

Preliminary Small Business Economic Impact Statement

Chapter 246-272B WAC Large On-Site Sewage Systems

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What is the scope of the proposed rule?

An on-site sewage system (OSS) is a type of wastewater system that collects, treats, and disposes of sewage from individual homes or buildings at or near its point of generation. Large OSS, or LOSS, includes on-site sewage systems with design flows from 3,500 gpd to 100,000 gpd. In 2007, the legislature consolidated regulation of LOSS under the Department of Health (department). The proposed rules establish a comprehensive framework for LOSS siting, design, construction, installation, permitting, operation, maintenance, repair, compliance, and enforcement. Chapter 70.118B RCW, Large on-site sewage disposal systems, maintains oversight of LOSS 3,500 – 14,500 gpd with the department, but expanded the scope beyond the traditional role of protecting public health to include environmental protection. For LOSS with design flows of 14,500 – 100,000 gpd, the statute transferred oversight from the Department of Ecology (Ecology) to the department and expanded the scope beyond the historic environmental protection to include public health protection. The proposed rules are in response to the 2007 legislation and consolidate, revise, and clarify existing department and Ecology requirements, and for new areas of responsibility, establish requirements or standards.

The proposed rules include requirements that unify Ecology design and approval requirements for domestic wastewater facilities with department LOSS design review and approval requirements. The combined design and approval requirements replace the following Department of Ecology rules for domestic wastewater facilities: Chapter 173-240 WAC, Chapter 173-230 WAC. The proposed rules incorporate key concepts from Chapter 173-200 WAC, Water quality standards for ground waters of the State of Washington relating to all known, available, and reasonable treatment and groundwater standards.

In addition, the proposed rules transition permitting requirements for 14,500 gpd to 100,000 gpd systems from Ecology to the department. For systems in this size range, the requirements of the proposed rules replace the requirements of Chapter 173-216 WAC, State waste discharge permit program.

The proposed rule amendments affect LOSS owners as LOSS owners are responsible for all activities during the service life of their LOSS. The department divided requirements into the following three distinct categories:

- Requirements for LOSS constructed on or before 1984;
- Requirements for LOSS with current permits issued from the Department of Health, Department of Ecology, or delegated Local Health Jurisdictions (LHJs); and
- New construction requirements.

Which businesses are impacted by the proposed rule package? What are their North American Industry Classification System (NAICS) codes? What are their minor cost thresholds?

The proposed rules affect only one category of business directly, sewage system installers. However, a LOSS can be used for sewage treatment and disposal for a wide range of residences or buildings in a variety of settings including, but not limited to, churches, schools, strip malls, restaurants, mobile home parks, housing

developments, or small cities. The owner of a business is only impacted by these proposed rules if they also own the LOSS serving the business. No business by its function as a business is required to have a LOSS. Therefore, costs of the proposed rules are only indirectly related to any particular type of business other than sewage system installers.

The applicable NAICS classification for sewage system installers is:

Site preparation contractors (238910)

This U.S. industry comprises establishments primarily engaged in site preparation activities, such as excavating and grading, demolition of buildings and other structures, septic system installation, and house moving. Earth moving and land clearing for all types of sites (e.g., building, non-building, and mining) is included in this industry. Establishments primarily engaged in construction equipment rental with operator (except cranes) are also included.

Although no other specific business is directly impacted by the proposed rules, the department conducted additional analysis to determine if the proposed rules will result in costs that exceed minor cost thresholds for a selection of other businesses. For this analysis, the department selected the three most commonly permitted businesses of the approximately 450 currently permitted LOSS in Washington state. These three business classifications as identified in the North American Industry Classification System (NAICS) are:

Lessors of other real estate property (NAICS 531190)

This industry comprises establishments primarily engaged in acting as lessors of real estate (except buildings), such as manufactured home (i.e., mobile home) sites, vacant lots, and grazing land.

Full-service restaurants (NAICS 722110)

This industry comprises establishments primarily engaged in providing food services to patrons who order and are served while seated (i.e. waiter/waitress service) and pay after eating. These establishments may provide this type of food services to patrons in combination with selling alcoholic beverages, providing carry out services, or presenting live nontheatrical entertainment.

