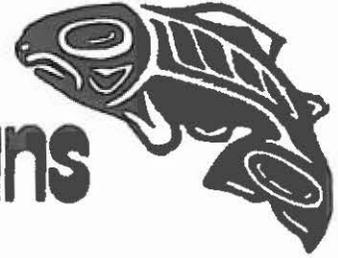




Puyallup Tribe of Indians



March 23, 2015

Via Electronic Mail

Cheryl Niemi
Washington State Department of Ecology
Water Quality Program
P.O. Box 47600
Olympia, WA 98504-7600
swqs@ecy.wa.gov

Re: Puyallup Tribe's Comments on Ecology's (Proposed) Water Quality Standards for Surface Waters of the State of Washington—Chapter 173-201A WAC (WQS)

Dear Ms. Niemi:

Attached are the Puyallup Tribe's Comments on Ecology's (Proposed) Water Quality Standards for Surface Waters of the State of Washington—Chapter 173-201A WAC (WQS) ("the Proposed Rule"). We appreciate the opportunity to comment on such a monumental effort to bring Washington State current utilizing the best available science to protect our Tribal members' and all Washington citizens' health and the natural resources we all depend upon.

The Puyallup Tribe, a sovereign nation, signed the Treaty of Medicine Creek, 10 Stat. 1132 (1855), with the United States reserving rights to harvest fish and other natural resources both within and outside of its reservation boundaries. The Treaty Right of the Puyallup Tribe to harvest fish both within and outside reservation boundaries was re-affirmed in the 1974 decision in *U.S. v. Washington*, 384 F.Supp. 312, (W.D. Wash., 1974). For time immemorial, the Puyallup Tribe has fished the waters both within and outside its current reservation boundaries as a subsistence fishery, with the salmon being a traditional food source and cultural staple. The Tribe has a Treaty Right to fish and consume fish that are safe for consumption. The resulting Proposed Rule fails to reach any reasonable protection that demonstrates the State's acknowledgment of, much less protection of, the Tribe's Treaty Rights. Finalizing the Proposed Rule without significant modifications will result in a violation of the Tribe's Treaty Rights.

Furthermore, the Tribe is both disappointed and frustrated that Washington's proposed rule has failed to do all it can and is obligated to do under the Clean Water Act to protect the health of Tribal members and Washington citizens. Tribal scientists have worked tirelessly with the State Department of Ecology to analyze the best available science to arrive at criteria that will protect the health of people as required under the Clean Water Act. Yet that work has

largely been displaced and disregarded because in the end Washington has allowed politics to override sound science and interfere with its obligations to base this rule upon the best available science and standards set forth in the Clean Water Act.

While the attached comments will provide the details of the inadequacies of the proposed rule and provide science based recommendations in detail, the State has failed, by letting political pressures by those who stand to reap purely economic benefit from weaker pollution protections, to offer human health criteria and, therefore, enforceable water quality standards, that meet today's best available science based requirements to ensure the state's citizens are protected from pollution in our waters. The State has attempted to offer a more reasonable, albeit still inadequate, fish consumption rate as an indicator that it is strengthening protections for people and fish. However, at the same time, the State has adjusted other factors such as the cancer risk rate to, in fact, offer very little, if any, additional protection over the criteria currently in place. The State's arbitrary and capricious actions have not gone unnoticed by Tribes, citizens, or the U.S. Environmental Protection Agency.

In addition to the proposed human health criteria lacking the strength to provide acceptable and measurable improvements to the water quality we all depend upon, the State proposes going even further in allowing polluters off ramps, through undefined variances and compliance schedules, from compliance with the already weak standards through implementation tools that are ambiguous at best, leaving open the possibility that polluters will escape compliance all-together resulting in continued long-term degradation and pollution of already impaired waters. This not only applies to the new criteria proposed, but to a suite of water pollution prevention measures. This is a wholly unacceptable concession to Washington's most egregious polluters.

Again, while the Tribe appreciates the opportunity to comment on the Proposed Rule, the Tribe requests that the State of Washington make significant modifications to the rule to offer a proposed rule that uses best available science to meet the State's obligations under the Clean Water Act, as fully described in the attached comments.

Sincerely,



Bill Sterud, Chairman
Puyallup Tribal Council

cc: Governor Jay Inslee (w/o attachment)
Maia Bellon, Director, Washington Department of Ecology (w/o attachments)
Dennis McLerran, Administrator, EPA Region 10 (w/o attachments)

Puyallup Tribe's Comments On and Recommendations For Revisions to the Department of Ecology's (Proposed) Water Quality Standards for Surface Waters of the State of Washington—Chapter 173-201A WAC (WQS)

INTRODUCTION

This document contains the basis for the Puyallup Tribe's comments on and recommendations to revise the Department of Ecology's (Proposed) Water Quality Standards for Surface Waters of the State of Washington – Chapter 173-201S WAC (the "Proposed Rule") which sets out human health criteria to be used in Washington's water quality standards and implementation tools. In addition to specific citations herein, please see the attached list of references and documents submitted along with this document. Specifically, we are providing the methodology and input variables recommended by the Tribe in the derivation of the human health criteria; recommendations for the so-called problem toxics, including arsenic, mercury, and PCBs; recommendations for implementation tools including variances, compliance schedules and intakes credits; and protection of downstream uses.

