



Upper Skagit Indian Tribe
25944 Community Plaza Way,
Sedro Woolley, WA 98284
Phone (360) 854-7090 Fax (360) 854-7042

August 19, 2016

Sent via email to karen.m.urelius@usace.army.mil
U.S. Army Corps of Engineers
Regulatory Branch, ATTN: Karen Urelius
P.O. Box 3755
Seattle, Washington 98124-3755

RE: Northwestern Division for the Seattle District, proposed regional conditions for nationwide permits (COE-2015-0017)

Dear Karen Urelius,

The Upper Skagit Indian Tribe (hereafter "Tribe") is a federally recognized Indian Tribe and signatory to the Treaty of Point Elliot. Please accept the Tribe's following comments regarding the Seattle District (District) proposed regional conditions for nationwide permits (NWP). In a letter sent August 1, 2016 to the Washington, D.C. office related to docket number COE-2015-0017, the Tribe expressed the significance of Salmon and Steelhead to its ancestral and contemporary cultural practices. Disturbingly, these Salmon and Steelhead are greatly reduced from historic abundances and long-term persistence appears at serious risk. As currently administered, the NWP program appears to be a significant factor in the decline of Salmon and Steelhead populations. The Tribe is taking this opportunity to suggest several specific ways in which the District may better balance the needs of permit applicants with the preservation of the natural environment and Tribal treaty rights. The following suggestions will not, by themselves, adequately protect the Tribe's interests, but USACE and the Seattle District has an opportunity to help steer the Puget Sound region in a direction that better protects the local environment and treaty resources.

NWPs Do Not Provide Adequate Notification and Opportunity for Tribal Consultation

The proposed NWP general conditions (GC) fail to adequately consider Tribal concerns. For instance, GC 17 presents a wholly inadequate representation of USACE's responsibility to uphold Tribal treaty rights; it does not provide an opportunity for the Tribe to consult on specific actions that may impact Tribal treaty resources or access to usual and accustomed hunting and fishing grounds. Additionally, GC 32 describes federal and state agencies that will be notified in the event of a proposed activity. An obvious omission here is the lack of coordination with locally affected Tribes under USACE's trust responsibility. Better formalized consultation with Treaty tribes is key. The Tribe has expressed these concerns to the Washington, D.C. office in the August 1, 2016 letter related to docket number COE-2015-0017. The Tribe reiterates these concerns here because the Seattle District has an opportunity to fix these oversights with regional conditions.

USACE should notify the Tribe of all activities that have potential to affect Tribal treaty resources or usual and accustomed fishing and hunting grounds. One solution would be to require Pre-construction

Notification (PCN) for all activities conducted under authority of a NWP. USACE could work with the Tribe to understand its area of interest, and notify the Tribe in the event of a proposed activity occurring within the area of interest. Following Tribal notification, USACE should seek and respond to comments or concerns the Tribe may have related to specific projects. While this may increase immediate administrative burden on USACE and Tribal staff, if instituted effectively it should reduce the overall long-term cost of consultation by promoting collaborative solutions to specific problems. The Treaty Tribes in Puget Sound have experienced staff with local knowledge that could work with USACE staff to develop creative solutions that limit impact to Tribal treaty rights and/or identify meaningful mitigation. Currently, it is impossible to understand the impact of the NWP program on the Tribe's treaty rights because the location and design components of projects are either not tracked by USACE under the NWP or are not made available for Tribal review and comment. An improved Tribal notification and consultation process would help alleviate this major shortcoming of the NWP program.

The Wide Array of Impacts to the Environment and to Tribal Treaty Resources Must Be Curtailed

The Tribe is a member of the Northwest Indian Fisheries Commission (NWIFC), which provides natural resources management support to 20 treaty Tribes in western Washington. NWIFC has developed comments that thoroughly describe the individual and cumulative adverse environmental impacts of the NWP program on Tribal treaty rights. The letter describes specific changes to regional conditions that would help reduce the adverse impact of the NPW program. Unless suggested otherwise in this letter, the Tribe supports the NWIFC comments and strongly urges USACE to develop regional conditions for western Washington in light of the presented analysis and recommendations.

