On-site Sewage

On-site sewage systems, commonly known as septic systems, are widely used around Puget Sound on properties not served by municipal sewers. These systems safeguard public health and water quality, and allow people the flexibility to live and work in all parts of the region. There are more than a half-million systems in the Puget Sound region.

Systems that receive good use and care will provide very good treatment of sewage. However, when homeowners don't take care of their systems through regular inspections and repair—including pumping as needed—the systems can break down, leaking sewage into the groundwater and putting people and water resources at risk. Inadequately treated sewage can contaminate marine and freshwaters and impact drinking water supplies, swimming beaches, and shellfish beds for recreational and commercial uses.

All on-site systems need periodic inspections and good operation and maintenance to ensure effective, ongoing treatment.

Photo Credit: Jean Browman

On-site Sewage

INDICATOR:

On-site Sewage Inspection, Repair, and Maintenance

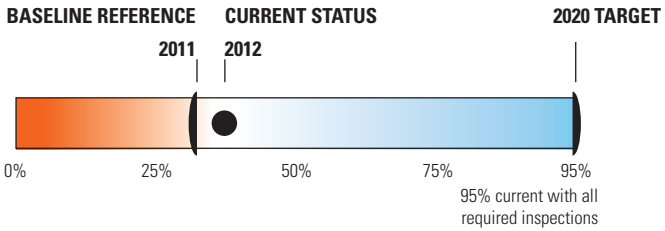
Indicator lead: Stuart Glasoe, Washington State Department of Health

TARGET:
Part 1: Inventory on-site sewage systems and fix all failures in Marine Recovery Areas and other specially designated areas, and to be current with inspections at 95%.

Part 2: Phase in an extension of this program to cover 90% of Puget Sound's unsewered marine shoreline.

PROGRESS:

IS THE TARGET MET?	IS THERE PROGRESS? Part 1	Part 2
NO	YES	NO



As of July 1, 2012, inspections were current on 38% of on-site sewage systems in Marine Recovery Areas and other specially designated areas. The total number of systems inventoried was nearly 60,000 and the percent documented was 91%. Reporting on the percent of failed systems fixed or mitigated will be phased in.

Progress Towards 2020 Target

The target has not been met. This is a relatively new target in the state's existing performance management programs. The 12 Puget Sound local health jurisdictions (LHJs) report data semiannually to the Washington State Department of Health (DOH). Only three reporting cycles have been completed so far.

The results of the first three cycles show an increase in the percent of systems current with inspections from 33% to 38% (Figure 1). During this same period, the total number of systems inventoried increased by about 7,000 and the percent of systems documented rose from 86% to 91%.

The interim inspection target is 60% by January 2015. The designated areas currently cover about 10% of the region's on-site systems. This coverage will continue to expand as more areas and on-site systems are designated for enhanced management, resulting in more systems to inventory and inspect.

The second target will be phased in, and the implementing agencies will need to develop a system to measure and report results. DOH estimates that the existing designated areas cover approximately 450 miles of unsewered Puget Sound shoreline. This represents roughly 20% of Puget Sound's unsewered shorelines, compared to the 90% target for 2020.

Number of On-site Sewage Systems Inventoried and Inspected in Designated[1] Areas
Semi Annual Figures 2011-2012

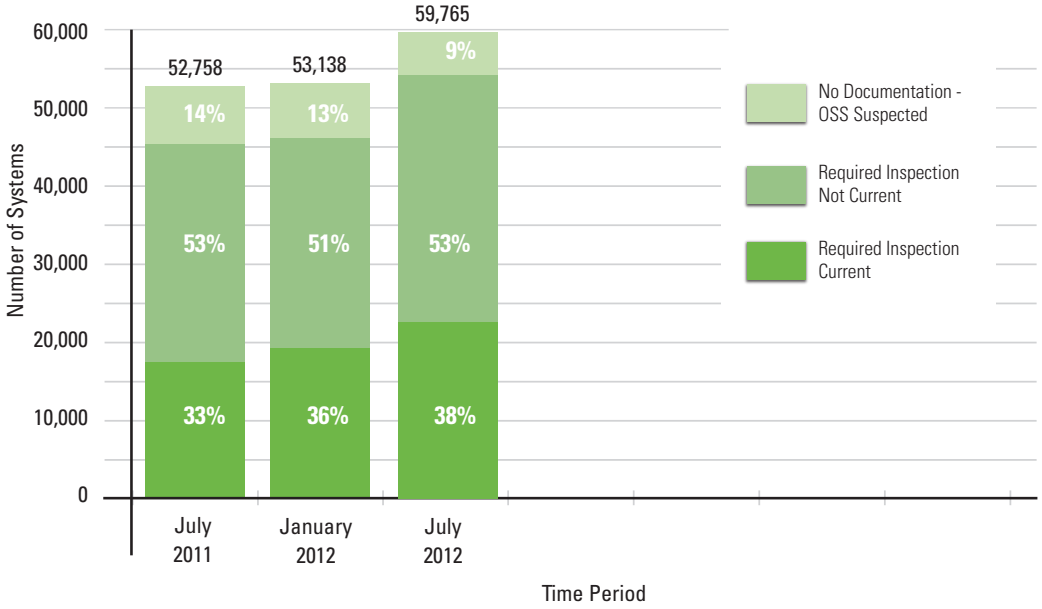


Figure 1.
Source: Washington State Department of Health, Office of Shellfish and Water Protection

[1] Designated areas include Marine Recovery Areas and other areas with comparable requirements.

