



ASOTIN COUNTY HEALTH DISTRICT

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On-Site Sewage System Permits In Asotin County

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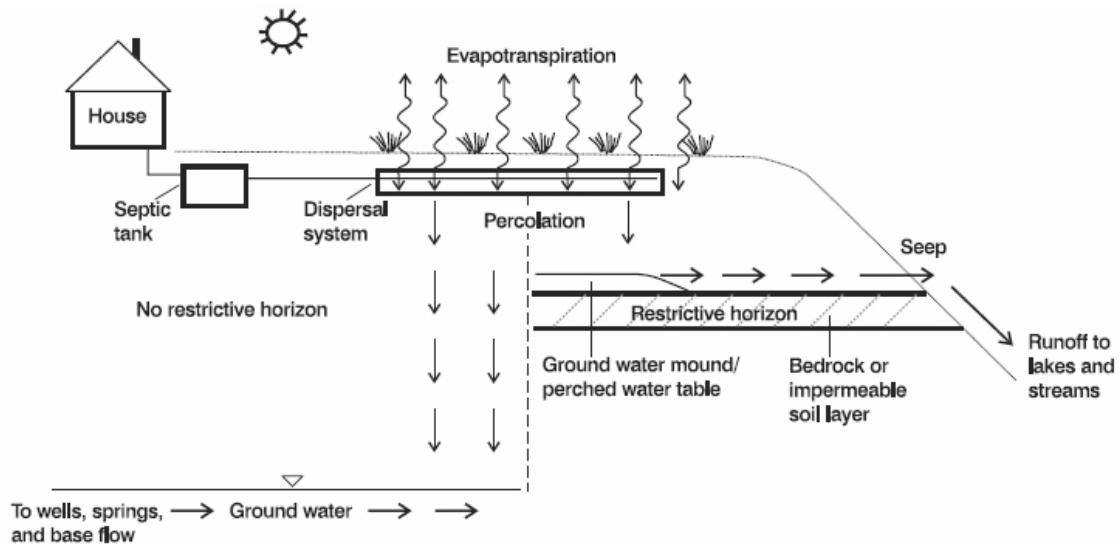


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HOMEOWNER ON-SITE SEWAGE SYSTEM INFORMATION

(FOR SEWAGE FLOWS LESS THAN 3500 GALLONS PER DAY)

This handout is designed to help the homeowner/developer through the planning process of obtaining a permit to install and operate an on-site sewage system (OSS). In Asotin County, on-site sewage systems are an important part of the land use and development process. Large portions of the county do not have access to public sanitary sewer, therefore OSS is the primary form of wastewater treatment and disposal.

OSS can be an effective tool for wastewater management and allows for further development while protecting water supplies that will serve increased populations. **The role of the Asotin County Health District (ACHD) is to facilitate the process of permitting and inspection of OSS to protect Public Health by minimizing the potential for public exposure to sewage and the adverse effects of sewage flows upon ground and surface waters.**

ACHD Environmental Health manages the OSS program on behalf of the local Asotin County Board of Health. The authority to regulate and administer OSS requirements is granted by RCW (regional code of Washington) 70.05, 70.08, 70.118, 70.46, and 43.70. The Asotin County Board of Health has adopted the Washington Administrative Code (WAC) *Rules and Regulation of the State Board of Health: On-site Sewage Systems Chapter 246-272A Effective July 1, 2007* by reference as well as the Asotin County Health District Ordinance: 84-54. Both of these documents are available upon request.

The basic steps of obtaining an OSS permit are: Site Evaluation, Design, Permitting, Installation, Inspections and Record Drawing, and Operation and Maintenance. All of these elements are critical in ensuring the long term operation of your OSS.

For more than 20 years, there have been 3 Washington State government agencies regulating on-site sewage systems. As of July 2009, The Washington State Department of Ecology (DOE) has jurisdiction over systems with average daily sewage flows exceeding 100,000 gallons per day as well as other systems with special circumstances. DOE also has sole authority over any on-site system designed to handle high strength industrial wastewater, including auto garages, food processors, and dog kennels. The Washington Department of Health (DOH) handles on-site sewage systems designed for sewage flows between 3,500 and 99,999 gallons per day. Local Health jurisdictions like Asotin County Health District (ACHD), are responsible for issuing permits for systems with less than 3,500 gallons of sewage flow per day.

Washington State has enacted newer legislation requiring all on-site sewage system design professionals to acquire a license from the Washington State Department of Licensing (DOL). **For the purposes of this handout, ALL licensed design professionals will simply be identified as the “Designer”.** * This law also requires environmental health specialists from local health jurisdictions to obtain an inspector certificate of competency.

Under the current rules for on-site sewage system design, Professional Engineers, Licensed Design Professionals, or the Asotin County Health District, may design OSS.

Homeowners are not permitted to design OSS in Asotin County, but exceptions are made for installation of gravity OSS with ACHD approval.

It is important for a homeowner to study the materials presented in this handout and any other supplemental data given or referenced which one may find under the Wastewater Management Publications section (see page 19 - 24). If you have computer access and a connection to the internet, these publications can all be downloaded and printed.

** Chapter 18.210 Revised Code of Washington (RCW), section .005 (2) makes it “unlawful for any individual to practice or offer to practice the design of on-site wastewater treatment systems unless licensed in accordance with this chapter or licensed as a professional engineer under chapter 18.43 RCW.”*

Note: Please begin the process of obtaining your OSS permit at least 60 – 90 days prior to the date that you seek to begin construction of a home or other structure that requires plumbing. The timeline below is provided to allow the homeowner to successfully plan for the permitting process and minimize delays in construction. Although these time frames are common, ACHD will work to ensure that all permits can be processed in the shortest possible time frame allowed for careful review and permitting.

