



**Meeting Minutes**  
**Nisqually River Council Meeting**  
**August 17, 2018**  
**Mount Rainier National Park, Longmire Community Building**  
Information: 360.438.8715

*Attendees:*

**Council Members:**

Amy Cruver – Pierce County  
Dan Calvert – Puget Sound Partnership  
Kevin Skerl – Mount Rainier National Park

Gary Stamper – Lewis County  
David Troutt, chair – Nisqually Indian Tribe

**Citizens Advisory Committee Members:**

Phyllis Farrell  
Ed Kenney  
Karelina Resnick

Bob Smith  
Marjorie Smith  
Lois Ward

**Guests:**

Roger Andrascik – NLT/NSS  
Jeff Barney – Pierce County  
Joe Chavez – DNR  
Chris Ellings – NIT  
Chip Jenkins – Mount Rainier National Park

Rebecca Lofgren – Mount Rainier National Park  
Jim Reistroffer – NSS  
Etsuko Reistroffer – NSS  
Dan van der Elst – Mount Rainier National Park

**Staff:**

Brandon Bywater – NRF  
Justin Hall – NRF  
Amber Left Hand Bull – NRF

Emily McCartan – NRF  
Sheila Wilson – NRF

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

David called the meeting to order at 9:15am. The minutes were approved, as was the agenda for the day.

**2. Committee Reports and Updates**

**Advisory Committee Reports**

*Citizens Advisory Committee – Phyllis Farrell*

The CAC did not meet this month due to vacation schedules.

*Chair Report – David Troutt*

The Prey work group for the Orca Task Force will submit its report to the full Task Force on Tuesday. A draft report is due in September, with the final report going to the governor in November. Snake River dams have been a major topic of discussion. Predation control in Columbia and Puget Sound has not received as much focus. Noise and toxic issues are also being looked at. David and others continue to push for some aggressive actions on prey survival while the political focus provides impetus for action. NOAA analysis of diet composition suggests that resident orcas feed on Chinook stocks from Sacramento through

Canada throughout the year. Timing is an issue, especially from November through May, when they would depend on springtime Chinook stocks that have been lost from the Nisqually and other systems in Puget Sound and elsewhere. Most of the immediate focus has been on existing salmon populations, rather than on restoring some of those lost spring populations. Resident orcas are at a critical moment, with 5-10 years before their shrinking populations become unrecoverable. Residents diverged from mammal-eating transients a long time ago, and their physiological jaw and tooth structure doesn't allow them to eat larger prey. Salmon-feeding orca populations in Alaska continue to do well, but it would be a shame to lose the Puget Sound populations if we can do something about it. There is some discussion about reintroducing spring Chinook in the Nisqually and Puyallup using surplus hatchery stock from the White River.

USGS has started modeling flood impacts on I-5 at Nisqually. Based on the most conservative, very preliminary design estimate, the project would likely cost at least \$1 billion. Improvements along the entire Mounts Road-Tumwater corridor would be up to several billion, involving state and federal funding.

*Staff Report – Emily McCartan*

Stream Stewards 2018 is underway, with 22 participants including 5 kids and NIT AmeriCorps volunteers.

Update on the Stewardship Plan Report: top priorities that have emerged from retreat and survey responses so far are:

- Riparian and estuary ecosystem functions
- Transportation
- Recreation (including trail development)
- Supporting economic return for sustainable natural resource industries


Input on the report via survey or comments to Emily is still welcome. A final draft of the report will be shared at the September NRC meeting.

### **Advisory Committee Reports**

*Nisqually Land Trust – Roger Andrascik*

The NLT made three new hires: AmeriCorps, Land Steward, and Administrative Assistant. Annual float trips last month were very successful. Closed on the small Carr property (2 acres) and have a few additional things pending.

The Board met last night and passed a resolution supporting I-1631 (carbon pollution fees), believing that the NLT mission will be threatened by climate change and the board has a responsibility to take urgent action. The resolution encourages the Washington Association of Land Trusts to take a similar action at their August meeting. It is unusual for to take a political stance like this, but this is a point where the Board feels obligated to take action. NRC members noted that this initiative is an important movement and the result of a long process of compromise among stakeholders. The Tribes and many environmental groups support it. It provides a good opportunity to make a big impact in the ecosystem for Puget sound/statewide issues. A briefing was requested for the September NRC meeting to learn more and discuss.

