



Meeting Minutes
Nisqually River Council Meeting
October 19, 2018
UW Pack Forest
Information: 360.438.8715

Attendees:

Council Members:

Dan Calvert – PSP
Amy Cruver – Pierce County

Matt Curtis – WDFW
Abby Gribi – Town of Eatonville

Citizens Advisory Committee Members:

Phyllis Farrell, acting chair
Fred Michelson
Karelina Resnick

Marjorie Smith
Robert Smith
Lois Ward

Guests:

Roger Andrascik – NLT/NSS
John Hayes – Mount Rainier Institute
Joe Kalama – Nisqually Indian Tribe
Etsuko Reistroffer – NLT/NSS

Jim Reistroffer – NLT/NSS
Shannon Shula – Thurston County
Ashley Von Essen – Nisqually Indian Tribe

Staff:

Brandon Bywater – NRF
Joe Kane – NLT
Justin Hall – NRF

Emily McCartan – NRF
Chrissy Webb – NRF
Sheila Wilson – NRF

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

Phyllis called the meeting to order at 9:10am. The agenda and minutes from the previous meeting were approved.

2. Committee Reports and Updates

Advisory Committee Reports

Citizens Advisory Committee – Phyllis Farrell

The CAC's meeting this month was the public information meeting for WRIA water planning on *Hirst*/exempt wells. Lois is the CAC's representative to the Planning Unit. Nisqually is one of the first watersheds to go through this process. At the meeting, George Walter (Nisqually Indian Tribe) Kevin Hansen (Thurston County) and Tom Kantz (Pierce County) explained the task of the Planning Unit to forecast and mitigate permit-exempt domestic wells. The CAC's comments emphasized salmon recovery and ensuring adequate streamflow for fish populations. Other concerns discussed the effects of climate change, deforestation, snowpack/glacier loss, and industrialization, and considering the small portion of water used by permit-exempt wells in the context of all other water use. Potential metering is being discussed as an option. George noted several ideas from the group and will consider them as the Planning Unit continues. The CAC wants to keep an eye on other water issues,

including Thurston county mining expansion, impacts from current Pierce County mining on wells, and Yelm's water supply.

Lois reported that the full Planning Unit met on Wednesday this week. The Counties are researching the forecasted number of new permit-exempt wells are anticipated over the next 20 years, and how much water wells use (legal maximum versus actual use). The Planning Unit is working to a very tight deadline, with the plan addendum due to Ecology early 2019.

Staff Report – Emily McCartan

Emily is working on the final version of the NWSP Report, and will be requesting direction from the NRC on how to move forward with the priorities identified at this year's retreat and follow-up survey (education, recreation, transportation, and riparian ecosystems). She is also working on the WRIA Planning Unit to facilitate workgroup meetings and develop sections of the plan addendum for Ecology and managing communications and social media for Foundation events, including the Watershed Festival and NREP/Stream Stewards.

Allied Program Reports

Nisqually Land Trust – Joe Kane

The Puget Sound Energy Foundation is launching a grant program focused on conservation. And has decided to award \$500,000 to the Land Trust to pay down the loan for the Community Forest purchases. They liked the community driven nature of this watershed – great endorsement. NLT has had an active fourth quarter in transactions: transferred a 35 acre mainstem property to the Tribe (Thurston County jurisdiction on the Pierce County side, through JBLM, accessible only from the river); and finalizing purchase of Anderson Island shoreline properties funded by Pierce Conservation Futures. NLT was also ranked for salmon recovery funding for Nisqually Aquatic Reserve shoreline projects at Johnson Point and Soundview Camp on Key Peninsula (Olympia Presbytery kids' camp, had planned to sell for development, 9 different ecosystems, got a conservation easement to keep it open as a camp and protect the shoreline). As discussed at previous meetings, the NLT Board endorsed I-1631, which is an unusual step but one they felt was important in light of the critical nature of climate action.

Nisqually River Education Project – Sheila Wilson

Water Quality Testing day was yesterday: 32 teachers participated (even with no participation from Yelm). Thanks to everybody who helped out! Chrissy set a new record on class visitations before the testing. The bus driver shortage has affected NREP field trips – usually all classes go out for water quality monitoring on one day, but have had to spread them out this year because there are not enough bus drivers available. The state Washington Service Corps coordinator will be doing his first site visit with Chrissy on a field trip today. Sheila attended the North American Association for Environmental Education (NAAEE) Conference in Spokane, with 1,200 attendees from around the country/world. Invited by NOAA as part of our BWET grant, and had great opportunities to compare and share with other K-12 water quality monitoring programs. The BWET grant program will focus on ocean acidification through nearshore field trips in the spring with student-designed field investigations. In general, there is some indication that environmental education is trending upwards – NAAEE conference last week was the largest since it began in the 1980s, and

many states are adopting the Next Generation Science Standards, which aligns well with traditional practices in environmental education. Longitudinal studies of the long-term impact of environmental education are difficult because it's hard to survey students after they leave school, but anecdotally we know that it is often powerful for many students.

