



**Nisqually River Council
Citizens Advisory Committee
Meeting Minutes
August 12, 2014, 6:00 – 8:00 PM
Nisqually Tribe's Natural Resources Office**

CAC Members Present: *Fred Michelson, Jean Shaffer, Karelina Resnick, Bob Smith, Marjorie Smith, Phyllis Farrell, Debbie Anderson*

Guests: *George Walter, Don Perry, Grace Ann Byrd, David Thorpe, Nikki Dizon*

Staff Present: *Morgan Greene*

Welcome and Introductions

The meeting was called to order at 6:03pm. The CAC was thrilled to welcome several 2014 Stream Steward graduates to the meeting!

There was a motion to approve July's meeting minutes. They were accepted as written, as was the agenda.

Water Planning for the Nisqually Watershed – *George Walter, Nisqually Indian Tribe*

George has worked in the Nisqually Watershed for nearly 40 years, focusing much of his career on water planning. He joined the CAC to discuss water resources, planning and knowledge.

According to George, to understand water, you must also understand weather and geology. To start, George noted that the Pacific Northwest's climatic conditions are dominated almost entirely by one thing: the Pacific Ocean. Because the ocean is so large, it's water temperatures vary greatly. At it's middle near the equator the water is warmer. On either end, however, the Pacific Ocean features arctic temperatures. This creates a flow of water. As a result, warmer water flows north along the Japanese coast and colder water flows along the PNW coast. Storms also generally follow the same pattern.

These storms bring a lot of moisture, especially during the winter months, along with moderate temperatures. It should be noted that during El Niño years, storm patterns arrive in an opposite fashion. In general, however, winter rains start in November leading to spring rains in April, and summer in July. This pattern is important because it informs water planning.

Geology is just as important. In the Nisqually Watershed, there are three geologic zones. The upper zone is dominated by the high elevations of Mount Rainier. The zone typically accumulates lots of snow in the winter, and was formed by the most recent Cascade uplift. The important water aspect of the upper zone is that snow is a form of water storage. The slow melting rate of snow helps maintain water availability year round.

The middle zone, in the foothills of the Cascades, features streams that receive both snow and rain. These rain-on-snow events can lead to winter flooding. The foothills are between 25 million and 75 million years old: before the Cascades and Mount Rainier. They are, therefore, the "old Cascades" which are now eroded almost entirely away. As the ancient mountains eroded they deposited andisite bedrock and layers of sediment and gravel. This is called the Mashel Formation. It has fossils, petrified wood and dense clay. The

formation is also porous, allowing for the percolation of water. As a result, the watershed has large underground aquifers. These aquifers help feed streams: that's why the Ohop and Mashel run year round. Much like snow, these aquifers are another form of water storage.

The giant Continental Glacier dominated the lower portion of the valley. The glacier barely stretched to Eatonville, completely covering all of South Puget Sound. As the glacier advanced and receded, it left layers of sand and gravel, formed Puget Sound, and created the landscape we know today. The thick layers of sand and gravel also formed huge, deep aquifers. In this lower section, therefore, a majority of water flows into these deep aquifers instead of streams. That's why the lower creeks are smaller than those in the upper watershed.

George ended the first lesson with a key point: snow and aquifers provide extensive water storage in the Nisqually Watershed. He also noted that ice and Alder Dam play the same role, although to a lesser extent.

George then discussed water planning. In 1998, the state legislature passed the Watershed Planning Act (or 2514). It provided a process by which watersheds could complete watershed planning *if* they chose to, along with significant funding. The NRC agreed to complete a plan, designating the Nisqually Tribe as lead entity.

The planning took place in three phases. The first phase was deciding whether or not to plan at all. A lot of watersheds couldn't reach agreement past this first phase. Phase 2 revolved around gathering background data. The NRC produced a thick document full of background information on four sectors: water quality, water quantity, in-stream flows and aquatic (or fisheries) habitat.

Among the things learned was the watershed geology, including the fact that there's a large aquifer recharge area under JBLM flowing towards Puget Sound. The amount of water flowing is enormous—around 100 million gallons per minute. There are also natural springs, including McAllister Springs, which has provided water to the city of Olympia. Currently, that is changing.

The Nisqually Tribe focused their planning efforts on water quality and quantity. They learned that there aren't substantial widespread water quality issues, although there are site specific ones. For example, the Mashel River has problems with sediment and high summer water temperatures. None of these issues suggested a monumental difficulty upstream; therefore the central issue was water quantity. The four interested parties: Olympia, Lacey, Yelm and Eatonville. At the time, each municipality had enough water, though not for long. Phase 3 of implementation, therefore, was to meet the needs of municipalities while protecting all other interests. The aquifers seemed an obvious answer to the problem.

The entities completed a complex study of the area that analyzed water availability and impact mitigation methods. In the end, Olympia relocated their water facilities from the McAllister Springs to a new well field upstream, preventing contamination. Lacey is also developing several wells, as is Yelm. The impacts analysis showed minimal impacts, though there will be some impacts on various lakes including Lake St Clair. To address this, they developed a mitigation package. At the end of it, all members of the planning committee and WA Department of Ecology agreed on the package. The end results included Lacey receiving water rights. In fact, the city is preparing to obtain all its water from wells. Additionally, the Tribe will be allowed to install its own well near Olympia's.

Although there was minimal controversy, there are still issues. Eatonville has not resolved it's water availability problems. There simply isn't enough water near the town because aquifers are blocked by large

amounts of bedrock. Yelm also has problems: certain groups have people argue water rights should not be granted. The associated lawsuits are still in the courts, although George expects a resolution.

