



**Meeting Minutes
Nisqually River Council
September 20, 2013
Nisqually National Wildlife Refuge
Information: 360.438.8715**

Attendees:

Council Members

JW Foster – *City of Yelm*
Edna Fund – *Lewis County*
Cindy James – *Dept. of Ecology*
Amy Kruver – *Pierce County*
Renee Mitchell– *Pierce Conservation District*
Glynnis Nakai – *Nisqually National Wildlife Refuge*
Stephanie Suter – *Puget Sound Partnership*
David Troutt – *Nisqually Indian Tribe*
Cindy Wilson – *Thurston County*

*** CAC Representatives (1)**

Citizens Advisory Committee Members

Steve Pruitt*
Marjorie Smith

Robert Smith
Sunny Thompson

Guests

Aaron David – *University of Washington*
Kim Gridley – *Nisqually Indian Tribe*
Martin McCallum – *Nisqually Stream Steward*
James Morrill – *Nisqually River Education Project*

Cynthia Nelson – *Dept. of Ecology*
Travis Nelson – *Pierce County*
David Stepetin – *Nisqually Indian Tribe*

Staff & Associated Nonprofits

Nikki Dizon – *Nisqually Land Trust*
Justin Hall – *Nisqually River Foundation*
Don Perry – *Nisqually Stream Stewards*

Sheila Wilson– *Nisqually River Education Project*
Ashley Von Essen – *Nisqually River Council*

1. Call to Order, Approval of Minutes and Agenda

Call to Order – David Troutt called the meeting to order at 9:06am.

Approval of Meeting Minutes and Agenda – There was a motion to approve August's meeting minutes as presented. They were approved, as was the agenda for today.

2. Introductions, Reports

Advisory Committee Reports

- *Citizens Advisory Committee* – Steve Pruitt reported that the CAC met Tuesday, September 17th, at the Tribe's Natural Resources office. Karelina has resigned as the committee's Co-chair and he, along with Jean Shaffer, have been elected as the new CAC Co-chairs. Mary Foster remains the committee's Vice Chair. The committee received updates pertaining to the Nisqually Stream Stewards and the Eatonville Stormwater Initiative.

Jean has taken the lead on forestry for the CAC, connecting with other foresters and forestry organizations in and outside of the watershed. Jean is a member of the Nisqually Community Forest Project's Advisory Committee. The CAC's subcommittee, the Forest Buffer Committee, is still looking at developing a buffer zone to retain working forests and stop the further spread of urban sprawl near Eatonville. The CAC is still looking at DNR's Community Forest Trust Program as a

potential way to pursue this project. David suggested that the group take on a new name, buffer having a negative connotation.

The CAC is also moving forward with the Citizen Conservation Certification, a program that aims to certify residents similar to the way Nisqually Sustainable program does with businesses. Steve will work with Ashley to develop a similar format. He would like to put something before the Council by the end of the year for edits and suggestions.

The CAC is always welcoming new members and guest. Meetings take place the second Tuesday of each month, with the next meeting set for October 8th at 6pm at the Tribe's Natural Resources office.

- *Chair Report* – David shared that he was on vacation for the last meeting, but heard it went very well. He recently had the opportunity to present Nisqually Salmon Recovery to the Department of Ecology's staff in the southwest offices.

David also shared that he and Justin have been working on alternative funding options with Earth Economics. They are still compiling research to be presented at an upcoming NRC meeting.

The Tribe has been communicating with the RCO Congressional Staff about how salmon recovery has been moving forward in the Nisqually. There have been many conversations surrounding the weir and some of the challenges seen throughout the process of recovery. There have been changes to PAC-SRF funds and how they can be used. NOAA is starting to restrict the use of these funds to support on-the-ground projects, instead of hatchery reform, capacity, and monitoring and adaptive management. The weir was built and has been operated with these funds. With these changes, this project is no longer eligible for this funding. David has been talking to local politicians, attempting to rally monetary support of this project. Since Norm Dicks' retirement, many changes have been seen statewide, changes that may make salmon recovery more difficult. David will continue to wear his many hats and fight to keep these projects moving forward.

David was able to attend the annual Nisqually Land Trust meeting and BBQ as the event's chef.

As a member as the Puget Sound Salmon Recovery Council, David has been working with the group on a statewide campaign to increase funding sources for salmon recovery, in order to cover those lost by NOAA. It is intended for watersheds to work together with funding being spread across the state, eliminating competition for project dollars.

- *Staff Report* – Ashley reported that she is recently back from vacation and has been working diligently on catching up, focusing her attention on the upcoming Nisqually Watershed Festival. The 24th annual event is set to take place September 28th at the Nisqually National Wildlife Refuge. Volunteers are still needed!