New Bank Stabilization in the Skagit Basin Should Not Be Authorized by NWP

Proposed regional general condition (RGC) 3 and proposed specific regional condition (SRC) 13 remove authorization for new bank stabilization activities in tidal waters of the Salish Sea from the NWP program. The Tribe supports these conditions as necessary to protect Tribal treaty resource rights, but urges the District that they be amended to include the Skagit River and its tributaries (Skagit), an area described by Washington State Water Resource Inventory Areas 3 and 4. No new bank stabilization activities should be authorized by NWP in the Skagit, regardless of size or degree of perceived impact. The Tribe also has concerns about the extent of ongoing maintenance activities authorized under these proposed regional conditions. These concerns are detailed in the following subsections:

Shoreline Armoring has Significantly Degraded the Skagit Basin from Historic Natural Conditions

A basin-wide survey completed in 2015 by the Tribe documented extensive shoreline armoring (also referred to as hydromodified bank) throughout the Skagit (Hartson & Shannahan, 2015). The survey report and data are available upon request from the Tribe's Natural Resources Department. Major findings include:

- Over 32 miles of armored bank in the Skagit
- Intense armoring in specific reaches
- Armoring present to the upstream most reaches of Chinook salmon distribution
- Armoring present in federally managed lands
- Armoring present from large river channels to relatively small tributaries
- At least 2.2 miles of new armor in large rivers since 1998 (smaller tributary increase unknown)
- Clear evidence, but unmeasurable extent of fortification of previously existing structures

The survey was conservative in estimating the extent of shoreline armoring because of the difficulty of positively identifying all armoring activities during a rapid survey combined with the sheer length of stream and area of floodplain in the Skagit. Nevertheless, these findings define more than minimal adverse environmental cumulative impacts.

While the results of the Tribe's survey document more than minimal cumulative impacts, the true impact of shoreline armoring is far greater than the survey alone documents. Typically, the purpose of shoreline armoring is to protect structures and property landward of the stream bank. That is, shoreline armoring is meant to lock the stream in its current plan form shape and limit overbank flow. Under natural conditions, streams in the Skagit regularly change in plan form as new channels are created and old channels abandoned. The natural process of bank erosion and sediment deposition during high flow events creates dynamic conditions within stream channels and adjacent floodplains. Additionally, overbank flow during floods is an important component of many stream reaches in the Skagit. Overbank flow allows the energy of the river to dissipate, whereas concentrating energy within armored channels greatly changes the physical structure of stream channels, floodplains, and flood flows. Considering the alteration of natural stream and floodplain process caused by extensive amounts of shoreline armoring, it is clear that conditions today are vastly different from those historically found in the Skagit.

A recent assessment quantified the condition of channel and floodplain habitat in the middle section of the Skagit River, identifying extensive impacts to stream and floodplain habitats caused by shoreline armoring (SRSC, 2011). The report focused on the section of the Skagit River from the State Highway 9 Bridge crossing to the confluence with the Sauk River, which is the most downstream non-tidally influenced section in the Skagit. In one study reach, Skiyou, nearly 50% of the stream bank is currently armored. Across the entire middle Skagit section, over 20% of stream bank is now armored. These percentages consider both left and right banks in quantifying the total available length of stream bank that may be armored; an analysis that considered the percent of armored stream length (i.e. armoring on either bank at a given cross-section) would likely produce considerably higher percentages.