RV (recreational vehicle) parks and campgrounds (NAICS 721211)

This U.S. industry comprises establishments primarily engaged in operating sites to accommodate campers and their equipment, including tents, tent trailers, travel trailers, and RVs (recreational vehicles). These establishments may provide access to facilities, such as washrooms, laundry rooms, recreation halls and playgrounds, stores, and snack bars.

The following table shows the number of businesses in Washington that fall within the four identified NAICS codes, and the minor cost thresholds for payroll and sales.

| NAICS Code (4, 5 or 6 digit) | NAICS Business Description | # of businesses in WA (2007) | Minor Cost Threshold = 1% of Average Annual Payroll (2007) | Minor Cost Threshold = .3% of Average Annual Receipts (2007) |
|------------------------------|------------------------------|------------------------------|--|--|
| 238910 | Site preparation contractors | 1,505 | \$4,087.36 | \$5,238.02 |
| 531190 | Mobile Home Parks | 312 | \$484.74 | \$1,341.38 |
| 722110 | Full-Service Restaurant | 5,273 | \$2,838.76 | \$2,391.86 |

| NAICS Code (4, 5 or 6 digit) | NAICS Business Description | # of businesses in WA (2007) | Minor Cost Threshold = 1% of Average Annual Payroll (2007) | Minor Cost Threshold = .3% of Average Annual Receipts (2007) |
|------------------------------|----------------------------|------------------------------|--|--|
| 721211 | RV parks and campgrounds | 204 | \$732.45 | \$1,128.66 |

What is the range of costs per business of the proposed rule?

The only proposed rule that directly affects sewage system installers is WAC 246-272B-05000, Installer requirements. This section expands the current requirement to obtain LHJ approval before installing a LOSS by adding required experience. This requirement can be met either with 3 years experience installing on-site sewage systems, or with 1 successful installation of a similarly designed sewage treatment system with a pressure distribution drainfield. The department assumes sewage system installers who currently install LOSS meet the requirements of the proposed rule. As a result, the estimated cost of this proposed change is \$0.

The remaining proposed requirements are evaluated for their impact on the LOSS owner. There is considerable diversity among LOSS depending on the system size, site conditions, treatment types employed, design complexity, age and condition of the system, number of customers served, and ownership and management structure. The current cost of constructing a LOSS varies dramatically based and this diversity of circumstance ranging from \$20 to \$40 per gpd of designed flow. Similar variability in cost is also expected for the proposed changes to the rules.

The following table illustrates the complexity of gauging the potential impact of the proposed rules due to this high degree of variability among LOSS. The table includes the significant rule changes being proposed, identifies the types of systems or activities that could be affected, and estimates the costs expressed as a range dependent on the specific attributes of the LOSS. For the purposes of this analysis, low volume LOSS have a design flow between 3,500 and 14,500 gpd, and high volume LOSS have a design flow between 14,501 and 100,000 gpd.

| Section Number & Required Activity | Applies to: | Brief Description of Change, Which Systems are Affected | Cost Range and Rationale |
|------------------------------------|--|--|--|
| 02250, Public notice | <ul style="list-style-type: none"> • New LOSS • Certain modifications to existing LOSS | <p>High volume LOSS are currently required to conduct public notification under existing rules. The only changes for high volume LOSS are:</p> <ul style="list-style-type: none"> • Requires public notice earlier in the development process • Requires owner production of notice • Reduces publication days from 30 to 2 | <ul style="list-style-type: none"> • \$0 • Nominal cost • Cost savings <p><i>No new costs for low volume LOSS</i></p> |
| 02550, | Specific | New requirement for both low volume | \$2,000 – \$10,000 |

