

REVISION OF CHAPTER 246-272AWAC



ENVIRONMENTAL HEALTH AND SAFETY
WASTEWATER MANAGEMENT SECTION

Presenters

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Acronyms

DOH = Department of Health

LHJ = Local Health Jurisdiction

LHO = Local Health Officer

OSS = On-site Sewage System

SBOH = State Board of Health

TL = Treatment Level

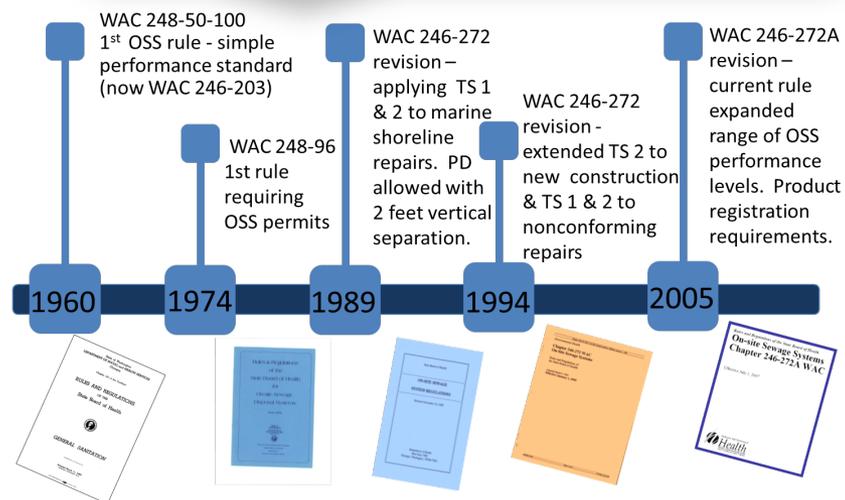
WAC = Washington Administrative Code

Chapter 246-272A WAC

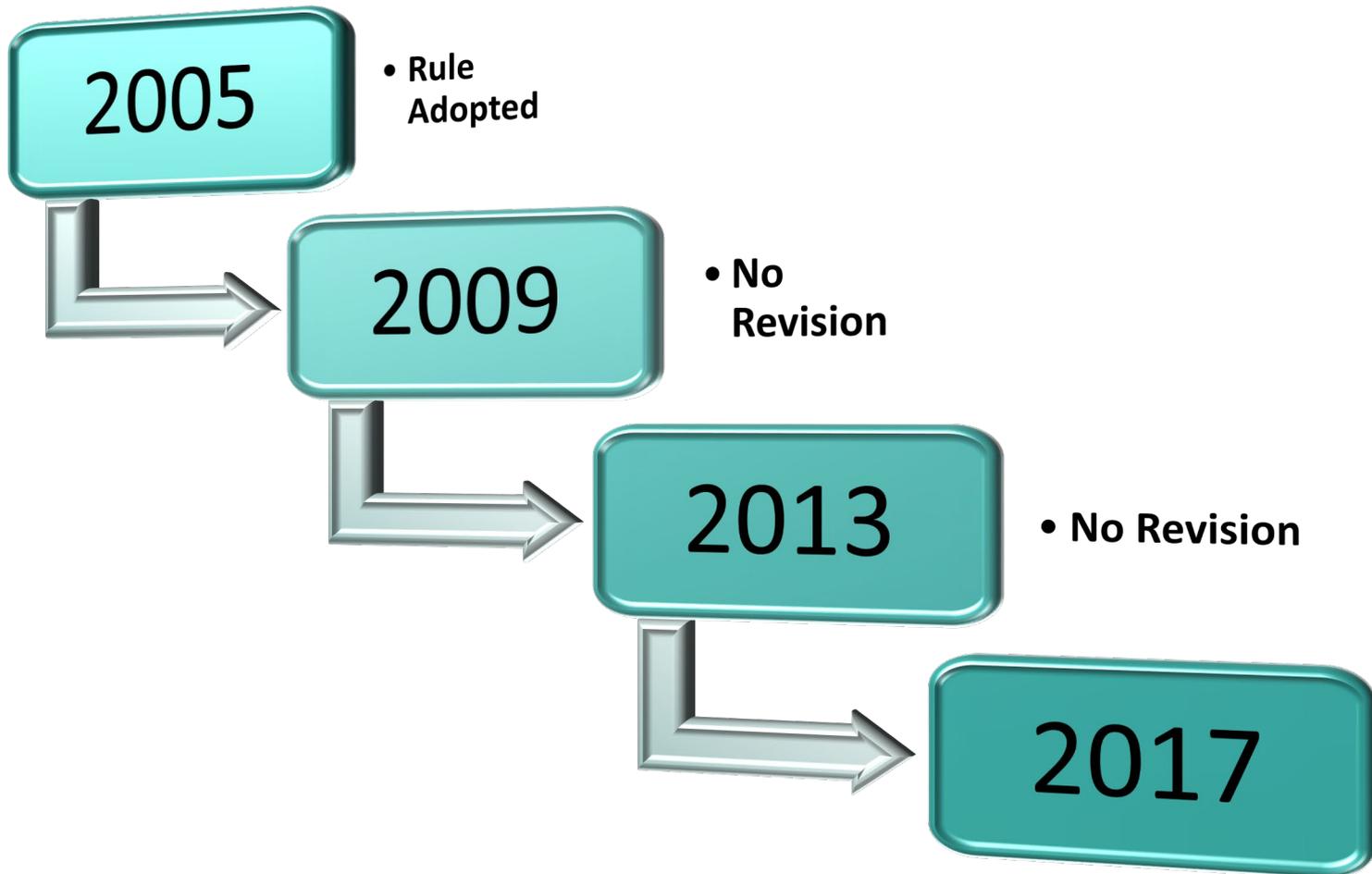
WAC 246-272A-0425 requires DOH to:

- Evaluate the effectiveness of the rule every four years
- Determine if revisions are needed
- Report recommendations to the state board of health and local health officers

OSS Rule Time Line



Chronological Rule Reviews



2017 Review of Chapter 246-272A WAC

Seven Key Issues Needing Revision Were Identified

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- Definitions
 - Local management plans
 - Property transfer inspections
 - Application of treatment levels
 - Ultraviolet light (UV) disinfection effectiveness and approval
 - Horizontal setbacks (system location)
 - Statewide O&M service provider licensing

