

# PUGET SOUND VITAL SIGNS

## VITAL Sign SHELLFISH BEDS

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. The Shellfish Beds Vital Sign tells us about the extent of shellfish beds where harvest is allowed. The closure or reopening of a shellfish bed depends on water quality. Pollution sources, including wastewater treatment plants, individual on-site sewage systems, marinas, and farms can negatively impact nearshore water quality and lead to human health risks.



Shellfish farming in Samish Bay.

### Related Strategies

- Awareness of Effects of Climate Change
- Climate Adaptation & Resilience
- Education Partnerships
- Funding
- Healthy Shorelines
- Human Health
- Research & Monitoring
- Responsible Boating
- Stewardship & Motivating Action
- Stormwater Runoff & Legacy Contamination
- Strategic Leadership & Collaboration
- Toxic Chemical Pollution
- Wastewater Systems
- Water Pollution Source Identification & Correction
- Working Lands Runoff

VITAL SIGN > INDICATOR	PROGRESS	STATUS
Shellfish Beds		
Area of harvestable shellfish beds		

### Vital Sign Reporter

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## KEY VITAL SIGN MESSAGES

- There are roughly 260,000 acres of classified commercial and recreational shellfish beds around Puget Sound. However, 14% of this area does not meet water quality standards and is closed to harvest.
- The most common impacts to shellfish harvest are wastewater treatment plant outfalls, 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.
- The Washington Department of Health (DOH) regularly monitor commercial and recreational shellfish 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.
- Since 2007 more [acres of shellfish growing areas](#) have been upgraded than downgraded. The positive trend reflects state, tribal, and local investments in effective pollution identification and correction programs. However, in both 2021 and 2022 more acres were downgraded than upgraded. This recent pattern is concerning and highlights the ongoing challenge to identify and correct nonpoint source pollution that impacts water quality in the nearshore.

- 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).

## BACKGROUND DOCUMENTS

### Implementation Strategy

The Partnership and its affiliated network of researchers works with the three Strategic Initiative Lead Teams on Implementation Strategy development and operationalization. Please read more about these teams and our shared work at <https://pugetsoundestuary.wa.gov/recovering-puget-sound/>

- [Shellfish Strategic Initiative](#)
  - [Shellfish Beds Implementation Strategy](#)

**February 2023: The Shellfish Strategic Initiative is pleased to announce the funding recommendation for the Request for Proposals (RFP) to reduce fecal pollution to increase harvestable shellfish acreage in Puget Sound. [Read More](#)**

### Indicator Targets

- 2020 Ecosystem Recovery Targets
  - [Leadership Council Resolution 2011-02, Adopting a 2020 ecosystem recovery target for shellfish beds restored](#)
  - [Shellfish Beds 2020 Target Briefsheet](#)
  - [Leadership Council Resolution 2011-16, Adopting a 2020 ecosystem recovery target for onsite sewage systems](#)

## OTHER RESOURCES

- [PSEMP Marine Waters Report](#)
- [Winding down Puget Sound's 2020 Targets, as approved shellfish acreage keeps going up.](#) Puget Sound Institute blog post, February 22, 2021
- 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.
- Articles related to [shellfish](#) in the [Encyclopedia of Puget Sound](#)

## CONTRIBUTING PARTNERS



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