



Meeting Minutes
Nisqually River Council Meeting
February 21, 2020
UW Pack Forest
Information: 360.438.8715

Attendees:

NRC Members:

Dan Calvert – Puget Sound Partnership
Abby Gribi – Town of Eatonville
Terry Kaminski – City of Yelm
Sheila Marcoe – Dept. of Ecology
Amber Martens – JBLM

Glynnis Nakai – BFJNNWR
Rene’ Skaggs – Pierce Conservation Dist.
Kelly Still – WDFW
David Troutt, chair – Nisqually Indian Tribe

CAC Members:

Phyllis Farrell
Howard Glastetter
Paula Holroyde
Fred Michelson

Bob Smith
Marjorie Smith
Lois Ward

Guests:

Roger Andrascik – NLT/NSS
Jeff Barney – Pierce County
Brad Beach – Nisqually Indian Tribe
Warren Bergh – NLT/NSS
Michelle Brigham – Preserve the Commons
Chris Ellings – Nisqually Indian Tribe
Tom Ficca
Gary Geddes – Morse Wildlife Preserve

Rachael Haskins – Morse Wildlife Preserve
Becky Kowalski – JBLM
Amy Malik – Preserve the Commons
Andrew Reed – DNR
Etsuko Reistroffer – NLT/NSS
Lee Roach – DNR
Brian Sullivan – NLT
Ashley Von Essen – Nisqually Indian Tribe

Staff:

Justin Hall – NRF
Joe Kane – NLT

Emily McCartan – NRF
Sheila Wilson – NRF

1. Call to Order, Introductions, Approval of Minutes and Agenda

David called the meeting to order at 9:06am. Minutes from the January 17 meeting were approved, as was the agenda for the day.

2. Committee Reports and Updates

Advisory Committee Reports:

Citizens Advisory Committee – Phyllis Farrell

At last week’s meeting, the CAC discussed biosolids, the February 7 flooding in the Nisqually Valley, and legislative updates. Howard has done extensive research on the flood situation and will later share a letter he has written to TPU TPU. CAC members are concerned about section dredge mining and flame retardants from firefighting foam

contaminating water, which have bills in the Legislature addressing them. The CAC also asked if the NRC has taken a position on aquaculture net pens for native fish. The NRC has not addressed this issue, but will invite biologists from the Nisqually Tribe to present on potential environmental impacts for steelhead and other considerations.

Chair Report – David Troutt

Last year, the Nisqually Tribe received a \$14.2 million Clean Water Revolving Fund loan from the Department of Ecology, to acquire land to be managed under the Community Forest. This is the first such loan under new rules allowing land acquisitions, and the first loan to a Tribe. It is focused on the Mashel basin to address salmonid and forestry issues. The Tribe will own the property, and a management relationship with the Community Forest will be worked out depending on the project. This week, the Tribal Council approved developing a specific project using the loan, which will hopefully move forward this year. In the long term, this type of ownership and management could help improve flood resiliency in the Mashel basin, which experienced a major landslide and unprecedented high flows during the February 7 event. Forestry is not solely responsible for this, but transitioning to more complex stands may help in the long term.

Staff Report – Emily McCartan

WSDOT received the NRC's letter on its upcoming I-5 study. The NRC advocated for provisional recommendations pending sufficient data to address broader environmental impacts of the freeway on the Nisqually Delta, as was required in the funding legislation for the study. Emily had follow-up conversations with study staff and worked with the Tribe to provide some additional resources on sedimentation and salmon recovery. The draft report is being reviewed at WSDOT and TRPC, and will be shared with the NRC during stakeholder review.

The Department of Ecology notified commenters, including the NRC, that they will proceed with a statewide general permit for biosolids management. The Council's letter had asked Ecology to consider individual permits for more site-specific control, but this outcome is not surprising and the NRC and public will have opportunities to engage as the new general permit is developed.