The guiding principles forming the basis of Tribe's recommendations are:

1. To use the comprehensive body of technical information, policy and guidance available as developed by the agency with expertise in the derivation of water quality standards that are sufficiently protective of human health.
2. To use local and regional data or guidance where available to reflect local conditions and protect highly exposed populations, including tribes.
3. To protect the treaty right of the Puyallup Tribe to take fish in all Usual and Accustomed fishing areas.
4. To protect the health of *all tribal members* of the State of Washington, whose Usual and Accustomed fishing areas comprise most of the waters of Washington State.
5. To protect downstream designated uses within the boundary of the Puyallup Reservation, in which the Tribe regulates water quality, as approved by EPA in 1994. Downstream uses of water designated by the Tribe include, but are not limited to, the use of water for the

purposes of ceremony.

6. To protect a key function of the Tribe's and Washington's economy which necessitates our ability to catch and sell fish that are not contaminated with toxic pollutants.

The Puyallup Tribe, a sovereign nation, signed the Treaty of Medicine Creek, 10 Stat. 1132 (1855), with the United States reserving rights to harvest fish and other natural resources both within and outside of its reservation boundaries. The Treaty Right of the Puyallup Tribe to harvest fish both within and outside reservation boundaries was re-affirmed in the 1974 decision in *U.S. v. Washington*, 384 F.Supp. 312, (W.D. Wash., 1974). For time immemorial, the Puyallup Tribe has fished the waters both within and outside its current reservation boundaries as a subsistence fishery, with the salmon being a traditional food source and cultural staple. The Tribe has a Treaty Right to fish and consume fish that are safe for consumption.

The Clean Water Act requires Washington to promulgate water quality standards that protect designated uses of water. 33 U.S.C. §1313. In developing water quality standards, Washington is required to include criteria that are often numeric and are necessary to ensure designated uses are attained and protected. These uses are often referred to as fishable and swimmable uses, which include providing water from which people can drink, consume fish, and recreate safely. 40 C.F.R. § 131.10(a). Federal regulations require Washington State's water quality criteria to be based on sound scientific rationale and must contain sufficient parameters or constituents to protect designated uses. 40 C.F.R. §131.11(a). If Washington fails to develop adequate water quality standards then the Environmental Protection Agency ("EPA") must step in and develop the required standards in a timely manner. 33 U.S.C. § 1313. The Tribe's comments and recommendations herein are based on the existing most current scientific evidence, policy, guidance, and court decisions.

Under the Clean Water Act, the fishing use includes the ability of people to harvest fish and shellfish that are safe to use in the amounts those people would normally consume.

Methodology for Deriving Ambient Water Quality Criteria for the Protection of Human Health. U.S. Environmental Protection Agency, Office of Water, Washington, D.C. EPA 822-B-00-004 (2000), available at:

<http://www.epa.gov/waterscience/criteria/humanhealth/method/complete.pdf> ("2000

Methodology"). This requirement coexists with the Puyallup Tribe's Treaty right to harvest fish and shellfish that are safe for consumption at the rate at which the Puyallup Tribe has historically consumed those fish and shellfish. A recent decision by the EPA reaffirms this requirement, finding that in evaluating a state's water quality standards and associated human health criteria, EPA must evaluate whether the proposed criteria are adequate to protect fishing rights of tribes. *Analysis Supporting EPA's February 2, 2015 Decision to Approve, Disapprove, and Make No Decision on, Various Maine Water Quality Standards, Including Those Applied to Waters of Indian Lands in Maine*, U.S. Environmental Protection Agency, Office of Water. February 2,

2015. Available at: <https://turtletalk.files.wordpress.com/2015/02/2015-2-2-me-wqs-epa-decision-letter-attachment-a.pdf> (“Maine Decision”).