1. Scheduling and completion of the soils evaluation (2 to 14 days)
2. The homeowner selects the Designer (1 to ? days)
3. The designer completes the site assessment, obtains the information of the clients needs for the site, and submits a draft design that will meet code restrictions for your project (14 to 45 days)
4. The Designer schedules the meeting with ACHD to review and comment on the design (2 to 14 days)
5. The Designer makes the necessary corrections and submits the final draft design (2 to 14 days)
6. The client is contacted to complete an application for permit and schedule an appointment time with ACHD to be issued a permit (2 to 14 days**)
7. OSS permit is paid for and issued to execute the accepted design. A copy of the permit is provided by the homeowner to the Asotin County Building Department in order to be issued a building permit.

**** in accordance with 246-272A-0200 (4)(a), the local health officer has up to 30 days to respond to a completed application for permit. ACHD rarely requires this time frame, but will reserve the right to do so in certain circumstances.**

Note: For new construction on undeveloped lots, please ensure you are proposing to develop a LEGAL BUILDING LOT OF RECORD. The Asotin County Building

Department (509) 243-2020 and the Asotin County Assessors Office (509) 243-2016, can assist you in making this determination.

I. SOIL & SITE EVALUATION (WAC 246-272A-0220)

***Note:** In the process of completing the soil evaluation, it is the intent and goal of ACHD to select a location at your site that can accommodate a basic gravity OSS. It is, generally speaking, the least complicated and least expensive system to purchase, operate and maintain. However, challenging site conditions, poor depth and type of soils, awkward or small lot configurations, lack of available usable space, etc. will be part of the determination of the final style or type of OSS that will be required for your site.*

***Note:** Please do not cut, fill or excavate any portion of the soils from your lot until the OSS location has been determined and accepted for permitting. Some sites are already marginal for OSS construction and the removal of native soil is highly discouraged to avoid the possibility of rendering your lot unbuildable for OSS requirements or forcing the design of a more technical and expensive OSS solution. OSS can not be placed in fill, regardless of the age of the material. The site surface may be carefully bladed or mowed to remove excess vegetation that may effect the assessment of the site contours, but otherwise, please leave the lot undisturbed in this regard until the review is complete and the OSS permit has been issued.*

After establishing your ability to build a home upon your property, the site assessment is an important part of OSS development in determining the location and type of system (conventional or alternative) that is suitable for your proposed project. Part of the assessment is a “**preconstruction plan review**” which is typically done with the assistance of several parties; the property owner, the construction general, the licensed installer and Designer (if they have already been selected), and ACHD.

The preconstruction plan review is a simple method for establishing what structures and amenities are proposed for a given project and whether those items meet necessary setback requirements. The corners or outline of the amenities are typically located upon the lot with some type of marker, whether it be paint and/or wood stakes. Some examples of items to stake out are the home, shop, swimming pools, concrete patios, basketball courts, driveways, cattle pens, or any other impervious surfaced that are planned. These are items that require horizontal setbacks and can not be placed over a septic system or 100% replacement drainfield area because they are known to physically and biologically damage the function of the OSS.

The next items to note are issues that also require setbacks such as utilities, easements, property lines, drainages, wells, etc. All of these items are placed on a drafted plot plan by the Designer to assist in finding an OSS solution that can meet your needs and fit with your proposed design.

With careful preparation, a septic system can often be designed that will work with your given site plan. Please make sure you also put down your ideas or plans for future development for consideration as well. The information gathered during this phase will help the designer to successfully plan your septic system and future expansion needs.

Once the proposed corners of your amenities have been staked or marked clearly with paint at the site, the next step is to complete the **testhole evaluation**.

This is done to frame in the location of the proposed septic system and 100% replacement drainfield area. **The replacement drainfield area is critical to have as a backup of the primary drainfield when it has matured and failed. The replacement area must be equal to 100% of the initial OSS and remain available throughout the life of the primary OSS unless another area or approved OSS design is designated with the Health District's prior approval.** The testhole locations are determined based on the given site conditions and setbacks and help to establish the prescribed OSS for your site.

An Environmental Health Specialist at ACHD or a Designer capable of assessing soils can perform the soils review and analysis of test holes. A soils scientist may also complete the soil evaluation, but may not design OSS. The full site evaluation is then completed by the Designer.

The homeowner must plan to dig the test holes or hire a licensed contractor to dig them. ACHD maintains a list of Licensed OSS Installers which is available upon request, from which a contractor may be selected as well, however, backhoe operators do not require any specific licensing from ACHD to perform this function.

Please contact ACHD to schedule for the Environmental Health Specialist and backhoe operator to meet at the site to plan the excavation locations and proper review. The property owner and/or contractor assume responsibility for constructing and maintaining the testhole excavations in accordance with WAC 296-155. The following tips should help in completing the testhole evaluation:

- If you do not officially own the property yet (by title), please secure permission to access from the landowner for the purpose of evaluating the soils. ACHD assumes that you have been permitted or have the right to access the property when we are called out for a soil evaluation.
- Contact a utility locate service such as 1-800-LOCATE prior to digging at a site where utilities or easements are in place to prevent outages or dangerous conditions created from striking underground electrical or gas utilities.
- It is often best to select a skilled backhoe operator so that the evaluation can be completed as quickly and safely as possible. **ACHD does not dig the actual testholes. That is a separate service and fee that the homeowner must arrange for. ACHD only reviews the soils and collects the necessary data.**
- The backhoe operator should select equipment to dig a 3' wide by 9' deep excavation that has sufficient power to dig through difficult soils and semi-restrictive layers.
- The standard depth of excavation is 6', but other depths may be selected depending on the final grading plan for the site. An example where a 9' testhole would be dug is if there was a plan to final grade the site down 3' after the soils review is complete. This will ensure that 6' of testhole data is left available for installation of an OSS, **after** removal of the soil.