Many minor issues needing revision were also identified

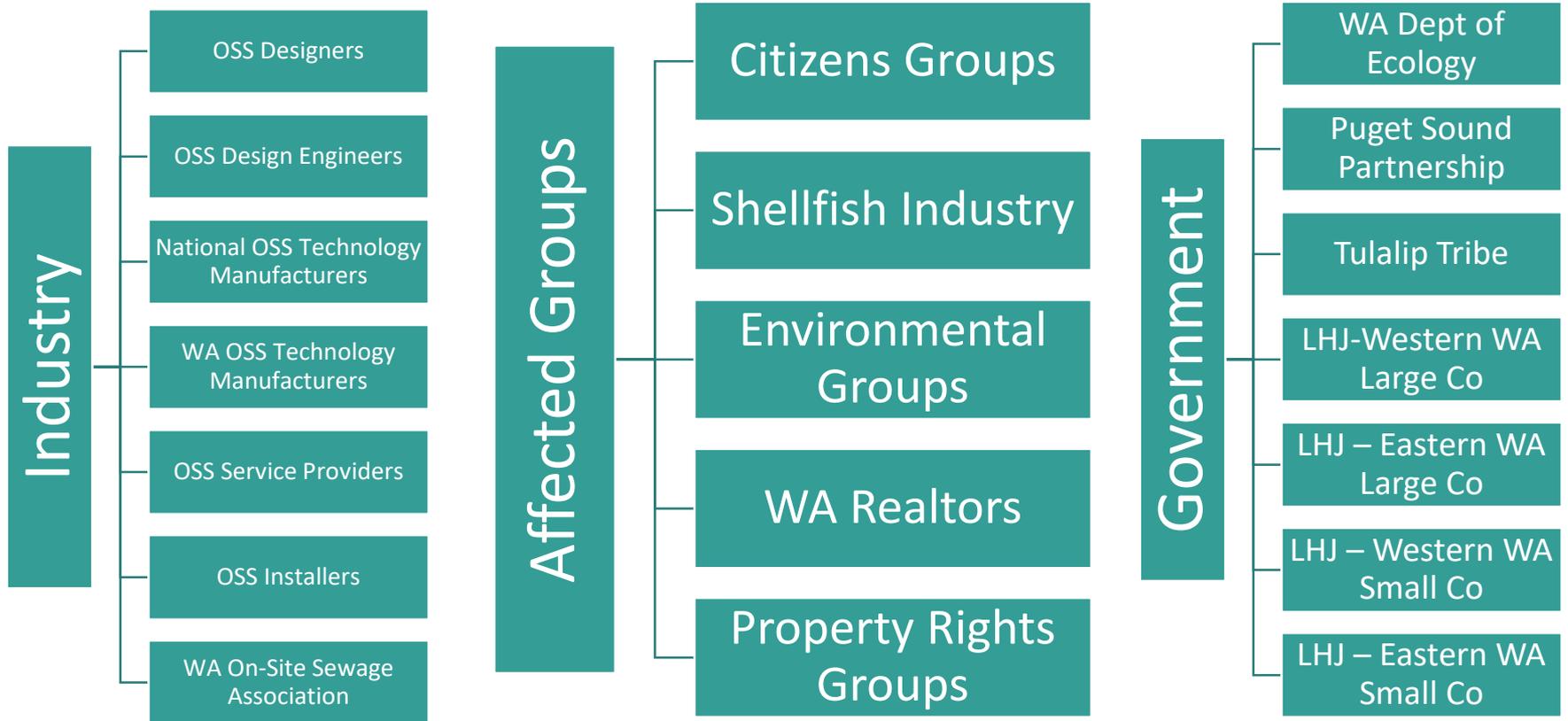
Rule Revision Process

The On-site Rule Revision Committee works with DOH to provide recommendations to the Washington State Board of Health for revisions to chapter 246-272A WAC.



Who's on the Committee?

Voting Members



- ✓ DOH facilitates and participates in conversations
- ✓ SBOH attends and provides input

Significant Draft Revisions

- Local management plans
- Inspection procedures
- Property transfer inspections
- Treatment technology approval/Field verification
- Treatment Levels
- Horizontal setbacks
- Hydraulic loading rates
- Repairs
- Minimum lot size and land area

Local Management Plans

Draft Change	Result
<ul style="list-style-type: none">• Made the requirements for all LHJs the same in the development of their LMPs.• Added requirement for LHJs to revisit plans every five years.• Added requirement for department to provide written guidance and to provide technical support to LHJs for development.	<p>Changes requirement for non-Puget LHJ's LMPs to describe how LHJ will:</p> <ul style="list-style-type: none">• Inventory OSS• Identify sensitive areas where OSS may pose risk• Identify OSS O&M requirements in sensitive areas• Educate OSS owners• Remind OSS owners to do maintenance• Maintain Records• Enforce OSS permit and O&M requirements• Describe capacity of LHJ to fund activities in the plan• Coordinate plan with the comprehensive land use plan• Provide opportunity for public input into the plan

WAC 246-272A-0015 Local management ~~plans and regulation~~.

(1) ~~By July 1, 2007, One year after the effective date of the rule,~~ the local health officers of each health jurisdictions ~~in the twelve counties bordering Puget Sound~~ shall develop or revise a written management plan ~~that will provide guidance to the local health jurisdiction regarding development and management activities~~ for all OSS within the jurisdiction. At a minimum, ~~the~~ plan must specify how the local health jurisdiction will:

(a) Progressively develop and maintain an inventory including the number and location of all ~~known~~ OSS in operation within the jurisdiction;

(b) Identify any of the following areas where OSS could pose an increased public health risk, if applicable. ~~The following areas shall be given priority in this activity:~~

(i) Shellfish protection districts or shellfish growing areas;

(ii) Sole source aquifers designated by the ~~USEPA~~;

Removed reference to Puget Counties, making requirements the same for all counties

(iii) Areas in which aquifers used for potable water as designated under the Washington State Growth Management Act, chapter 36.70A RCW are critically impacted by recharge;

(iv) Designated wellhead protection areas for Group A public water systems;

(v) Up-gradient areas directly influencing water recreation facilities designated for swimming in natural waters with artificial boundaries within the waters as described by the Water Recreation Facilities Act, chapter 70.90 RCW;

(vi) Areas designated by the department of ecology as special protection areas under WAC 173-200-090, Water quality standards for groundwaters of the state of Washington;

(vii) Wetland areas under production of crops for human consumption;

(viii) Frequently flooded areas including areas delineated by the Federal Emergency Management Agency and or as designated under the Washington State Growth Management Act, chapter 36.70A RCW;

(ix) Areas where nitrogen has been identified as a contaminant of concern; and

(x) Other areas designated by the local health officer.

(c) Identify operation, maintenance and monitoring requirements commensurate with risks posed by OSS within the geographic areas identified in (b) of this subsection;

(d) ~~Facilitate education of home~~Educate OSS owners regarding their responsibilities under ~~this chapter~~ the local management plan and provide operation and maintenance information for all types of systems in use within the jurisdiction;

(e) Remind and encourage ~~homeowners~~owners to complete the operation and maintenance inspections required by WAC 246-272A-0270;

(f) Maintain records required under this chapter, including ~~of~~ all operation and maintenance activities as identified; ~~and~~

(g) Enforce OSS owner permit application, operation, monitoring and maintenance and failure repair requirements defined in WAC 246-272A-0200(1), 246-272A-0260, 246-272A-0270, 246-272A-0275, and 246-272A-0280 (1) and (2);

(h) Describe the capacity of the local health jurisdiction to adequately fund and implement the local OSS plan, including a

summary of program expenditures by activity, source of funds, and a strategy to fill any funding gap~~the ability to find failing and unknown systems; and~~

(i) ~~As~~ Ensure that it was developed to coordinate with the comprehensive land use plan of the entities governing development in the health officer's jurisdiction; ~~and~~

(j) Ensure opportunity for public input into development of the plan.

