Focus on: On-site Sewage Systems and Shoreline Management

Purpose

On-site sewage systems (OSS) can raise challenging shoreline management questions when development is proposed on small lots, when redevelopment is proposed for a nonconforming lot, and when erosion or flooding threatens an OSS. This document addresses these situations and discusses permitting requirements.

What are on-site sewage systems?

Often refered to as septic systems, OSS treat wastewater from private residences. OSS are common in rural and low-density areas without public sewer systems. When properly designed, installed, and maintained, OSS can effectively treat residential watewater for a long time.

Source: Washington State Department of Health

Setbacks and buffers

OSS design approval is one of the first steps a property owner takes when developing a new residence. However, local health officers may not consider Shoreline Master Program (SMP) regulations when approving OSS. This can result in approved septic designs that don't meet SMP regulations.

OSS regulations establish setbacks from surface waters. When necessary and appropriate, local health officials may reduce or waive OSS setback requirements. OSS setbacks may differ from shoreline and wetland buffers required by local SMPs. OSS setbacks and SMP-required buffers serve different purposes. OSS setbacks protect public health while buffers established by SMPs protect shoreline ecological functions.

Shoreline property owners should provide their professional septic system designer with information about the required shoreline buffer and, if wetlands are present, a recent wetland delineation. This will ensure the proposed OSS design plan can also be permitted under the SMP from the outset.

Permitting OSS

New and replacement OSS must be reviewed under the SMP but will typically be exempt from the requirement to obtain a Substantial Development Permit (SDP).

Permitting and risk of erosion

New OSS must be sited so shoreline stabilization isn't likely necessary for the life of the development. To ensure this requirement is met, local governments can require a geotechnical analysis.

Permitting in flood-prone areas

OSS are vulnerable to flooding and should be located outside of flood-prone areas. OSS drain fields can be temporarily rendered inoperable when surrounding soils become saturated. Risk of OSS damage is highest in areas mapped as V Zones and velocity flow A Zones on a Flood Insurance Rate Map because erosion and scour can expose OSS components. Structural flood hazard reduction measures, such as diking, can damage ecological functions and intensify flooding on neighboring properties. Structural flood hazard reduction methods can't be authorized to protect OSS.

Permitting on small and encumbered lots

An exemption from the SDP process may not be possible when residential development is proposed on small lots and lots heavily encumbered by critical areas. Residential development within a shoreline buffer, critical area, or critical area buffer will typically require a Shoreline Variance Permit.

Avoid and minimize impacts

Property owners seeking a Shoreline Variance Permit must demonstrate they have made all reasonable attempts to avoid and minimize impacts, including the degree of buffer encroachment related to the installation of an OSS. This may require an applicant to redesign their OSS, acquire additional property, or use a proprietary sewage treatment product that saves space.

Shoreline Variance Permits are discretionary permits that will be denied when all approval criteria can't be met.

Reserve area

OSS designs must include a reserve area. A reserve area is land approved for the installation of a conforming system that's protected and maintained for replacement of the OSS upon its failure. Reserve areas can't be located within a shoreline or critical areas buffer without an approved Shoreline Variance Permit.

Residential expansion and redevelopment

For residential expansions that require a shoreline variance, applicants might need to connect to public sewer, if available, to meet the variance permit approval criteria.

Existing OSS and shoreline stabilization

Property owners may be interested in new or replacement shoreline stabilization to protect an existing OSS from erosion. Stabilization isn't appropriate when it can reasonably be avoided by relocating an existing OSS, connecting to public sewer, or replacing a traditional OSS with proprietary sewage treatment product. Property owners should also explore the feasibility of acquiring additional property suitable for the relocation of an OSS.

Planting drain fields with native plants

In some areas, septic drain fields can be planted with shallow-rooted native plants that have been approved for septic drain field landscaping. Recommendations for landscaping septic areas with native plants are available in some areas. These resources are provided by Washington State University County Extensions and county governments. Additionally, the Washington Sea Grant publishes a resource called Landscaping Your Septic System that is applicable in western Washington. Check with your local health department for restrictions.

Septic maintenance

Maintaining your OSS is important for protecting water quality. OSS owners are responsible for complying with state regulations on operating, monitoring, and maintaining OSS.

Contact information

https://ecology.wa.gov/shoreline-management-contacts

ADA accessibility

To request an ADA accommodation, contact Ecology by phone at 360-407-6600 or visit https://ecology.wa.gov/accessibility.

For Relay Service or TTY, call 711 or 877-833-6341.