Allied Programs

- *Nisqually Land Trust* – Nikki Dizon, administrative assistant of the NLT, also mentioned the Annual Membership Meeting and Salmon Bake. The event had a great turnout. Nikki offered thanks to the Nisqually Tribe for their contributions, as well as the event's head chef, David Troutt.

The Land Trust recently received a grant from the Boeing Corporation to expand their volunteer and stewardship programs.

Nicole Hill is currently in New Orleans representing the NLT at this year's Land Trust Alliance Rally, celebrating their newly granted accreditation.

- *Nisqually River Education Project* – Sheila began her report by introducing James Morrill, NREP's newest educational intern. He spent last year working with South Sound Green via Washington Service Corps. He is currently attending the Evergreen State College while participating with the Puget Sound Partnership's Citizen Action Training School.

Sheila has 35 sites ready for fall's water quality monitoring fieldtrips. Issues have arisen in Yelm pertaining to the teacher's union and the extra time needed to integrate water quality monitoring into lesson plans. NREP will persevere to ensure this program remains in the district. Sheila has 3 teacher networking meetings scheduled, as well as multiple trainings for teachers, students, and parents. Water Quality Monitoring Day is set for Oct 17th. Sheila has been working with two professors and their students at Evergreen to ensure teachers have enough assistance on these fieldtrips.

NREP, South Sound Green, and ESD 113 were recently awarded the Public Participation Grant from the Department of Ecology. Written in to the grant is an AmeriCorps position that will aim to move forward action items that are produced as a result of Student GREEN Congress.

Eatonville Salmon Fest is October 19th. David Hymel and Rain Dog Designs are currently putting raingardens in the ground, with plantings scheduled to take place on October 18th and 19th. Looking for volunteers for these events.

NREP and Native Plant Salvage have three students ready to install raingardens for college credit through South Puget Sound Community College and Running Start. These trainings are set to begin in November.

Sheila has 15 upcoming tree planting fieldtrips, meaning 30 classrooms will be participating in habitat restoration on the Martin property in the Ohop Valley.

Sheila has been looking at new grants to help cover the costs of upcoming fieldtrips, including spring's Eye on Nature fieldtrips, which bring students to the Nisqually National Wildlife Refuge for NatureMapping. She is working with the Fish Tale Brew Pub to put together a fundraiser, as well as applying to the Charlotte Martin Foundation. She will be applying to Patagonia for funds to cover costs associated with salmon carcass tossing trips.

A student from the Evergreen State College, who made a short film about NREP water quality monitoring 2 years back, will be returning to film a documentary on botany in the Nisqually Watershed.

- *Nisqually River Foundation* – Justin mentioned that the Foundation is looking to welcome two Washington Conservation Corps Individual Placements next month, one for NREP and one to write a climate change adaptation plan. Costs associated with bringing on each placement are \$10,000 for 750 hours of work. NRF has received a large stack of applications and interviews have been scheduled for next week, with IP's starting Oct 7th. Justin asked that if anyone has extra computers, the Foundation is in need of two for the new staff. Justin is applying for a fee waiver program to help cover the \$25,000 cost for the Climate Solutions program.

Justin has written the letter that is to be included in the mailing of the Good Neighbor Handbooks.

The Ecosystem Services committee is currently looking at a property that the Nisqually Tribe could purchase for the program.

The Community Forest Committee, including Paula Swedeen, Kirk Hanson, Joe Kane, and Justin, will be heading to Maine in two weeks to visit the only successful community forest in the nation. The creation of the forest will place focus on local priorities, timber, and jobs. The committee is looking into the NLT developing a subsidiary to buy and take ownership of the land.

The NRF is still looking into ways to replace the hole left by Ecology in the annual budget. Pursuing possible capacity funds the Tribe and the Puget Sound Partnership.

- *Stream Stewards* – Don mentioned that Salmon Watchers are currently on the look out for pinks and chinook in the Upper Nisqually. There have been no reports on spawning pinks just yet. Another

Salmon Watcher training takes place tomorrow morning from 9am to noon, followed by a tour at the Nisqually weir.

Don has been recruiting Stream Steward volunteers for the weir, as well as Nisqually Watershed Festival and the Eatonville Salmon Fest.

A volunteer Halloween planting will take place in the Ohop valley on October 26th. This is the 3rd year for this event.

Don has been collecting ideas to include in the upcoming Yil Me Hu, such as heading out with Sayre to check on PIT tags research near Ohop Lake.

- *Salmon Recovery Update* – Kim reported for Chris, who is currently on vacation. She shared that there has been a lot of excitement at the Nisqually Weir, including the 100,000 pinks that have been passed over the last week. The weir has welcomed many visitors, including the RCO Salmon Recovery Program staff. An excellent site to see!

