

**Protection and Restoration of Habitat is Key to Salmon Recovery**

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As we are all here, working to finalize a fisheries package that is so constrained by the lack of coho, I think it is important that we stop and acknowledge both the importance of and the disparate treatment we are giving to habitat loss as it relates to declining stocks and lost fisheries. In fact, nothing is more significant than the condition of our region's habitat on the current status of our salmon. This reality, coupled with the predictions relative to climate change and population growth creates great urgency.

Tribes have always lived throughout the watersheds in western Washington and are leaders in the region's salmon recovery effort. No other people know these watersheds as well and none have a greater stake in their future. **The tribes believe that if salmon are to survive, we must begin to achieve real gains in habitat protection and restoration.**

The treaty Indian tribes believe that salmon recovery must be focused on the watersheds where salmon begin and end their lives, and that the quality and quantity of habitat in those waters are the primary limiting factors to salmon recovery.

Later this month, the western Washington Treaty Tribes will release their 2016 State of Our Watersheds Report (SOW).

Principle Findings will include:

***Continued Degradation is Outpacing Estuary Restoration***

Estuaries in Western Washington are losing functional habitat because of population increases in lower portions of watersheds.

***Degraded Nearshore Habitat Unable to Support Forage Fish***

Nearshore areas provide critical rearing and foraging for salmonids. The nearshore has been directly and negatively impacted by human development. The trend for this habitat is to continue towards habitat degradation, with basically little to no progress in meeting the restoration goals of the salmon recovery plans. Large portions of the shoreline have been modified, including armoring which disconnects the critical supply of gravel and sand which replenishes the beaches and provides sand lance, surf smelt, and pacific herring spawning habitat.

### ***Freshwater Shoreline Armoring Continues Unabated***

Shoreline armoring contributes to river channel degradation by impeding natural bank erosion and river meandering, and disconnecting terrestrial and aquatic ecosystems, directly impacting salmon habitat. Since the last (2012) State of Our Watersheds Report, there has been an increase in freshwater shoreline modifications.

### ***Forest Cover Disappearing***

Timber harvesting has removed forest cover throughout all of the watersheds, although in some watersheds at a slower rate than the previous 15 year period. This may be due to the economic downturn in 2007-2009 or the time needed for forest stands to mature due to overharvesting in previous years. Although temporal, the rapid removal of forest cover in the watersheds can have dynamic effects on the stability of the watersheds and the overall quality of habitat for salmonids.

Conversion rates for forestlands continues to trend negatively with some lowland watershed areas in a severely damaged condition. For the overall health of critical salmon habitat, attention needs to be focused on stopping the permanent loss of forest cover and to begin the process of restoring forest cover to the lowland forests.

### ***Streams Lack Large Woody Debris***

Large woody debris plays an important role in channel stability, habitat diversity and overall habitat quantity and quality. Unfortunately, the potential to restore large woody debris to improve salmon habitat is often restricted by land management approaches and policies. Land use, forest and river management have all resulted in extremely low quantities of instream wood in Western Washington.

### ***Riparian Forests Not Recovering***

Riparian forests are an essential component of healthy fish habitat, providing shade, temperature regulation, stream bank stability and food supply. However, riparian buffers along most fish-bearing streams lack necessary vegetation because of poor protection and proper management. The riparian forested buffers along fish bearing streams continue to decline.

### ***Alarming Number of Stream Crossings, High Road Densities***

The number of road crossings are continuing to negatively impact the health of aquatic life in lowland watersheds. The projected population growth and associated land conversions will continue to push the need for more roads and stream crossings throughout the lower portions of the watersheds.

### ***Impervious Surface Area Impacts Water Quality and Salmonid Habitat***

From 2006 to 2011, impervious surfaces increased around Puget Sound, with a common spread or rate of expansion of about 1-4% of total area?. High population densities lead to large impervious surface area increases, including roads and other infrastructures, which negatively impact the local watersheds, resulting in the loss of salmon habitat.

### ***Fish Barriers Cut Off Vast Amounts of Habitat***

Salmon cannot successfully reproduce if they do not have access to spawning habitat. Fish passage barriers, such as culverts, tide gates and levees still persist in the watersheds impacting a large percentage of the stream miles. Progress is being made by the State but there are concerns with the lack of proper funding to tackle the larger barrier projects.

### ***Agricultural Lands Remain Degraded***

Agricultural lands are still impaired and reflect practices, which began in the late 1800s with the removal for trees and clearing of lowland forests. Diking soon followed, with lower estuaries being diked to protect the new farmland and to increase its productivity. Impacts included the loss of stream channels, wetlands, stream buffers, increased sediment, and pollution in the form of runoff from agricultural activities. Two of the limiting factors in Chinook recovery are the modifications to the floodplains and the loss of freshwater wetlands.

### ***Floodplains Being Overdeveloped***

Floodplains are sensitive lands essential to maintaining the hydrologic function of streams, while also providing off-channel salmon habitat. Flood management of overdeveloped floodplains often results in diking and armoring streams, which alters both stream flows and physical habitat. Despite their sensitivity and key role in salmon survival, floodplains face a continual onslaught of development pressures.

### ***Rapidly Increasing Permit-Exempt Wells Threaten Water For Fish***

The state of Washington provides a water right permit exemption to property owners not served by a community water system that allows users to pump up to 5,000 gallons of groundwater per day. When more water is extracted from an aquifer than is being recharged, aquifer volume is reduced and the natural outflow from the aquifer decreases. This reduces the amount of fresh water available to lakes, wetlands, streams and the Puget Sound nearshore, which can harm salmon at all stages of their life cycle.

Since the 2012 State of Our Watersheds Report, all watersheds have seen an increase in water wells, except for the Skagit County. It is estimated that the majority of wells are drilled for home construction and are suspected as a potential cause for low flow problems found in many of the watersheds.

This most recent State of Our Watersheds report (2016) documents and illustrates a continuing trend of loss of key habitat attributes, such as streamside vegetation, habitat connectivity and stream flows.

The tide of habitat loss and degradation must be turned if we are to restore the salmon resource. If we do not, we will continue down the path we are now on, which leads to the extinction of salmon and the loss of tribal treaty-reserved rights, economies and cultures. This vision of the future is unacceptable to the treaty Indian tribes in western Washington.

Tribes are active co-managers of the fisheries resources. For decades tribes have participated and provided leadership in processes aimed to protect and restore the habitats that are so critical to sustain these resources.

The awareness that we are continuing to lose habitat faster than it is being restored was the impetus for tribal leaders to advance the “Treaty Rights at Risk” initiative in Washington DC in 2011.

At Tulalip we are working with local governments such as King and Snohomish Counties and the City of Everett through a Puget Sound Partnership Local Integrating Organization to set concrete goals with clear measures for success. We are developing metrics for habitat condition tied to land management practices that we can use to set specific habitat recovery goals and measure whether we are achieving those goals. Only by working together toward common solutions can we begin to turn back the tide on habitat loss.

This year we are seeing the catastrophic consequence and cumulative effects of habitat degradation and loss combined with poor ocean conditions. We have to collectively stand up and communicate the reality and relationship of habitat to the condition of our stocks and fisheries and create accountability that can drive the change necessary.