(2) After ~~being approved by the~~ local board of health approval following a public hearing, the local health officers ~~required to develop a written plan under subsection (1) of this section~~ shall:

(a) ~~Submit~~ Supply a copy of the plan ~~for to the~~ departmental review;

(b) Review the plan and update as necessary at least once every five years from the date of local board of health plan approval;

(c) Implement the plan and report annually to the department in a format specified by the department. Annual reports should include any of the following data elements, if

Added requirement to report LMP progress annually to the department

Added requirement that LMPs are updated every 5 years

applicable: type, age, location, status of compliance with inspections required by WAC 246-272A-0270, unknown OSS, number of inspections, number of property transfer inspections, or other elements deemed necessary; and

~~(db)~~ Supply a copy of the plan to the entities responsible for land use planning and development regulations in the health officer's jurisdiction. ~~;~~ and

~~_(c) Implement the plan described in subsection (1) of this section.~~

(3) ~~The plans of local health jurisdictions required to develop a written plan under subsection (1) of this section shall be submitted to the department by July 1, 2007, and shall be reviewed to ensure the elements described in subsection (1) of this section have been addressed.~~ The department shall review the plan to ensure the elements in subsection (1) of this section have been addressed and provide any comments in writing to the local board of health ~~its review of the completeness of the plan.~~ Any revisions made by the local health officer to the OSS plan required in subsection (2) of this section shall be submitted for department review.

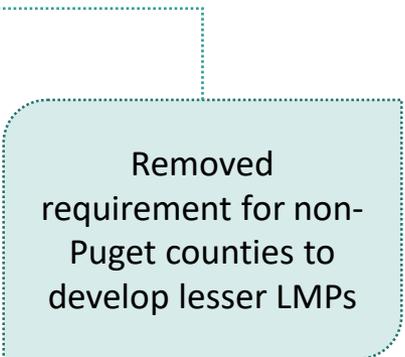
~~_(4) For purposes of this chapter, the local health jurisdictions in marine counties are Clallam, Island, Kitsap, Jefferson, Mason, San Juan, Seattle-King, Skagit, Snohomish, Tacoma-Pierce, Thurston and Whatcom.~~

~~_(5) The local health officers for all other jurisdictions not required to develop a written plan under subsection (1) of this section shall develop a written plan that will provide guidance to the local jurisdiction regarding development and management activities for all OSS within the jurisdiction. At a minimum the plan shall include:~~

~~_(a) A description of the capacity of the local health jurisdiction to provide education and operation and maintenance information for all types of systems in use within the jurisdiction;~~

~~_(b) A description of how the local health officer will remind and encourage homeowners to complete the operation and maintenance inspection required by WAC 246-272A-0270; and~~

~~_(c) A description of the capacity of the local health jurisdiction to adequately fund the local OSS plan.~~



Removed
requirement for non-
Puget counties to
develop lesser LMPs

~~_(6) In order to implement the plan described in subsections (1) and (5) of this section, the local health officer shall require the owner of the OSS to:~~

~~(a) Comply with additional requirements identified in the plan for the location, design, or performance; and~~

~~(b) Comply with the conditions of the operational permit if one is required.~~

~~(7) In order to implement the plan described in subsections (1) and (5) of this section, the local health officer may require the owner of the OSS to:~~

~~(a) Ensure additional maintenance and monitoring of the OSS;~~

~~(b) Provide dedicated easements for inspections, maintenance, and potential future expansion of the OSS;~~

~~(c) Place a notice to title identifying any additional requirements for OSS operation, maintenance and monitoring; and~~

(4d) In order to implement the plan described in subsections (1) and (2) of this section, the local health officer shall require the owner of the OSS to:

Added requirement
for LMP to require
property transfer
inspections

(a) Have an inspection, as defined by WAC 246-272A-0260, of the OSS at the time of property transfer by an inspector authorized by the local health officer. including the preparation of a "record drawing" if necessary. The local health officer may verify the results of the property transfer inspection for compliance with WAC 246-272A-0260. The local health officer may waive the requirement for a property transfer inspection if the OSS is in compliance with inspection requirements in WAC 246-272A-0270; or

(b) Have an inspection, as defined by WAC 246-272A-0260, of advanced treatment systems with proprietary products done at the time of property transfer by an inspector approved by the local health officer per the product manufacturer recommendations. The local health officer may verify the results of this inspection for compliance with section WAC 246-272A-0260 and the product manufacturer recommendations. The local health officer may waive the requirement for a property transfer inspection if the OSS is in compliance with inspection requirements in WAC 246-272A-0270.

(85) ~~No later than July 1, 2006, t~~ The department shall ~~develop~~ maintain and update guidance including best management

~~practices on local management programs and provide technical assistance~~ to assist ~~marine~~-local health jurisdictions in plan development.

~~_(9) Until such time as the local board of health decides to adopt its own rules, the local health officer shall enforce this chapter. Local boards of health may adopt and enforce local rules and regulations governing on-site sewage systems when the local regulations are:~~

~~(a) Consistent with, and at least as stringent as, this chapter; and~~

~~(b) Approved by the department prior to the effective date of local regulations.~~

~~(10) A local board of health shall apply for departmental approval of local regulations by initiating the following procedure:~~

~~(a) The local board shall submit the proposed local regulations to the department.~~

~~(b) Within ninety days of receipt, the department shall:~~

~~(i) Approve the regulation in writing; or~~

Inspection Procedures



Defined minimum inspection procedures for routine inspections and property transfer inspections

WAC 246-272A-0260 Inspection. (1) For all activities requiring a permit, the local health officer shall:

- (a) Visit the OSS site during the site evaluation, construction, or final construction inspection;
- (b) Either inspect the OSS before cover or allow the designer of the OSS to perform the inspection before cover if the designer is not also named as installer of the system; and
- (c) Keep the record drawings on file, with the approved design documents.

(2) Prior to any inspection, the local health officer or certified professional inspector shall coordinate and obtain authorization from the OSS owner. In cases when an OSS owner did not authorize access, the local health officer is allowed to follow the administrative search warrant procedures in RCW 70.118.030.

(3) For any OSS located on a single property serving one dwelling unit on the same property, the local health officer shall not require a property owner to grant inspection and maintenance easements as a condition of permit issuance.

(42) During The person responsible for the final construction inspection, shall assure the local health officer or the designer of the OSS must confirm the OSS meets the approved design.

