PUGET SOUND
VITAL SIGNS

VITAL Sign
SALMON

Salmon are a cultural icon of the Pacific Northwest. They are highly prized by anglers and commercial fisherman, are guaranteed to be available to Indian Tribes by treaties signed with the federal government and are a favorite food of Southern Resident orcas. The Salmon Vital Sign tells us about the health of salmon populations and whether efforts to improve habitat and coordinate management of harvest and hatcheries are having the desired effect of improving salmon populations. Throughout their lifecycle, salmon depend on a wide variety of freshwater, estuary, nearshore, and marine habitats. This leaves salmon vulnerable to many forms of human activities and habitat loss as well as changing ocean and climate conditions.


Chinook salmon. Photo credit: John McMillan.

VITAL SIGN > INDICATOR	PROGRESS	STATUS
Salmon		
Number of natural-origin Chinook salmon on spawning grounds	MIXED RESULTS	BELOW TARGET
Number of natural-origin summer chum salmon on spawning grounds	GETTING BETTER	NO TARGET
Number of natural-origin Puget Sound steelhead on spawning grounds	NO TREND	NO TARGET
Number of natural-origin coho salmon on spawning grounds	NO TREND	NO TARGET

Related Strategies

- Awareness of Effects of Climate Change
- Climate Adaptation & Resilience
- Education Partnerships
- Fish Passage Barriers
- Floodplains & Estuaries
- Freshwater Availability
- Funding
- Healthy Shorelines
- Invasive Species
- Research & Monitoring
- Riparian Areas
- Salmon Recovery
- Smart Growth
- Stewardship & Motivating Action
- Stormwater Runoff & Legacy Contamination
- Strategic Leadership & Collaboration

Vital Sign Reporter

PSEMP Salmonid Work Group

Last Updated

05/22/2025

KEY VITAL SIGN MESSAGES

While the average trend across Hood Canal Summer Chum and a few Chinook populations are increasing, others, including steelhead, Coho and most Chinook populations, are not changing. Modeling diverse populations is nuanced. For example, Chinook population results and uncertainty estimates appear to be influenced by populations doing very well (i.e. Elwha River Chinook) providing a more optimistic outlook than may be occurring. **We cannot allow the success in a few populations to suggest we have succeeded enough to relieve the pace of recovery efforts. It is critical to recover each individual salmon population to uphold genetic diversity.**

- While the Vital Sign indicators reflect natural-origin spawner populations only, both ESA-listed and non-listed salmonids, of natural and hatchery-origin, play a critical role in supporting Tribal treaty rights in Puget Sound, as well as commercial and recreational harvest. It is important to work toward healthy populations of all Puget Sound salmonids.

- While we are not yet certain of the main driver supporting the improvements in Hood Canal summer Chum or select Chinook salmon populations, it is likely several factors working together. These factors likely include habitat improvement, harvest management, and may include changing marine conditions or food web dynamics. These factors are linked to the Marine Water, Zooplankton, Benthic Invertebrate and Forage Fish Vital Signs.

- Recent monitoring studies confirm individual restoration and protection projects can be effective. These projects improve fish habitat, including water quality. Fish quickly colonize newly restored habitat where young salmon grow, feed, and rest. Larger-scale and more widespread restoration, coupled with effective protection strategies, will improve ecosystems. Monitoring is critical to understanding project success. (See Functioning Habitat Vital Signs.)

- Salmon populations face many challenges that necessitate more research and action. These priority challenges include low summer flows in streams, juvenile survival, predation, water quality, and uncertainty around population responses to restoration. The Puget Sound Salmon Recovery Addendum includes strategies and actions aimed at coordinating efforts across agency recovery partners, communities, and Puget Sound residents.

- Climate Change Adaptation and Resilience strategies and actions proposed in the Salmon Recovery Addendum aim to address factors over which we have little control, identify which local factors we can address directly, and determine which actions we can take to increase salmon and ecosystem resilience.

- Reliable, continuous funding is essential for monitoring and understanding salmon population changes. Increasing a population takes significant time, effort and intensive work, and even then, populations vary naturally and are difficult to measure. Consistent tracking over decades is necessary to detect meaningful trends.

BACKGROUND DOCUMENTS

- Chinook Salmon Implementation Strategy
- Technical Recovery Criteria and Goals for Puget Sound Chinook Salmon (Puget Sound Salmon Recovery Plan)

Indicator Targets

- Chinook Salmon 2050 Recovery Target Fact Sheet
- 2020 Ecosystem Recovery Target
  - Leadership Council Resolution 2011-14: Adopting a 2020 ecosystem recovery target for Chinook salmon
  - Chinook Salmon 2020 Target Briefsheet

OTHER RESOURCES

- Salmon Recovery in Puget Sound
- State of our Watersheds Report by the Northwest Indian Fisheries Commission
- State of Salmon in Watersheds - Puget Sound
- SalmonScape, Washington Department of Fish and Wildlife

CONTRIBUTING PARTNERS

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TO LEARN MORE ABOUT THE VITAL SIGNS VISIT: **vitalsigns.pugetsoundinfo.wa.gov** OR CONTACT: **vitalsigns@psp.wa.gov**