As discussed in the above subsection, the impact of armoring extends beyond the stream bank itself. Floodplain processes in dynamic streams are difficult to describe and quantify, but the Middle Skagit Assessment employs a methodology to quantify floodplain impairment by considering the cumulative impact of multiple hydromodifications at the reach level, presenting a workable solution in place of the otherwise prohibitive cost of assessing individual hydromodifications. The results document that over 5000 acres of floodplain habitat have been isolated or shadowed by bank armoring activities, or almost 35% of total floodplain area in the middle Skagit section. This analysis did not consider the spatial location of floodplain impairments relative to active stream channels or hydraulically active floodplain entry points; it seems probable, perhaps certain, that the brunt of impacts are occurring near currently active stream channels and in areas where floodplains are regularly inundated by flood flows, as these areas provide strong motivation to pursue bank armoring activities. This likelihood suggests that 35% is a conservative estimate of the true impact on floodplain function and Salmon habitat.

Considering the extent and history of floodplain development in the Skagit, retreat from currently occupied areas will be a long process. The construction of armored banks along successive flood-prone areas has surely created an unnaturally stable floodplain and likely acted to synergistically promote development. For instance, the Middle Skagit Assessment used aerial photos to quantify the condition of floodplain forests (SRSC, 2011). A simple plot of the data in the report indicates a relationship where increased percent of armored bank corresponds to increased human modified floodplain vegetation within a reach (Attachment 1). Additional bank armoring will only increase the false confidence that

natural stream processes can be controlled. Bank armoring may create a feedback mechanism, where increased armoring leads to increased development, leading to increased property damage when bank armor fails, and then to additional bank armor to maintain the developed components of the floodplain. Such a pattern might explain how streams in urbanized areas often come to resemble flumes.

Taken together, the combination of direct stream habitat alteration, disruption of natural floodplain process, and promotion of floodplain development represents a massive shift from natural dynamic stream function to highly confined and artificial stream condition, caused by bank armoring. Adverse cumulative impacts to the environment have gone well beyond minimal and it will require a massive and concerted effort over the coming decades to reverse the current trend. The effort must begin now to reverse this trend and the District must acknowledge and embrace its prominent role in this effort.

The Change from Historic Condition is Detrimentially Impacting Tribal Treaty Reserved Resources

Salmon and Steelhead in the Skagit are greatly depressed from historic abundances. Recent analyses by State and Tribal co-managers as well as the federal National Marine Fisheries Service (NMFS) suggest that the long-term persistence of many populations is in serious question (NMFS, 2011). This is illustrated by the listing of six Skagit Chinook populations and four Skagit Steelhead Trout populations under the Endangered Species Act (64 FR 14308, 2005; 72 FR 26722, 2007). Tribal fishing on Coho Salmon last seasons was severely curtailed due to catastrophically low numbers of returning adults, adversely impacting the Tribe culturally and economically (USIT, 2016). This season Coho fishing is expected to be essentially non-existent due to predictions of continued catastrophically low abundances. The Tribe has not conducted a directed fishery on Chum Salmon for over a decade, due to persistent low returns and concerns of population persistence (Attachment 2). This fishing season, the Tribe is expected to have a mere 3.5 days of fishing opportunity, and this is largely owing to a Sockeye Salmon program that relies heavily on artificial propagation and juvenile growth in reservoirs that are isolated from the hydromodified stream reaches throughout the Skagit. Tribal members are increasingly losing the culturally significant practice of subsistence fishing and the economically important commercial harvest of salmon.

Armoring of freshwater stream banks is a leading cause of the decline in Skagit Salmon and Steelhead Trout. This is thoroughly documented in the Skagit Chinook Recovery Plan (SRSC and WDFW, 2005), developed by the Skagit co-managers and approved by NMFS. The Plan utilizes a wealth of data to document that juvenile rearing is limiting population productivity. Freshwater habitat is identified as one of the priority habitat types that must be protected and restored if Skagit Chinook are to persist at harvestable levels, and perhaps to merely exist. Juvenile Chinook migrate downstream from spawning grounds to Puget Sound during spring time floods. During these periods they utilize low velocity habitats along stream banks and in hydraulically connected floodplain habitats. It has been well documented that juvenile Chinook density in the Skagit along natural stream banks is almost three times higher compared to hydromodified banks (Beamer & Henderson, 1998; Hayman, Beamer, & McClure, 1996). Moreover, since bank armoring reduces the quality, quantity, inundation time, and connectivity of floodplain habitats, isolation and shadowing of large areas of floodplain habitat add a considerable impediment to Chinook productivity and recovery. These floodplain changes result in losses of important flood refuge habitat and increased stranding of fish as flood waters recede (SRSC and WDFW, 2005).

