

PUGET SOUND VITAL SIGNS

INDICATOR ARMOR ON FEEDER BLUFFS

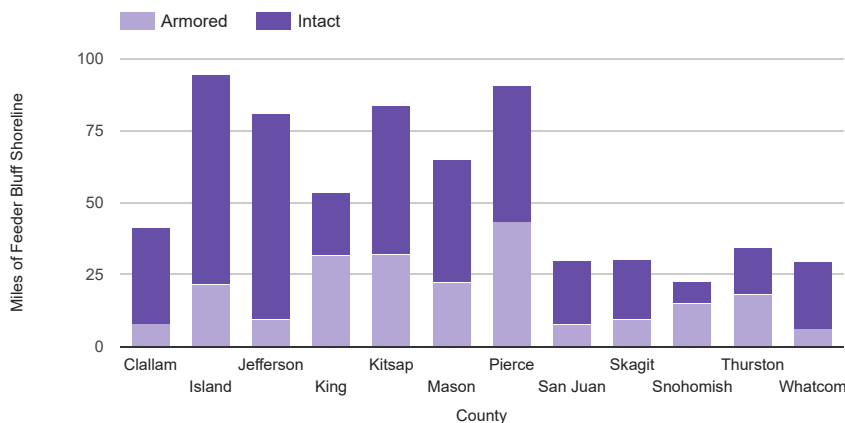
This indicator measures the length of Puget Sound feeder bluff shorelines that have been armored. Feeder bluffs are eroding coastal bluffs that deliver the sand and gravel that maintains Puget Sound's beaches and spits and helps shape shoreline ecosystems. Armoring of these bluffs to reduce erosion has the unintended consequence of reducing this natural supply of sediment and can lead to the loss of beaches and degradation of nearshore habitat.

Indicator Progress

Indicator Status



Armor on feeder bluffs
By: Feeder Bluff



Extent of feeder bluff shorelines that are armored and intact. Armor data, compiled by Coastal Geologic Services (2017), were derived from both field and remotely-mapped collection methods between 2003 and 2013.

Recovery Target

Feeder bluffs receive strategic attention for removal of existing armoring and avoidance of new armoring.

Data Source

Coastal Geological Services, Inc. (2017a)

Washington State Department of Fish and Wildlife, Aquatic Protection Permitting System (APPS) and Hydraulic Project Approval (HPA)

Indicator Lead

No Lead Selected

Last Updated

12/4/2019

Key Vital Sign Indicator Results

- An estimated 223 miles (34 percent) of Puget Sound's original 657 miles of feeder bluffs have been armored. The relative length of armored feeder bluff is much higher in the more developed areas of King, Pierce, and Kitsap Counties, and lower in northern and western areas such as Whatcom and Clallam Counties.
- Armor is allowed on feeder bluffs where a serious risk to upland development can be demonstrated, but currently we do not have information to confirm whether new projects are meeting this standard.
- Removal of armor on feeder bluffs remains difficult due to concerns about erosion risks.
- Current work by the Estuaries and Salmon Restoration Program called the Beach Strategies project, is expected to provide additional basis for identifying critical bluffs for protection and restoration.

Contributing Partners