| Section Number & Required Activity | Applies to: | Brief Description of Change, Which Systems are Affected | Cost Range and Rationale |
|--|--|--|--|
| Modifications – Management plan revisions related to ownership change | modifications to existing LOSS | and high volume LOSS. <ul style="list-style-type: none"> Requires revision and department approval of management plan prior to changing ownership of a LOSS. | Dependant on complexity of ownership structure. The department assumes this may occur once in the lifetime of a LOSS (lifetime is 30 – 50 years). |
| 02600, Failure and abandonment – Notification | Specific existing LOSS | New requirement for both low volume and high volume LOSS. <ul style="list-style-type: none"> If failure, notify department within 1 day. If directed by the department to notify customers of failure, notification must occur within 10 days. If planned abandonment, notify the department and customers at least one year in advance. | <ul style="list-style-type: none"> Nominal cost Nominal cost Nominal cost |
| 03200, Site risk survey | <ul style="list-style-type: none"> New LOSS Certain modifications to existing LOSS | New requirements for low volume LOSS. Requires the following information: <ul style="list-style-type: none"> Maps to scale Description of environmental conditions Soil suitability analysis Well logs Screening nitrate balance Description of the potential environmental impacts from the LOSS, if any | \$300 - \$1700 Dependent on site conditions and availability of data <i>No new cost for high volume LOSS</i> |
| 03300, Hydrogeology report (HGR) | <ul style="list-style-type: none"> New LOSS Certain modifications to existing LOSS | New requirements for low volume LOSS. Requires HGR for LOSS 3,500 – 14,500 gpd under certain circumstances. The HGR includes: <ul style="list-style-type: none"> Site specific nitrate balance Mounding analysis Groundwater monitoring from existing well Groundwater monitoring requiring new wells | <ul style="list-style-type: none"> \$10,000 - \$25,000 \$5,000 - \$10,000 \$5,000 - \$10,000 \$25,000 - \$30,000 <p>The department assumes 25% of new low volume LOSS may incur some of these costs. Not all costs will be</p> |

| Section Number & Required Activity | Applies to: | Brief Description of Change, Which Systems are Affected | Cost Range and Rationale |
|--|--|--|---|
| | | | <p>incurred by any one low volume LOSS.</p> <p><i>No new cost for high volume LOSS</i></p> |
| 05000, Installer requirements | <ul style="list-style-type: none"> • New LOSS • Certain modifications to existing LOSS | <p>New requirement for installers.</p> <p>Adds experience requirements for installers:</p> <ul style="list-style-type: none"> • 3 years experience installing sewers, or • 1 successful installation of a similarly designed and installed pressure distribution system. | <p>\$100 - \$600 initial approval \$0 - \$300 renewal</p> <p>The department assumes current installers meet the proposed requirements.</p> |
| 05100, Construction oversight and testing | <ul style="list-style-type: none"> • New LOSS • Certain modifications to existing LOSS | <p>New requirements for both low volume and high volume LOSS.</p> <p>Low volume LOSS</p> <ul style="list-style-type: none"> • New requirement for watertightness testing of tanks. (Already required to pretest drainfield.) <p>High volume LOSS</p> <ul style="list-style-type: none"> • New requirement to pretest of drainfield. (Already required to do watertightness testing.) | <ul style="list-style-type: none"> • \$200 - \$3,000 (The number of tanks for each LOSS range from 1 to 6 at \$200 - \$500 per tank test = \$3,000) • \$800 - \$1,200 per pretest |
| 05200, Water tightness testing | <ul style="list-style-type: none"> • New LOSS • Certain modifications to existing LOSS | <p>New requirement for both low volume and high volume LOSS.</p> <p>Establishes approved watertightness testing methods for low volume and high volume LOSS.</p> | <p>Costs included in 05100</p> |
| 06250, Treatment | <ul style="list-style-type: none"> • New LOSS • Certain modifications to existing LOSS | <p>New requirement for both low volume and high volume LOSS.</p> <p>Changes treatment standards based on LOSS site conditions.</p> | <p>\$0</p> <p>Costs incurred for applying a higher treatment standard are offset by the ability to develop previously unsuitable sites.</p> |
| 06350, Drainfields | <ul style="list-style-type: none"> • New LOSS • Certain modifications to existing LOSS | <p>New requirements for both low volume and high volume LOSS.</p> <ul style="list-style-type: none"> • Requires timed dosing (current industry standard) • Limits drainfield location to within ½ mile of from the property served | <ul style="list-style-type: none"> • \$0 • \$0 |