(5) A routine evaluation that satisfies the OSS owner's responsibility as required in WAC 246-272A-0270(1) (e) or property transfer inspection as required in WAC 246-272A-0270(1) (k) shall, at a minimum:

(a) Inspect and evaluate the status of all sewage tanks including baffles, tank contents (water level, scum, sludge, and solids), water tightness, venting, and general structural condition;

(b) Inspect and evaluate the status of all lids, accesses, and risers;

(c) Inspect and evaluate the OSS and reserve area for any indicators of system failure or conditions that may impact system function, operation or repair;

(d) Inspect and evaluate any other components (such as distribution boxes) that are accessible;

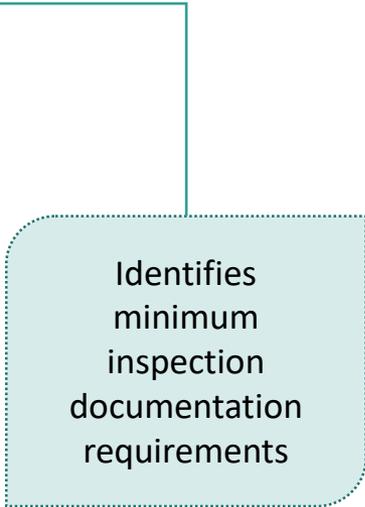
Defines minimum inspection procedure elements

(e) Review the record drawing and related documents, if they exist, including previous reports to ensure the system is operating as designed; and

(f) Include an evaluation of any proprietary products following the procedures in the O&M section of the accepted operations manual (or equivalent document) associated with those products.

(6) Evidence of a routine evaluation as required in WAC 246-272A-0270(1)(e) or property transfer inspection as required in WAC 246-272A-0270(1)(k) shall be documented in a report, including at a minimum:

- (a) All applicable information from subsection (5) of this section;
- (b) The address of the property served by the OSS;
- (c) The date of the inspection;
- (d) The permitted type and design flow for known OSS; and
- (e) Verification that the record drawing is accurate, if it exists, or provide an OSS site plan showing the location of all system components relative to structures and prominent site features.



Identifies
minimum
inspection
documentation
requirements

Property Transfer Inspections



WAC 246-272A-0270 Operation, monitoring, and maintenance—
Owner responsibilities. (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) Request assistance from the local health officer upon
occurrence of a system failure or suspected system failure;

(b) Obtain approval from the local health officer before:

(i) Repairing, altering or expanding an OSS as required by
WAC 246-272A-0200; or

(ii) Beginning use of any newly constructed OSS;

(c) Secure and renew contracts for periodic maintenance
where if required by the local health jurisdiction;

(d) Obtain and renew operation permits if required by the
local health jurisdiction;

(e) Obtain an inspection, as required in WAC 246-272A-
0260, by an inspector authorized the local health officer, of
all OSS 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 ~~OSS 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;
- ~~(fe)~~ Employ an approved pumper to remove the septage from the tank when the level of solids and scum indicates that removal is necessary;
- ~~(gf)~~ Provide maintenance and needed repairs to promptly return the system to a proper operating condition;
- ~~(hg)~~ 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;
- ~~(ih)~~ Keep the flow of sewage to the OSS at or below the approved operating capacity and sewage quality;

~~(j)~~ 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: r

(i) pProvide to the buyer, all available maintenance and repair records, ~~if available,~~ in addition to the completed seller disclosure statement in accordance with chapter 64.06 RCW for residential real property transfers; r

(ii) Obtain an inspection, as required in WAC 246-272A-0260, by an inspector authorized by the local health officer. The local health officer may verify the results of the property inspection for compliance with WAC 246-272A-0260. The local health officer may waive the requirement for a property transfer inspection if the OSS is in compliance with the inspection requirements of this section; and

(iii) Obtain an inspection, as required in WAC 246-272A-0260, of proprietary treatment products by an inspector approved by the local health officer per the product manufacturer recommendations. The local health officer may waive the

Requires owner to get OSS inspected, per procedure in -0260, before property transfer

requirement for a property transfer inspection if the OSS is in compliance with the inspection requirements of this section.

(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; or

(d) Use any remediation process or activity unless approved by the local health officer.

[Statutory Authority: RCW 43.20.050. WSR 05-15-119, § 246-272A-0270, filed 7/18/05, effective 7/1/07.]

Proprietary treatment technology

Updated references to current NSF standards and added references to new standards

Updated treatment levels

Added *NSF/ANSI Standard 385 Residential Wastewater Treatment Systems – Disinfection Mechanics* as a method to verify bacterial reduction for proprietary supplemental bacterial reduction products

Added *NSF/ANSI Standard 245: Residential Wastewater Treatment Systems - Nitrogen Reduction* as a method to verify nitrogen reduction for proprietary nitrogen reducing products

- Removed Treatment Level D
- Defined “Residential Strength Sewage”
- Updated Treatment Level E values to match new definition of Residential Sewage
- Updated Treatment Level N to better match national standard and NSF levels

Definition

"Residential sewage" means sewage having the constituency and ~~quality~~^{strength} typical of sewage wastewater from domestic households a single family residence. To be considered single family residential septic tank effluent quality, the levels of CBOD₅, TSS and O&G must not exceed the following: CBOD₅ – 228 mg/L, TSS – 80 mg/L, and O&G – 20 mg/L.

Proprietary treatment technology

Changed product performance requirements

Added field performance verification requirement

Separated bacterial reduction testing requirements from TSS and CBOD₅ to better align with NSF testing and to allow proprietary products to be matched with various standalone disinfection units in order to meet treatment levels

Added option for testing E coli or fecal coliforms to verify bacterial reduction

Proprietary supplemental bacterial reduction (disinfection) units required to meet field performance standards. Standards will be developed and published by DOH.

TABLE III

Product Performance Requirements for Proprietary Treatment Products							
Treatment Component/Sequence Category	Product Performance Requirements						
<p>Category 1 Designed to treat sewage with strength typical of a residential source with when septic tank effluent quality parameters is anticipated to be equal to or less than treatment level E.</p>	Treatment System Performance Testing Levels						
	Level	Parameters					
		CBOD ₅	TSS	O&G	FC	TN	<u>E coli</u>
	A	10 mg/L	10 mg/L	—	200/100 ml	—	
	B	15 mg/L	15 mg/L	—	1,000/100 ml	—	
	C	25 mg/L	30 mg/L	—	50,000/100 ml	—	
	<u>DL1</u>				200/100 ml		126/100 ml
	<u>DL2</u>				1,000/100 ml		1,000/100 ml
	<u>DL3</u>				50,000/100 ml		50,000/100 ml
	D	25 mg/L	30 mg/L	—	—	—	
E	125-228 mg/L	80 mg/L	20 mg/L	—	—		
N	—	—	—	—	20-30 mg/L or 50% reduction based on mass loading as required in WAC 246-272A-0320		
<p>Values for Levels A - C are 30-day values (averages for CBOD₅, TSS, and geometric mean for FC.) All 30-day averages throughout</p>							

Added disinfection levels (DLs) as performance requirement for standalone disinfection technology



Removed treatment level D



Updated treatment level N to match NSF standards



(5) In order to renew a proprietary treatment product technology registration, a manufacturer shall:

(a) Apply for renewal of product registration using the form or in the format provided by the department;~~i-~~

(b) Submit any of the following the-reports from the testing entity, if applicable: results-of-retesting,

(i) ±If the product has completed retesting according to the protocol required for registration; and a report from the testing entity has been issued since initial registration or previous renewal. Renewal shall be based on the most recent test results.