- Wider buckets, greater than 3', front end loaders, etc. are discouraged for excavating testholes to avoid impacting the native soils on the lot any more than is necessary for data collection.
- Soil augers are not effective in allowing for access to soils down to 6'. The wall of the excavation is the important part that must be reviewed.
- Place excavated soil at least 2' away from the edge of the testhole to reduce the risk of collapse.
- Provide a ladder or "earth ramp" for safe entrance and exit to a depth of 4 feet. Scoop out an additional 2 feet at the far end of the excavation to allow for the observation of 6 feet of vertical soil face. The additional 2 feet is not to be entered.
- Mark, flag or G.P.S. the location of the testholes. ACHD takes general measurements of the locations utilizing any site benchmarks, but it is useful for the Designer to have clear markings of the testhole locations onsite if there is an extended period of inactivity between testhole review and design.
- Provide a physical warning barrier around the excavation's perimeter, as necessary, to reduce the potential risk of physical injury. This is especially important if there is a large distance between testholes, there will be a delay in backfill, or if unforeseen circumstances are encountered including equipment breakdowns.
- Backfill the excavated material and compact upon completion of the soil log after the necessary data is collected.

The design is then selected based on the conditions of the site evaluation and Table VI of 246-272A-0230 WAC (see below). The depth of soils to restrictive layers such as rock, caliche, water, clay or other impervious layers are noted on the soils review if documented at your site.

The depth of soil that is available for dispersal of effluent from the proposed bottom of your drainfield trench is called the **vertical separation**. This depth of soil helps to establish the type and style of OSS that may be selected.

TABLE VI
Treatment Component Performance Levels and Method of Distribution¹

Vertical Separation in inches	Soil Type		
	1	2	3-6
12 < 18	A - pressure with timed dosing	B - pressure with timed dosing	B - pressure with timed dosing
≥ 18 < 24	B - pressure with timed dosing	B - pressure with timed dosing	B - pressure with timed dosing
≥ 24 < 36	B - pressure with timed dosing	C - pressure	E - pressure
≥ 36 < 60	B - pressure with timed dosing	E - pressure	E - gravity
≥ 60	C - pressure	E - gravity	E - gravity

¹The treatment component performance levels correspond with those established for treatment components under the product testing requirements in WAC 246-272A-0110.

II. DESIGN (WAC 246-272A-0230)

***Note:** ACHD provides a courtesy list of licensed design professionals that are available in the area and have offered to provide design services for individual residential and commercial sites. These Designers are licensed by the Washington State Department of Licensing and are not affiliated with ACHD. ACHD can not provide recommendations for selection of design professionals. You may utilize the list or select your own licensed site designer from outside of the area that meets the requirements of being a licensed professional engineer in the state of Washington or is licensed by the Washington State Department of Licensing as a licensed OSS site designer.*

***Note:** If your proposed residence has an unfinished basement or an office with a framed in “clothes closet” and an “emergency egress window”, include it as a bedroom since the next occupants of the home may very well use it as such. It is always better to size an OSS to accommodate the total potential number of legal bedrooms and/or square footage requirements than to cause a new buyer to dig up the yard to enlarge the system later.*

Your licensed site Designer should be selected at this point, if this has not been completed yet. The Designer will incorporate the site evaluation data that they have collected at the site and combine it with the soils information to complete the OSS design. The design essentially becomes the “blue print” for construction of the OSS.

The Washington State Department of Health, in addition to providing the regulatory codes, also provides the “Recommended Standards and Guidance” documents for specific OSS technologies and devices, such as gravelless chambers, pressurized distribution systems, mounds, etc. These guidelines are the technical references that are used by your Designer in the primary design of your OSS and can be accessed online at the Washington State Department of Health website.

Here are some common tips to ask that may assist in helping to select a Designer for your site:

1. What is the price of the following services ? (some services are typically included in one fee)
 - Testhole evaluation - (if done by ACHD or by the Designer- normally paid for at the time of permitting with ACHD if not paid for by the Designer directly)
 - Preliminary site evaluation - (includes gathering or completing topographic data of site contours, taking measurements, assessing surrounding development and adjacent land uses, etc.)
 - Design - the actual written or printed blue-print document
 - Draft design review time at ACHD - usually paid by the homeowner at the time of permitting at ACHD if not paid directly by the Designer. This fee is reduced when a completed and professional design is submitted to ACHD for review. Well designed systems usually require less than 1 hour of total review time. If ACHD has to make several corrections to a poorly designed or edited documents, then

- review time can become several hours, require additional drafts, and cost more to complete.
 - Pressure test - if the system requires a pressurized drainfield - also known as the “squirt” test; jointly completed with ACHD.
 - Final installation inspection - completed prior to backfill of any components; also includes joint inspection by ACHD. If system is pressurized it also includes float and alarm checks and proper setting of timer for dosing, if required
 - Backfill Inspection – completed after the installer has finished backfilling and grading the OSS location. It also includes verification that the monitoring ports and other required accesses over the d-box and septic tanks are at grade and properly secured.
 - As-built package - includes the final as-built with all final measurements and revisions to the original design and a certification letter indicating that the OSS has been installed as designed and inspected as required.
 - Homeowners operation and maintenance manual – includes a brief description of the function and operation of the system, the as-built, list of contacts if maintenance is required, basic settings of timers and floats, cut sheets of materials used, devices installed, and an appropriate schedule of required maintenance to assist in providing long term use of the OSS.
2. Do you charge for extra visits to the site, calls from the Installer or ACHD or consultations to the homeowner?
 3. Do you have a list of clients you have designed OSS for in the past that can provide references of the quality, professionalism and timeliness of your work?
 4. How long have you been a professional Designer and how many OSS have you designed in the State of Washington?
 5. What is the expected time frame to complete the site assessment and provide a professional design to ACHD for review?