<h2 style="margin: 0;">Nisqually River Education Project</h2> <h3 style="margin: 0;">2017-18 Summary</h3>					
<u>Activity</u>	<u># students</u>	<u># volunteers</u>	<u># hours/trip (avg)</u>	<u>total # student field experience hours</u>	<u>total # volunteer hours</u>
Fall Nisqually Nearshore	350	42	5	1750	210
WQ October	984	128	2.5	2460	320
Tree planting	457	74	2	914	148
salmon tossing	250	45	2	500	90
WQ February	814	71	2.5	2035	177.5
Student GREEN Congress	500	159	4	2000	636
Eye On Nature	476	94	4	1904	376
Invasive Species Removal	156	28	2	312	56
Nisqually Nearshore	578	73	5.25	3034.5	383.25
<b>GRAND TOTALS</b>				<b>14,909.50</b>	<b>2,396.75</b>

Great final totals for the 2017-18 school year accomplishments, with 14,909 student field experience hours. Because schools cycle through field trips from year to year, we may not match these numbers next year. NREP would like to see more volunteer hours to improve adult to student ratios. NREP’s new AmeriCorps volunteer will be starting next month. OSPI has signed off on the Climate Resiliency Fellows program, which will receive funding through ESD 113 as part of the governor’s effort to support climate change education. There are three planting sites lined up for the fall, in Middle Ohop, Mashel, and Coyote Ridge on base. Brandon is working on improving the water quality manual and website for teachers.

*Nisqually River Foundation – Justin Hall*

Morgan Greene visited several weeks ago. She says hello to everyone!

*Community Forest – Justin Hall*

The first harvest in the Community Forest may have already started (or will start soon). A funding application to the Washington Wildlife and Recreation Program has been submitted, with final presentations from Kirk Hansen and Justin next week. DNR is collecting information about all community forest purchase efforts in the state, at the Legislature’s request; Justin will send out the link to pass along. Input is due by Sept. 28. I-1631 includes money for community forest purchases.

*Salmon Recovery – Chris*

Final SRFB applications are due this month (NRC approved the project list at the last meeting). One major current restoration/construction project is Engineered Log Jams (ELJs) on the Mashel in Eatonville. ELJs are part of the updated habitat recovery strategy, and

studies have found that they require maintenance at least every 10 years because the system isn't able to recruit enough large wood on its own. The goal for the new restoration strategy is to see at least 70 functional logjams in the Mashel reach between Boxcar Canyon and the mouth (currently there are about 40). ELJs in many places are providing the only pool habitat, important for both juvenile salmon and spawning. The long-term goal of having log jams that are self-sustaining ties into the Community Forest work to restore forestlands, because currently the upper watershed is being logged so heavily that it's affecting the river habitat. A common theme in restoring habitats with damaged physical processes is that you can't do a one-time project and walk away: they need ongoing input to sustain them while larger systemic recovery goes on. The Native Plant Crew has also been doing summer maintenance on past plantings. Some are now self-sustaining forests, some require ongoing care. The crew is working to assess the status of plantings throughout the watershed and will eventually have a cumulative presentation on all the restoration work done.

Research on juveniles in the estuary with USGS is showing interesting data on how Nisqually Chinook and other stocks are using the estuarine environment over time. Need to understand the impact of outside hatchery stocks on the bioenergetics of the delta and how to ensure enough space and food are available for natural-origin fish.

Adult Chinook are in the river, fisheries have begun to catch, and spawner surveys will start soon. Continuing the aggressive 7-year adult supplementation effort: moving fish from the hatcheries to middle and upper basin to kickstart natural production.

Beginning to analyze acoustic data on the early marine survival of juvenile steelhead in Puget Sound for this year. Last year, out-migrating Nisqually steelhead had good survival even though conditions were bad in most other places – believe that massive recruitment of young anchovies in South Puget Sound helped them by redirecting seal predation away from steelhead routes. Anchovies are down again this year and we will see if steelhead survival is down as well.

The Nisqually WRIA has an early funding opportunity for ESSB 6091 water resource planning for projects restoring water quantity in tributaries. First application round is due in October, and the Tribe is pushing to crosswalk the water quantity goals with salmon recovery priorities. Possible projects include implementing capital projects from the Eatonville Stormwater Management Plan – hasn't gotten enough traction through traditional salmon recovery funds, so this presents a good opportunity to get these major projects done, from rain gardens to major rerouting of catchment basins. Cumulatively, these projects would mean more water in the Mashel, and better base flows and fewer flash floods in Lynch Creek that are damaging habitat.