Members of the WRIA 11 Planning Unit are working on grant proposals for the next round of streamflow restoration grants to implement the plan developed last year. It is a statewide competitive process with \$20 million available this round. The Planning Unit is also working to establish a permanent funding and administrative mechanism to support long-term water planning in the Nisqually Watershed. We have historically been leaders in producing plans, but implementation has flagged because of a lack of central support. The NRC could play a role in providing a home for this interagency process, and there may be a proposal coming to the Council in the next several months.

Allied Program Reports:

Nisqually Land Trust – Joe Kane

Joe Kane announced that he will be stepping down from the Land Trust this year, after 20 years with the NLT and 15 years as executive director. He leaves the NLT in a strong fiscal

position with a great board and staff. Joe noted that he has attended at least 150 NRC meetings, and values the partnerships that make the watershed work. Board President Brian Sullivan announced that the board has contracted with a consultant to search for a new director. They hope to have candidates by June and bring a new director on board by the end of the summer. The search committee will keep the NRC and partners updated. On behalf of the NRC, David acknowledged Joe's service and the great difference he has made to the Nisqually Watershed through his career. Future generations are indebted to this work.

Nisqually River Education Project – Sheila Wilson

NREP program coordinator Brandon Bywater is moving on to a new position with Pacific Shellfish Institute. The position is posted on the nisquallyriver.org website and can be shared widely with environmental educators.

Watershed students conducted winter Water Quality Monitoring last week. CLAMMS teachers toured LOTT facility and shared NOAA resources about algal blooms. This grant-funded program is a good way to get cutting-edge NOAA science out to educators and the public, particularly on critical climate changes. Nisqually also hosted other NOAA B-WET grantees at the Refuge for a workshop on environmental justice and education last month. NREP is reapplying for a new NOAA Environmental Literacy Grant.

Through the No Child Left Inside grant, NREP hosted a Mount Rainier snowshoeing field trip for Nisqually youth and families. Participants shared that it was a great experience, and many did not know that tribal members have free access to the park.

Nisqually River Foundation and Community Forest – Justin Hall

Justin testified earlier this month before the U.S. House Appropriations Sub-Committee on Interior and Environment. He was invited to testify as the president of the Friends of the Nisqually Refuge Complex, and spoke about funding for wildlife refuges, and the education, volunteer, and conservation programs provided by the staff and partnerships at the Billy Frank Jr. Nisqually National Wildlife Refuge and other refuges in the Complex.

Northwest Community Forest Coalition will hold its annual forum in Vancouver, WA on May 6-7.

Salmon Recovery – Ashley Von Essen

Seven projects are moving forward in this year's SRFB grant round, with site visits upcoming. The recent flood was the flood of record on the Mashel River (9,600 cfs), and it highlighted the importance of climate resiliency in restoration and conservation efforts. The Mashel is very sensitive to this type of rain-on-snow event caused by Pineapple Express systems, which are becoming more frequent with the warming climate. At the same time, summer flows can sometimes drop so low that they are sub-surface at the mouth. The volatility makes it very inhospitable for the salmon we're trying to recover. Changing forest land management, through ownership and regulation, is going to be a key strategy for meeting these needs in a more volatile climate.

3. Mashel River Landslide

Chris Ellings and David Troutt

During the Feb. 7 flood, a major landslide of 30-40 acres of recently clearcut timberland (Hancock and Hampton properties) blocked a gorge in the upper Mashel for some time. When it broke through, heavy loads of sediment from the landslide were carried throughout the Mashel and Nisqually floodplains, which will have legacy impacts lasting 100 years. The sediment was largely clay soil, which can be damaging for salmon. Landslides occur naturally, but the impact on fish and river ecology is much worse in areas that have been clearcut because it introduces sediment and doesn't help recruit large woody debris that salmon need. DNR and Pierce County have flown over the area to assess a few times, but assessment will be ongoing. Full impacts will not be known until later. It is premature to know if there is any liability for the landowners in this slide. Fish culverts need to be assessed for blockages. Sediment tracking in the Mashel has shown improvement since the 1980s and 1990s, but this will set it back.