(ii) To verify field performance as identified in DS&G. If field performance results demonstrate that the product has failed to meet the requirements in the performance DS&G the manufacturer shall report to the department describing the reasons for the failure to meet the requirements consistent with the DS&G;

(c) Provide an affidavit to the department verifying whether or not the product has changed over the previous year. If the product has changed, the affidavit must also include a

Field verification requirements to be described in DS&G

(2) All test data submitted for product registration shall be produced by an ANSI accredited, third-party testing and certification organization whose accreditation is specific to on-site wastewater treatment products. Bacteriological reduction performance must be determined either:

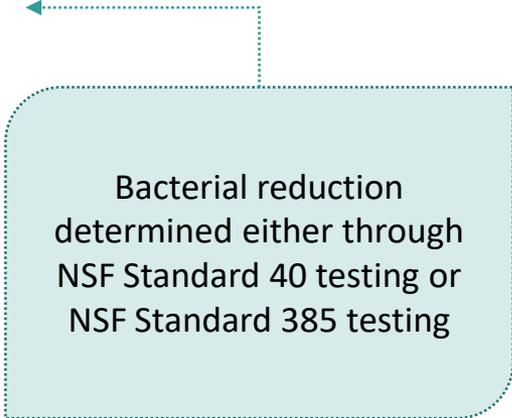
(a) According to the procedures in NSF/ANSI Standard 385 for supplemental bacteriological reduction; or

(b) ~~while the~~ During treatment product or treatment component sequence is tested according to the ANSI/NSF/ANSI Standard 40 testing protocol.

(3) During this testing under (a) or (b) of subsection (2) of this section the following requirements apply:

(a) Collect samples from both the influent and effluent streams, identifying the treatment performance achieved by the full treatment process (component or sequence);

(b) Obtain influent characteristics falling within a range of $10^6 - 10^8$ fecal coliform/100 mL calculated as thirty-day geometric means during the test;i-



Bacterial reduction determined either through NSF Standard 40 testing or NSF Standard 385 testing

Treatment Levels

Updated Treatment Levels in response to results of literature review, to incorporate changes made to treatment standards (separating disinfection levels from other treatment levels), and for consistency throughout Table VI and with Table IX.

TABLE VI

**Treatment Component Performance Levels
and Method of Distribution¹**

Vertical Separation in inches	Soil Type		
	1	2	3-6
12 < 18	A & DL1 - pressure with timed dosing	B & DL2 - pressure with timed dosing	B & DL2 - pressure with timed dosing
≥18 < 24	B & DL2 - pressure with timed dosing	BC & DL3 - pressure with timed dosing	BC & DL3 - pressure with timed dosing
≥24 < 36	B & DL2 - pressure with timed dosing	C & DL3 - pressure with timed dosing	E - pressure with timed dosing
≥36 < 60	B & DL2 - pressure with timed dosing	E - pressure	E - gravity
≥60	C & DL2 - pressure	E - gravity	E - gravity

Treatment level requirements revised due to result of literature review and for consistency throughout Table VI and with Table IX