### **3. NRC Nominating Committee for 2019 Officers**

Officer nominations for chair and vice chair of the River Council are open now. The nominating committee will collect and report out on nominees at the September NRC meeting. If you are interested in volunteering to be on the nominating committee, let Emily know.

#### 4. **Mount Rainier in the Nisqually Watershed** – *Chip Jenkins, Superintendent*

Mount Rainier is used as a physical – and spiritual – reference point by people all over the state, physical and spiritual. As part of the National Park Service, it shares staff and resources with parks in the North Coast and Cascades Network (NCCN). It's also part of a vibrant ecosystem with 9,000 years of human history (current affiliated Tribes are Nisqually, Puyallup, Yakima, Squaxin, Muckleshoot, and Cowlitz). Mount Rainier (MORA) was the 5<sup>th</sup> national park created, established in 1899. The park design was conceived of as a “windshield wilderness,” designed for auto touring, with the road network offering gradually expanding views of the mountain to create a sense of anticipation and arrival. Part of MORA's mission is to preserve and protect the iconic original design (“Parkitecture” and road-based infrastructure) while also providing backcountry and wilderness experiences that public increasingly expects. MORA also works to protect and restore the ecosystem both within the park and as part of a regional network of public lands, working with bodies like the NRC. A long-term ecological monitoring network maintains vital signs of the park and helps inform determinations about where further research is needed. 98% of the Park is designated Wilderness.

Current visitation is up 8% over 2017. 10% are active duty military. 12,346 wilderness permits (for parties, not individuals) were granted last year. The Park is like running a municipality in complexity of services. Operating budget is \$24 million in total expenditures:

- \$12 million base appropriations
- \$6 million project appropriations (compete amongst other parks)
- \$6 million fee revenue (80% retained by park, 20% to other parks not collecting entrance fees. 55% of retained fees required for deferred maintenance.)
- \$1.3 billion in infrastructure assets
- 100 permanent employees (25 currently vacant), 200 temporary (mostly project-funded), 1,700 volunteers. Volunteer hours effectively double the workforce.

#### Challenges

- Increasing visitation for 3-4 consecutive years – long waits at entrances and parking lots during peak seasons is unacceptable to the Park, but a hard problem to solve. Visitation areas are also very concentrated at Sunrise and Paradise, with resource impacts on meadows (decades of restoration work at Paradise).
- Deferred maintenance – \$12B across NPS system, a priority for the current administration. \$150M at MORA includes replacing wastewater treatment systems (7 park-wide); repairing historic structures; ensuring trail system is adequate for the volume of people. \$13M projects lined up for next 4 years.
- Climate change – typical of unique PNW mountain rivers, aggradation and flooding in river channels are raising by 10-40 feet, threatening roads and access infrastructure in Nisqually and Carbon valleys that are built right next to the rivers.
- Changing societal expectations – increasingly diverse visitor demographics, not matched by diversity of workforce. The Park is studying how best to meet needs of more diverse audiences with recreation and programming.
- Staff recruitment and workforce housing – housing market in the area has converted to vacation rentals from AirB&B/VRBO, no longer available for park employees. Seasonal employees have quit and permanent staff have turned down job offers because they can't

find a place to live. 20-30 positions are currently funded but not filled. (This is not unique to MORA, happening all over western US in tourism-based economies.)

## **5. Protecting Native Aquatic Species and Engaging Park Visitors: Mount Rainier National Park Fish Management Plan (FMP) – Rebecca Lofgren, Aquatic Ecologist**

Fish management has shifted dramatically at MORA since the Park was established. Fish were stocked in lakes (originally fishless) between 1915 and 1970s to provide recreational fishing for visitors. (A 1929 mosquito control plan involved draining small ponds and putting oil on larger bodies of water, as well as planting fish, throughout the Sunrise area). 9 million fish (West Slope cutthroat trout, Eastern brook trout, rainbow trout) were stocked in 43 lakes and streams in the park. Current management decisions are NPS policy, based on science from inside the Park and outside studies, informed by professional judgment from NPS, state, and Tribal biologists, and adaptive as we learn more over time. MORA is recommending this preferred alternative to the regional director for the FMP – it is not formally adopted yet.