NON-CARCINOGENS

The human health criteria equation for non-carcinogens is as follows:

$AWQC = RfD \cdot RSC \cdot \frac{BW}{[DI + (FCR \cdot BAF)]}$
where:
AWQC = Ambient Water Quality Criterion (milligrams per liter)
RfD = Reference dose for noncancer effects (milligrams per kilogram per day)
RSC = Relative source contribution factor to account for non-water sources of exposure (unitless)
BW = Human body weight (kilograms)
DI = Drinking water intake (liters per day)
FCR = Fish Consumption Rate (kilograms per day)
BAF = Bioaccumulation factor (liters per kilogram)

Reference Dose

PTI recommends the most recent reference doses recommended by EPA’s 2014 draft § 304(a) criteria for both the “water + organism” and “organism only” criteria for non-carcinogens. *Draft Nationally Recommended Water Quality Criteria*, U.S. EPA, Office of Water, Washington D.C. Last updated on December 3, 2014. Available at: <http://water.epa.gov/scitech/swguidance/standards/criteria/current/index.cfm#hhtable> (“Draft Criteria”). The reference dose is EPA’s maximum acceptable oral dose of a toxic substance, without the risk of “deleterious effects” over a lifetime. It is specific to the individual pollutant. EPA’s 2000 Human Health Methodology recommends deriving human health criteria using the reference dose. *2000 Methodology*.

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Body Weight

ADULTS

Ecology proposes 80 kilograms (176 pounds) for the body weight assumption to derive human health criteria. This value is based on updated survey data and is consistent with the average adult body weights of the Tulalip and Suquamish Tribes. *Region 10 Framework for Selecting and Using Tribal Fish and Shellfish Consumption Rates for Risk-Based Decision Making at CERCLA and RCRA Cleanup Sites in Puget Sound and the Strait of Georgia*, U.S. Environmental Protection Agency, 2007, Working Doc. Available at: [http://yosemite.epa.gov/r10/CLEANUP.NSF/7780249be8f251538825650f0070bd8b/e12918970debc8e488256da6005c428e/\\$FILE/Tribal%20Shellfish%20Framework.pdf](http://yosemite.epa.gov/r10/CLEANUP.NSF/7780249be8f251538825650f0070bd8b/e12918970debc8e488256da6005c428e/$FILE/Tribal%20Shellfish%20Framework.pdf). In EPA's 2011 *Exposure Factors Handbook*, the default body weight assumption for human health criteria was updated to 80 kilograms based on National Health and Nutrition Examination Survey (NHANES) data from 1999 to 2006. *Exposure Factors Handbook: 2011 Edition*, National Center for Environmental Assessment, Washington, DC; EPA/600/R-09/052F, 2001, available from the National Technical Information Service, Springfield, VA, and online at <http://www.epa.gov/ncea/efh>. The 2000 *Methodology* explains, "In general, exposure factor values specific to adults (*emphasis added*) and relevant to lifetime exposures are the most appropriate values to consider when determining criteria to protect against effects from long-term exposure (*emphasis added*) which, by and large, the human health criteria are derived to protect. 2000 *Methodology* at p.3-17.

CHILDREN

However, Ecology fails to recognize risks to children. The Puyallup Tribe recommends a body weight of 30 kg in a variety of circumstances to provide additional protection for children when the chemical of concern indicates health effects in children are of primary concern. EPA recommends a body weight of 30 kg as a default child's body weight to calculate a water quality criterion in order to provide additional protection for children when the chemical of concern indicates health effects in children are of primary concern. *2000 Methodology*, at 4-29. The exposure factor values provided in the *2000 Methodology* for women of childbearing age and children should be used in these situations and the state rule language should reflect this recommendation to provide certainty for the protection of women and children throughout our state.

For short-term exposures to toxics that pose a risk of developmental effects to children, EPA recommends the following:

Short-term exposure may include multiple intermittent or continuous exposures occurring over a week or so. Exposure factor values relevant for considering chronic toxicity, as well as exposure factor values relevant for short-term exposure developmental concerns, that could result in adverse health effects (should be considered)... EPA may consider developing criteria for developmental health effects based on exposure factor values specific to children or to women of childbearing age. EPA encourages States and Tribes to do the same when health risks are associated with short-term exposures. *2000 Methodology* at pp.4-17 – 4-18.

In addition to the EPA guidance above, Washington should also be using the 30kg standard as a result of the need to protect Tribal Treaty Rights throughout waters in Washington State. Washington must develop its criteria in order to protect the higher fish consumers and the most vulnerable populations to meet its obligations under Tribal Treaty Rights.

The risks posed to children from toxics are substantial within the Puyallup Tribe. Most of the Tribe's families remain on or near the Puyallup Reservation, now heavily urbanized long after the WWII machinery and apparatus has left and been replaced by port, industrial, commercial and municipal infrastructure and development. It is recognized as the most urbanized Reservation in the United States. The demographics of the Tribe have recently shifted in recent generations with a higher proportionality of children who, unlike almost all other populations, stay on or near the Reservation and will be exposed to a myriad of increased toxics not only because they eat much more fish than the average Washingtonian, but also because they have additional exposure routes (i.e. inhalation via sweats) that may adversely impact their health.