Incorporates changes to treatment levels

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

Horizontal Setbacks

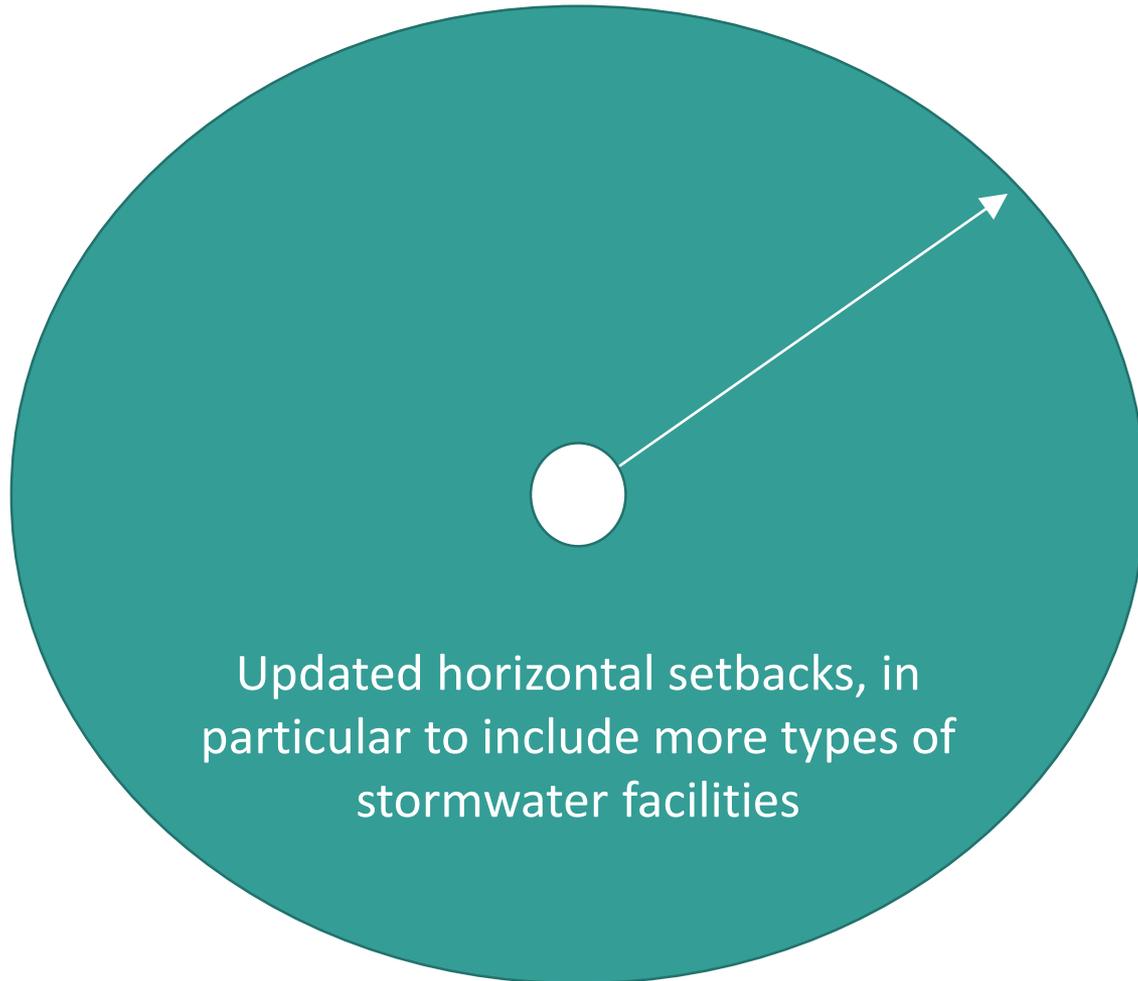


Table IV

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.
Non-public drinking water well	<u>100 ft.</u>	<u>50 ft.</u>	<u>50 ft.</u>
Public drinking water well	100 ft.	100 ft.	100 ft.
Public drinking water spring or surface water measured from the ordinary high-water mark ¹	200 ft.	200 ft.	100 ft.
Non-public Spring or surface water used as drinking water spring or surface water source measured from the ordinary high-water mark ⁴	100 ft.	50 ft.	50 ft.
Non-public, in-ground, drinking water containment vessel²	<u>20 ft.</u>	<u>10 ft.</u>	<u>10 ft.</u>
Pressurized water supply line or easement for water supply line	10 ft.	10 ft.	10 ft.
Closed geothermal loop³	<u>10 ft.</u>	<u>10 ft.</u>	<u>10 ft.</u>
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
Lined stormwater detention pond⁴			
Down-gradient⁵:	<u>30 ft.</u>	<u>N/A</u>	<u>N/A</u>
Up-gradient⁵:	<u>10 ft.</u>	<u>N/A</u>	<u>N/A</u>
Unlined stormwater infiltration pond⁴ (up or down-gradient)⁵	<u>100 ft.</u>	<u>50 ft.</u>	<u>10 ft.</u>
Irrigation canal or irrigation pond (up or down gradient) ⁵	<u>100 ft.</u>	<u>50 ft.</u>	<u>10 ft.</u>
Interceptors/curtain drains/foundation drains/drainage ditches			
Down-gradient ⁵ :	30 ft.	5 ft.	N/A
Up-gradient ⁵ :	10 ft.	N/A	N/A
Subsurface stormwater infiltration or dispersion component⁴			
Down-gradient⁵:	<u>10 ft.</u>	<u>10 ft.</u>	<u>N/A</u>

Deleted "suction line" from rule

Added new setbacks

Added setbacks to stormwater facilities

Items Requiring Setback	From edge of soil dispersal component and reserve area	From sewage tank and distribution box	From building sewer, and <u>nonperforated</u> distribution pipe
<u>Up-gradient⁵:</u>	<u>30 ft.</u>	<u>10 ft.</u>	<u>N/A</u>
Other site features that may allow effluent to surface			
Down-gradient ⁵² :	30 ft.	5 ft.	N/A
Up-gradient ⁵³ :	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/ <u>subsurface stormwater infiltration systems</u>	10 ft.	N/A	N/A

- ¹ If surface water is used as a public drinking water supply, the designer shall locate the OSS outside of the required source water protection area.
- ² Any in-ground containment vessel used to store drinking water.
- ³ A network of underground piping carrying fluid under pressure used to heat and cool a structure.
- ⁴ OSS components take precedence in cases of horizontal setback conflicts between OSS and stormwater components.
- ⁵² The item is ~~down~~Down-gradient means that subsurface water flows toward and is usually located lower in elevation, 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. Up-gradient means subsurface water does not flow toward, or flows away from, and is usually located higher in elevation.

Clarified that OSS take precedence over stormwater facilities

Hydraulic Loading Rates

- Modified Hydraulic Loading Rates table to allow higher loading rates for effluent meeting at least Treatment Level C and Disinfection Level 3
- This will allow smaller drainfields with treated effluent

TABLE VIII

Maximum Hydraulic Loading Rate

Soil Type	Soil Textural Classification Description	<u>Column A</u> Loading Rate for Residential Septic Tank Effluent Using Gravity or Pressure Distribution gal./sq. ft./day	<u>Column B</u> Loading Rate for Residential Effluent Meeting Treatment Level C & DL3 or Higher Effluent Quality Using Gravity or Pressure Distribution gal./sq. ft./day
1	Gravelly and very gravelly coarse sands, all extremely gravelly soils excluding <u>those with</u> soil types 5 & 6 <u>as the non-gravel portion</u> , and all soil types with greater than or equal to 90% rock fragments.	1.0	<u>1.2</u>
2	Coarse sands.	1.0	<u>1.2</u>
3	Medium sands, loamy coarse sands, loamy medium sands.	0.8	<u>1.0</u>
4	Fine sands, loamy fine sands, sandy loams, loams.	0.6	<u>0.8</u>
5	Very fine sands, loamy very fine sands; or silt loams, sandy clay loams, clay loams and silty clay loams with a moderate structure or strong structure (excluding a platy structure).	0.4	<u>0.6</u>
6	Other silt loams, sandy clay loams, clay loams, silty clay loams.	0.2	<u>0.2</u>
7	Sandy clay, clay, silty clay and strongly cemented firm soils, soil with a moderate or strong platy structure, any soil with a massive structure, any soil with appreciable amounts of expanding clays.	Not suitable	<u>Not suitable</u>

←

Added new column for allowing higher hydraulic loading rates (e.g. smaller drainfields) with higher quality effluent

Repairs

Defined “Malfunction” and “Minor Repair”, creating distinction between “Malfunctions” and “Failures”

Clarified when permits are/aren't required

Defined “Remediation” and added it as option for owners in cases of OSS failure

Defined “Unpermitted Sewage Discharge” and a procedure for LHO to follow when it is discovered

WAC 246-272A-0200 Permit requirements. (1) Except for a

minor repair as described in subsection (2) of this section,

~~Prior to beginning the construction process,~~ a person proposing

the installation, repair, modification, connection to, or

expansion of an OSS, shall ~~report the following and~~ obtain a

permit from the local health officer prior to beginning the

construction process. The permit application must include the

following:

(a) General information including:

(i) Name and address of the property owner and the applicant at the head of each page of submission;

(ii) Parcel number and if available, the address of the site;

(iii) Source of drinking water supply;

(iv) Identification if the property is within the boundaries of a recognized sewer utility;

(v) Size of the parcel;

Minor repairs do not
require a permit

reserve area if reserve site characteristics differ significantly from the initial area;

(ii) Vertical cross-section drawings showing:

(A) The depth of the soil dispersal component, the vertical separation, and depth of cover material; and

(B) Other new OSS components constructed at the site.

(iii) Calculations and assumptions supporting the proposed design, including:

(A) System operating capacity and design flow;

(B) Soil type; and

(C) Hydraulic loading rate in the soil dispersal component;

and

(e) Any additional information as deemed necessary by the local health officer.

(2) A permit is not required for a minor repair.

~~replacement, addition, or modification of broken or malfunctioning building sewers, risers and lids, sewage tank lids, sewage tank baffles, sewage tank pumps, pump control floats, pipes connecting multiple sewage tanks, and OSS inspection boxes and ports where a sewage tank, treatment~~

Minor repairs, now a defined term, do not require a permit

Definitions

“Malfunction” means a system deficiency that can be corrected by means of a minor repair.

“Minor repair” means the repair or replacement of any of the following existing damaged or malfunctioning OSS components: fifteen (15) feet or less of SSAS piping or conveyance; control panels; building sewers; any other portions of tightline in the OSS; risers and riser lids; sewage tank baffles; effluent filters; sewage tank pumps; pump control floats; and OSS inspection boxes and ports where a sewage tank, treatment component, or soil dispersal component does not need to be replaced.

“Remediation” means any action, approved by the local health officer, to restore the function of an OSS dispersal component to non-failure status. Remediation is not a minor repair, repair, additive, or treatment or distribution technology that allows it to meet a specific treatment level.

Establishes remediation minimum standards and directs LHO to develop a full policy

WAC 246-272A-0278 Remediation. (1) The local health

officer:

(a) Shall establish a remediation policy; and

(b) May establish programs and requirements for approving

and reviewing remediation activities.