The large deviation from historic habitat conditions caused by bank stabilization combined with thorough evidence of associated decreases in juvenile abundance and population productivity provides strong evidence that the adverse cumulative impacts of bank armoring in the Skagit are more than

minimal (NWIFC, 2016). The haphazard application of the NWP program has clearly been a significant driver of these cumulative impacts. The Skagit Chinook Recovery Plan describes the potential benefit of individual projects to remove armored banks, as these projects restore habitats that support juvenile life stages that are most strongly limiting Skagit Chinook recovery (SRSC and WDFW, 2005). Restoration of armored banks and altered floodplain habitat processes could produce large increases of returning adult Chinook, and provide some of the needed gains in Tribal fishing opportunity. Conversely, continued use of NWPs for bank armoring projects will promote continued degradation of priority limiting Chinook habitats. For the Tribe, the result will be further reductions in opportunity to fish and further assault on treaty resource rights.

Less research and conservation planning has been done for other Skagit Salmon populations, but current knowledge of fish biology strongly suggests impacts beyond those to Chinook. Recovery planning for Steelhead Trout is currently underway and while no specific recommendations have been made, it appears likely that bank armoring will be an important component of recovery and protection. The disruption caused by bank armoring to basic stream structure and function logically extends to other species that, like Chinook, evolved to live in natural stream conditions. Steelhead Trout and Coho Salmon spend up to several years as juveniles in freshwater, a life history type often referred to as yearling. Some Chinook spend extended periods rearing in freshwater as well, and these yearling individuals make up a particularly important life history type in several Skagit populations (SRSC and WDFW, 2005). Yearling Steelhead, Coho, and Chinook are regularly observed using the types of habitats degraded by bank armoring, such as floodplain wetlands, backwaters, natural edges, and floodplain channels (Beamer, Shannahan, Wolf, Lowery, & Pflug, 2010). Chum Salmon migrate downstream to Puget Sound during spring flood events. They do so within days after emergence from incubation nests (redds), and travel the river corridors as small fry. The loss of low velocity mainstem edge and floodplain habitats, and tendency for turbulent flows along armored bank edges likely increases mortality and reduces condition of Skagit Chum fry (Figure 2).

New Bank Stabilization Should Not Be Authorized for Any Areas of the Skagit

The Middle Skagit Assessment referenced previously, focuses on the most downstream and largest section of river in the Skagit. This section is an area of focus because it has well documented and extensive impacts and fish migrating from upstream reaches must all pass through the middle Skagit section. This does not diminish the need to protect reaches upstream of the middle Skagit River. Floodplain development exists throughout anadromous fish-bearing reaches of the Skagit. Consequently, bank armoring persists well upstream of the middle Skagit. The Tribe's 2015 report documents extensive bank armoring in some upstream reaches. Moreover, individual hydromodifications may have relatively large floodplain impacts when built in strategic locations, as is often the case, where channel flow enters and hydraulically activates the floodplain.

Compared to reaches in the middle Skagit section, reaches higher in the watershed tend to have narrower floodplains and longer distances between broad, highly active floodplains. This does not diminish the need to protect these habitats; rather it heightens their importance. Reduction in the quality or quantity of individual floodplain habitats may result in the loss of a relatively large proportion of the naturally occurring habitat in a given stream reach. Moreover, connectivity among floodplain habitats is an important ecosystem component, where long distances between successive floodplain habitats may increase mortality of juvenile fish migrating downstream during flood events. The importance of protecting floodplains in upstream reaches is further described in the Skagit Watershed Council Year 2015 Strategic Approach (the salmon habitat recovery strategy for the Skagit Lead Entity).

