

# PUGET SOUND VITAL SIGNS

## VITAL SIGN SHELLFISH BEDS

The Shellfish Vital Sign tells us about the status of harvestable shellfish beds. The closure or reopening of a shellfish bed depends on water quality. The Washington Department of Health regularly monitor shellfish for harmful bacteria, biotoxins and other contaminants, and test water quality in growing areas to make sure the shellfish are safe to eat. The Puget Sound nearshore is home to an amazing abundance of oysters, clams, mussels, and other shellfish that provide opportunities for commercial and recreational shellfish harvest and form the basis for a multi-million dollar industry that supports thousands of jobs. However, shoreline pollution sources, including wastewater treatment plants, individual on-site sewage systems, marinas, farms, and other activities can negatively impact the shellfish areas and lead to human health risks.

### Reporting Lead

Mary Ramirez and Nathalie Hamel, Puget Sound Partnership  
[nathalie.hamel@psp.wa.gov](mailto:nathalie.hamel@psp.wa.gov)

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#### VITAL SIGN > INDICATOR

#### PROGRESS STATUS

#### Shellfish Beds

Area of harvestable shellfish beds



## Key Messages

- There are approximately 245,000 acres of classified commercial and recreational shellfish beds around Puget Sound. However, 15 percent of this area does not meet water quality standards and is closed to harvest.
- The primary sources of pollutants affecting shellfish harvest are poorly functioning wastewater treatment plants, combined sewer overflows (following high rainfall events), failing [onsite septic systems](#), and poor manure management practices on farmlands, which allow contaminants to enter Puget Sound through streams and waterways. When water quality testing finds fecal coliform bacteria in growing areas, it's a sign that there is animal or human waste present, thereby signaling risk to humans.
- Commercial and recreational shellfish are tested for marine biotoxins produced by certain harmful algae that cause paralytic, amnesic, and diarrhetic shellfish poisoning. Harvest area closures do occur throughout Puget Sound when these toxins exceed levels safe for human consumption, however biotoxin-caused illnesses are rare in Washington due to proactive monitoring and closures.
- Between 2007 and August 2018, more acres of shellfish beds were upgraded than downgraded across all classifications, resulting in a net increase of 5,565 [acres of harvestable shellfish beds](#).
- DOH Shellfish Protection Districts, pollution identification and correction (PIC) programs, and community efforts work to resolve pollution issues and to implement a coordinated response when poor water quality is identified. A key element in the recovery of shellfish beds is the protection of upgraded areas so that water quality may continue to improve and maintain safe harvest conditions.
- Ensuring clean water for traditional, subsistence, and recreational shellfish harvest provides a suite of human wellbeing benefits (see the [Local Foods](#) Vital Sign). Additionally, the aquaculture industry in Puget Sound continues to report growth in employment and wages, signaling strength in an industry with a long-standing history in the region (see the [Economic Vitality](#) Vital Sign).



## Strategies, Actions, And Effectiveness

- Shellfish Beds are a [priority focus area](#) for the Partnership's 2018 Action Agenda (*scroll to the bottom of the page to view and download activities in the 2018 Action Agenda*).
- [Shellfish Beds Implementation Strategy](#)
- Restoration and protection projects funded by the National Estuary Program that are associated with the Shellfish Beds Vital Sign (*in the Puget Sound Info [National Estuary Atlas](#)*)
- The [SoundToxins](#) program is a cooperative partnership of shellfish growers, environmental learning centers, Native tribes, and Puget Sound volunteers regularly monitoring marine waters in order to provide early warning of harmful algal bloom events.
- The [Washington State Conservation Commission Shellfish Program](#) invests in projects voluntarily installed by conservation districts and landowners that work toward shellfish recovery.
- [Pollution identification and correction \(PIC\) programs](#) are identified in the Puget Sound Action Agenda as a key strategy to protect and restore shellfish beds.
- What is working to improve shellfish beds in Puget Sound? View effectiveness [fact sheets](#) for nearshore restoration and protection activities.

## Background Documents

- [Leadership Council Resolution 2011-02, Adopting an ecosystem recovery target for shellfish beds restored](#)
- [Shellfish Beds Target Briefsheet](#)
- [PSEMP Marine Waters Report](#)

## Other Resources

- Articles related to [shellfish](#) in the [Encyclopedia of Puget Sound](#)

## Contributing Partners