Drinking Water Intake

Ecology has made no change to the drinking water intake criteria. However, the Puyallup Tribe recommends using the drinking water default rate of 3 liters per day based on the NHANES survey data. EPA updated the default drinking water intake rate assumption to 3 liters per day based on NHANES data from 2003 to 2006 for all sources of water at the 90th percentile. EPA previously recommended a default drinking water intake rate of 2 liters per day, based on the US Department of Agriculture's 1994-1996 Continuing Survey of Food Intake by Individuals (CSFII) and the National Cancer Institute study of the 1977-1978 Nationwide Food Consumption Survey. *Fact Sheet: Human Health Ambient Water Quality Criteria: Draft 2014 Update*, U.S. EPA, Office of Water, Washington D.C.; EPA-820-F-14-003, 2014, available at: <http://water.epa.gov/scitech/swguidance/standards/criteria/current/upload/Human-Health-Ambient-Water-Quality-Criteria-Draft-2014-Update-Factsheet.pdf>. EPA's previous recommendation is outdated by its own updated default drinking water intake of 3 liters.

Ecology offers no justification for failing to take into account the most recent EPA recommendations based upon the most recent data and best available science. Instead, Ecology justifies its failure to use the most recent national data by relying on a failure of local data to support the national standard. *Washington Water Quality Standards: Human Health Criteria and Implementation Tools: Overview of key decisions in rule amendment*, Washington Department of Ecology, January 2015 at 25-26 (“*Rule Overview*”). Ecology’s justification is directly contrary to EPA’s hierarchy of utilization of local and regional data first, then looking to national data when local and regional data is not available. *2000 Methodology*. Ecology has misconstrued its obligations to, in absence of local or regional data that counters the best available data on a national basis, utilize the national data.

Bioaccumulation/Bioconcentration Factor (BAF/BCF)

Ecology has chosen to utilize bioconcentration factors (BCF) in the derivation of the state’s human health criteria. Ecology’s justification for the use of BCF is bizarrely based on Ecology’s erroneous limitations on the scope of the Clean Water Act. *Rule Overview* at 30-31. Ecology replaces the requirements to use the best available science and the overall hierarchy which calls for use of the most recent EPA data absent specific local data with a “policy decision” to utilize outdated national standards. *Id.* and *2000 Methodology*. Ecology’s decision to utilize BCF is arbitrary and capricious.

Contrary to Ecology’s arbitrary and capricious decision in the Proposed Rule, the Puyallup Tribe recommends the use of bioaccumulation factors in the derivation of the state’s human health criteria. The bioaccumulation factors replace and represent substantial and important updates to the use of bioconcentration factors in the derivation of human health criteria. Recommended in EPA’s 2000 Human Health Methodology document, the draft 2014 304(a) water quality criteria were updated to include bioaccumulation factors. *Draft Criteria*. This is an important and significant leap in quantitatively and thus precisely accounting for more exposure pathways than direct contact accounts for and therefore will be more accurate in representing exposures to pollutants that affect human health. This is a major demarcation from the current 304(a) criteria which instead use bioconcentration factors. *National Recommend Ambient Water Quality Criteria for the Protection of Aquatic Life and Human Health*, Environmental Protection Agency, available at: <http://www.epa.gov/waterscience/criteria/wqctable/index.html>. The difference between bioconcentration and bioaccumulation and the consequence of this significant advancement in the science of toxicology, is discussed in the 2000 Human Methodology document:

... the term “bioaccumulation” refers to the uptake and retention of a chemical by an aquatic organism from all surrounding media (e.g., water, food, sediment). The term “bioconcentration” refers to the uptake and retention of a chemical by an aquatic organism from water only. For some chemicals (particularly those that are highly persistent and hydrophobic), the magnitude of bioaccumulation by aquatic

organisms can be substantially greater than the magnitude of bioconcentration. Thus, an assessment of bioconcentration *alone would underestimate the extent of accumulation in aquatic biota for these chemicals* [for emphasis]. *2000 Methodology* at p.5-2.

According to EPA's assessment above, Ecology's "policy decision" fails to account for chemical accumulation and biomagnifications as a result of multiple pathways, leading to a failure to protect designated uses by both harming fish and failing to accurately assess consumption of chemicals through consumption of fish. Ecology's Proposed Rule is arbitrary, capricious, contrary to law, and violates Tribal Treaty Rights.

Fish Consumption Rate (FCR)

As discussed above, Washington has a duty under the Clean Water Act to protect designated uses including fishing, and in conjunction with the Tribe's treaty right to harvest fish and shellfish, to protect Tribal members' right to safely consume those fish which they harvest under that treaty right. This necessitates, as EPA guidance has also determined, that Washington use local data to determine the appropriate level of fish protections to protect Tribal members.