The burden on fish migrating from upstream reaches is heightened because these fish encounter many obstacles before ever attempting to navigate the severe habitat conditions of the middle Skagit section. New bank armoring in any Skagit reach that supports anadromous fish will further increase the cumulative impacts in the Skagit and consequently will further degrade Tribal treaty rights.

Activities Authorized Under NWP 13 Should Be Limited to Localized, Low-Impact Maintenance

Continued repair, rehabilitation, and replacement of previously constructed structures constitute a large portion of the impact caused by NWP activities. With an understanding of the dynamic and mutable nature of Skagit streams, the definition of maintenance used by the District should be significantly narrowed. When a stream actively erodes an armoring structure, the designation of preexisting conditions should acknowledge the tendency for the river to return to its natural state. Maintenance necessitated by stream erosion should be considered new activities. In the absence of continual maintenance, armoring structures would degrade and natural process would increasingly drive the structure of the stream system. The only way the stream system can be contained within its currently armor-locked form is with successive new armoring activities that resist the continual erosional force of the stream.

Activities that impact greater than 10% of either the length or fill volume of the original structure should not be authorized under NWP. Projects of this magnitude will have a high likelihood of impacting natural stream and floodplain processes. Projects that impact less than 10% of the structure length or fill volume should not be authorized if they appreciably impact natural erosion, deposition, or floodplain processes. To allow USACE and consulting Tribes to determine if a proposed maintenance activity impacts natural processes, the PCN should include a justification for the need of the proposed activity, as well as other important site, design, and habitat condition parameters. The required information should be adequate to determine the full impact of the project on erosion, deposition, and floodplain processes. If the project is likely to impact these natural processes to a noticeable degree, then an individual permit should be required. For example, maintenance not authorized by NWP should include cases where the stream has actively eroded bank armoring or undermined the toe of the structure. In this case, an individual permit would better allow quantification of the impact to natural stream process and identification of appropriate avoidance or mitigation. Maintenance allowed under NWP 13 should be limited to such actions as relocation of individual pieces that become displaced from the armoring structure due to design or construction miscues, or replanting of vegetation required for mitigation.

Bank Stabilization Activities Can Impact Access to Tribal Usual and Accustomed Fishing Grounds

Some of the contemporary burdens on Tribal fishermen have been discussed in this letter; low returning adult abundances have severely limited the opportunity for Upper Skagit Tribal members to practice their Treaty reserved right to fish Salmon and Steelhead. The potential impact to Tribal fishermen caused by bank armoring does not stop at habitat degradation and Salmon productivity, but may be compounded by specific design components of individual projects. The Tribe's fishermen have had to adapt their fishing methods to meet the societal conditions that currently surround them. The Tribe fishes mostly within riverine environments, which present challenges to safety and effectiveness. Current Tribal fishermen have become familiar with the riverine environments in which they fish, identifying the location of underwater hazards and beneficial river features that improve fishing success. Bank armoring projects may introduce new hazards, or create new hydraulic and streambed features that impact their ability to safely and effectively fish. Moreover, in at least one instance access to a Tribal fishing encampment was blocked. The Tribe was not notified of maintenance on the Cockreham

levee and staged construction equipment prevented several Tribal members from accessing their fishing encampment. The Tribe requests the opportunity to consult on individual bank armoring projects and adequate notification of construction schedules and plans, such that unintended impacts to current fishing practices at usual and accustomed fishing grounds can be avoided.

New Bank Stabilization in Tidal Waters of the Salish Sea Should Not Be Authorized by NWP

The Tribe commends the District for its removal from the NWP program of new bank stabilization within tidal waters of the Salish Sea. The cumulative impacts of armoring in tidal waters have clearly passed a threshold of minimal disturbance to the environment. Armoring of the Salish Sea is well documented to negatively impact Salmon abundance and productivity, and RGC 3 will help reduce that impact.