Nisqually River Foundation – Justin Hall

The Watershed Festival was Sept. 29, and it was the highest attended festival recently – 1400+ this year. The Olympian made a video of the event:

<https://www.youtube.com/watch?v=0ujnNHyp80> Thanks for volunteering! Doug Roster, assistant manager at the BFJNNWR, retired after many years. He was a great partner for the Foundation, helping fund education programs and other joint efforts. Justin has been attending the WRIA planning meetings and is working with NLT on grant applications for first round of Ecology project funding. His AgForestry class visited sites on the Columbia River, including the Bonneville Dam, discussing interesting factors in hydropower and fisheries and the importance of collaboration among all stakeholders. The Foundation staff also attended the biennial South Sound Science Symposium this week, featuring a lot of great talks on research happening in the Nisqually.

Community Forest – Justin Hall

Harvest is happening now. It's expected to cover the cost of harvest and put a little bit in the bank (for property taxes and emergency fund). This harvest is a first thinning for forest health, because the stands are too densely stocked for trees to grow older and bigger. Community Forest, NLT, and NIT have met with Ecology on the Clean Water Revolving Fund loan.

Salmon Recovery Program – Ashley Von Essen

Ashley and other Salmon Recovery staff also attended the South Sound Science Symposium. At least a third of the projects involve Nisqually as a partner, site, data source, etc. It's open to the public and a great event to attend in two years when it comes around again. Poster abstracts, videos and recaps are available at <http://southsoundscience.org/>

The Lead Entity has received a request from NLT to transfer funds from the Wilcox Reach Shoreline Protection Project (which has extra funds) to the Busy Wild Creek Shoreline Protection for Community Forest loan repayment. This transfer will provide needed match for the Puget Sound Energy Foundation grant. Ashley distributed a memo and requested approval from the NRC for the transfer, which PSP and RCO support. It was moved and seconded to approve transferring the funds, and the motion was approved unanimously.

Thurston County Subarea Plan – Shannon Shula

The County hopes to receive the draft Environmental Impact Statement from Herrera in the next week or two. It will go through technical review by David Troutt, Patrick Soderberg (Thurston County Solid Waste) Carrie Graul (Ecology), Robert Smith (Thurston County Current Planning) and then go to a public stakeholder meeting. Maya Teeple will be helping cover Nisqually Subarea meetings going forward. The hope is to have Nisqually Subarea public meeting in mid-December, but it depends on the RAP plan – may have to extend contract and move into Jan/Feb.

3. Watershed Council Policies

At the last meeting, it was proposed that the NRC vote on endorsing I-131. Many NRC members are state or federal agencies whose representatives cannot take positions on electoral issues, including ballot initiatives. Funding for the Nisqually River Foundation likewise comes from state and federal sources, meaning that staff time should not be used to support political action. An outside group organized and funded separately could do so, but not with support from NRF staff. Furthermore, the NRC is the Lead Entity's citizen's committee, and the Lead Entity has clear guidance about not taking positions on political issues (it can provide information and education for others to act on, but cannot advocate for or endorse candidates or legislation). The information-sharing function is traditionally the central role of the NRC (similar to other watershed groups in the state). This may be the approach to take on topics like orca recovery, which may have political dimensions – the NRC can provide information/science/educational resources, but likely not ask for a particular vote. Emily, David, Justin, and Phyllis will meet as executive committee to discuss this further, and we may want to create a sub-committee to develop some recommendations or policy.

4. Mount Rainier Institute (MRI) Climate Change Program

John Hayes, MRI Director

MRI and NREP have been partners on the NOAA grant which spurred this program's development. MRI's programs address climate change through the lens of the carbon cycle and the role forests play in storing carbon:

- 60% of the carbon stored in an 80+ year old forest is contained in the large trees.
- Overall, forests in the US are carbon sinks – growing and absorbing carbon. However, this is possible because historically, between 1700 and mid-1900, America forests were intensively harvested, and that rate has now slowed down and forests are being replanted. This is true in most developed countries. Global carbon flux map shows that developed countries are carbon sinks, while tropics/developing countries are losing carbon. This raises social, environmental justice issues around tropical deforestation and global economic development for students to consider.
- According to a 2010 US Forest Service report, Washington stores the most carbon in its forests of any other state. Overall the PNW is one of the best places in the world for forest carbon sequestration because of our climate and geology.
- The largest forest fire complex in Washington history was the Okanogan complex in 2015. \$44.5 million, burned 37,000 acres, three deaths, 100+ homes destroyed. In months leading up to the fire, temperatures statewide were up to 5 degrees above normal in Cascades/whole state. Because of the warmth, SNOTEL showed well-below average snowpack as well. Precipitation pattern was normal – but it was rain and not snow, so not stored. This is what we can anticipate in the PNW: warmer, wetter winters with less snowpack and less ability to store moisture through the summer.