Roger Andrascik observed the Mashel and after during the high flows, and noted the mud and sediment from the landfill were very different than normal high flows, and contributed to significant scouring and aggradation of fine sediment. Many engineered log jams (ELJs) built for salmon recovery were damaged or destroyed. The ELJs are a stopgap measure until we regenerate enough healthy forest to sustain the wood needed in the ecosystem on its own. Logjams are always ephemeral, being created and destroyed in natural events like this, but they can't recruit new wood without healthy forest. The Salmon Recovery Program recently updated its habitat action plan to reflect the data showing that ELJs would require continued maintenance and renewal. When habitat wasn't protected, it means higher and ongoing expenses to maintain the effort to recover it. Joe Kane noted there are parallels with other complex systems where the underlying management principle is to maximize shareholder returns, which incentivizes systemic problems. David noted that current regulations were not developed with climate change or ecosystem sustainability in mind, so laws are not providing a sufficient backstop and are difficult to change. The Nisqually strategy has been to for conservation partners (the Tribe, Land Trust and Community Forest) to own and manage land outright as the best means of protecting it through the Tribe, Land Trust and Community Forest. More funding from the Legislature to purchase land is the most direct route, because the adaptive management process in the law doesn't move quickly enough to reflect updated science. Lois noted that the proposed expansion of mining in Thurston County could pose a similar risk to habitat in the long run, and buffers would be important to protect rivers.

4. Water Quality Nonpoint Source Program

Sheila Marcoe, Water Quality Specialist, Department of Ecology

Sheila is Ecology's current representative on the NRC. She has experience working on water quality in Oregon and California and joined Washington's Department of Ecology a year ago. The Department of Ecology is in its 50th year, predating the EPA. Its mission is to protect, preserve, and enhance the environment for current and future generations. Sheila is part of the Southwest Regional Office's water quality program, covering 12 counties. Three water quality specialists work on nonpoint pollution, and the program is about to add a position on orca and salmon recovery, which will focus on Nisqually and Skokomish watersheds.

The Water Quality Program handles water quality permits, watershed improvement efforts, and provides financial assistance to communities to meet state water quality standards. They manage National Pollution Discharge Elimination System permits (NPDES) for industrial (sand and gravel) and municipal operations, water cleanup (TMDLs), and watershed resources, including construction stormwater and nonpoint source pollution.

Nonpoint source pollution comes from runoff to surface and groundwater: agriculture, livestock, stormwater, forestry practices, urban and suburban development, recreation (boating, off-roading, etc). Contaminants in runoff include bacteria from livestock waste, nutrients from fertilizer, pesticides (regulated by Dept. of Agriculture, but carried by waterborne sediment), and sediment. Others are as diverse as runoff from gas stations and newly painted roads, etc.

RCW 90.48 prohibits polluting waters. Any surface water is considered “waters of the state”, including lakes, salt waters, groundwater, rivers, ponds, streams, irrigation canals, and drainage ditches. This includes waters on private property, because they connect with other waters and impact the entire system. Drainage and irrigation districts work to maintain ditches to deliver water for agricultural or other uses, and are governed by county ordinance. Sometimes they do not realize they must comply with waters of the state regulations.

Ecology strives to work with landowners and operators to bring into voluntary compliance, help educate and provide technical and financial assistance through local partners like conservation districts. The law is the regulatory backstop. The goal is compliance, not punitive enforcement. It can be thought of as “It’s not voluntary to comply with the law, but it’s voluntary how you get there.”

How Ecology works to improving water quality:

- *Reactive:* complaint response. Public can call in spills or pollution incidents to 1-800-OILS-911 hotline (<https://ecology.wa.gov/About-us/Get-involved/Report-an-environmental-issue>) Environmental Response Tracking System receives complaints, determines how to route within Water Quality based on the source. Issues may be referred internally at ECY or to external partner (county, other jurisdiction with authority). Then staff reach out to the landowner about the concern, identify conservation district and local partners who might have a existing relationships, and determine what steps can take to help with clean water.
- *Proactive:* use systemic approach to identify watersheds and problem areas and focus efforts on outreach, technical and financial assistance, and projects work to improve. Proactive approaches have been built up with Ecology’s staff capacity over recent years.