(2) Remediation must not:

(a) Result in damage to the OSS;

(b) Result in insufficient soil treatment in the zone

between the soil dispersal component and the highest seasonal

water table, restrictive layer, or soil type 7; or

(c) Disturb the soil in or below the dispersal component if

the vertical separation requirements of WAC 246-272A-0230 are

not met.

(3) The department will maintain a DS&G for remediation.

Definition

“Unpermitted sewage discharge” means the discharge of sewage or treated effluent associated with an OSS or other sewage disposal that began or was installed after 1974 without the approval of any local permitting authorities.

WAC 246-272A-0280 Repairs of malfunctions and failures.

(1) When an OSS failure or malfunction occurs, the OSS owner shall either:

(a) Remediate the OSS in conformance with WAC 246-272A-0278; or |

(b) Repair or replace the OSS with a conforming system-OSS or component in full compliance with new construction requirements under this chapter, or an OSS-system meeting the requirements of WAC 246-272A-0280(6) Table IX either on the:

(i) Property served; or

(ii) Nearby or adjacent property if easements or restrictive covenants are obtained; or

(c) Connect the residence or facility to a:

(i) Publicly owned LOSS;

(ii) Privately owned LOSS where it is deemed economically feasible; or

(iii) Public sewer; or

(d) Perform one of the following when the requirements in

(a), and (b), or (c) of this subsection are not feasible:

(i) Use a holding tank; or

Allows use of remediation approved by LHJ for failures

(ii) Obtain a National Pollution Discharge Elimination System or state discharge permit from the Washington state department of ecology issued to a public entity or jointly to a public entity and the ~~system-OSS~~ owner only when the local health officer determines:

(A) An OSS is not feasible; and

(B) The only realistic method of final dispersal of treated effluent is discharge to the surface of the land or into surface water; or

(iii) Discontinue use of the OSS and cease all sewage generating activities on ~~Abandon~~ the property.

(2) The local health officer shall:

(a) Give first priority to allow the repair and second priority to allow the replacement of an existing permitted OSS, consisting solely of a septic tank and drainfield, with a similar OSS consisting solely of a septic tank and drainfield, if the repair or replacement will result in a conforming system in full compliance with new construction requirements under this chapter; and

(b) Allow repairs using the least expensive alternative that will result in a conforming system in full compliance with new construction requirements under this chapter.

(3) Upon discovering an unpermitted sewage discharge the local health officer shall:

(a) Notify the owner of the property and order an immediate stop to the unpermitted discharge;

(b) Require the owner to develop and submit an application as required under WAC 246-272A-0200;

(c) Require the installation of a conforming OSS in full compliance with new construction requirements under this chapter;

(d) Not permit the installation of an OSS meeting the requirements of Table IX; and

(e) Notify the department's shellfish program, if adjacent to marine waters.

Adds procedure and requirements for “unpermitted sewage discharges”, a newly defined term

(42) Prior to repairing the soil dispersal component, the OSS owner shall develop and submit information required under WAC 246-272A-0200-~~(1)~~.

(53) The local health officer shall permit an OSS-system that meets the requirements of Table IX only if the following are not feasible:

(a) Installation of a conforming OSS-system or component;
and

(b) Connection to either an approved LOSS or a public sewer.

(64) The person responsible for the design shall locate and design repairs to:

(a) Meet the requirements of Table IX if the effluent treatment and soil dispersal component to be repaired or replaced is closer to any surface water, well, or spring than prescribed by the minimum separation required in Table IV of WAC 246-272A-0210(1). Pressure distribution with timed dosing in the soil dispersal component is required in all cases where a conforming OSS system is not feasible.

TABLE IX

Treatment Component Performance Levels for Repair of OSS Not Meeting

Vertical and Horizontal Separations¹

Vertical Separation (in inches)	Horizontal Separation ²											
	< 30 25 feet			25 ≥ 30 < 50 feet			≥ 50 < 100 feet ³			≥ 100 feet		
	Soil Type			Soil Type			Soil Type			Soil Type		
	1	2	3-6	1	2	3-6	1	2	3-6	1	2	3-6
< 12	A & DL1	A & DL1	A & DL1	A & DL1	A & DL1	A & DL1	A & DL1	A & DL1	B & DL2	B & DL2	B & DL2	B & DL2
≥ 12 < 18	A & DL1	A & DL1	A & DL1	A & DL1	B & DL2	B & DL2	A & DL1	B & DL2	B & DL2	Conforming		
≥ 18 < 24	A & DL1	A & DL1	A & DL1	A & DL1	B & DL2	B & DL2	A & DL1	B & DL2	C B & DL2			
≥ 24 < 36	A & DL1	B & DL2	B & DL2	B & DL2	C B & DL2	C B & DL2	B & DL2	C B & DL2	C & DL3	Systems OSS		
≥ 36	A & DL1	B & DL2	B & DL2	B & DL2	C & DL3	C & DL3	B & DL2	C & DL3	EC & DL3			

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

²The horizontal separation indicated in Table IX is the distance between the soil dispersal component and the surface water, well, or spring. If the soil dispersal component is up-gradient of a surface water, well, or spring to be used as a potable water source, or beach where shellfish are harvested, the next higher treatment level shall apply unless treatment level A is already required.

³On a site where there is a horizontal setback of 75 - 100 feet between an OSS dispersal component and an individual water well, individual spring, ~~nonmarine~~ surface water or surface water that is not a public water source and a vertical separation of greater than twelve inches, a conforming ~~OSS system that~~ ~~complies with WAC 246-272A-0210(4)~~ shall be installed if feasible.

Closest horizontal distance category increased by 5 feet

Incorporates changes to treatment levels

Required treatment level increased to match requirements in -0230

- (b) Protect drinking water sources and shellfish harvesting areas;
- (c) Minimize nitrogen discharge in areas where nitrogen has been identified as a contaminant of concern in the local plan under WAC 246-272A-0015;

Minimum Lot Size and Land Area

Increased minimum land area requirements in *Table X, Minimum Land Area Requirement For Each Single-Family Residence or Unit Volume of Sewage*, by 500 – 1000 sq. ft., depending on soil type.

Added “Minimum Usable Land Area” requirement to Table X. This is a new requirement.

Developed new methodology and new Table XI for developments that do not meet Table X’s requirement.

WAC 246-272A-0320 Developments, subdivisions, and minimum

land area requirements. (1) A person proposing a subdivision where the use of OSS is planned shall obtain a recommendation for approval from the local health officer as required by RCW 58.17.150.

(2) The local health officer shall require the following prior to approving any development:

Sections (2)(a) – (2)(d) skipped for brevity

[...]

(ed) Determination of the minimum lot size or minimum land area required for the development using ~~Method I and/or Method II Table X, or the alternative methodology in subsection (5) of this section.~~

~~METHOD I,~~

(4) ~~Table X, Single-Family Residence Minimum Lot Size or Minimum Land Area Required Per Unit Volume of Sewage,~~ shows the minimum lot size required per single-family residence. For developments other than single-family residences, the minimum land areas shown are required for each unit volume of sewage.

Reference to Method I and Method II removed and Table X and (5) referenced as lot size and minimum land area requirements sections

However, the local health officer may require larger lot sizes where the local health officer has identified either nitrogen or phosphorus as a contaminant of concern either through planning activities described in WAC 246-272A-0015 or another process.