| Section Number & Required Activity | Applies to: | Brief Description of Change, Which Systems are Affected | Cost Range and Rationale |
|--|--|--|--|
| | | <ul style="list-style-type: none"> Reduces drainfield parameters dependent on treatment level or other treatment off-sets | <ul style="list-style-type: none"> \$0 Costs incurred for applying a higher treatment standard are offset by the ability to develop previously unsuitable sites. |
| 06450, Sewage tanks | <ul style="list-style-type: none"> New LOSS Certain modifications to existing LOSS | New requirements for both low volume and high volume LOSS. <ul style="list-style-type: none"> Increases single family resident STEP size from 900 to 1000 gallons (no cost difference between tank sizes) Establishes minimum size of 1000 gallons for grease interceptors (minimum industry standard tank size) Increases LOSS design flow standard to 3 times daily design flow | <ul style="list-style-type: none"> \$0 \$0 \$0 |
| 06550, Public domain and proprietary technologies | <ul style="list-style-type: none"> New LOSS Certain modifications to existing LOSS | New requirement for both low volume and high volume LOSS. The proposed rule incorporates alternative standards and guidance. | \$0 Applicants already required to follow standards and guidance for approval of distribution systems. |
| 07050, Operations and maintenance | <ul style="list-style-type: none"> All LOSS | New requirements for low volume LOSS. <ul style="list-style-type: none"> Maintain financial responsibility Timely response to customer complaints Avoid bypassing any treatment component Effluent monitoring Use of an accredited laboratory for sample testing | <ul style="list-style-type: none"> \$0 \$0 \$0 \$200 (20% of all low volume LOSS likely to monitor for fecal coliform and nitrates at \$25 per parameter four times per year = \$200) Costs for using an accredited lab are included in parameter cost estimate above. <i>No new cost for high volume LOSS</i> |
| 07200, Operator requirements | <ul style="list-style-type: none"> All LOSS | New requirements for both low volume and high volume LOSS. <ul style="list-style-type: none"> Requires a qualified operator for each | <ul style="list-style-type: none"> \$55 - \$1,600 initial |

| Section Number & Required Activity | Applies to: | Brief Description of Change, Which Systems are Affected | Cost Range and Rationale |
|--|--|--|--|
| | | LOSS 3,501 – 14,500 gpd <ul style="list-style-type: none"> • Requires Ecology operator certification for high volume LOSS where previously part of management entity requirements • Requires a qualified operator trained specifically to operate a LOSS with proprietary treatment | approval <ul style="list-style-type: none"> • \$55 - \$400 renewal • \$0 – Cost of Ecology certification same as previous management entity requirements • \$0 - Already required by proprietary treatment providers |
| 07450, Failures | <ul style="list-style-type: none"> • Specific existing LOSS | New requirements for both low volume and high volume LOSS <ul style="list-style-type: none"> • Notify the department within one business day of known failure • Notify customers within ten business days of being directed by the department to discontinue use of the LOSS | <ul style="list-style-type: none"> • \$0 • Nominal |
| 07500, Abandonment – Written notice | <ul style="list-style-type: none"> • Specific existing LOSS | New requirements for low volume LOSS Requires: <ul style="list-style-type: none"> • One year advance notice to DOH, LHJ, and customers of abandonment of LOSS • Removal of electrical and mechanical equipment in addition to existing site cleanup | <ul style="list-style-type: none"> • Nominal cost • Nominal cost (incremental increase over costs of existing required activities) |

Does the rule impose more than minor costs on two or more impacted businesses?

For sewage system installers, the department determined the proposed rules do not pose more than minor costs on a small business as the costs of acquiring the experience required by the proposed rules is estimated at \$0.

For the three types of businesses the department selected to assess the impacts of the proposed rules on LOSS owners, the costs exceed all minor cost thresholds. The department assumes the costs will exceed minor cost thresholds of many other small businesses that own and operate LOSS.

Does the rule have a disproportionate impact on small businesses?