YOUR DESIGNER SHOULD BE IN CLOSE COMMUNICATION WITH YOU TO DETERMINE YOUR INDIVIDUAL NEEDS PRIOR TO SUBMITTING ANY DESIGN. THIS SHOULD INCLUDE YOUR PLANNED USAGE (RESIDENTIAL OR COMMERCIAL) AS WELL AS YOUR FINAL LANDSCAPING GRADING PLAN DETAILS. THIS MAY INCLUDE RETAINING WALLS, ADDITIONAL

FILL MATERIAL OR OTHER STRUCTURES THAT REQUIRE SETBACKS OR MODIFICATIONS TO THE DEPTH OF INSTALLATION OF THE OSS.

Upon completion of the scaled draft design (often done in a standard Auto Cad or hand drawn format within 6” of scale), the designer sets up an appointment to meet in person at ACHD with the Environmental Health Specialist for a first draft review. This review

is done to help to minimize common errors in design that may not meet specific site or code requirements. It is also an opportunity for the designer to justify the type of septic system proposed based on the conditions of your site and to provide clarity on the plan of installation. Written comments of required corrections are then provided to the Designer to implement in the second (and hopefully) final draft of the design.

THE DRAFT COPIES OF THE DESIGN ARE CONTROLLED DOCUMENTS AND SHOULD NOT BE GIVEN OUT FOR BIDDING PURPOSES. THE FINAL ACCEPTED DESIGN WILL LIKELY VARY OR BE COMPLETELY DIFFERENT FROM THE INITIAL DRAFT DESIGNS. THE ONLY DESIGN THAT MAY BE DISTRIBUTED SHOULD ALSO HAVE THE ATTACHED PERMIT VALIDATING IT AS THE FINAL DOCUMENT APPROVED FOR INSTALLATION.

The Designer incorporates the necessary changes and submits the final draft to ACHD for acceptance. ACHD reviews this design for the corrections made during the first draft meeting. If the necessary changes have been made correctly and the design is accepted, the homeowner will be contacted by either the Designer or ACHD to schedule an appointment to be issued an OSS permit.

III. PERMITTING (246-272A-0200 WAC)

The homeowner must fill out an OSS permit application, which is available at ACHD upon request. With an accepted design and application has been received, an OSS permit can be issued by ACHD.

Please note that ACHD will only issue a permit to the homeowner or property owner (if different from the homeowner). There are obligations to maintain and service the OSS as noted in 246-272A-0270 WAC that must be agreed to as a condition of permit issuance. The homeowner will also have an opportunity to review, discuss and accept the final design for installation at this time as well. The process typically takes 30 – 45 minutes if all documentation is available and ready to process.

The permit has a unique number that is issued for your project and has restrictions on installation. **It also identifies the final design that the permit is being issued for.** A complete summary of fees are assessed, based on the fee schedule attached in this packet. The original permit is retained at ACHD with the original application and accepted final design. 3 copies of this permit are made including a copy for the homeowner, installer and Designer of the OSS.

The full fee is then immediately paid at the front desk in 1 of 3 forms of acceptable payment: **cash, check, credit card (visa/mastercard/discover) or money order.** Final payment completes the permit issuance.

THE PERMIT IS EFFECTIVE FOR A PERIOD OF ONE (1) YEAR FROM THE DATE OF ISSUANCE. PLEASE PLAN YOUR PROJECT TO ENSURE THAT IT CAN BE COMPLETED IN THIS TIME FRAME OR BE PREPARED TO REQUEST AN EXTENSION AT LEAST 30 TO 60 DAYS PRIOR TO EXPIRATION, IF NECESSARY. THE OSS MUST BE INSTALLED AND INSPECTED UNDER A CURRENT, UNEXPIRED PERMIT.

IV. INSTALLATION (246-272A-0250 WAC)

Note: The most effective method to ensure that your OSS is installed correctly and with the least number of delays or issues is to schedule a “preconstruction” meeting with ACHD, the licensed installer, the homeowner (if possible), and the Designer. This meeting will help in answering questions that any party has and to formulate an effective plan for completing the OSS. The installer should visit the site first to ensure that they are able to install the design as permitted and that the site conditions noted during the evaluation and incorporated into the design, are still valid. If there are issues that need to be addressed, this meeting time can be utilized to address those concerns and move forward with the installation of the permitted design.

The installation of the OSS is a critical step in the development of your property. The methods and care utilized in installation of the system can result in an effective, long term solution for disposal and treatment of wastewater at your site. An improper, unskilled or sloppily installed OSS can lead to call backs, ground settling issues, sewage backups in the home and premature failure of your system.

The timing on the installation is important as well. When the OSS is located within 100 feet of any structure being built, it is highly recommended to delay installation of the OSS until the structures are near completion. This is done to avoid any damage to the OSS from concrete trucks, excavators, or other construction tools or materials.

With the OSS permit and a copy of the approved design, you can select your installer to complete the job. If the job is for a simple gravity OSS design, there are options that may be available to allow a homeowner to install the system themselves. This does not extend to spec builders or people that are building a home with the intent to immediately sell it. Contact ACHD for details if you would like to consider this option. It would also require that you upgrade your permit as described in the fee schedule.

It is useful to make additional copies of both the OSS permit and the accepted design to give out for construction bidding purposes. Your Designer can also provide or recommend a list of licensed installers that they have successfully worked with in the past.

ACHD licenses OSS Installers for Asotin County that may provide bids on the work to be done. ACHD renews licenses annually and can provide a list of currently licensed installers to choose from. **Please be reminded that ACHD can not recommend any specific installer for you but can provide the following tips to ask when selecting an ACHD licensed OSS installer:**

1. What is the price for the following Services? (some services may be included in one fee)
 - Preparation of the bid – do you charge to prepare a bid?
 - Preliminary evaluation – typically includes the preconstruction plan review (if the installer was available during this review)
 - Testhole digging - may include the cost of the operator and the fee for the backhoe, etc.