In both cases, Ecology reviews watershed data, any TMDL improvement plans, and contacts partners to identify priority focus areas. Clean-up plans and water quality monitoring (usually at rivermouths) are both tools for improving water quality. If bodies are not meeting water quality standards, they are put on the impaired waterbodies list (303d), which is updated every 2+ years. Can add monitoring as needed. Clean-up plans call out point sources (covered by permits) and nonpoint sources. Outreach and working with local partners,

especially conservation districts, is an important part of Ecology's approach. Landowners may fear getting fined for violations but not know what the rules and regulations are, so conservation district workshops and outreach education make voluntary resources available to avoid punitive responses whenever possible. Ecology uses water quality parameters to pinpoint where outreach is needed in high nonpoint areas of concern. They then work with local partners to inform landowners of opportunities and support to come into compliance, by making improvements like planting tree buffers, fencing to keep livestock out of streams, onsite manure composting. Financial assistance is sometimes available through conservation districts or other grants. Technical assistance helps landowners implement best practices that are specific to the needs of their property.

Discussion:

Does Ecology address freeway runoff? – This is primarily a WSDOT issue, and if Ecology works with them it's not through the nonpoint program. Counties and cities also maintain roads in addition to the state, so the issue is complex. Roads are now built with stormwater catchment basins, ponds, bioswales, etc. to treat runoff, but the level of treatment varies highly depending on how recently the roads were built or improved. Large rain events tend to overwhelm the available treatment areas. JBLM is working with I-5 on runoff discharge solutions for I-5 expansion. Sheila will follow up with more information.

Which Nisqually waterbodies are on the 303(d) list, and what is the status of clean-up plans? – There is a storymap on Nisqually water quality issues available online: <https://wsuniv.maps.arcgis.com/apps/MapJournal/index.html?appid=7c1694c0fe1941ffab1aefc9931f2b83>. Listed waterbodies are included in the 2019 NWSP Report on page 29: <https://drive.google.com/file/d/1CT3YayngYKnoHOJBxXO-IFWUpX3oomGN/view>. What is the status of the clean-up plans in particular? If the plan is implemented and the standard shows sufficient improvement, it is removed from the list. Nonpoint source takes more time to implement because of the need to work with landowners rather than simply enforcing permits for point sources, as described. Ecology's capacity to follow up on clean-up plans for nonpoint pollution has been limited because of staffing and funding constraints. They are currently interviewing for a position which will include focusing on TMDLs in the Nisqually Watershed.

5. Morse Wildlife Preserve

Rachael Haskins and Gary Geddes

The Morse Wildlife Preserve was established in 1995, through a gift of 53 acres from Lloyd and Maxine Morse to preserve and enhance native wildlife and provide a nature education resource. Muck Creek flows through the Preserve below its origin at Patterson Springs. The Morses made the gift to the Tahoma Audubon Society, with agreement for the land to be owned by the Land Conservancy (now Forterra) and managed by Audubon Society in partnership with the volunteer Morse Force. The core property is now 96.7 acres (expanded through an anonymous gift in 2001). Management also includes an additional 80 acres above Patterson Springs and 50 acres off Kapowsin Highway.

The Morse Force Management team is a volunteer organization which meets monthly to organize workdays and public and education access. Volunteer work parties are on 2nd

Saturdays throughout the year. The core property has an onsite caretaker and historic 1910 barn, which needs a new roof. The Preserve has a strong relationship with Bethel School District (students in NREP program water test and do service projects there), which may be interested in using the barn for alternative education programs. There is a 30-foot observation tower with 360-degree view of the wetlands, designed to look like a roosting bald eagle. The Preserve partnered with the Natural Resources Conservation Service to do wetland rehabilitation and build the tower. A boardwalk built in 2012 gives access to trails in forested springs across Muck Creek. Currently building puncheons for muddy trails – great Eagle Scout projects. Stewardship activities include installing and mapping bird boxes, bird banding with Tahoma Audubon, education outreach (Cougar Mountain Middle School does water quality monitoring and planting projects twice a year; Elk Plain Elementary School field trips to study bugs and insects). Transportation is always a challenge.