The cost of this proposed rule can vary greatly depending on the circumstances of the specific LOSS. As stated previously, the size of the business does not have any bearing on the cost of the LOSS used for that business.

Some of the largest, most complex, and most costly LOSS are owned by very small businesses with 5 employees, while other smaller simpler and less costly LOSS are owned by large businesses with more than 50 employees. Based on this circumstance, the department assumes the proposed rules will have a disproportionate impact on some small businesses.

Did we make an effort to reduce the impact of the rule?

To reduce the impact of the proposed rules, the department modified substantive regulatory requirements for systems constructed on or before July 1, 1984. The statutory amendments of 2007 extended regulatory oversight to include LOSS built before 1984. These systems were previously exempt from regulation. The proposed rules make allowances for existing LOSS by reducing the documentation necessary to obtain an initial operating permit. These systems need only submit an application, the appropriate fee based on the system size, and copies of available design and construction documentation for department review. The department will then issue an operating permit unless there is a known failure. In order to protect public health and the environment, the department may impose conditions on the operating permit to ascertain the condition of the LOSS and ensure it is operated optimally over time. These conditions may include submitting a design engineer inspection and evaluation, a site risk survey, or an operation and maintenance manual; or the permit condition may prohibit additional connections to the LOSS until it is evaluated consistent with the requirements of the chapter.

By issuing an initial operating permit in this manner rather than requiring demonstration of compliance in advance, the department is also allowing a delay in compliance for these systems. This delay allows the department and the owner of the LOSS to work together to prioritize actions that best protect public health and the environment based on the conditions of the site and the LOSS.

The department also provides mitigation in the proposed rule by requiring environmental assessments based on the complexity of the proposed LOSS and the site conditions. This is achieved by requiring owners to complete a screening tool, the site risk survey (WAC 246-272B-03200), when proposing a new LOSS and certain modifications to existing LOSS, including expansion. The site risk survey requires information that characterizes the site's ability to support the design flow and waste strength of the proposed LOSS. The site risk survey includes a description of the physical characteristics of the primary and reserve drainfield site, identification of sensitive or critical areas, basic hydrogeology information, and a topographic map. Only when the department is not able to determine the public health and environmental impacts of the LOSS based on the results of the site risk survey is an owner required to proceed with a comprehensive analysis called the hydrogeology report (HGR). The HGR (WAC 246-272B-03300) is a much more in-depth analysis of the site's ability to support the proposed LOSS based on the results of the site risk survey. The hydrogeology report requires a mitigation plan to reduce or eliminate potential environmental and public health impacts of the LOSS and may include a ground and surface water monitoring plan. Rather than requiring all LOSS owners to prepare an HGR and incur the additional cost to prepare the report, the department determined a site risk survey is adequate in most cases to assess the public health and environmental impacts of a proposed LOSS.

Did we involve small businesses in the rule development process?

The department convened a workgroup to assist in developing rule requirements that best protect public health and the environment while considering the impact to small businesses in Washington state. The following businesses represented the interests of small businesses on the workgroup and contributed to the discussion on the scope and approach in drafting the rule:

- Building Industry Association of Washington,
- Manufactured Housing Communities of Washington;
- Aqua Test (OSS and LOSS operation and maintenance);
- Jensen Engineering and P Scott E. Jones & Associates (OSS and LOSS design engineers);
- Stuth Company, Inc. (OSS and LOSS installers);
- Taylor Shellfish Farms, Inc. (Shellfish industry and environmental interests); and
- Evergreen Valley Utilities (Private utility company).

Will businesses have to hire or fire any employees because of the requirements in the rule?

The department determined businesses will not have to hire or fire any employees because of the requirements of the proposed rules. However, the statutory amendments of 2007 extended regulatory oversight to include LOSS built before 1984. These systems were previously exempt from regulation. The existing rules require each LOSS be operated by a qualified operator. The proposed rules carry this requirement forward and apply it to all LOSS, including systems built before 1984. While the proposed rules modify the qualifications for a LOSS operator, the requirement to have an operator is not new and the department's analysis concludes that there will not be any jobs created or lost as a result of the proposed rules.