



Meeting Minutes
Nisqually River Council Meeting
February 16, 2018
Yelm Community Center
Information: 360.438.8715

Attendees:

Council Members:

Amy Cruver – Pierce County Council
Gary Edwards – Thurston Co. Comm.
JW Foster, acting chair – City of Yelm
Abby Gribi – Town of Eatonville

Kevin Skerl – Mt. Rainier National Park
Lee Roach – DNR
Ashley Von Essen – Nisqually Indian Tribe

CAC Members:

Phyllis Farrell
Howard Glastetter
Fred Michelson

Robert Smith
Marjorie Smith
Lois Ward

Guests:

Warren Bergh – NLT/NSS
Celinda Adair – Thurston County
Roger Andrascik – NLT/NSS
Jeff Barney – Pierce County
Christina Chaput – Thurston County
Phill Dionne – WDFW

Daniel Hull – Nisqually Reach Nature Ctr.
Terence Lee – Nisqually Reach Nature Ctr.
Darric Lowery – WDFW
Greg Provenzano – Washington Kayak Club
Jim Reistroffer – NLT/NSS
Etsuko Reistroffer – NLT/NSS

Staff:

Brandon Bywater – NRF
Justin Hall – NRF

Emily McCartan – NRF
Sheila Wilson – NRF

1. Call to order, minutes and introductions:

JW called the meeting to order at 9:08am. David is at a meeting at Ecology on Hirst-related funding. This will be JW's last meeting as Yelm's representative, so next month we will be looking for nominations for the balance of his term as vice chair (through July). JW has also stepped down as president of the Land Trust board.

It was moved and seconded that the minutes from the previous meeting be approved. The minutes were approved, as was the agenda for the day.

2. Committee Reports:

Citizens Advisory Committee: Lois provided the report from the CAC's meeting on Tuesday, February 13. The CAC discussed upcoming elections for chair/vice chair (in June), and the history of the group. The CAC is also interested in recruiting some new members, so will be working on outreach and encourage everyone to spread the word to friends and neighbors in the watershed. They also discussed Howard's concerns about Alder Dam, and decided to ask

Howard to draft a letter summarizing his position for the CAC to review and present to the NRC. Other topics discussed were efforts to limit logging in the Powell Creek Manke property, Conservation Futures, net pens, and orca recovery.

Chair Report: No chair report this week. David is participating in a meeting at the Dept. of Ecology to learn about funding available under the new *Hirst*-fix water bill.

Staff report: A small working group has begun meeting to shape the Status Report on the Nisqually Watershed Stewardship Plan indicators. Emily will provide updates as this process goes along, aiming for a final report to be presented to the NRC in June. The NRF has also applied for a federal watershed planning grant from the Bureau of Reclamation, to support the NWSP Status Report project. The grant application requires a formal resolution of support from the watershed council. Emily presented the draft resolution and requested a motion to approve it. It was moved and seconded that the NRC adopt the resolution, and the motion was approved unanimously. We should know by June if we were awarded the funding.

3. Allied Program Reports:

Nisqually Land Trust:

- JW gave an update on the NLT's projects. The Board signed resolutions last night to allow NLT to borrow funds to purchase a tract (640 acres) in the Upper Busy Wild Creek watershed for the Community Forest. It's a significant move and NLT had to move quickly or lose it. It would protect a very important piece of land for the Busy Wild and Mashel. It will be logged sustainably to improve forest health and protect the watershed.
- New NLT officers are Brian Sullivan (President), Mary Gentry (Vice President), Kathy Mix (Secretary) and Suzanne Nelson (Treasurer).
- NLT Auction is coming up on March 17. Wear green and bring green!

Nisqually River Education Project:

- Sheila reported on yesterday's Winter Water Quality Monitoring Day: 42 teachers monitoring at 36 sites. It was a big push by our staff, along with volunteer help, including Etsuko and Warren, with some of the groups.
- Last month's Eye On Nature fundraiser raised over \$2,000. Thanks to all the supporters and to Fish Tale Brew Pub for their support and contributions. Now looking for volunteers for the EON field trips to help students do NatureMapping at the Refuge, identifying habitats and learning about ethnobotany. Volunteer trainings on 3/15 and 4/17 at the Refuge.
- Student GREEN Congress is coming up on 3/22, looking for volunteers as well. Killer Whale Tales will be giving the keynote.
- The Thurston Shellfish Protection District has approved full funding for spring Nearshore field trips.
- Sheila is working on an EPA grant to create some cooperation between watershed education groups throughout the state, including helping to start a new group in the Puyallup.

