operation & Maintenance Program**  
P.O. Box 5000 Coupeville, WA 98239  
Phone: (360) 679-7350 Fax: (360) 679-7390  
From South Whidbey (360) 321-5111 x7350  
From Camano (360) 629-4522 x7350  
Website: <http://www.islandcounty.org>

ICPH Date Stamp Only

## On-Site Sewage System HOMEOWNER Evaluation

(To be used only for Conventional Gravity, Conventional Pressure and Pump to D-Box Systems)

**OVERALL SYSTEM STATUS:** (complete this question after evaluating all components)

Acceptable, no corrections needed  Acceptable, corrections made  Corrections needed  Failure

#### A. SEPTIC TANK:

**Acceptable, no corrections needed**    **Acceptable, corrections made**    **Corrections needed**    **Failure**

1. Number of compartments:	<input type="checkbox"/> Single	<input type="checkbox"/> Double	<input type="checkbox"/> Other: _____			
2. Estimated tank volume:	<input type="checkbox"/> Gallons					
3. Tank construction material:	<input type="checkbox"/> Concrete	<input type="checkbox"/> Fiberglass	<input type="checkbox"/> Poly	<input type="checkbox"/> Metal	<input type="checkbox"/> Wood	<input type="checkbox"/> Other: _____
4. Surface access to the inlet:	<input type="checkbox"/> Yes	<input type="checkbox"/> No - how deep to access?	inches			
5. Risers and lids condition:	<input type="checkbox"/> Acceptable	<input type="checkbox"/> Corrections needed. What? _____			<input type="checkbox"/> No risers	
6. Depth of scum at inlet:	<input type="checkbox"/> inches					
7. Depth of sludge at inlet:	<input type="checkbox"/> inches					
8. Inlet baffle condition:	<input type="checkbox"/> Acceptable	<input type="checkbox"/> Corrections needed. What? _____			<input type="checkbox"/> None	
9. Surface access to the outlet:	<input type="checkbox"/> Yes	<input type="checkbox"/> No				
10. Effluent baffle screen (filter) condition:	<input type="checkbox"/> Acceptable	<input type="checkbox"/> Corrections needed. What? _____			<input type="checkbox"/> None	
11. Evidence of water level above invert of outlet pipe:	<input type="checkbox"/> Acceptable	<input type="checkbox"/> Corrections needed. What? _____				
12. Depth of scum at outlet:	<input type="checkbox"/> inches					
13. Depth of sludge at outlet:	<input type="checkbox"/> inches					
14. Center wall condition: (not applicable for single compartment tank)	<input type="checkbox"/> Acceptable	<input type="checkbox"/> Corrections needed. What? _____				
15. Outlet baffle condition:	<input type="checkbox"/> Acceptable	<input type="checkbox"/> Corrections needed. What? _____				
16. Operational water depth (invert of outlet pipe to bottom of tank):	<input type="checkbox"/> inches					
17. Does the tank need pumping:	<input type="checkbox"/> Yes	<input type="checkbox"/> Pumped	<input type="checkbox"/> No			
18. Evidence of water infiltration or sewage leak:	<input type="checkbox"/> Yes; where? _____				<input type="checkbox"/> No	
19. External filter checked:	<input type="checkbox"/> Acceptable	<input type="checkbox"/> Corrections needed. What? _____			<input type="checkbox"/> None	

**COMMENTS:**

**B. PUMP TANK:**  N/A

*Acceptable, no corrections needed*  *Acceptable, corrections made*  *Corrections needed*  *Failure*

1. Surface access:  Yes  No If "No", how deep to access? \_\_\_\_\_

2. Risers and lids condition:  Acceptable  Corrections needed  No risers

3. Evidence of water infiltration or sewage leak:  Yes; where? \_\_\_\_\_  No

4. Depth of solids in pump chamber: Scum = \_\_\_\_\_ inches Sludge = \_\_\_\_\_ inches

5. Does the tank need pumping:  Yes  Pumped  No

**COMMENTS:**

Parcel #: \_\_\_\_\_

**C. PUMP CONTROL:**  N/A

Acceptable, no corrections needed  Acceptable, corrections made  Corrections needed  Failure

1. Panel Manufacturer: \_\_\_\_\_ OR  No Panel

2. Pump controlled by:  Dose Timer  Demand

3. Pump controlled by:  Floats  Pressure Transducer

Other \_\_\_\_\_

4. Is control panel and junction box water/gas tight?  Yes  No

5. Alarm working properly:  Acceptable  Corrections needed. What? \_\_\_\_\_  None

6. Pump draw down at time of evaluation: \_\_\_\_\_ Inches per minute

7. Timer settings at time of evaluation: \_\_\_\_\_ Min. On  Min. Off

N/A - demand dosed system

COMMENTS: \_\_\_\_\_

**D. DRAINFIELD:**

Acceptable, no corrections needed  Acceptable, corrections made  Corrections needed  Failure