The second phase of the Ohop Restoration, situated on the Burwash property, as well as McKenna Reach Project, have been moving forward. At this time, designs are being laid out for each.

The Nisqually Tribe is happy to welcome aboard Jed Moore, the new biologist for the Salmon Recovery Program.

Last week, Chris and Kim had the opportunity to take a tour of the Mashel-Nisqually State Park. They were able to talk to the Parks Commission, stressing the need to maintain protection of the Nisqually and its tributaries from development impacts. Horses were introduced to the discussion with the idea of developing a trail that would lead to the river. The location of this trail could have very negative effects on salmon spawning, therefore detrimental to salmon recovery. It is hoped that the Commission will rethink the layout of their intended trail system.

The Nisqually Tribe had fairly truncated fishing season this year with only a 4-week window for gillnetting. Due to the high pink run, the selective fishing techniques were not utilized. However, they were able to meet their harvest goal of 10,000 chinook, which were predominately hatchery.

The Tribe is in serious talks with Olympia to create a hatchery run on McAllister Creek. The project would use the rearing pond in front of the old facility. David feels as though this project will go through, with fish being raised in the tanks by this time next year.

David recently spoke to NOAA regarding the challenges of the “dam” at I-5 on the Nisqually River and future intentions to move I-5 onto piers. NOAA is working to pull together the necessary people and organizations that are needed to move this project forward. These organizations include USGS, EPA, NOAA, WA Department of Transportation, Department of Highways, Puget Sound Partnership, JBLM, and the Army Corps of Engineers, to name a few. This project ties directly into the endeavors to protect Medicine Creek and restore the Nisqually estuary. It is hopeful that a meeting will take place this coming November and may or may not be open to the public.

3. Nisqually Estuary

Aaron David, School of Aquatic and Fishery Science Graduate Student, University of Washington

Over the past few years, Aaron has been working very closely with the Nisqually National Wildlife Refuge, the Nisqually Tribe, USGS, US Fish and Wildlife Service to study changes being seen in the estuary since implementing restoration efforts in 2009. Aaron is looking to submit his final research paper for publishing in the next couple weeks.

Aaron shared that as young salmon swim downstream towards the open ocean, they experience great physiological changes as levels of salinity increase. Estuaries haven proven to be very productive ecosystems with great diversity.

A positive correlation has been noted between the size of fish when leaving the estuary and marine survival, meaning the bigger juvenile fish grow in this stage of rearing, the better their chances for survival. This is due to their ability to defend themselves against predators and their increased energy stores.

The Tribe's Salmon Recovery Program is the lead entity for helping recover chinook salmon populations in the watershed. In the fall of 2009, 5 miles of dike was removed from 700+ acres of land in the Nisqually Estuary. This, along with two other recently restored areas, gave a total of over 900 acres of restored estuary, the largest project of its kind. Since then, salt marsh has been slowly moving back in, developing more and more with each year. Aaron's study endeavors to show whether this recently altered habitat has the same impact and benefits for fish as natural, unaltered habitats.

Aaron's research called for chinook sampling in four tidal channels, including two reference areas, one in the 2006 restored area and one in 2009 restored area. Fyke trap nets were used to collect samples, which underwent stomach content analysis, with consistent temperature logging in each of the four channels, and a 24-hour consumption rate study. A bioenergetics model was used to measure the growth rates of these salmon, considering consumption minus metabolism and waste.

Results for chinook densities show quite a bit of variance from month to month in both 2010 and 2011. In 2010, there was a significant difference between the number of salmon found at each of the four sites. This variance decreased over the next two years of the study, with similar numbers being found at each of the four locations.

Stomach content analysis showed a high amount of diversity in the diets of juvenile chinook being consumed at each location from April to July of each year. When measuring their diet energy density, each location's findings were somewhat similar, with a slightly more caloric-rich diet being consumed in the restoration areas. Stomach fullness was also analyzed by calculating the weight of prey in each stomach as a percentage of body weight. These findings were very similar amongst the four channels. This form of analysis is limited to instantaneous feeding only, which can only estimate how fish feed throughout a day.

Temperature was taken every 12-15 minutes, with mean daily temperatures being recorded. This data suggests that the restored channels have higher temperatures, especially throughout June and July. This is because restored channels are generally wider and more shallow than reference marshes. This warm water moves in and out with the tide, resulting in overall warmer temperatures.

Growth in 2010 showed a lack of pattern, with reference marshes having a slightly larger potential for growth, varying more in the restored areas. In both 2011 and 2012, variability was also noted from month to month, with no real pattern being suggested. There was also a higher range of growth for the restored marshes.