Nisqually River Foundation:

- Justin continues to work with Wilcox Farms on restoration. They want to do a setback levee and are applying for Floodplains by Design grant. It will be a long process, but they are

willing to work with us. Justin is also still participating in AgForestry, which met in Olympia this month to talk about state government and meet with representatives.

- NRF is still looking for a bookkeeper (to be shared with NLT, SPSSEG, and PSI). The organizations have done some interviews and hope to make an offer this month.
- Sheila, Emily, and Justin attended Marian Bailey's retirement party from the Refuge. The Refuge doesn't plan to replace her position (biologist) at this time.

Community Forest:

Hancock is currently the largest landowner in the Nisqually Watershed. They own the Kapowsin Tree Farm. When they bought it they divided into 6 tranches or investment pools. The way Timber Investment Management Organizations are set up it means they have to sell it at the end of the investment term, which is quickly coming up. First 1/6th of the Kapowsin Tree Farm went up for sale this year. The Community Forest wanted to make a bid, but was going for a premium and it turns out that even if we could have pulled together a bid we were never in the game. There are four sections along the Mashel that were a part of the sale that we're very interested in. We may approach new owners to sell us a portion of it. The NCF just completed its annual planning retreat. Our first harvest probably this summer, will have public meeting first. The NLT owns property right next door to the Community Forest that was thinned this year. We plan to do something similar on the Community Forest property. Will plan a field trip up there once the snow has melted.

4. Nisqually River Cleanup Event – Greg Provenzano, Washington Kayak Club

This spring, three of WA's larger recreational boating clubs are putting together a cleanup on the Nisqually. It will be held on April 21, provided there's enough streamflow. They are using the annual Green River Cleanup as model. This could potentially tie into the Water Trail project. Event will rely primarily on the clubs to have boaters go down in different sections of the river to collect garbage, but will also need volunteers at water access sites to check in boaters, staff first aid stations, and collect trash for drop boxes. LeMay is donating drop boxes and hauling services for collecting trash, and Thurston and Pierce Counties will help defray costs of disposal. Greg is working with Centralia City Light to use Nisqually Park and McKenna Park for staging. Boaters will go from McKenna to the Yelm Hydroplant and Nisqually Park to 6th Avenue for sure (boaters need to be fairly skilled because of log jams and wood hazards). Still deciding whether to extend through the Refuge and Luhr's Landing. USFWS may not have time to support an event this year, but still working on the possibilities. Greg would welcome connections to user groups with equipment and skills to boat in the lower reaches – they'd like to include it if there is enough interest. The first question people have asked when approached about this event is if the NRC is a partner, so Greg is here today to ask for the Council's support and assistance in making connections.

Fred asked if they planned to get a flat-bottom boat to pick up debris with a crane for stuff of bigger magnitude? Greg: We're not concentrating on stuff that would be that big. In Green River, collecting stuff with kayaks and rafts has worked just fine. Would need different permission to yank things like vehicles out of the river. Date of April 21st was chosen because all 3 boating clubs were available, and we think there should be sufficient flow.

By consensus, the Council agreed to give their support to this effort. JW noted that it will turn into a pretty significant event, and Yelm is excited to be a part of it.

5. Nisqually Reach Aquatic Reserve/Nisqually Reach Nature Center

Program Overview – Daniel Hull, Executive Director

Presentation link: <https://www.slideshare.net/Nisqually/nisqually-reach-aquatic-reserve>

The Nisqually Reach Nature Center (NRNC) is a non-profit that has been operating for 35 years. Proud to be a longtime partner of NREP/NRC efforts. NRNC is the site proponent of the Nisqually Reach Aquatic Reserve, created in 2011 through DNR's Aquatic Reserve program. Currently working with DNR and other partners to restore the boat launch at the Reach, which was built in the 1950s and destroyed in a storm last winter. The Aquatic Reserve designates a 90-year conservation easement area, with evaluations every 5-10 years. Might want to make it bigger (ex. to include more of McNeil Island shoreline for additional marine buffer). Aquatic reserves are usually about marine habitat. DNR manages all subtidal habitats in Puget Sound.

Lots of Aquatic Reserve programs match up with NRNC activities in education outreach and research through citizen monitoring. Citizen Steward Program has 140 stewards participating with 8 different reserves in South Sound to work on conservation activities. Citizen Stewards volunteer through their local reserves, and meet together with other regional stewards to talk as a cohort. A large part of NRNC's role is finding rich stories about these habitats to help people connect with, manage, and understand them, whether in the beach or in the classroom. Partner with numerous other community organizations, including NREP, to deliver education programs.