As far as the mitigation package goes, there are two general methods to minimize the impacts of removing water from a system. The first is to buy and retire water rights, leaving them in the stream. The second way is to establish certain minimum flows in a stream (800 cfs in the Nisqually, for instance). George also thinks there are “out of kind” mitigations. Salmon, for example, require things besides just water for survival. Planting trees to provide shade could, in some cases, act as a mitigation method.

The future presents new challenges. First, George thinks the giant aquifer is largely under-appreciated. He also noted that climate change is an issue worth addressing. In the short term, precipitation changes may not cause significant deficits. However, climate change shouldn't be taken lightly. While certain changes may not be realized in our own short lives, they will impact greater forces and must be considered. Other issues George thinks are important to consider are sea level rise: this could impact I-5, for example.

CAC Membership Expansion: collaboration with the Nisqually Stream Stewards (NSS), Education Project (NREP) and the Land Trust (NLT) – Don Perry, Nisqually Indian Tribe; CAC Members

Don joined the discussion in order to brainstorm ways in which the CAC can collaborate with NSS, NREP and NLT. Unfortunately, Cris Peck (NLT) was unable to attend tonight. Sheila Wilson is also on vacation. Morgan is in the process of setting up a meeting with Sheila during the last week of August; she will also ask Cris to reschedule for that time.

The expansion of the CAC has been discussed for several months, with Debbie as the lead member. For background, the NSS are bright, engaged adults, who would be a great addition to the CAC. Additionally, NREP and NLT have a host of students who could add a youth element to the group. The discussions have led to a goal for this year: add 6-10 new members to the CAC. Karelina added that David Troutt is interested in establishing a NRC Youth Council.

Fred turned the conversation to the table. Debbie and Karelina think middle school kids are at a good age. It's necessary to let children have a voice. The Youth Council would allow them to be observers, as well as be delegates back to their own school. Karelina added that utilizing Skype could allow kids to “attend” the meeting during school times.

Debbie thinks working with small groups is a great idea. Morgan mentioned that Eye On Nature fieldtrips follow that model. Debbie suggests copying that model with older students, but with a service theme. She wants the CAC to help with this.

There are many unanswered questions. For example, who is going to market this to the communities, schools, etc? If it happens outside of school, who will market to it? How do we bridge the gaps between the youth and the seniors?

Fred wants to learn more about what Stream Stewards would like to see in CAC meetings. Fred wants to know: as current Stream Stewards, what could the CAC do to make them a more marketable group?

Grace Ann noted that waters are a cultural resource, a fact often overlooked. Coal trains, however, run right along the river and threaten resources like fisheries, the Nisqually garden and more. It is a danger to the water and Nisqually culture. She feels that mitigating dangers is important and more protection of water is needed. She came in tonight to discover more about the CAC and to figure out whether it could serve as a

platform for pursuing her passions. She watched her mentor, Reggie Wells, make enormous changes, and is inspired to do the same. She feels as though she needs credentials, though, and wonders if the CAC would provide that.

Fred noted that people on the CAC all have personal interests and passions. For example, the CAC has been discussing the importance of neonicotinoids and bees for several months. As a result of these discussions, the CAC is getting ready to write to entities in charge of regulation. In other words, everyone needs a voice and the CAC is the place to find it. If Grace decided to be a part of the CAC, perhaps she could take the lead role in informing other members about coal train issues.

David is new to the area. He moved recently from California, where he'd lived for almost 50 years. Since moving here, he has been certified as a master gardener and now a Stream Steward. Although he's interested in getting involved, he's noticed an enormous amount of apathy in other groups. To him, it's largely due to a lack of leadership. He wants to know how the CAC can give the NRC more power. Is it because of the associated programs? His farm will be a legacy farm, but what legacy will it be? If he gets involved with NRC/CAC, he wants it to fit his idea of a legacy.

Fred shared that the CAC has a very firm governance role in the Nisqually Watershed Management Plan. The group is free to be as large as needed, and to discuss topics of their choosing. In return, each CAC member is expected to be a leader. In Fred's opinion, this is the perfect place for David to design and leave a legacy of his choosing. To Fred, the CAC functions as so: members are passionate about something, which they then bring to the table for discussion. Each member plays a leadership role in informing the others, but all members help accomplish their own passions.

Karelina added that the members decide the agenda. Members name the topic, and the CAC finds a speaker, if possible. It's a great platform for sharing articles and information. Karelina, for example, shares documents with Fred daily.

Don is glad all CAC members came to the NSS class. He suggests that next year, CAC members include a little more historical information, including CAC's goals, purpose and tasks. Essentially, Don thinks Stream Stewards need to be aware of how the CAC will benefit them. Don suggested the CAC put together a membership appeal. He would share the appeal with his extensive mailing list. Fred will include the rough yearly agenda in this appeal. Fred will begin working on it!

Review: Agenda/Goal Setting for next 12 months

There was no time for this. It will be accomplished partially via email and should be completed by the next meeting.

Executive Committee Meeting update

There was no time for this.

For the Good of the Order –

Phyllis shared that the Sierra Club is sponsoring a picnic on Wednesday August 27th at Priest Point Park. She will send Morgan the flyer, which she will share with the CAC.

Karelina shared that tomorrow is the Mashel River weed pull. Contact Cris Peck of the NLT. It starts at 9:00am. The next one is on September 3rd is at Ohop. Lastly, on September 11th there is a Mashel river weed control.

- Next CAC Meeting: Tuesday, September 9th, at NNRB #2, from 6:00-8:00 pm.
- Important Dates:
 - NRC Meeting, Friday August 22th, 9:30-12:30 at the Longmire Community Building at Mount Rainier National Park.
 - The Nisqually Watershed Festival is on September 27th!

The meeting was adjourned at 8:15pm.