It is well settled that the current fish consumption rate of 6.5 g/day is far below the actual amount of fish consumed per day per individual in Washington. EPA guidance is clear: local fish consumption data should be used over the outdated National Toxic rule for human health water quality standards. *2000 Methodology* at 1-12 and 4-25. EPA has warned Washington that its fish consumption rate is woefully inadequate. *Letter to Maia Bellon, Director of the Department of Ecology from Dennis McLerran, Region 10 EPA Administrator* dated April 8, 2014. Multiple surveys across the state that have been provided and reviewed by Ecology indicate fish consumption numbers as high as 796.9 g/day and suggest that historic consumption rates are in excess of 1000 g/day for adults. *Fish Consumption Rates. Technical Support Document. A Review of Data and Information about Fish Consumption in Washington. Version 2.0 Final.* Washington Department of Ecology, Publication No. 12-09-058, January 2013 at Attachment C: Statistical Analysis of National and Washington State Fish Consumption Data by Nyak Polissar et al, available at: <https://fortress.wa.gov/ecy/publications/publications/1209058.pdf> ("*Fish Consumption Technical Support Document*").

The simple fact is that the 175 g/day fish consumption rate was a negotiated rate reached after long discussions between Ecology and tribes in Washington. It was always clear that the tribes only meant for the 175 g/day to be an incremental step for this triennial review and was based upon a cancer risk rate of 10^{-6} . In fact, the fish consumption rate should be much higher.

Furthermore, the 175 grams per day FCR is the negotiated value used in Oregon's updated human health criteria, which is based on the 90-95th percentile of Oregon fish consuming populations. This rate is in between 225 grams per day (mean of the Suquamish Tribe's survey) and 125 grams per day (mean of the means of the Suquamish, Tulalip and Squaxin Tribal FCR

surveys), which are the other alternative FCRs the State considered in their public forum process while developing the draft water quality standards rule. *Handout RE: Rulemaking General Information*, Washington State Department of Ecology, 2014, Public meeting held on November 6, 2014, at 27. However, none of these values approximate the 95th percentile range of these tribal fish consumption studies. The mean of these studies at the 95th percentile range is about 448 grams per day. This value includes all fish (finfish, shellfish, and non-anadromous fish). *Fish Consumption Technical Support Document*. Still, these values don't come close to the historic, unsuppressed FCRs of the northwest's tribes, which are about 800-1000 grams per day. *Id.* On par with these rates, EPA recently approved the Spokane Tribe's historic fish consumption rate of rate of 865 grams per day. *Letter to Chairman Rudy Peone from Daniel D. Opalski, Director, Office of Water and Watersheds RE: EPA's Action on the Spokane Tribe of Indian's 2010 Revisions to their Surface Water Quality Standards*, dated December 19, 2013, available at http://www.epa.gov/region10/pdf/water/wqs/spokane_cover_letter_TSD_Dec192013.pdf. Ecology's use of 175 g/day is arbitrary and capricious, and a violation of law.

It is also important to note that using 175 g/day for the fish consumption rate is a single variable in a long multi-variable equation when setting water quality standards. The discussions between Tribes and the State of Washington assumed that 175 g/day would be coupled with a cancer risk rate of 10^{-6} . In fact, the Proposed Rule changes the cancer risk rate to 10^{-5} . Discussion regarding Ecology's arbitrary and capricious decision, that is also contrary to law, to lower the cancer risk rate is discussed herein. However, it is imperative to note that the cancer risk rate change truly results in the fish consumption rate being less restrictive than discussed by a multitude of 10. Coupled with the cancer risk rate proposed by Ecology, the 175 g/day is truly the same as setting the new fish consumption rate at 17.5 g/day at a cancer risk rate of 10^{-6} . This same criteria was disapproved for not being protective of health by EPA with regard to Idaho's Human Health Water Quality Criteria for Toxics. *Letter from Michael A. Bussell, Director, EPA Office of Water and Watersheds, to Barry Burnell, Water Quality Programs Administrator, Idaho Department of Environmental Quality*, dated May 10, 2012, available at <http://www.deq.idaho.gov/media/854335-epa-disapproval-letter-human-health-criteria-051012.pdf>.

The Puyallup Tribe does, however, agree with the state's decision to explicitly account for salmon in the FCR for the development of the draft human health criteria. This decision is consistent with the 2000 Methodology's four preference hierarchy to use local data and/or data reflecting similar populations groups before considering the use of data from national surveys or EPA default rates. *2000 Methodology*.

EPA has historically used a FCR that includes the intake of freshwater and estuarine species only, as salmon is excluded in the rate because of its marine life history. Conversely, the state made the appropriate determination to base the FCR on highly exposed populations, as strongly recommended in the EPA 2000 Methodology. The state supports its determination

saying: “Since Washington has a strong tradition of fish and shellfish harvest and consumption from local waters, and with-in state survey information indicates that different groups of people harvest fish both recreationally and for subsistence, Ecology has made the risk management decision to base the fish consumption rate used in the HHC equation on “highly exposed populations....” *Rule Overview* at 16. The state further concludes that the FCR should include “all fish and shellfish,” including all salmon, restaurant, locally caught, imported, and from other sources” for highly exposed populations including tribes “that consume both fish and shellfish from Puget Sound waters”. *Id.* at 17.