- Eye On Nature – started 8 or 9 years ago with NREP, ESD 113, and BFJNNWR, to bring kids for field trips at the Refuge. Program has grown a lot, now serving about 740 students, many low-income.
- Nearshore field trips – partner with NREP, Taylor Shellfish. Includes hands-on classroom activities as well as beach activities.
- NRNC Summer Camp – running for 17 years. Hold five annual camps at the NRNC and one at Anderson Island. Kids do science but also art (estuary species batiks, bird illustrations focusing on morphology). Recently added an overnight trip to Mount Rainier, to see the glacier and map the watershed. May want to build this out through partnership with NRF and NRC members so campers can visit some conservation areas in the watershed on the way. Kids' comments show how much they get out of it, and genuine appreciation for volunteers.

The Aquatic Reserve has moved forward with the help of many, many partners (Citizen Stewards, Nisqually and Squaxin Island Tribes, NRC/NREP, Stream Team, South Sound Green, Black Hills Audubon Society, DNR, WDFW, BFJNNWR, USGS, foundations, and others). The strategic plan for NRNC relies on continuing to build partnerships.

Citizen Scientific Monitoring – Terence Lee, Aquatic Science Technician

Presentation link: <https://www.slideshare.net/Nisqually/nisqually-reach-nature-center-citizen-science-88550192>

NRNC has been running citizen science projects for over 6 years, a major community effort focusing on forage fish and pigeon guillemot surveys. Forage Fish surveys are done in partnership with WDFW and DNR. Goal is to fill in data gaps in locations on the Sound that

weren't getting surveyed (survey program started in 1970s and 80s, but didn't cover everything). WDFW and DNR have joined the effort to catalog all of Puget Sound for spawning habitat for different species. Forage fish are important with vital role in food web. Sand lances, for example, are not much more than 6 inches, but they feed on smaller species like plankton and are eaten by salmon, sea birds, marine mammals, forming a critical link in the food chain. NRNC surveys help fill in some of the gaps in understanding their populations. Monitor at DuPont Wharf and 7 other sites on a monthly basis. Samples are brought back to NRNC for processing and lab analysis, using updated vortex technique (a major improvement from old panning method). Looking for surf smelt and sand lance eggs to document times and locations of spawning.

The Pigeon Guillemot Breeding Survey covers a large area across South Sound, and data is also shared with the State. Pigeon guillemot is a year-round Puget Sound resident and a charismatic species (sing, have bright red feet and mouths). They feed exclusively on sculpin and gunnel fish. Surveys are conducted weekly through breeding season from June thru August. Document nesting habitat information, including number of birds, chicks, what kind of prey and how frequently chicks get fed. NRNC helped start a collaborative database online with the Whidbey Island project. Allows you to enter survey data and generate statistics and visualizations immediately. Survey primarily looking at breeding success, not focused on climate/environmental factors year to year.

These programs are big community efforts that couldn't succeed without partners and volunteers. Assistance comes from AmeriCorps, WCC crew from NIT, Camp Wa-Ya, and Point Defiance ZooGuides. Provide DNR, WDFW, and other agencies with critical information to protect habitat (which indirectly protects salmon). Tie-in with PSP Vital Sign indicators assessing health of Puget Sound (forage fish and birds are both indicators).

Questions:

Phyllis – How is NRNC funded?

- Nonprofit, so grants and private fundraising. Used to be a chapter of Audubon. Independent since 1986, still have a good relationship with them.

6. Thurston County Planning Updates – *Christina Chaput, Thurston County*

The Habitat Conservation Plan for pocket gophers is still in progress. Consultants and staff are working through USFWS comments and verifying that assumptions reflect what's achievable. The county is working with City of Tumwater and Port of Olympia to make sure that their HCPs line up, so that if/when UGA properties are annexed into the city, they should be able to meet requirements without too much work. Board of Commissioners still working directly with USFWS regarding mitigation – how much is necessary, how much land/gophers need to be conserved. Board of Commissioners is still discussing Conservation Futures as well. Staff assumes that it will be used for mitigation. CF did not have a grant period this year on that assumption. Chris confirmed that the Board of Commissioners had received the NRC's letter expressing concerns about this planned use of CF funds, but that it continues to be part of the proposal. JW noted that the Commissioners face a difficult balancing act, and while we don't support using CF in this way due to the impact it will have on NLT, it is ultimately the Commissioners' decision to make. We hope the funds will be available for NLT in the future.