- Installation of the OSS – the actual labor, time, cost of materials and other fees included in the construction of the OSS.
2. How many installations of this particular type of design have you successfully completed?
 3. If your bid is selected, when can you begin construction?
 4. Do you have other recent clients that you have installed OSS for that I can contact as references of the quality, professionalism and timeliness of your work?
 5. Does your bid include other fees such as permits and other evaluations completed by ACHD?
 6. Do you charge extra for backfill labor or additional fill material that may be required at the site?
 7. Do you guarantee your work and for how long? Will you complete the necessary repairs if there is a problem?

The licensed installer must be on the job site to directly supervise excavation and construction of the OSS at all times. They must also maintain a copy of the OSS permit and accepted design in their possession during installation. The installer may not make changes to the design without the prior authorization of the designer and ACHD.

Once the installation is near completion, the contractor contacts ACHD and the Designer to schedule for the required joint inspections of the site. The necessary measurements and inspections are completed at the site and then upon approval, it is backfilled by the installer. If major changes are required in components, system type or locations, the installer must be in communication with both the Designer and ACHD to approve any major deviations PRIOR to moving forward in construction.

V. INSPECTIONS & RECORD DRAWING (246-272A-0260, 0265 WAC)

Note: If any design deviations are completed by the installer without authorization from the designer and ACHD, construction at the site will be “Red Tagged” until the issues can be resolved. The Designer may refuse to sign off or agree to the revisions, which may require a complete redesign of the OSS. This will produce delays and additional costs of revision, re-permitting and inspections. Major damage caused to the site by improper or unapproved installation may permanently damage the site and potentially render the site unbuildable or unapproved for occupancy until sanitary sewer or some other legal method to dispose of wastewater is completed.

Note: Upon final approval of the OSS, ACHD will contact the Asotin County Building Department to inform them that the OSS has been approved for use. This will facilitate the process of granting a certificate of occupancy.

The inspections of the installation are documented and are important in ensuring that the installer has followed the accepted design, installed the OSS at the correct depth and location and has not damaged any of the system components during construction.

Basic plumbing grades, components, connections, seals, (pumps, alarms, timers, if required) and construction methods are checked to ensure that the system will function as designed upon backfill. Inspections are jointly completed with the engineer to ensure that they will be able to provide a final certification of the installation of their design and to collect final measurements of installed components and any cut sheets that the installer saved from the installed components.

Once the necessary inspections have been completed, the installer is responsible for final grading of the site to prevent surface water from accumulating over any component of the OSS. They will also provide the final construction and at-grade finished access of the drainfield monitoring ports, the septic tank, and the d-box or valve pit, if installed. **The installer must ensure that the lids, especially to the septic tank, are appropriately bolted down and sealed to prevent unauthorized access or odor issues.**

The Designer may complete one last “backfill inspection” to ensure that the site has been properly graded and finished and that the accesses to the septic tank and other components are properly sealed down and secure.

The record drawing, or “As-built” is then completed by the Designer upon completion of the construction and final inspection of the OSS. The as-built is then submitted to ACHD and retained in our records. The certification letter indicating that the materials and equipment used meet the specs contained in the design is also submitted along with a copy of the operation and maintenance requirements of the OSS.

The as-built is used for future real estate transactions and is used to re-locate system components for operation and maintenance or new construction or expansion of existing structures at the site.

A copy of this information should also be provided by the Designer to the homeowner as well. The homeowner should retain this information and give it to the new homeowner upon sale or transfer of property.

VI. OPERATION AND MAINTENANCE (WAC 246-272A-0270)

Once the system has been approved and you have been granted occupancy to move into your home, it is important for you to become familiar with the operation and functioning of the installed system and how to protect it from damage. The following information is provided directly from the WAC to illustrate the necessary requirements of ongoing OSS operation and maintenance:

- (1) The OSS owner is responsible for operating, monitoring, and maintaining the OSS to minimize the risk of failure, and to accomplish this purpose, shall:
 - (a) Obtain approval from the local health officer before repairing, altering or expanding an OSS;

- (b) Secure and renew contracts for periodic maintenance where required by the local health jurisdiction;
- (c) Obtain and renew operation permits if required by the local health jurisdiction;
- (d) **Assure a complete evaluation of the system components and/or property to determine functionality, maintenance needs and compliance with regulations and any permits:**
 - (i) **At least once every three years for all systems consisting solely of a septic tank and gravity SSAS;**
 - (ii) **Annually for all other systems unless more frequent inspections are specified by the local health officer;**
- (e) Employ an approved pumper to remove the septage from the tank when the level of solids and scum indicates that removal is necessary;

Note: septage pumpers are licensed annually by ACHD in the same manner as installers.. Please contact ACHD for a current list of pumpers that are approved to pump septage in Asotin County. Unlicensed pumpers may remove septage and dispose of it in an illegal or unapproved manner.

- (f) Provide maintenance and needed repairs to promptly return the system to a proper operating condition;
 - (g) Protect the OSS area and the reserve area from:
 - (i) Cover by structures or impervious material;
 - (ii) 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;
 - (iii) Soil compaction, for example by vehicular traffic or livestock; and
 - (iv) Damage by soil removal and grade alteration;
 - (h) Keep the flow of sewage to the OSS at or below the approved operating capacity and sewage quality;
 - (i) Operate and maintain systems as directed by the local health officer;
 - (j) **Request assistance from the local health officer upon occurrence of a system failure or suspected system failure; and**
 - (k) 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.
- (2) Persons shall not:
- (a) Use or introduce strong bases, acids or chlorinated organic solvents into an OSS for the purpose of system cleaning;
 - (b) Use a sewage system additive unless it is specifically approved by the department; or
 - (c) Use an OSS to dispose of waste components atypical of sewage from a residential source.