1. Distribution Type:  Gravity  Pump to D-Box  Pressure Laterals

2. Drainage Material:  Gravelless  Gravel-Filled

3. Is the drainfield located offsite:  No  Yes - Located on Parcel # \_\_\_\_\_

Yes  No

Yes  No

Acceptable  Corrections needed  Insufficient access  None

Yes  No  None

Yes  No  None

8. Monitoring ports accessible:  Yes  No  None

9. Equal distribution in absorption system:  Insufficient access to determine  Yes  No

10. Abnormal ponding in drainfield:  Insufficient access to determine  Yes (Explain in comments)  No

11. Drainfield protected:  Acceptable  Corrections needed

12. Reserve area protected\*:  Yes  No  No Reserve

\*Protected = Down spouts and surface water diverted, no vehicle traffic, no encroachment by buildings or paving, etc.)

COMMENTS: \_\_\_\_\_

ADDITIONAL COMMENTS:

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Print name of Certified Homeowner

Homeowner Certification Number

Signature of Certified Homeowner

Date

**NOTE:**

1. The homeowner must be certified by Island County Public Health to complete this form.
2. To be deemed valid, this form must be submitted to the Island County Public Health office and receive the appropriate date stamp.
3. Island County Code 8.07D requires an evaluation conducted by an Island County licensed Onsite Maintenance Service Provider for time of sale or title transfer. This evaluation is not valid for property sale or title transfer.
4. This form is updated periodically, please ensure that you have the most current version by visiting our website or contacting our office.

Last Updated 05/02/2012

PAGE 2 of 2

## **Appendix C.**

### **8.07D Island County Onsite Septic Regulations**

#### ***8.07D.050 - Adequate Sewage Disposal.***

A. Every residence, place of business, or other building or place where persons congregate, reside, or are employed shall be provided with an adequate sewage disposal system by the owner or agent of the premises. Said sewage disposal system is to be built or rebuilt, constructed and maintained in such manner as to meet the requirements of construction and maintenance as prescribed by the health officer in accordance with minimum requirements and standards in these rules and regulations. Violation of the laws or regulations of the State of Washington or the Board of Health is a misdemeanor.

B. Failing systems. Any existing or proposed side sewer or sewage disposal system is considered failing and in violation of these rules and regulations if the contents and/or discharge to or from the side sewer or sewage disposal system include:

1. Sewage on the surface of the ground;
2. Sewage backing up into a structure caused by slow soil absorption of septic tank effluent;
3. Sewage leaking from a septic tank, pump chamber, holding tank, or collection system;
4. Cesspools or seepage pits;
5. Inadequately treated effluent contaminating groundwater or surface water;
6. Noncompliance with standards stipulated on the permit;
7. Violates any laws or regulations of Washington State governing water pollution or the disposal of sewage or liquid-borne waste;
8. Creates a health hazard by the contents or effluent being accessible to people, animals, insects, or other possible carriers of disease; and
9. Gives rise to a nuisance due to odor or unsightly appearance.

C. Commercial and industrial waste products and by-products other than human waste are not to be disposed of in subsurface sewage disposal systems.

#### ***8.07D.060 - No Discharge to Water or Ground Surface.***

A. Effluent from any on-site sewage disposal system shall not be discharged directly or indirectly to surface water or upon the surface of the ground, except where expressly permitted by the Health Department or by the Washington State Department of Ecology.

#### ***8.07D.070.M.3 - Licensing.***

A. An OSS owner may complete the evaluation of the OSS components for systems consisting solely of a septic tank and gravity SSAS after completion of a training program approved by the health officer and not associated with a property sale; and

B. An OSS owner may complete the evaluation of the OSS components for systems consisting solely of a septic tank, pump chamber, and pressurized SSAS after completion of a training program approved by the health officer in those areas that are not marine recovery areas or sensitive areas, and not associated with a property sale. All evaluations of OSS shall be reported to the health officer on forms approved by the health officer.