### *Planning History*

- 1966 FMP was primarily a stocking plan
- 1989 FMP focused on trout removal but was not fully implemented
- 2013, MORA began revising fishing regulations (dating from the 1950s)
- 2015 Bull Trout recovery plan (USFWS) finalized – park implementation action was around removal
- 2016 FMP focused on native species protection
- Monitoring has also evolved
  - Through 1980s, surveys focused on stocking
  - Early 1990s, documenting species present
  - 2001-2003, first park-wide fish inventory
  - Since 2010, genetic surveys, eDNA, redd and snorkel studies, mercury
  - Collaborative effort with Puyallup Tribe and USFWS studying life history of White River watershed bull trout

### *Current Populations*

Native species within the Park include bull trout, Chinook salmon, and rainbow trout/steelhead (all threatened), Coho salmon (species of concern) and pink and sockeye salmon and mountain whitefish. Introduced species are brook trout, Intermountain, West Slope, and Yellowstone cutthroat trout, and kokanee. Designated critical habitat in the park is mostly trout (Chinook and steelhead only come up to the boundary). Bull and brook trout overlap most in Carbon River, where they compete with each other and can hybridize. Removing brook trout at Crater Lake increased bull trout returns tenfold. Non-native fish introductions are still occurring. A long-term monitoring study at Deadwood Lake first observed stickleback in 2010, and now hundreds are visible throughout the lake. Fish removal efforts produce visible results for other species (brook trout removal from Hidden Lake saw amphibians increase from <10 to 100s).

### *Draft Fish Management Plan*

The purpose of the FMP is to conserve native fish populations and restore aquatic ecosystems by reducing or eliminating nonnative fish, and provide recreational fishing opportunities for visitors. Started with updating current fishing regulations:

- Catch and release of native species and retention of nonnative species
- Mechanical nonnative brook trout suppression in Carbon River and 10 lakes – with adaptive management including pesticides if not successful.
- Implement public education program about new fishing regulations (aligned with state regulations for consistency where possible), purpose and goals of FMP, and importance of native fish.
- Public engagement through a fishing pamphlet identifying species in the Park, and citizen science fish removal projects.

Questions:

- What's the story with the thousands of tadpoles in St. Andrews Lake?
  - Probably Cascades frogs. Climate change will impact shallow-pond reliant species that have very short windows for metamorphosis.
- Are there barriers for anadromous fish that prevent them from getting into the Park?
  - Anadromous fish are documented outside the Park, but not inside yet.
- Why were the 10 lakes selected for fish removal (funding, practicality, other protected species)? If the goal is to protect amphibians but those populations are being squeezed by climate change anyway, is there flexibility to increase the number of lakes being targeted for invasive fish removal?
  - Beyond the 10 targeted lakes, mechanical removal is difficult because of depth and connected habitat, meaning it would require pesticides immediately. If adopted, this plan would be a 10-year implementation process with additional learning and adaptive management opportunities down the road.
- What's the funding for implementing this FMP, if adopted?
  - Initial implementation funding is available, continuing to seek. Visitor fishing and citizen science are essentially components of the plan that don't require additional funds.
- Do you intend to include FMP regulations in WA state fishing app?
  - Yes, eventually, when the plan is adopted.

**6. Mount Rainier's Wilderness Stewardship Plan Update – Dan van der Elst, Wilderness District Ranger**

Dan supervises 22 backcountry rangers, when fully staffed. The proposed update to the Wilderness Stewardship Plan addresses steadily increasing demand for back-country permits against other Park mandates for preservation (1988 wilderness designation, 1999 Historic Landmark designation, 2001 General Management Plan, and infrastructure changes from flood damage in 2006-2008). Maintaining the “wilderness character” of backcountry areas is defined as: natural (primeval landscape unaffected by humans); undeveloped; untrammelled (land manager has taken no actions to manipulate a biophysical process); offers solitude or primitive/unconfined recreation.

Prior to 2013, advance permit requests averaged 800/year. In 2015, the last year for faxed forms, there were 2,700. The system broke down in 2016 and there were no advance

reservations. An online form was implemented in 2017, with 5,900 requests in the first two weeks. There were 10,000 requests for the season. Staff do a ton of work to juggle dates and itineraries to maximize the number of permits granted.

*Plan Timeline:*

- Feb 2015 – internal and agency scoping
- Nov 2015 – public scoping and comments (Tacoma, Seattle, Ashford, Buckley meetings, plus write-in comments)
- Summer 2017 – draft alternatives developed
- Draft in Fall 2018 for public review
- Final EA published winter 2018

The planning team considered 30+ topics, looking at how they are currently managed/not managed and other approaches that might better meet objectives (resolve longstanding issues, identify changed conditions, etc.)