COMMON ON-SITE SEWAGE SYSTEM QUESTIONS

Where should I put my test holes?

It is not uncommon that only a specific area of a lot or acreage is able to be approved for an on-site sewage system, therefore finding a location for your drainfield should be given priority when developing your property. Among the things to consider are soil depth, and the distance to surface and ground water. Be careful of hill tops that may lack necessary soil depth and lower lying portions of slopes and drainages, where shallow ground water tables may occur. Also be aware of the planned location of your well if you are expecting to drill one for your site.

Why must I install an alternative system (pressure distribution, sand mound, etc.)?

The most common reasons are a lack of sufficient soil depth to a restrictive layers (i.e. bedrock, clay), seasonal and/or permanent high water tables, or excessively permeable soils.

Three (3) feet of vertical separation is necessary between the trench bottom, and the conditions listed above, for adequate treatment and disposal of effluent. Excessively permeable soils DO NOT provide enough fine soil particles for the chemical and biological exchanges to occur that remove harmful pathogens from the wastewater. This may lead to possible contamination of groundwater. The presence of these conditions, especially seasonal high water, can be very difficult to recognize.

The decisions are based upon technical review committees, alternative system workshops and experience with native soils. It is our responsibility to apply the state regulation with the clear objective of protecting the public health by achieving long term sewage treatment, effluent disposal and limiting the impact to ground and surface waters.

How often should I pump out my septic tank ?

WAC 246-272A-0270, states that an OSS owner shall “employ an approved pumper to remove the septage from the tank when the level of solids and scum indicates that removal is necessary”.

Solids and scum can accumulate over a period of time and usage to a point where they can be carried out of the tank and into the drainfield. When this happens, the absorption area can become “plugged up” and then backs up into the home or surfaces above the ground, creating a public health nuisance that requires immediate correction. This is major reason why OSS’s prematurely fail.

The following table lists estimated septic tank pumping frequencies in years (for year round occupied residences):

NO. OF PEOPLE IN THE HOUSEHOLD						
TANK SIZE	1	2	3	4	6	8
900 gallons	11.0	5.2	3.3	2.3	1.3	.8
1000 gallons	12.4	5.9	3.7	2.6	1.5	1.0
1250 gallons	15.6	7.5	4.8	3.4	2.0	1.4
1500 gallons	18.9	9.1	5.9	4.2	2.6	1.8
2000 gallons	25.4	12.4	8.0	5.9	3.7	2.6

Note: A 1000 gallon septic tank is the most commonly installed, but your site may have additional tanks or pump chambers. Please check your record drawing or request a copy from ACHD to confirm what capacity is available for your site.

Note: More frequent pumping is needed if a garbage disposal is used.

What determines what setbacks are required from the OSS on my site if I want to put in a shop, pool, driveway or other structure ?

The best practice to adhere to after successful installation & approval of your OSS is maintaining all the minimum setback distances from the various items listed in Table IV (246-272-0210) to the individual components of your OSS for the life of the system.

**Table IV
Minimum Horizontal Separations**

Items Requiring Setback	From edge of soil dispersal component and reserve area	From sewage tank and distribution box	From building sewer, and nonperforated distribution pipe
Well or suction line	100 ft.	50 ft.	50 ft.
Public drinking water well	100 ft.	100 ft.	100 ft.
Public drinking water spring measured from the ordinary high-water mark	200 ft.	200 ft.	100 ft.
Spring or surface water used as drinking water source measured from the ordinary high-water mark ¹	100 ft.	50 ft.	50 ft.
Pressurized water supply line	10 ft.	10 ft.	10 ft.
Decommissioned well (decommissioned in accordance with chapter 173-160 WAC)	10 ft.	N/A	N/A
Surface water measured from the ordinary high-water mark	100 ft.	50 ft.	10 ft.
Building foundation/in-ground swimming pool	10 ft.	5 ft.	2 ft.
Property or easement line	5 ft.	5 ft.	N/A
Interceptor/curtain drains/foundation drains/drainage ditches			
Down-gradient ² :	30 ft.	5 ft.	N/A
Up-gradient ² :	10 ft.	N/A	N/A
Other site features that may allow effluent to surface			
Down-gradient ² :	30 ft.	5 ft.	N/A
Up-gradient ² :	10 ft.	N/A	N/A
Down-gradient cuts or banks with at least 5 ft. of original, undisturbed soil above a restrictive layer due to a structural or textural change	25 ft.	N/A	N/A
Down-gradient cuts or banks with less than 5 ft. of original, undisturbed soil above a restrictive layer due to a structural or textural change	50 ft.	N/A	N/A
Other adjacent soil dispersal components/subsurface storm water infiltration systems	10 ft.	N/A	N/A

¹If surface water is used as a public drinking water supply, the designer shall locate the OSS outside of the required source water protection area.

²The item is down-gradient when liquid will flow toward it upon encountering a water table or a restrictive layer. The item is up-gradient when liquid will flow away from it upon encountering a water table or restrictive layer.