Nisqually Subarea Plan is up for review. Materials regarding upcoming public meeting on March 3 are available here today, and county staff will come back to give a longer presentation to the NRC next month.

7. Forage Fish – Phillip Dionne, Washington Department of Fish & Wildlife

Presentation link: <https://www.slideshare.net/Nisqually/wdfw-forage-fish>

Forage fish are:

- An ecological group (not genetic) of small, silvery, highly fecund, schooling fish. Many other species eat them, so they are a vital conduit of energy between lower-level producers and higher level consumers (salmon, orcas, mammals.)
- Valuable indicator of ecosystem health. When sea lions, marine mammals, and birds starve, it's usually because there's not enough forage fish in the area.
- Act as a prey buffer for salmon – smolt look similar and have similar predators, so more forage fish leads to better survival for juvenile salmon.
- Account for one third of global fishery, by mass. They are even more valuable left in the ecosystem, because they support salmon, tuna and mackerel.
- Cultural significance – called “salvation fish” because their runs arrived in the winter between salmon runs, and could make the difference for communities surviving the winter.

Current status: don't have enough information for firm trends on many species. What we do have shows some concerns. Sea birds that feed on forage fish are more likely to have declined than those that feed more broadly. There are many outstanding questions. Challenges include:

- Overfishing and bycatch – hard to tell if populations are declining with schooling fish
- Naturally variable populations – boom and bust cycles unrelated to fishery, so hard to say if declines are natural or human-caused
- Climate change – some species prefer warmer or colder water, so more frequent/longer warm water events shifts the population, leads to a less robust ecosystem.
- Decline in nearshore spawning habitat – development, sea level rise
- Water quality – shore spawning eggs are exposed to surface waters every day with tide, and toxins are concentrated in the surface

Species, broken down by where they spawn:

Pelagic (open water): Northern Anchovy

- For years, didn't see a lot of anchovy in Puget Sound. Many more reports starting in late 2015 – boom and bust fish cycles probably the reason.
- Not monitored directly. UBC grad student did some digging on boom and bust cycle via herring surveys in Georgia Strait. Found an increase in herring corresponded with anchovy reports in newspaper articles – similar pattern when compared with beach seine data. Curious to see how long these schools will persist and their impact on ecosystem.

Anadromous: Longfin Smelt, Eulachon Smelt

- Longfin is iconic Puget Sound species, but don't know a lot about them. There is a landlocked population in Lake Washington.
- Lot of attention on eulachon, which use similar habitat. Called candlefish because of high fat levels, solid at room temperature. Major historical trade routes across the Cascades were called “grease trails”.
- In 1994, dramatic decline in eulachon population in Columbia River and others. They were listed as threatened, got more attention. Fisheries closed in 2011, opened very limited in 2014/15.
- Survey larvae via nets in river flow to estimate number of adults. Fishery and larvae surveys map pretty closely.

- Looking into alternative assessment methods using environmental DNA (genetic signatures in waters samples), including new experimental techniques. Study gave first indicators of longfin vs. eulachon populations, and confirmed a lot of the estimates (predicted that eulachon genetic signature would peak when adults return to spawn, and as expected, the larval signature peaked 4 weeks later).

Nearshore: Surf Smelt, Sand Lance

- These species are the most studied because they spawn on the beach, where it's easy to survey. Traditional surveys collect beach sediment, sort it to egg-size material (1-2 mm), winnow by weight (eggs are lighter), and examine under microscope. Now, mostly using the newer vortex method, which is much more reliable and captures 90% of the eggs vs. 60% by winnowing.
- Surveys conducted by citizen science groups and WCC crews (with legislative funding support). With partners, can survey most of Puget Sound in 6-7 months, collecting 200 samples/month.

Lower intertidal/subtidal: Pacific Herring

- Spawn on vegetation, lower on the beach. Collect vegetation with a double-sided rake dragged on the bottom to survey for where they're spawning and give an estimate of abundance.
- 22 stocks around the Sound (3 major genetic groups) with discrete spawning times and locations (mostly Jan-April).
- Herring is a vital sign indicator for forage fish for PSP. Central population has been pretty stable since 1970s. Cherry Point genetic stock has declined over 90%, but don't know what's driven it - some evidence in other stocks that they have 40-year cycles, so if that's the case, should see an incline soon. Stability in other stocks has been driven by two large sub-groups, but others, especially in South Puget Sound, have been pretty low, sometimes unable to detect spawning. Distribution is shifting even though population is stable.

Nearshore survey data is published online by WDFW. Used regularly for hydraulic project approval.