Therefore, for the *purposes of this triennial review*, the Puyallup Tribe recommends a fish consumption rate of *at least 175 grams per day*¹, with a commitment in forthcoming triennial reviews, to review and adjust the fish consumption rate sufficiently to: 1) protect all tribal members throughout the State of Washington, and 2) fully protect treaty rights in tribal usual and accustomed fishing areas to fully exercise the right to take fish in the quantities entitled to them explicitly under the Boldt decision *U.S. v. Washington*, 384 F.Supp. 312, (W.D. Wash., 1974). The full protection of the treaty right to take fish necessitates derivation of a consumption rate that is not suppressed because of concerns about consuming fish and shellfish in Usual and Accustomed fishing and shellfish beds contaminated with toxic pollutants.

Relative Source Contribution (RSC)

Ecology proposes to retain an RSC of 1 in its Proposed Rule. Ecology bases its decision, again, on an erroneous assumption that the Clean Water Act’s scope only looks to direct discharges of pollutants to a water body. *Rule Overview* at 21-23. Ecology discounts EPA’s guidance that states in order to appropriately analyze the risk and protect health states must consider RSC values of .2-.8 to account for exposures other than drinking water and consuming fish to be sure those exposures from drinking water and consuming fish do not lead to an overall exceedance of a safe exposure. *Id.* and *2000 Methodology* at 1-7.

The Puyallup Tribe, consistent with the EPA, recommends relative source contribution assumptions for deriving water quality criteria of 20-80%. This is consistent with EPA’s assumptions used to derive the 304(a) Nationally Recommended Criteria and recommendations detailed in the federal register for deriving water quality criteria for non-carcinogens. *Draft Criteria*. We note two exceptions or deviations from EPA’s recommendations below.

The purpose of the RSC is to ensure that the level of a chemical allowed by a criterion will not result in exposures that exceed the reference dose of a toxic substance. Human health water quality criteria address exposure only through drinking water and eating fish. Exposure from other sources (e.g. skin absorption, inhalation from ceremonial uses and sweats in sweat

¹ The recommendation of 175 g/day is also based upon a cancer risk rate of 10⁻⁶.

lodges, other foods and occupational exposure), are not taken into account, thus a relative source contribution (RSC) factor is used to calculate the criteria. The RSC represents the proportion of exposure from water and fish relative to the total exposure from other exposure pathways. This ratio allows for the criteria value to reflect exposure from only water and fish.

EPA has derived RSC values for 17 of the pollutants with 304(a) recommended human health criteria. Most of these RSC values were developed by EPA’s drinking water program under the Safe Drinking Water Act. EPA’s recommended RSC values for 15 of 17 pollutants with 304(a) recommended health criteria were utilized by the State of Oregon in its technical analysis and are as follows:

Pollutant	RSC Value
Antimony	40%
Chlorobenzene	20%
Chlorodibromomethane	80%
Cyanide	20%
Ethylbenzene	20%
gamma-BHC (Lindane)	20%
Hexachlorocyclopentadiene	20%
Thallium	20%
Toluene	20%
1,1,2-Trichloroethane	20%
1,1-Dichloroethylene	20%
1,2,4-Trichlorobenzene	20%
1,2-Dichlorobenzene(o)	20%
1,2-trans-Dichloroethylene	20%
1,4-Dichlorobenzene(p)	20%

Technical Support Document for EPA’s Action on Oregon’s New and Revised Human Health Water Quality Criteria for Toxics and Associated Implementation Provisions Submitted [to EPA] July 12 and 21, 2011, Oregon Department of Environmental Quality 2011. The Puyallup Tribe agrees with the Oregon analysis that the RSCs for methylmercury and endrin should be 0 and 80%, respectively, for the reasons articulated below.

Relative Source Contribution for Methylmercury

EPA found that the most significant source of exposure to methylmercury was the ingestion of marine fish. *Mercury Source Assessment*, United Nations Environment Program, Inter-organization Program for the Sound Management of Chemicals, Geneva, Switzerland, 2013, available at <http://www.chem.unep.ch/mercury/Report/Chapter4.htm>. Thus, the RSC of 2.7×10^{-5} mg methylmercury/kg/day is recommended by EPA as an estimated exposure from marine fish intake. EPA’s recommendation is based on the assumption that the fish consumption rate does not include fish of marine origin. However, as part of the re-evaluation of local and regional

data and the selection of a fish consumption rate of 175 grams per day, Washington did take into consideration the consumption of salmon and regional consumption rates that included estuarine finfish and shellfish. Therefore, in reviewing this information, it is not necessary to provide additional protection from ingestion of marine fish through the use of an RSC value. As a result, the exposure related to marine fish should be subtracted out, resulting in an RSC of zero. Ecology has failed to address this issue in the Proposed Rule.