TABLE X

Minimum Land Area Requirement For Each

Single-Family Residence or Unit Volume of Sewage

Type of Water Supply	Soil Type (defined by WAC 246-272A-0220)					
	1	2	3	4	5	6
Public	0.5 acre 22,000 sq. ft.	12,500 13,000	15,000 16,000	18,000 19,000	20,000 21,000	22,000 23,000 sq. ft.
	2.5 acres ¹					
Individual Non-public, on each lot	1.0 acre	1.0 acre	1.0 acre	1.0 acre	2.0 acres	2.0 acres
	2.5 acres ¹					
<u>Minimum Usable Land Area</u>	2,000 sq. ft.	2,000 sq. ft.	2,500 sq. ft.	3,333 sq. ft.	5,000 sq. ft.	10,000 sq. ft.

¹ OSS consisting solely of a septic tank and gravity SSAS must have a minimum land area of 2.5 acres per See WAC 246-272A-0234(6).

Minimum land area (lot size) requirements for developments with public water supplies increased by 500 – 1000 sq. ft., depending on soil type

Minimum usable land area (a new term) requirement added

~~METHOD II. A minimum land area proposal using Method II is acceptable only when the applicant:~~

~~(i) Justifies the proposal through a written analysis of the:~~

~~(A) Soil type and depth;~~

~~(B) Area drainage, and/or lot drainage;~~

Method II section removed

Method II sections skipped for brevity

[...]

~~(iv) Minimize public health effects from the accumulation of contaminants in surface and groundwater.~~

(5) The local health officer shall require all proposals that do not meet the minimum land area requirements in Table X to demonstrate that the proposed development:

(a) Will minimize impacts to public health or surface water or groundwater quality;

(b) Has given appropriate consideration to:

(i) Topography, geology, and ground cover;

(ii) Climatic conditions;

(iii) Availability of public sewers; and

(iv) Present and anticipated land use and growth patterns;

and

(c) Will be in compliance with current planning and zoning requirements; and

(d) Will not exceed the nitrogen limit per land area as identified in Table XI.

Adds procedure for proposals that do not meet Table X's requirements

Table XI

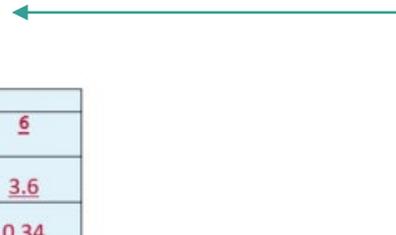
Maximum Allowable Total Nitrogen (TN) Load

Per Day by Type of Water Supply, Soil Type, and Land Area¹

<u>Water Supply Type</u>	<u>Maximum Daily TN Load</u>	<u>Soil Type²</u>					
		<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>
<u>Public</u>	<u>mg per sq. ft.</u>	<u>3.7</u>	<u>6.3</u>	<u>5.1</u>	<u>4.3</u>	<u>3.9</u>	<u>3.6</u>
	<u>lb per acre</u>	<u>0.36</u>	<u>0.60</u>	<u>0.49</u>	<u>0.41</u>	<u>0.37</u>	<u>0.34</u>
<u>Non-public on each lot</u>	<u>mg per sq. ft.</u>	<u>1.9</u>	<u>1.9</u>	<u>1.9</u>	<u>1.9</u>	<u>0.9</u>	<u>0.9</u>
	<u>lb per acre</u>	<u>0.18</u>	<u>0.18</u>	<u>0.18</u>	<u>0.18</u>	<u>0.09</u>	<u>0.09</u>

¹ Based on 60 mg/L TN and 360 gal/day OSS effluent.

² As defined in Table V, WAC 246-272A-0220



Adds nitrogen-based minimum size determination procedure for proposals that do not meet Table X's requirements

(63) The department shall develop guidelines for the application of the alternative method in subsection 5 of this section Method II by the effective date of the rule~~(insert date one year from the effective date)~~.

(74) The local health officer shall require lot areas of thirteentwelve thousand five hundred square feet or larger except when a person proposes:

(a) OSS within the boundaries of a recognized sewer utility having a finalized assessment roll; or

(b) A planned unit development with +

~~(i)~~ A a signed, notarized, and recorded deed covenant restricting any ~~d~~evelopment of lots or parcels above the

Other Notable Changes

Recommended Standards and Guidance (RS&G) documents renamed to Departmental Standards and Guidance (DS&G) documents

Pump Chamber Sizing section added (WAC 246-272A-0023)

Statewide Service Provider Licensing –After legal review DOH determined that we do not have appropriate authority to license service providers. Instead, the revisions require LHJs to establish procedure to approve maintenance service providers.

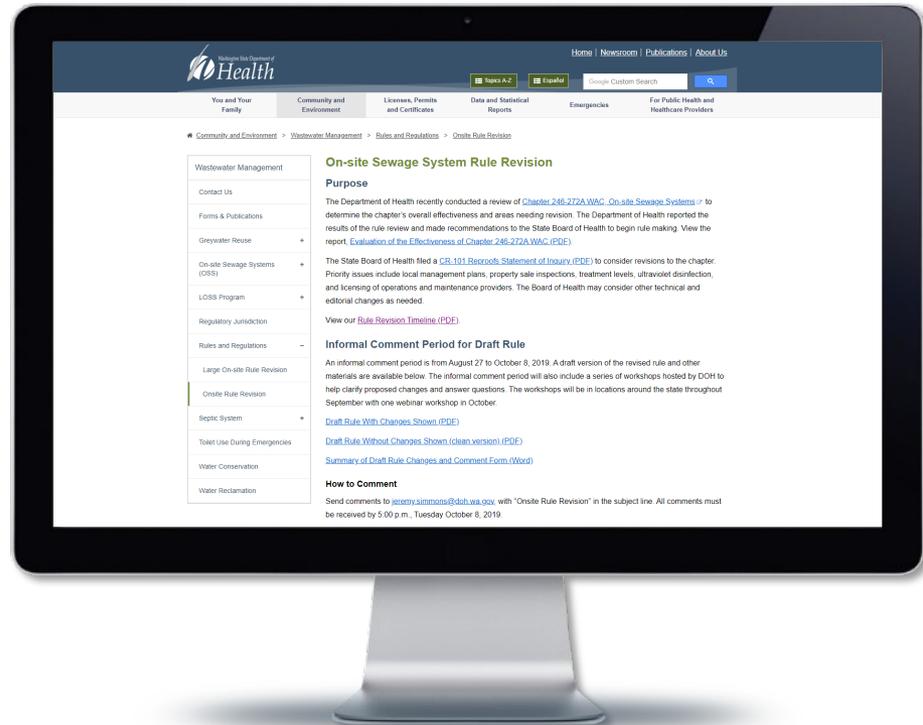
How to Make Comments & Keep Up To Date

Send comments to jeremy.simmons@doh.wa.gov with “**Onsite Rule Revision**” in the subject line. **All comments must be received by 5:00 p.m., Tuesday October 8, 2019.**

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