Climate change education programs are challenging for several reasons: it's fairly abstract and hard to translate into hands-on/field-based activities for students; and the “doom and gloom” aspect risks turning students off of the issue. MRI approaches within their typical program framework (3- or 4-day overnight programs) through structured inquiry projects, emphasizing observable climate change impacts within Mount Rainier National Park, and

bringing in current local, place-based examples of positive action on climate change, not just the negative stories (Community Forest, etc.) The program's key goals are:

- Science and ecological literacy on climate change
- Build community –we're all in this together, have to collaborate to fix it.
- Place-based examples of what's happening in PNW
- Foster hope and inspire engagement
- Cultivate a next generation of leaders by encouraging students to pursue climate change and environmental science as a career path

The structured inquiry approach, in contrast to open inquiry (which is more about introducing the scientific process in general), provides a limited number of topics and allows older students to delve into more in-depth, sophisticated research methods and questions about specific content. Content includes:

- Biodiversity – comparing species diversity between older and younger forests; calculate diversity index
- Forest Carbon –measuring species and diameter of trees, plugging data into a sophisticated carbon model, and taking tree cores and determine growth rate/rate of absorbing carbon
- Forest Fuel load – older vs. younger forests, potential for catastrophic crown fires vs. low-severity surface fires, comparing fuel classes and predicting potential fire severity.

MRI has not done a formal study, but pre- and post-surveys of students show they're learning and changing attitudes. Students say "I really get it now," it's "affecting what I want to do with my life," "We heard in elementary school that trees help the environment and clean the air, but never really knew why." MRI wants to reach students of all backgrounds and ethnicities, particularly because they find that students from low-income/first-gen college demographics define success as becoming doctors or lawyers, and have less awareness of other science professions. The program wants to illuminate these career paths and recruit brilliant young minds to work on climate solutions. Gov. Inslee visited a few weeks ago and was led by students in carbon monitoring program. It can be a challenge to bring high schoolers, especially high-achieving students, away from school/sports for a week, but find that it's worth it. This program is a fairly unique model so far: not a lot of overnight environmental education centers are doing climate change. It's become a programmatic theme with everything MRI does now, including with younger students and adult groups. Forestry through the lens of climate change.

Questions:

Can you combat the "doom and gloom" problem by showing different scenarios through modeling? - Students do think about how to better manage forests for carbon. ECOSEL game looks at how our society makes decisions about natural resources – talk about many issues and values (harvest, carbon sequestration, recreation, etc) and work together to bid on land management plans as a group. With kids who are a few years from voting, they start to think about the complexities of making collaborative decisions in a democracy, confronting challenges and negotiations, and understanding modeling as a reflection both of science and the human dimension of natural resources.

Will Stream Stewards class on forestry at MRI include more about carbon and climate change? - It's part of the focus now: looking at both the economic value of a standing tree (board feet worth) and carbon sequestration value.

5. Fostering Resilient Climate Leaders, Communities, and Coastal Ecosystems

Sheila Wilson, NREP Director

NOAA shifted their grant framework in 2015 to focus on “climate resiliency” rather than climate change. NREP wrote an environmental literacy grant in partnership with NREP, South Sound Green, Chehalis Basin Education Consortium, and MRI, drawing from the “viewshed of Mount Rainier” around the state. The target audience is teachers in a train-the-trainers model to impact student learning. The Summer Institute for Teachers (SIFT) is a central component of this work, and continues to focus on climate change with our next grant round as well. SIFT is a free institute that also provides free clock hours (required ongoing professional development for teachers), which is unusual in this field. Teachers are hungry for the information and for tools we provide to make climate-related material hands-on and relevant for students. Curriculum resources are available on the It also gives them a support network, especially those teaching in communities not as receptive to climate science. 40-65 teachers have participated for the three years of the grant:

- SIFT 2016: Oceans, Sea Level Rise, & Ocean Acidification (2016) – went to Pacific Coast, looked at seabirds, zooplankton changes from acidifying oceans, adaptations going on in Aberdeen and Hoquiam.
- SIFT 2017: Mountains, Glaciers, and Freshwater– came to MRI, studied Ohop restoration, ECOSEL game, MORA scientists
- SIFT 2018: Urban Environments, Flooding, and Sea Level Rise – tour of Deschutes watershed from undeveloped upper reaches to developed estuary in Olympia, how urban environments exacerbate impacts of sea level rise.

The grant also planned for three Climate Resilient Youth Leadership Programs. One, at MRI, is ongoing. The others (in Chehalis Basin and Mount to Sound Adventures) did not have the capacity to continue.

Climate Resiliency Fellows is an additional opportunity for teachers, supported by OSPI as an option for a Professional Learning Community (PLC) required for teachers. It gives teachers additional support and funding resources for trips and projects introduced through SIFT. Action projects include habitat restoration with NREP, conducting school waste audits with Pierce County, visiting farmers markets to discuss transportation alternatives and local food, MRI trips, and urban design projects. The Climate Resiliency Fellows website (<http://climate.nisquallyriver.org/>) has a high traffic rate with 1,600 users per month, many of whom visit multiple pages and delve into the resources. The partnerships with the Nisqually Tribe, Land Trust, JBLM, and school districts in the Nisqually, South Sound, and Chehalis watersheds are absolutely vital to making these programs possible.

6. For the Good of the Order

Puget Sound Conservation Districts are sponsoring “Orca Day” volunteer events on Nov. 10.

The meeting was adjourned at 11:42am.