Relative Source Contribution for Endrin

PTI agrees with the Oregon DEQ rationale for Endrin that routes of exposure other than drinking water and fish tissue are unlikely in Washington State as endrin was banned in the US in 1980s, USFDA declared in 1995 that exposure to endrin from foods was no longer a concern, and it is not mobile in soil and volatilizes rapidly in air. Thus, 80% is recommended. Where it can be demonstrated that other sources and routes of exposure are not anticipated for the chemical in question, EPA recommends a ceiling of 80%. *2000 Methodology*. Ecology has failed to address this issue in its proposed rule.

Ecology has failed to provide scientific justification for deviating from EPA's scientifically supported use of RSC values of .2-.8. Ecology attempts to couch their reasoning as a well thought out state policy, directly contradicting EPA guidance. Ecology's determination to utilize a RSC of 1 is arbitrary, capricious, contrary to law, and violates Tribal Treaty Rights.

CARCINOGENS

The *2000 Methodology* describes the procedures that can be used as guidance by states for deriving human health water criteria. The *2000 Methodology* includes an equation to be used in deriving the "water + organism" and "organism only" human health criteria for carcinogens to protect the fishing and drinking water uses. A simplified version of this equation is provided below.

The simplified equation for deriving the human health criteria for carcinogens is:

$$AWQC = \frac{\text{Risk Level} \cdot BW}{[CSF \cdot (DI \cdot (FCR \cdot BAF))]}$$

AWQC = Ambient Water Quality Criterion (milligrams per liter)

Risk Level = Risk level (unitless)

CSF = Cancer slope factor (milligrams per kilogram per day)

BW = Human body weight (kilograms)

DI = Drinking water intake (liters per day)
FCF = Fish Consumption Rate (kilograms per day)
BAF = Bioaccumulation factor (liters per kilogram)

Body Weight, Drinking Water Intake rate, Bioaccumulation/ Bioconcentration and Fish Consumption Rate

The Puyallup Tribe recommends the same input values for body weight, drinking water intake, bioaccumulation/bioconcentration, and fish consumption rate for carcinogens as those for already discussed previously for non-carcinogens. See the discussion above for these quantitative assumptions. Consistent with the criteria for non-carcinogens, a fish consumption rate *at least* 175 grams per day is also recommended as discussed above. Use of a body weight of 30 kg when chemicals are of particular concern in children, and a drinking water intake of three liters per day are recommended based on the most up to date science, as described above. Additionally, the Puyallup Tribe also recommends use of bioaccumulation factors consistent with the most recent 2014 draft Nationally Recommended Criteria with those used by EPA in deriving its national CWA § 304(a) human health criteria guidance values.

Cancer Slope Factor

In deriving human health criteria for carcinogens, the Puyallup Tribe recommends using the cancer slope factors recommended by EPA in the nationally recommended criteria. *Draft Criteria*. EPA has updated the health risk factors, including the cancer slope factor and reference doses, using the most current toxicity information. EPA's Integrated Risk Information System (IRIS) is the primary recommended source for reference dose and cancer slope factor information. For some pollutants, more recent assessments may be found using other resources provided by EPA's Office of Water and other programs.

A cancer slope factor expresses incremental, lifetime risk of cancer as a function of the rate of intake of the contaminant, and is combined with exposure assumptions to express that risk in terms of an ambient water concentration. Cancer slope factors are specific to individual pollutants.

For toxic pollutants identified as carcinogens and assumed to exhibit a linear dose-response relationship at low doses, EPA derives its national CWA § 304(a) human health criteria recommendations to correspond to incremental lifetime cancer risk levels, applying a risk management decision that ensures a reasonable level of protection for the target population. A cancer slope factor is included in the calculation.

The Puyallup Tribe discusses its recommendations for arsenic in a separate section, below.

Carcinogenic Risk Level

Ecology has proposed lowering the cancer risk level from one excess cancer in a million (1×10^{-6}) to one excess cancer in one hundred thousand (1×10^{-5}). Ecology bases this decision on a directive from Governor Inslee which was based on considerations of “engineering, social, economic, and political concerns.” *Rule Overview* at 17. It is unclear how using “engineering, social, economic, and political concerns” meets the CWA mandate to base the criteria on the best data available through application of the data hierarchy presented in the *2000 Methodology*. Ecology further, and accurately, points out that the increased risk will not be borne equally across the citizens of Washington, but rather disproportionately impact those that eat more fish, tribal members. *Id.* at 18. Ecology rationalizes that in protecting the general population, the reduced risk factor is appropriate. Ecology’s reasoning is not based on sound reasoning, science, or law, as discussed herein. In fact, EPA has warned Ecology that it does not except that a cancer risk level of 10^{-5} is appropriate in Washington. *Letter from Regional Administrator Dennis McClerran, U.S. EPA to Director Maia Bellon, Washington State Department of Ecology*, dated April 8, 2014.