Despite the positive step of removing authorization for new bank armoring, the Tribe does not agree with the maintenance activities proposed under RGC 3. As described in the above discussion of freshwater bank stabilization, natural process tends to degrade armoring structures and return the shoreline to a more natural state. The definition of preexisting condition should account for this, and maintenance activities authorized under NWP 13 should be limited to those that impact less than 10% of the length or fill volume of the structure and should not allow maintenance that addresses damage caused by natural erosion or wave action. Activities that continue resisting natural process should require individual permits such that appropriate avoidance and/or mitigation can be conducted. The Tribe would support the District considering use of NWPs for landowners who voluntarily remove bank armor in favor of “soft” or bioengineered approaches that result in restoration of adequate amounts of habitat quantity and function.

NWP 48

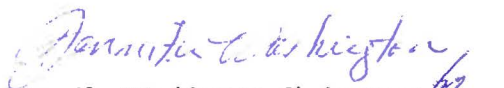
The Tribe recommends that NWP 48 be maintained and looks forward to the opportunity to comment on proposed draft conditions. Shellfish aquaculture currently represents an important part of the Tribe’s culture and economy. Viewpoints on this topic in western Washington are diverse, but the Tribe is hopeful that pathways exist that can balance the broader cultural and economic significance of shellfish in the region with environmental concerns over aquaculture activities. The Tribe acknowledges and shares all of these interests and looks forward to a mutually beneficial resolution.

Conclusion

The Tribe urges USACE to more strongly incorporate the experience of Tribal technical staff and to better communicate with Tribes impacted by NWP activities. The project of reversing decades of unsustainable development will be long and difficult, but creative solutions exist that can minimize current impacts and identify useful mitigation while long-term, sustainable solutions are pursued via other programs and efforts. Moreover, USACE should increase documentation and transparency of NWPs so that the full extent of impacts can be fully recognized. The Tribe has focused comments on freshwater shoreline armoring in the Skagit River basin, but many activities authorized by NWPs may have detrimental effects on the Tribe’s treaty rights. Remedying this can begin with more open communication from the District and Tribal involvement in the development of NWP activities.

The Tribe appreciates the opportunity to provide comment on this important regulatory decision. As a next step, the Tribe is requesting an opportunity to meet and discuss these comments in person with District staff. If you have questions, please contact the Tribe's Managing Biologist, Jon-Paul Shannahan, (360) 854-7089, jonpauls@UPPERSKAGIT.com.