What Is This Indicator?

The goal of this indicator is to track and advance the proper use and care of on-site sewage systems in sensitive and high-risk areas of Puget Sound to protect public health and water quality.

State rules require all homeowners to regularly inspect and maintain their on-site sewage systems. However, in marine recovery areas and other designated areas, LHJs engage more directly with homeowners to help ensure systems are inspected and maintained to reduce public health risks.

All 12 Puget Sound LHJs have adopted comprehensive management plans for on-site sewage systems under the state on-site sewage rule. The management plans frame the local Operation and Maintenance (O&M) programs. The local O&M programs share a set of common elements but they are all uniquely designed and implemented. DOH oversees the statewide on-site sewage rule and collects and interprets data for the Puget Sound targets.

Interpretation of Data

The LHJs are currently working to adapt and align their programs to fit with these ambitious regional targets.

The Puget Sound O&M programs are inherently complex and costly to implement. They all work from the same rule requirements and core elements, but are all tailored to local conditions, budgets, and ways of doing business. They require significant planning, infrastructure, personnel, public education, political support, community buy-in, financial resources, and smart execution.

At all levels of government, funding for decentralized wastewater programs and infrastructure dramatically lags behind public investment in centralized sewer systems. State financial support for the Puget Sound O&M programs has never materialized at a scale originally envisioned when the state on-site sewage and MRA laws were enacted. Most O&M program costs are covered locally and are complemented by state and federal grants. In 2009 the Puget Sound counties conservatively estimated unmet needs at approximately $4 million annually. State pass-through funds and federal EPA Pathogen Funds administered by DOH help augment this shortfall, adding

On-site Sewage

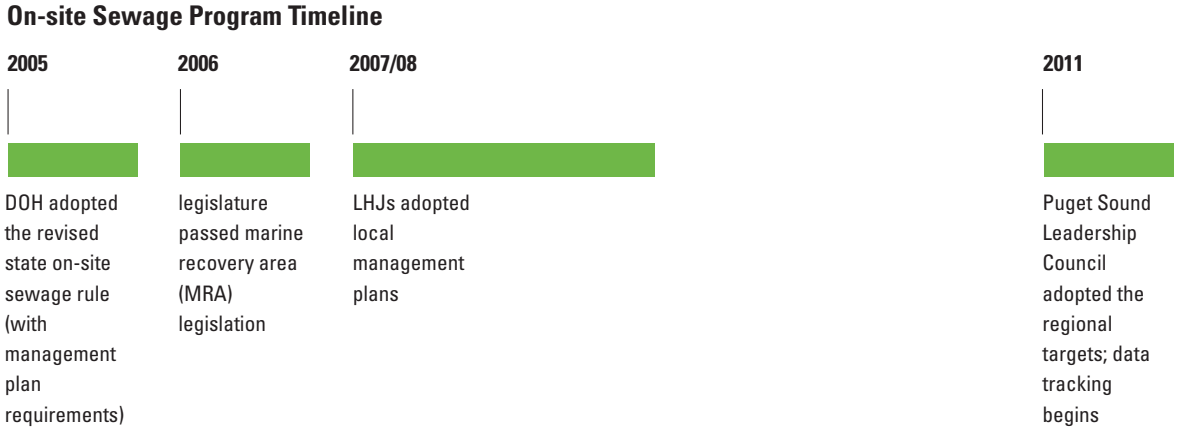


Figure 2. Several key milestones have been achieved for the On-Site Sewage Program

about $4 million to work by the Puget Sound counties in the 2011-2013 biennium.

The targets provide a small window into the workings of the local O&M programs. These programs include such diverse activities as financial lending for system repairs, code enforcement, homeowner inspection training, data management, certification of O&M professionals, homeowner notification and reporting, and community outreach.

"Management"—characterized here as O&M—has long been recognized as the weak link in the widespread use of on-site sewages systems when compared to centralized sewers. This picture is gradually changing in the Puget Sound region as local O&M programs take root, but it will continue to take significant investments and smart thinking to effectively design and deliver these utility-style programs and services on an ever-expanding scale.

Homeowners and elected officials alike are increasingly seeing the need for and benefits of these programs. The Action Agenda and regional targets will continue to shape and guide these efforts.