Testimony of David Troutt
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House Committee on Natural Resources
Subcommittee on Oversight and Investigations
Oversight Hearing on Examining the Impacts of 6PPD Quinone
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Greetings Chairwoman Porter, Ranking Member Gosar, and Honorable Members of the Subcommittee on Oversight and Investigations. My name is David Troutt and I have the honor of serving as the Director of the Nisqually Indian Tribe's Natural Resources Department. I am also the Chair of the Nisqually River Council and the Chair of the Puget Sound Salmon Recovery Council. Thank you for the opportunity to testify at today's hearing on the impacts of 6PPD Quinone. My testimony will focus on how this toxic chemical is negatively effecting salmon populations, treaty rights, as well as solutions to address this issue.

The Nisqually Indian Tribe is a signatory to the Treaty of Medicine Creek of 1854. In that treaty the tribal leadership were promised the ability to fish as they always had forever in return for allowing peaceful settlement of the Puget Sound region. That promise was secured through a reservation of rights that have been held and exercised by the Tribe since time immemorial.

Settlement has occurred throughout the region and supports one of the strongest economies in the Country, but the promise to fish for the Nisqually people, as they had for generations, has not been honored. Salmon populations have crashed throughout the Puget Sound basin to the point where every major river system has at least one population of an Endangered Species Act (ESA) listed species and in many cases more than one. The right to fish, the promise made in the Treaty, is greatly diminished when there are very few salmon remaining.

It is important to understand the value and role of salmon in the culture and traditions of the Nisqually Indian Tribe and other tribes in the Northwest. The tribes of the Salish Sea consider the salmon to be their brothers – family members to be honored, protected, treasured, and a gift from the creator. Salmon have been the primary source of protein for the tribes for 10,000 years. The location and movement of their villages were directly connected to the returns of salmon and steelhead. Their mythology and traditions are inextricably linked to salmon. Salmon is the central figure in Nisqually culture and traditions.

Salmon and fishing for salmon on the Nisqually River is the life blood of the Nisqually people. Our current Chair Willie Frank III compares his time on the river to time spent in a church. Being on the water, setting and checking your net, handling the salmon and providing for your family is very much a religious experience for tribal members. Many of our fishers are fishing the same exact location where their great-great-grandfathers fished before them. There is a connection to their past, to their ancestors, and to their cultures that being on the river represents.

The time that our fishers get to spend on the river is directly connected to the health of the resource and the productivity of our salmon runs. We manage our fisheries carefully to ensure enough fish get past our fisheries to reproduce and provide for future generations of salmon and

Nisqually people. We manage for the 7th generation. We are the stewards and voice for the salmon and willingly sacrifice for their survival.

We have seen in the recent 30 years dramatic changes to the health and productivity of our salmon runs and, correspondingly, our time on the water – time in our church. I started as the Natural Resources Director in 1987. That year we fished a total of 105 days from July into March for Chinook, coho, pink, and chum salmon and steelhead. The runs were abundant and healthy. The Tribe filled our freezers and our smoke houses. By 2015 our fishery had collapsed, parallel to the crash of the salmon runs, and we fished a total of 8 days. Nisqually people went hungry and their church was closed. This was devastating.

Our Chinook salmon and steelhead runs have declined so much that they were listed as threatened under the ESA in 1999, and coho salmon remains a candidate species. We immediately developed a recovery plan for the Nisqually based on science with the goal of rebuilding the salmon runs back to healthy and productive and sustainable to support tribal and non-tribal fishing. We prioritized areas and actions to support ecosystem recovery and function. We established measurable goals for all of our work to evaluate progress and access salmon response to our work to feed into an adaptive management framework. Finally, we integrated all of our work to be sure that we were coordinating our habitat work with our hatchery programs and harvest goals to maximize our chances for success.

Our plan has led to significant action. We have undertaken the largest estuary restoration project on the west coast north of San Francisco, returning 90% of the area to its historic ecological function. We have protected the mainstem Nisqually from a starting point of 3% to today where we are over 80% in permanent stewardship. We have restored over 6 miles of Ohop Creek, restored over 3 miles of the Mashel River, and protected significant portions of each of these key tributaries for future generations. Finally, we are changing the way we manage our commercial timberlands for multiple ecosystem values by acquiring, from willing sellers, lands that are building our community forest program. We are leading the region in making progress on our recovery plan objectives.

While we have seen some increased survival of our juvenile Chinook salmon and steelhead as they leave the Nisqually for the open waters of Puget Sound and the ocean, we have not seen similar increases in coho salmon survival and certainly have not seen increases in adult abundances of any of our salmon populations. We are not seeing the full benefit of our investment and work on our recovery plan in terms of more time on the River.