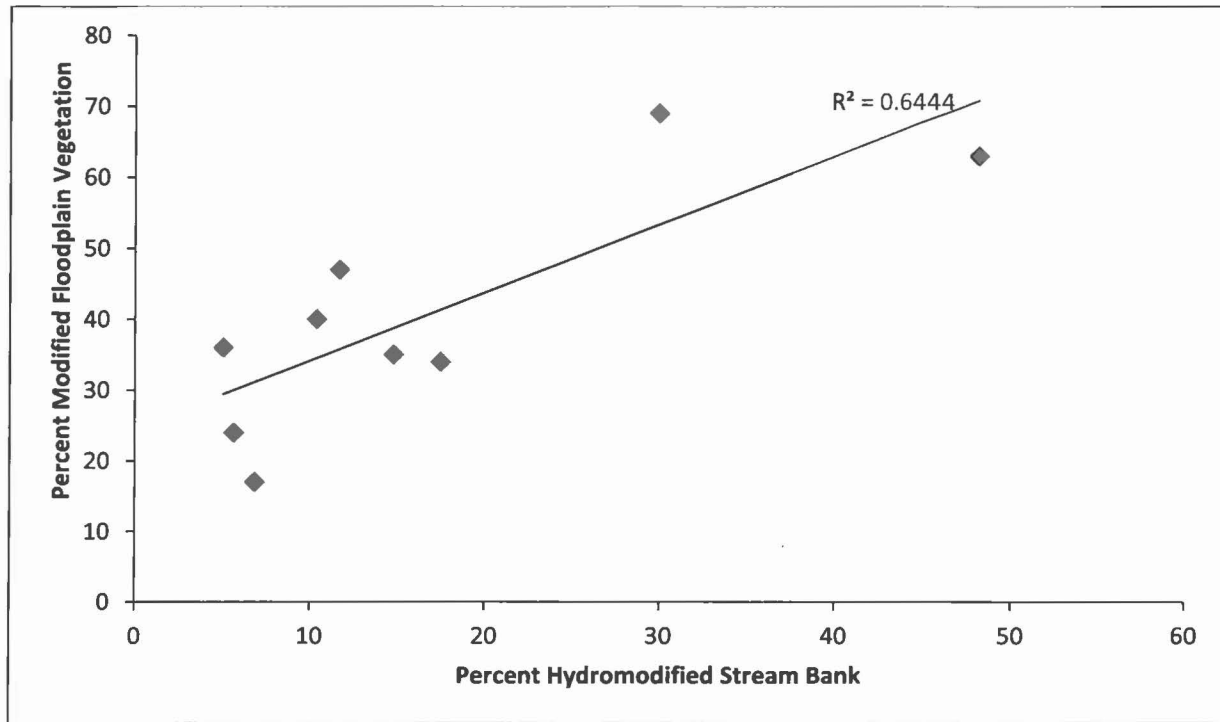
Sincerely,


Jennifer Washington, Chairperson
Upper Skagit Indian Tribe

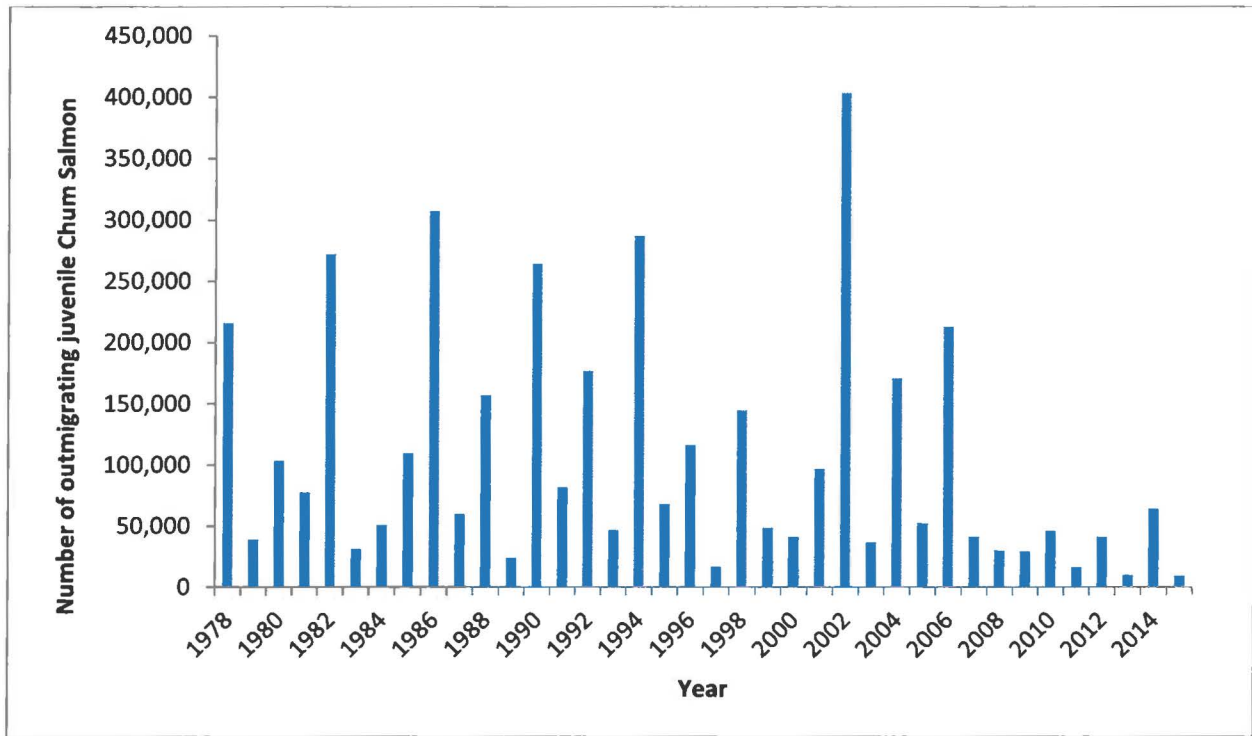
Works Cited

- 64 FR 14308. (2005). *Endangered and threatened species: threatened status for three Chinook Salmon evolutionarily significant units (ESUs) in Washington, Oregon, and endangered status for one Chinook Salmon ESU in Washington*. United States Department of Commerce.
- 72 FR 26722. (2007). *Endangered and threatened species: final listing determination for Puget Sound Steelhead*. United States Department of Commerce.
- Beamer, E. M., & Henderson, R. A. (1998). *Juvenile salmonid use of natural and hydromodified stream bank habitat in the mainstem Skagit River; Northwest Washington*. LaConner, WA: Skagit System Cooperative.
- Beamer, E., Shannahan, J., Wolf, K., Lowery, E., & Pflug, D. (2010). *Freshwater habitat rearing preferences for stream type juvenile Chinook Salmon (*Oncorhynchus tshawytscha*) and Steelhead (*O. mykiss*) in the Skagit River basin: phase 1 study report*. Seattle, WA: Seattle City Light.
- Hartson, R. B., & Shannahan, J. (2015). *Inventory and assessment of hydromodified bank structures in the Skagit River basin: Chinook bearing streams*. Sedro Woolley, WA: Upper Skagit Indian Tribe.
- Hayman, R. A., Beamer, E. M., & McClure, R. E. (1996). *Fiscal year 1995 Skagit River Chinook restoration research*. LaConner, WA: Skagit System Cooperative.
- NMFS. (2011). *5-year review: summary and evaluation of Puget Sound Chinook, Hood Canal summer Chum, and Puget Sound Steelhead*. Portland, OR: National Marine Fisheries Service.
- NWIFC. (2016). *2016 state of our watersheds: a report by the Treaty Tribes in western Washington*. Olympia, WA: Northwest Indian Fisheries Commission.