Asotin County Health District Onsite Sewage/Liquid Waste Program Fees

Fees Established by ACHD Resolution #1-2010 (Effective January 1, 2011)

Application Fee		\$ 50.00
Sewage Disposal Permit Fee - New System	<i>(home built <u>before</u> OSS)</i>	\$ 450.00
Sewage Disposal Permit Fee - New System	<i>(home built <u>after</u> OSS)</i>	\$ 500.00
Sewage Disposal Permit Fee - New System	<i>(homeowner to Install Gravity OSS)</i>	\$ 650.00
Sewage Disposal Permit Fee - Repair/ Replacement/ Expansion		\$ 450.00
Sewage Disposal Permit Fee - Septic Tank Addition/Replacement Only		\$ 275.00
Commercial Sewage Disposal Permit Fee	<i>(engineer or licensed designer required)</i>	\$ 600.00
Amendment of Existing Issued Permit	<i>(change in drainfield location etc.)</i>	\$ 95.00 / Hour, 1Hr. Minimum
Community Septic System Permit	<i>(annual renewal required)</i>	\$ 450.00 / per year
OSS Permit Extension Fee	<i>(if original permit is extended beyond 1 year limit)</i>	\$ 100.00
Re-inspection of OSS Installation:		
- 1st Re-inspection		\$ 100.00
- 2nd Re-inspection		\$ 150.00
OSS Plan Review for Building		\$ 100.00
Assessment of Soil Test/Survey		\$ 95.00 /Hour, 1Hr. Minimum
Onsite Review of Failed/Failing OSS	<i>(fee waived if repair permit is issued)</i>	\$ 35.00 /Hour, 1Hr. Minimum
Variance Request		\$ 95.00 / Hour, 1Hr. Minimum
Alternative OSS Plan/Design Review		\$ 95.00 /Hour, 1Hr. Minimum
Alternative OSS Site Visit		\$ 95.00 /Hour, 1Hr. Minimum
Loan and/or Real Estate Sewage Evaluation		\$ 200.00
Loan and/or Real Estate Water Evaluation		\$ 150.00 + Applicable Lab Fees
Loan and/or Real Estate Sewage and Water Evaluation		\$ 250.00 + Applicable Lab Fees
OSS Installer's License - Initial		\$ 300.00
OSS Installer's License - Renewal		\$ 225.00
OSS Sub-installer (Initial)		\$ 125.00
OSS Sub-installer License (Renewal)		\$ 100.00
OSS Master and Sub-Installer License Exam		\$ 75.00
Homeowner Installer Exam	<i>(for gravity OSS only)</i>	\$ 50.00
OSS Pumper/Waste Hauler License- Initial		\$ 300.00
OSS Pumper/Waste Hauler License- Renewal		\$ 200.00
Short Plat Review		\$ 300.00 + \$25.00/ per lot
Long Plat Review		\$ 350.00 + \$25.00/ per lot
Copy of a Certified As-Built Drawing:		\$ 5.00
PENALTIES		
- Beginning Installation or Repair of an OSS Without a Valid Permit		* DOUBLE THE PERMIT FEE
- Installation/Repair of an OSS without a Valid Installers License or ACHD Approval		REFERRAL TO THE ASOTIN COUNTY PROSECUTOR; NOTICE TO TITLE OF ILLEGAL OSS
Other- per/hour		\$ 95.00
Outside Consulting		At Cost

ACHD EPH OSS Publications Online

The following publications can be downloaded from the ACHD website:

<http://ac-hd.org/EPHOnsite.html>

- **Applying for On-site Sewage Permits (this document)**
- **[Homeowners Guide to Onsite Sewage Systems](#)**
- **[ACHD Local Ordinance 84-54](#)**

Office of Environmental Health & Safety WASTEWATER MANAGEMENT PUBLICATIONS

The publications can be viewed and downloaded from this site:

<http://www.doh.wa.gov/ehp/ts/WW/default.htm>

Scroll through the links on the left and right side of the page to find your information. Click on the publication name. Documents can be viewed with Microsoft Word, or If you wish to view publications in the pdf format, you will need Acrobat Reader. To download the latest version, please visit: <http://get.adobe.com/reader/>

If you do not have access to a computer, copies of the publications listed below can be obtained by calling the Wastewater Management Program at (360) 236-3062.

REGULATIONS

On-site Sewage Systems:

- [Chapter 246-272A WAC](#), On-site Sewage Systems
 - [Printer friendly version](#) (pdf 408 kb)
- [Chapter 246-273 WAC](#), On-site Sewage System Additives
- [Chapter 43.20.050 RCW](#), State Board of Health-Delegation of Authority
- [Chapter 43.70.310 RCW](#), Cooperation with Department of Ecology
- [Chapter 70.118 RCW](#), On-site Sewage Disposal Systems
- [Chapter 70.118A RCW](#), On-site Sewage Disposal Systems - Marine Recovery Areas

Large On-site Sewage Systems (LOSS):

- [Chapter 246-272B WAC](#), Large On-Site Sewage Systems (existing rule)
- [Chapter 246-271 WAC](#), Public Sewage
- [Chapter 70.118B RCW](#), Large On-Site Sewage Disposal Systems
- [LOSS rule revision activity](#) (revision currently underway)

Septic Tanks:

- [Chapter 246-272C](#), On-site Sewage System Tanks (new rule effective December 19, 2009)
- [Septic tanks rule development](#) (history of rule development and committee activity)

Greywater Reuse:

- [Greywater reuse rule development activity](#) (new rule under development)

Reclaimed Water:

- [Chapter 90.46 RCW](#), Reclaimed Water Use
- [Draft Chapter 173-219 WAC](#), Reclaimed Water Regulation - This regulation is being developed by the Department of Ecology, with input from us. WAC 173-219 is not yet filed with the Code Reviser, but this link takes you to Ecology's website that has information on the draft rule and the development process.