Interpretive zones and trails are open seasonally on second Sundays every month, April through October. Visitation is limited to protect habitat. Free or donation to visit. Visitors are greeted by site hosts during the open Sundays, who can also lead trail walks and assist in educational programs. Volunteers are always needed – training is coming up on March 7 (two sessions, 10:00-12:00 and 1:00-3:00). Spread the word!

<https://forterra.org/subpage/morse-wildlife-preserve>

Discussion:

Do fish spawn in the Preserve streams? – Not observed. Elk have been seen there. Salmon Watchers noted that Muck Creek doesn't have always flow between JBLM and the source springs at Patterson because of the glacial gravel soils. This makes Muck Creek very dependent on rain for its flow, and in some years (like 2020) there isn't enough flow at the mouth for chum to get up to spawning areas. Streamflow through the Preserve is very consistent through the year because the headwater is springfed from long wetlands. JBLM is partnering with SPSSEG to study the intermittent flows and connectivity issues, and whether there is habitat restoration that could keep surface flows available for fish.

How do you do volunteer training? – The training program is brand new this year, and currently expanding. Training for site hosts is not intensive and focuses on welcoming visitors and educating them about rules, like no dogs on the trail. Original education plan anticipated interpreters stationed along the trails, but haven't had the ability to do that level of recruiting and training.

Visitors are welcome to contact Rachael at Morse Force (morsewildlifepreserve@gmail.com) about accessing the preserve any time.

6. February 6 Flood Recap

David Troutt

The Nisqually River experienced flooding on February 6 and 7 due to heavy rains, as did most rivers in Western Washington. Tacoma Power has presented in the last several years to discuss this issue, and David expects this will be an ongoing and evolving discussion. The current Nisqually hydroelectric facility is under federal FERC license (issued in 1997). Its

responsibilities set out based on its design limitations. The dam was not designed for flood control, and has limited capacity to deal with it. The licensing the Tribe insisted on through federal litigation was to ensure minimum flows for fish at key times for incubation, rearing, and migration, and address ramping issues during the summer that resulted in the drowning of multiple Nisqually Tribal members. The license contains flow adjustments through the seasons to meet biological requirements. Other obligations in the license include recreation use and others, but those are secondary to meeting minimum flows for fish. The dams operate through risk management: their challenge is to manage their pool throughout the year to provide the ability to meet minimum flows critical for fish in July, August, September, and October. Recently, we have experienced droughts in both summer and winter. In 2019, the Nisqually Tribe had agreements with TPU and other managers to reduce minimum flows to keep the reservoir from running dry and eliminating flows altogether.

For wintertime management to reduce flood risk, David's understanding is that TPU receives forecasts of weather conditions at 10, 7, and 3 day marks. 10-day forecasts are highly variable. TPU was in close communication with the Tribe in this last event. They ramped up flows slowly at the end of January to try to make space in the reservoir. On February 4, TPU increased outflow from 4,000 to 8,000 cfs, based on hardening probability of a significant rain-on-snow event. In the mainstem, peak inflow into Alder Reservoir was close to 20,000 cfs (typical inflow is several hundred cfs). On February 6, TPU increased to over 15,000 cfs outflow. The total flow on the Nisqually River below the dams was augmented by sideflow from the Mashel (which experienced a new record flood of 9,600 cfs), as well as the Ohop and other tributaries. Combined flows could have reached 35,000 cfs in the valley without management action by TPU, which reduced potential impacts by 25%. Flows in the Delta probably reached 25,000 cfs (there is no gage in the lower Nisqually). At 20,000 cfs, flow comes through the Durgin Road tunnel. Thurston County communicated pretty well with valley residents to evacuate.