- SRSC. (2011). *Reach level analysis for the Middle Skagit River assessment*. LaConner, WA: Skagit River System Cooperative, submitted to Skagit Watershed Council.
- SRSC and WDFW. (2005). *Skagit Chinook recovery plan*. LaConner, WA: Skagit River System Cooperative.
- USIT. (2016). *Request for economic fishery disaster relief assistance, pursuant to section 312(a) of the Magnuson-Stevens Fishery Conservation and Management Act (2007) regarding the extremely low Puget Sound Coho Salmon returns in 2015*. Sedro Woolley, WA: Upper Skagit Indian Tribe, submitted to United States Department of Commerce.

Attachment 1 – Plot developed from data presented in SRSC (2011) indicating a positive relationship between the percent of stream bank stabilized with hydromodification and the percent of human modified vegetation in the floodplain. Data are presented for nine reaches in the middle section of the Skagit River.



Attachment 2 – Recent decline of Skagit Chum Salmon population.



Caption: Although abundant chum spawning habitat exists above the floodplain, apparently unfavorable lower river, floodplain, and nearshore ocean conditions have impacted survival of juvenile Skagit chum. The historic even/odd year abundance pattern (high even year abundance and low odd-year abundance) has been replaced in recent years by just plain low returns since 2008. Even-year run size between 1978 and 2006 averaged 195,000 while odd-year run size averaged 55,000. Since then even-year run size averaged 45,000 and odd-year averaged 16,000.

*Data and analysis obtained from Upper Skagit Indian Tribe Stock Assessment Biologist, R.E. McClure.