Key elements that stood out in planning included:

- Zone adjustments in the General Management Plan (GMP prescriptive management zones and backcountry management zones don't align, and existing use patterns don't manage for desired conditions)
- Visitor Use: GMP states that the Park will not increase its developed footprint. Shuttles or other alternatives to get people to trailheads with limited parking would change the limit of daily users. Climbing routes are becoming congested, which means climbs take longer and increases climber risk. Of an average of 10,000 annual summit attempts over the last 10 years, 55-60% are successful. About half of permitted overnight use in the park are climbers. Because there is no permit required for day use, there has been a huge increase in people attempting to summit and return in one day, or claiming to do a one-day summit but using Muir facilities overnight anyway. Up to 25% of use at Camp Muir is non-permitted, which is a strain on the resource and poses risks for all climbers. There is also increasing competition for backcountry campsites.
- Commercial and Special Permit Use: rules are different for commercial and non-commercial guided trips with similar activities, and they would like to make that more consistent. Backpacking restrictions in July and August (to keep volume down in the highest season) limits youth participation more than desired.
- Trails: historic impacts from way trails, abandoned trails, and old campsites are highly enduring – they remain bare ground for decades. Popular use areas see proliferation of user-developed trails.
- Stock use – half of public comments were advocating for greater recreational horse/mule use (reduced under current GMP).
- Behind the scenes issues: compliance with NEPA and Wilderness Act; documenting, aligning, and streamlining water systems, scientific installations, utility lines, patrol cabins, emergency caches, aircraft landings.

The draft plan proposes four alternatives: no action; focus on natural conditions; focus on visitor access; improve visitor experience through site specific actions. Preliminary impact analysis suggests that there won't be significant environmental impact from these proposals. Will be further round of public comment on draft plan. Haven't selected a preferred alternative because haven't done full impact analysis yet.



### *Proposed Actions:*

- Zoning – align backcountry management zones and GMP zones by revising GMP zone designations where appropriate to match actual use patterns in specific areas (where impacts are going to persist anyway)
- Visitor use – monitor frequency of visitor encounters as a proxy for visitor experience; increase backcountry campsites by 10% to improve flexibility; nominal (\$1) wilderness permit fee to fund seasonal ranger positions
- Changes to commercial use – allow guided youth backpacking trips during summer season on portions of Wonderland Trail; require similar permit process for all guided mountaineering and increase number of permits available
- Trails – formalize popular way trails, seek funding for maintenance; add links between trails to create alternatives along Wonderland
- Stock use - allow on Carbon River Trail to Ipsut Creek, on Westside Road to Glacier View Wilderness and North Puyallup, Backbone Ridge with access to Gifford Pinchot NF (access cut off during 2006 flood)
- Administrative changes (might require act of Congress) – revise wilderness boundary to correct probable errors; apply minimum requirement concept to backcountry facilities; formalize current practice to be more consistent with Wilderness Act.

### Questions

- How do you assess optimum visitor usage relative to ecological impacts?
  - Difficult challenge – hard to identify hard data correlating backcountry visitor use levels and ecological changes. Visitor expectations drive visitor experience, so communication is part of managing that (Paradise will be crowded, Wonderland Trail will be more solitary). It's very difficult to measure the impact of day use without permit numbers to document – 20 people can establish a social trail that would be as enduring as one that 200 people used. The amount of use that creates an ecological impact (i.e. bare ground) is much, much lower than what could be occurring, how do you manage for that? Surveys of corvids or benthic macroinvertebrates require a lot of judgment calls. Research from commercial tourism can be helpful in evaluating this.
- Can you ban disruptive bad actors from national parks?
  - Judges can ban individuals, based on egregious cases of vandalism.
- What does the Park do about dogs on trails?
  - It's a big frustration. Not all rangers do active law enforcement, and the priority of dealing with people with dogs can be higher or lower depending on what else is going on that day. Try to approach individuals with education when possible.
- Are search and rescue costs/impacts increasing with the increasing amount of use, especially non-permitted?
  - There's a sense that it's increasing. Need a grad student to study what's happening and what's driving risk behavior (social media? Inexperience?) Of 6 fatalities at MORA this year, none were experienced mountaineers. Drownings are the most common fatalities in major parks.

**The meeting was adjourned at 12:05.**