Community impacts: The Nisqually Tribe provided shelter for families evacuated during the event. United Way of Thurston County is providing emergency housing and financial assistance to residents affected by the February 7 flood (about 60 homes were damaged and 700-1,000 people were evacuated). They are accepting donations through the Emergency Assistance Fund: <https://www.unitedway-thurston.org/eaf>. Thurston County Emergency Management, Public Works, and the Washington Conservation Corps have been responding throughout the event. There were some concerns about lack of communication with residents and schools about flood warnings as the County has shifted to an online rather than phone alert system since the last flood. Landslides on Route 706 above Ashford continue to limit residents and block access to Mount Rainier National Park. WSDOT is working on clearing the roads, but there are still high-risk unstable slopes.

Future preparedness: Because of climate change, these events will continue to occur with increasing frequency. There are a variety of options to take, but each has costs associated with it. Before the NRC can consider a recommendation about a particular action, we need to fully understand the costs. TPU is operating within its legal license and obligations, and major changes to operations would require funding expensive interventions (such as building a bigger dam or dredging sediment from the reservoir, which would provide a short-term

increase in capacity). Bigger-picture solutions include ecosystem recovery to provide additional resiliency in the system, such as changing forest management to restore complex systems that hold water better in the upper Nisqually and Mashel basins. Local zoning could be changed to reflect this experience and updated FEMA floodplain maps, and indicate properties that will be at increasing flood risk so that residents can be bought out and relocated if they are not willing to run the risk. These are issues throughout the region. All rivers from the Nooksack to the Chehalis experienced flooding in this event.

Discussion:

David stated that the Nisqually Tribe position is that TPU should be commended for the way they handled this challenging circumstance. They communicated regularly, worked to minimize their first big release coming during a king high tide as much as possible, and were willing and able to work with the Tribe on doing the right thing. Some of the constraints they are under are imposed by the Nisqually Tribe through litigation on their FERC license, and the Tribe will not change that position.

Howard spoke as a lower Nisqually Valley resident and CAC member. The FERC license does not have any flood control responsibility, and it only specifies minimum levels for Alder Reservoir, not maximum levels (can't go below 1,197 feet from Memorial Day to Labor Day, and below 1,107 from Labor Day to Memorial Day). Howard had previously advocated for a maximum reservoir level of 1,197 feet during the winter. As a compromise, he now proposes a maximum limit of 1,203 feet (four feet below capacity) in the winter, unless a storm is predicted, when they should increase discharge to keep the level at 1,203 feet or below. This level was exceeded three times in the ten days around the most recent storm. Howard believes the current practice, which regularly reaches 1,205 feet, is unsafe based on unpredictable forecasts and puts property and lives at risk below the dam. Tacoma Power ran their generators at full capacity at only 22 days during 2019 because of low inflows, so they are not financially required to maximize their generator space. After the 1995 flood, another heavy rain was predicted, but they were allowed to continue to top off the dam. The 2015 flood raised the reservoir 8 feet in 24 hours.

Fred noted that CAC has proposed lowering the dam in the wintertime when there is not a drought several times over 24 years. They have not accepted any of our requests to do so. Fred believes it is not necessary to put people at risk along the lower Nisqually by refusing to make this simple adjustment. Nobody knows what the right number is, but they should be more conservative. TPU does a good job managing the wildlife and fish needs along the river. This needs to have more discussion.

Lois stated that she understands TPU is under no obligation to change their practices. She would like to see comparative risk assessments for adopting Howard's plan or other measures to understand the costs impacts on other management values and obligations.

What is the exact impact of climate change on these issues? – Glacial recession, less capacity to store water as snow and ice, precipitation that used to fall as snow at lower elevations is now falling as rain. Two years ago, the Nisqually Glacier was retreating an average of 1 meter every 3 days. Ice is like a vice in the river valley: as it retreats, more sediment is freed

up and fills up the reservoir faster. The Tribe expects to want research on possible dredging as part of the next FERC relicensing process.

David suggested set up an agenda for a future meeting so we can understand the whole issue.

7. For the Good of the Order

Pierce Conservation District's annual dinner is on March 25. George Walter will be receiving a lifetime achievement award.

Puget Sound Day on the Hill in DC is at the end of April, advocating for Puget Sound investment in recovery. The public can participate. Contact Dan if you are interested.

The meeting was adjourned at 12:10pm.