On-site Treatment Systems Recommended Standards and Guidance Documents (RS&G's)

RS&Gs (Recommended Standards and Guidance) Documents

- [Alternating Drainfields](#) (PDF 118 kb) - July 2007
- [Dosing Gravity Drainfield Systems](#) (PDF 713 kb) - July 2007
- [Glossary of Terms for RS&Gs](#) (PDF 164 kb) - July 2007
- [Gravelless Distribution Products](#) (PDF 213 kb) - July 2007
- [Holding Tank Sewage System](#) (PDF 96 kb) - July 2007
- [Intermittent Sand Filter Systems](#) (PDF 192 kb) - July 2007
- [Mound Systems](#) (PDF 2.2 MB) - July 2009
- On-site Sewage System Tanks - **Rescinded 12/31/09**. This has been replaced by [Chapter 246-272C WAC](#).
- [Pressure Distribution Systems](#) (PDF 392 kb) - July 2009
- [Proprietary On-site Wastewater Treatment Products](#) (PDF 166 kb) - July 2007
- [Recirculating Gravel Filter Systems](#) (PDF 354 kb) - July 2007

- [Remediation Technologies and Processes \(INTERIM\)](#) (PDF 111 kb) - September 2007
- [Sand Lined Trench Systems](#) (PDF 294 kb) - July 2009
- [Stratified Sand Filter Treatment Systems](#) (PDF 143 kb) - July 2007
- [Subsurface Drip Systems](#) (PDF 659 kb) - July 2007
- [Water Conserving On-site Wastewater Treatment Systems](#) (PDF 1 MB) - July 2007

Publications for Home Owners and Managers

- [A Homeowners Guide to Evaluating Service Contracts](#) (PDF 176 kb) - August 2006.
Developed and published by [The Consortium of Institutes for Decentralized Wastewater Treatment](#)
- [Cleaning Up a Sewage Spill](#)
- [Septic Systems - What to Do After the Flood](#) - EPA
- [Septic Tank Additives \(Questions and Answers\)](#) (PDF 121 kb) - from *The Small Flows Quarterly*, Winter 2002, reprinted with permission from the [National Small Flows Clearinghouse, West Virginia University](#)
- [Understanding and Caring for Your Mound System](#) (PDF 276 kb) - Revised December 2004
- [Understanding and Caring for Your Pressure Distribution System](#) (PDF 309 kb) - Revised December 2004
- [Understanding and Caring for Your Sand Filter System](#) (PDF 350 kb) - Revised December 2004
- [Understanding and Caring for Your Septic Tank System](#) (PDF 270 kb) - Revised December 2004
- [Water Conservation Using Greywater](#) fact sheet (PDF 253 kb) - Revised September 2010

Technical Information and References

- [Basic Principles of Onsite Sewage](#) (PDF 5.4 MB) - November 1992. This document was prepared prior to the adoption of the 1995 on-site sewage rules. For items specific to Washington State rules see [Chapter 246-272A WAC](#)
- [Design Guideline for Gravity Systems in Soil Type 1](#) (PDF 1.1 MB) - January 2009
- [EPA Design Manual, Onsite Wastewater Treatment and Disposal Systems](#) (PDF 15.4 MB) - October 1980. Referenced in [Chapter 246-272B WAC](#), which governs **large** on-site wastewater treatment systems.
- [EPA Onsite Wastewater Treatment Systems Manual](#) (PDF 534 kb) - February 2002. Referenced in [Chapter 246-272A WAC](#), which governs on-site wastewater treatment systems.
- Evaluate the Effectiveness of Chapter 246-272A WAC, the 2009 report as required by Chapter 246-272A-0425.
 - [Presentation to the State Board of Health](#)
 - [Briefing Paper](#)
 - [Survey Summary](#)
- [Granting Waivers from State On-Site Sewage System Regulations, An Application Guide for](#) (PDF 345 kb) - Effective July 2007 Revised September 2009
- [Marine Recovery Area \(MRA\) Guidance: Supplemental to the On-Site Sewage System Management Plan Guidance](#) (PDF 607 kb) - October 2006
- [Nitrogen Reducing Technologies for Onsite Wastewater Treatment Systems Report](#) (PDF 734 kb) - June 2005
- [O & M, The Good, The Bad, and The Ugly](#) (PDF 104 kb) - September 2003. Presented by Jerry Deeter (Kitsap County Environmental Health Director) at the 2003 On-site Wastewater Treatment Short Course sponsored by University of Washington.
- [On-Site Management Plan Guidance for Local Health](#) (PDF 1.2 MB) - June 2006
- [On-Site Wastewater Advisory Committee Summary Report](#) (PDF 103 kb) - September 2001
- [Pipeline Separation Design and Installation Reference Guide Version 9](#) (PDF 1.26 MB) - May 2006 Co-authored with Washington State Department of Ecology

- [Puget Sound Local On-site Sewage Management Plans - A Report to the Legislature](#) - May 2009 The 2008 Progress Report Fulfilling 3SHB 1458 Requirements - Section 11
- [Vertical Separation](#) (PDF 51 kb) - October 1990. A review of available scientific literature and a listing from fifteen other states.

Technical Issue Reports

The following Technical Issue (DRAFT) Reports summarize the available literature about on-site wastewater topics of special interest during the rule development process of the current on-site sewage system rules and regulations (WAC 246-272A). Please note that these reports are drafts and may undergo modification from time to time.

- [Application of Treatment Standards 1 and 2](#) (PDF 534 kb) - March 29, 2002
- [Disposal Component Reductions - Special Features and Applications of Drainfield Products](#) (PDF 104 kb) - April 17, 2002
- [Disposal Treatment Options - Highly Pretreated Effluent](#) (PDF 90 kb) - January 31, 2002
- [Failing Systems](#) (PDF 80 kb) - June 2002
- [Hydraulic Loading Rates](#) (PDF 504 kb) - January 30, 2002
- [Linear Loading Rates](#) (PDF 127 kb) - January 2003
- [Minimum Lot Size](#) (PDF 86 kb) - August 2002
- [Organic Loading Rates](#) (PDF 404 kb) - April 17, 2002
- [Residential Flow Rates](#) (PDF 558 kb) - May 31, 2002
- [Sand and Media Specifications](#) (PDF 105 kb) - November 26, 2002
- [Septic Tank Effluent Values](#) (PDF 121 kb) - February 1, 2004
- [Type 1 A Soil Issues](#) (PDF 684 kb) - July 31, 2002
- [Wastewater Quality / Strength / and Content](#) (PDF 314 kb) - April 16, 2002