Questions

Phyllis – what's the availability of fish in the Nisqually Reach area?

- Beach seine study ongoing with USGS and NIT shows pretty strong signals of good survival. Many possible factors, may be related to predation.

Daniel – Is there interest in researching increase in anchovy and impact on other species?

- Complex relationship between forage fish species. Herring aren't doing so well, maybe more anchovy will help. Chinook probably not impacted. We may have shifted to a jellyfish regime, where they're competing with forage fish. Don't have enough information. Interested in doing more plankton, zooplankton research for larval densities, and want to see more surface tows looking for juveniles to get a broader ecosystem picture of multiple species, rather than just one at a time. Continuing herring research may look at removing jellyfish from some systems to test their impact. Overall, will probably shift more towards index with beach survey.

Roger – Any idea about the effect of the blob?

- Theory that it's one cause of the anchovy boom. They might respond positively to warmer water – or the opposite, that the warmer water has forced them into Puget Sound. Outer coast anchovy population seems to be down in California, which isn't doing as

well as Washington coastal population. Sardine, another forage fish further offshore, had to close fisheries since 2015 because of low biological index. Eulachon also seems negatively impacted – correlation between warm water years and decreased eulachon.

Fred – How much has forage fish in South sound deflated?

- More anchovy than there were 5 years ago. Herring is a quandary. Spawning stocks don't remain where they spawn. Several stocks have been down, but if you ask salmon fishermen, there's no lack of herring in South Sound. The model is based on idea that when they're not spawning, they act as mixed population, so populations that spawn elsewhere could be doing better and boosting overall numbers. No idea for surf smelt abundance. Anecdotally, sand lance had a shorter spawning period in the North Sound a few years ago, and a class that has been monitoring has seen a reduction in size. Not enough data elsewhere.

Phyllis – Orca funding effect for this program?

- Not aware of any element in that bill that would go directly to forage fish. NTA process has a few requests in there, so we may get some funding if they direct it that way.

8. Nitrate Fertilizer Update – Gary Edwards, Thurston County Commissioner

Gary clarified his comments recorded at the previous meeting regarding DNR forestry practices. He has since talked with DNR (and many others) and was assured that they are not applying nitrogen fertilizer. Private industry may use it, but DNR does not. He is working with DNR on researching the issue. Gary also met with Weyerhaeuser, who stated they have permits for everything they apply on their properties. It's still not clear what impact nitrates are having on water quality and doesn't appear that anyone has a baseline. Gary has been told the issue is more significant in salt water. He emphasized the need to work on Puget Sound water quality from our area all the way up to Victoria and the Fraser River. He hopes to continue collecting information and bringing awareness to the issue.

9. Nisqually River Water Trail – Justin Hall, Nisqually River Foundation

The NRWT Draft Plan was first presented in August last year. After reviewing with stakeholders, including the Tribe, who were involved throughout the drafting process, we're ready to move forward today with requesting NRC approval. The goal of the NRWT is to help share the river with more people while managing recreation to preserve the safety and quality of the environment. NRC led this effort through an advisory committee and a work plan, floating the river to evaluate potential access sites from Nisqually State Park to Luhr Beach, and conducting public outreach via online survey (146 responses). The final Concept Plan (available from staff/online here: watertrail.nisquallyriver.org) was developed from McKenna down. The upper watershed was not included at this time because of concerns about increased access points causing overfishing on steelhead and rainbow trout, which would have significant impacts on listed steelhead. The plan includes map handouts (available from staff) for how to get on the river, hazards and notes. NRWT logo will go on handout materials and access point signage.

Seeking the NRC's approval to start publicizing and work on an implementation plan to increase number of access sites. If the Council approves, we will convene an implementation forum and begin working with partners on expanded access options and other implementation actions.

Questions:

Fred – Will there be ramp improvements at the Yelm Powerhouse and 6th Avenue? Are Centralia/WDFW open to funding improvements?

- Haven't talked about funding, but Micah Goo is very supportive of recreation on the river. Don't know how much use the river gets, so may work with Centralia on a camera or some other way of getting a count established at the park.

It was moved and seconded that the NRC approve the water trail plan. The plan was approved unanimously.

10. For the Good of the Order

- Kevin – Mount Rainier has a new superintendent, Chip Jenkins, a 31-year veteran of Park Service. He's very familiar with the state and regional parks.
- Roger – thanks to JW for all his contributions to the watershed and for serving as vice chair of the NRC, and president of the NLT. We know we'll see more of you, but in the meantime, we wish you the best of luck as Mayor.