L. Resident owner exemption. Nothing herein contained shall prohibit any person from designing, installing, or making repairs on a sewage disposal system serving their own single-family residence not adjacent to a marine shoreline, provided that the resident property owner applies for and secures a permit and/or completes the work required under the standards herein outlined, subject to inspection and approval by the health officer. This owner exemption does not apply to builders of homes constructed for resale, secondary residences, rentals, nor does it apply to the design or installation of alternative systems and conventional pressure systems. The work in designing, installing, or repairing an on-site sewage disposal system by a resident owner shall be totally performed by the resident owner. This includes design work as well as machinery operation. Owner installer permits shall be nontransferable. Additional inspections may be required. Nothing herein contained shall prohibit a resident or non-resident homeowner from conducting, or performing operation, maintenance, and monitoring of their on-site sewage disposal system and reporting the findings of the operation, maintenance or monitoring of their on-site sewage system to the Health Department so long as the Health Department has authorized the homeowner to conduct the inspection.

#### ***8.07D.110 – Permit Requirements***

B. A sewage disposal system permit is not required for a resident/owner performing work on their own OSS or a certified operation, maintenance and monitoring specialist performing replacement, addition, or modification of broken or malfunctioning building sewers, risers and lids, sewage tank lids, sewage tank baffles, sewage tank pumps (same make and model or equivalent replacement pump), pump control floats, pipes connecting multiple sewage tanks, and OSS inspection boxes and ports where a sewage tank, treatment component, or soil dispersal component does not need to be replaced.

However, it is the resident/owner's and the maintenance service provider's responsibility to ensure that the appropriate permits are obtained from WA State Labor and Industries for all electrical work, and that all alterations to an OSS are consistent with the rules contained herein, the intent of the rules, and all associated OSS guidelines. The health officer may require the owner to submit information regarding these activities for recordkeeping purposes.

#### ***8.07D.280 - Operation, Monitoring, and Maintenance—Owner Responsibilities.***

A. The OSS owner is responsible for operating, monitoring, and maintaining the OSS to minimize the risk of failure, and to accomplish this purpose, shall:

1. Obtain approval from the health officer before repairing, altering or expanding an OSS;
2. Secure and renew contracts for periodic maintenance where required by the health jurisdiction;
3. Obtain and renew operation permits if required by the health officer;
4. Assure a complete evaluation of the system components and/or property to determine functionality, maintenance needs and compliance with regulations and any permits:
  - a. At least once every three (3) years for all systems consisting solely of a septic tank and gravity SSAS;
  - b. Annually for all other systems unless more frequent inspections are specified by the health officer;
  - c. At the time of property sale where the property is served by an OSS and an inspection has not been completed within the most recent compliance period;
  - d. Certified maintenance service providers must complete the evaluation of the OSS except that: (i) A OSS owner may complete the evaluation of the OSS components for systems

consisting solely of a septic tank and gravity SSAS after completion of a training program approved by the health officer and not associated with a property sale; and (ii) A OSS owner may complete the evaluation of the OSS components for systems consisting solely of a septic tank, pump chamber, and pressurized SSAS after completion of a training program approved by the health officer in those areas that are not marine recovery areas or sensitive areas, and not associated with a property sale.

e. All evaluations of OSS shall be reported to the health officer on forms approved by the health officer.

5. Employ an approved pumper to remove the septage from the tank when the level of solids and scum indicates that removal is necessary. The septic tank shall be pumped when the total amount of solids equals or exceeds one-third (1/3) the volume of the tank. The pump and/or siphon chamber(s) shall be pumped when any solids are present;

6. Provide maintenance and needed repairs to promptly return the system to a proper operating condition;

7. Protect the OSS area and the reserve area from:

- a. Cover by structures or impervious material;
- b. Surface drainage, and direct drains, such as footing or roof drains. The drainage must be directed away from the area where the OSS is located;
- c. Soil compaction, for example by vehicular traffic or livestock;
- d. Damage by soil removal and grade alteration; and
- e. Encroachment by buildings or construction such as placement of swimming pools, power poles, underground irrigation systems, and underground utilities.

8. Keep the flow of sewage to the OSS at or below the approved operating capacity and sewage quality;

9. Operate and maintain systems as directed by the health officer;

10. Request assistance from the health officer upon occurrence of a system failure or suspected system failure;

11. At the time of property transfer, provide to the buyer maintenance records, if available, in addition to the completed seller disclosure statement in accordance with Chapter 64.06 RCW for residential real property transfers; and

12. The health officer may, when there is evidence of a suspected imminent failure, require installation of observation ports in each individual lateral or bed, which extend from the bottom of the gravel to the finished grade for monitoring OSS performance.

B. Persons shall not:

1. Use or introduce strong bases, acids or chlorinated organic solvents into an OSS for the purpose of system cleaning;
2. Use a sewage system additive unless it is specifically approved by the department; or
3. Use an OSS to dispose of waste components atypical of sewage from a residential source.