There are a number of reasons why this might be the case, from the known and manageable, to the known and less manageable, to the unknown. Certainly, poor ocean conditions due to temperature increases and acidification have had significant impacts on salmon survival up and down the west coast. Marine mammal and avian predation on out-migrating juvenile salmon has increased in the recent 15 years and adult predation by seals and sea lions has skyrocketed. It has been challenging to both secure support for solutions, as well as implement the solutions.

We have also suspected for many years that the chemical loading of our freshwaters and Puget Sound through point and non-point sources are having negative impacts on salmon survival.

Studies have shown, in laboratory settings, that things like endocrine disruptors and other medicinals passing through humans into our wastewater can impact survival of juvenile salmon and are bio accumulated through the food chain up to our Southern Resident Killer Whales – also listed under the ESA.

Thanks to the great collaborative work between the University of Washington and Washington State University (WSU), they have identified a specific chemical in our stormwater that is lethal to coho salmon juveniles and adults, both in a laboratory setting and in natural settings. Dr. Jennifer McIntyre from WSU has led this work and is also providing this subcommittee with testimony on this issue. Their work has identified a chemical used in car tires as ozone preservative, 6PPD Quinone. When it performs its function and then sloughs off of tires on our roadways, 6PPD Quinone is toxic to coho salmon in low concentration levels and low exposure times. This is the first finding of its kind and significant to our ability to recover salmon.

This chemical preservative is omnipresent in the region. Wherever there is a car traveling on a roadway there is 6PPD Quinone. It is in every tire produced. With every rain event this chemical is washed off of the roadways, from small country roads to our interstate highways, and into our small streams, rivers, bays, and Puget Sound. Most, if not all, of these streams and rivers have coho salmon at the times when we see the most rain – fall, when the adults are coming back and in the winter/spring, when the juveniles are rearing and preparing for a life in the ocean. This appears to be a significant "smoking gun" for the collapse of our coho salmon throughout Puget Sound, especially in the urban and urbanizing areas where roads and salmon intersect.

We now know that this is a significant issue. We know this is killing our coho salmon. It may also be impacting Chinook and steelhead and additional studies will reveal the magnitude of the impact on these other species. 6 PPD Quinone falls within the realm of the known and manageable issues affecting salmon. Managing it will require an immediate approach and a long-term commitment.

The immediate approach includes a couple of key considerations. The first is that we need to remove it at the source – we need to encourage the rapid identification of alternative ozone preservatives that do not have similar or related impacts to the ecosystem. Candidates should be evaluated using the same techniques as were used to discover the problem with 6PPD Quinone. We need to understand the impacts to juveniles and adults of all species of salmon and steelhead before it can be approved, used, and allowed to enter our ecosystem.

The next immediate step, one which should be occurring now, is to identify and implement treatment options for stormwater to capture and remove 6PPD Quinone. We need to recognize that even if this harmful chemical was removed from tire production today, we will be dealing the legacy of its use for at least the next 15-20 years. We need to be prepared for that reality today and commit to implementing and maintaining appropriate treatment systems. In the Nisqually, we are experimenting with compostable bio filtration systems on a State Highway as a pilot project. If we are successful, similar systems could be sized and retrofitted along all of our roadways to treat for this lethal, toxic chemical.

These systems will certainly have a cost associated with their construction and installation, but it is the long-term maintenance that will be critical. The compostable materials will need to be replaced on a set schedule and the systems maintained for their effective purpose. Failure to do so would result in a return to increasing the toxic loading of this chemical, and other chemicals that could be effectively removed by these systems, and increased mortality of our salmon.

We see that dealing with this significant and critical issue must be integrated into all of our salmon recovery work. Ecosystem restoration is by definition complicated with a lot of moving pieces. To the extent that we can identify known issues and resolve them effectively, we can better focus on those areas that are less known. We now know that 6PPD Quinone kills salmon and may be limiting our ability to recover these fish and see the full benefit of our investment in ecosystem restoration. It needs to be removed at the source as soon as a safe and effective alternative can be found.

Removing this known killer will have positive impacts on coho survival and have far reaching benefits to the region. More coho will provide more food for our Southern Resident Killer Whales that are literally starving to death. More coho salmon will mean more fishing opportunity for our ocean and Puget Sound recreational and treaty fisheries supporting our small fishing communities that are dependent on fishing. More coho salmon will mean more fish in the nets of Nisqually tribal fishers, more fish in our freezers and smokehouses, and more time on the River. More coho salmon will mean more time in the Church of the Nisqually people.