Aaron's research is consistent with other estuarine studies. It has been noted that it may take decades for restored areas to re-assimilate, but rapid response is generally seen in estuary response. Reconnected habitats appear to provide similar, but more variable opportunities for chinook growth. Also, increased sensitivity to air temperatures may limit growth value of these habitats when temperatures are warm.

Aaron's presentation has been made available on the NRC's SlideShare website. Please visit: <http://www.slideshare.net/Nisqually/foraging-and-growth-potential-of-juvenile-chinook-salmon-following-delta-restoration-of-the-nisqually-river-delta>.

4. Nisqually Salmon Camp

Don Perry, Salmon Recovery Outreach, Nisqually Indian Tribe

The Nisqually Salmon Camp was created to address the underrepresented Native American populations in STEM (Science, Technology, Engineering, and Mathematics) related programs, as well as high school drop out rates. This program provides students with hands-on experience in a variety of STEM-related professions. This program, a partnership between the Nisqually Summer Youth programs and the Tribe's Natural Resources Department, includes 3 to 5 days of field experience, collecting real-time data and information. Sign up is on a voluntary basis through the Youth Center. This year's participants received college credit through the NW Indian College.

Activities included: aquatic macroinvertebrate sampling, plant survival assessments, GPS, radio-telemetry, geomorphology, salmon dissection, and beach seining.

Next steps for this program include continuing to find fun and interesting activities for participants, while increasing attendance each year. Don would like to arrange a luncheon with Nisqually youth and local college representatives to educate students on potential college/career options, provide help building resumes, explore summer employment, internships, and volunteer opportunities. Don would also like to be able to track the participant's academic paths to monitor the effectiveness of the program.

5. Nisqually Knotweed Control Program Update

Renee Mitchell, Pierce Conservation District Knotweed Program Manager

Renee started her presentation by thanking the amazing project partners that have helped PCD be so successful in combating knotweed in the Nisqually Watershed, including: WA Department of Natural Resources, Tacoma Power, USFWS, and the Nisqually Tribe.

Renee's plan is always to begin with the infestations upstream, moving down the mainstem, to the lower parts of the watersheds. This method has proven to be very effective in treatment. Surveys show treated plants have an estimated 90% mortality rate. Many areas once devastated by knotweed are now seeing natural regeneration of native species.

Poor access in certain parts of the upper watershed makes treatment very difficult. In some areas, a 2-mile hike to a particular infestation is sometimes necessary.

The 2012 season was funded by money received from a number of sources, including SRF Board, WSDA Knotweed Program, DNR, and USFWS. Three field crews were allocated to the Nisqually program, meaning 18 people were heading out with Renee. With a crew of this size, they were able to survey 30.25 miles of river and creek, surveying and treating 54 public and private parcels (338 acres) in the upper and lower watershed. This includes beginning 7.7 new miles of initial treatment.

The 2013 season included treating the Mineral Area, along Roundtop Creek. PCD received a grant, which provided capacity for pre-season growth surveys. Renee and her team discovered an estimated 130 acres solid plant material, mostly in the upper watershed. This could be because much of the lower watershed has already been treated. Renee also believes that forestry operations have allowed infestations to spread more quickly. Many areas being currently treated have been previously logged.

This year, a crew of 23 was made available to the Knotweed Removal Program in the Nisqually Watershed. Everything found will have been treated by the end of the 2013 season. This means that the entire mainstem will be under maintenance and monitoring status, checking each year for re-sprouts. The Nisqually Knotweed Removal Program has become known as a model project in the state of WA. Nisqually really is the center of the universe!

Renee's team recently came across knotweed in the tidally influenced zone within the boundaries of the Nisqually National Wildlife Refuge. This means that knotweed is salt-water tolerant. They treated as much of the 10 x 10 foot infestation, but because the tide was in, they could only spray the tops of leaves.

Surveys being done on Alder Lake, plants have been seen growing on floating logs. It is believed that a number of logs in the area have been brought to the dam to be chipped and spread. These logs have not been checked for knotweed, but have been known to survive the chipping process. Only one node is necessary to sprout a new plant.

Renee's presentation has been made available on the NRC's SlideShare website. Please visit:
<http://www.slideshare.net/Nisqually/nisqually-knotweed-control-project-27131992>.

6. For the Good of the Order

- Travis Nelson, sitting in for Chris Schutz, has brought brochures about what Pierce County's Surface Water Management does and upcoming workshops pertaining to sanitization systems.
- NatureMapping opportunity at Northwest Trek on Powell Creek. Call the NLT offices for more details.

Adjourn – Meeting was adjourned at 11:57pm.

*Next Meeting: Friday, October 18, 2013, 9:30am – 12:30pm
Ashford Fire Station*