The Puyallup Tribe recommends the State of Washington retain the existing excess cancer risk level of one excess cancer in a million (1×10^{-6}) that is in the state’s water quality standards and has been for over two decades. Lowering the cancer risk rate violates the Clean Water Act.

The Puyallup Tribe is a signatory of the Medicine Creek Treaty. 10 Stat. 1132 (1855). The state is party to the treaty and has an obligation to not foreclose the ability of the Tribe to fully exercise the full extent of the treaty right. The exercise of this right is to take fish and safely consume fish throughout the Tribes Usual and Accustomed fishing areas for subsistence, ceremonial, and commercial purposes. The courts have defined the extent of these rights to include a 50% allocation of the fishery as necessary to prevent the Tribes a moderate standard of living *U.S. v. Washington*, 384 F.Supp. 312, (W.D. Wash., 1974). Because treaties are binding and the supreme law of the land, the state in the rulemaking process and EPA who will review and approve or disapprove these rules must not interfere with the full exercise of this right by both protecting the beneficiaries of the right (the consumers to safely consume fish) as well as the safety of the food source (the fishery) to ensure continued reliance to feed their families and secure a moderate living. *See Maine Decision*.

The Tribes’ usual and accustomed fishing grounds throughout Washington State compromise a majority of the waters of the state and it is the duty of the state under the Clean Water Act to protect designated uses of these waters which include the fishing use. EPA determined in the recent Maine disapproval action that “to protect the function of these waters to preserve the Tribe’s unique culture and to provide for the safe exercise of their sustenance practices, EPA must interpret the fishing use to include sustenance fishing.” *Maine Decision* at 26. EPA determined it was their duty to include the concept of sustenance fishing as provided

for in the tribal settlement acts, as to do otherwise “would run the risk that state WQS could be based on assumptions about fish consumption rates that could lead to criteria that fail to protect the Tribe’s ability to safely consume fish for their sustenance”. *Id.* at 32. Accordingly, EPA concluded that the State of Maine had a duty to protect the sustenance use. “To adequately protect the sustenance fishing use, EPA reasoned, the State of Maine was required to revisit two aspects of its technical analysis supporting the human health criteria that determine how clean waters must be to allow the Tribes to safely consume fish for their sustenance.” *Id.*

EPA continued that the State of Maine’s analysis must treat the tribal population exercising the sustenance fishing use as the target general population, not as a high consuming subpopulation of the State. *Id.* EPA guidance calls for WQS that provide a high level of protection for the general population, while recognizing that small subpopulations may face greater levels of risk. However, the Tribes are not a subpopulation using the waters on their own lands; they are the population for which that land base was established and set aside. Second, the data used to determine the fish consumption rate for tribal sustenance consumers must reasonably represent tribal consumers taking fish from tribal waters and fishing practices unsuppressed by concerns about the safety of the fish available to them to consume. The data on which the State relied to develop the fish consumption rates for the Maine water quality standards did not include information about the sustenance practices of tribal members fishing in their own water, nor did they represent consumption levels that were unsuppressed by concerns about pollution. EPA concluded that the best available data that represent the unsuppressed fishing practices of tribal members fishing in tribal waters are contained in the Wabanaki Lifeways study, which looked at the historic sustenance practices of the Tribes in Maine.” *Id.* at 39. Based on the Maine decision, Tribes in the State of Washington should be viewed by the State as *the target population for making risk management decisions, not a highly exposed subpopulation* as most the waters for which this rule applies throughout the state are Usual and Accustomed fishing grounds. The State of Washington, like in Maine, has a duty to protect the sustenance use in these waters so that tribal members can safely consume fish.

Furthermore, EPA considers 10^{-6} is an appropriate risk level for the target population, which in this case are the Tribes of Washington. *2000 Methodology*, at 2-1. The 10^{-6} cancer risk level is an agency wide practice throughout EPA’s programs as well. Although the FCR of 175 grams per day does not represent a historic, unsuppressed rate, it can only be considered a reasonable value based on the Washington tribal consumptions surveys which necessarily must be *in conjunction with* the 10^{-6} cancer risk level in order to be sufficiently protective for all tribes of the State of Washington to consume fish safely.²

As we addressed in our letter of April 9, 2014 to Governor Inslee, while state managers often equate both cancer risk levels under consideration of 10^{-6} and 10^{-5} as *de minimus* or close to

² Again, the FCR of 175 g/day is a rate intended to be re-evaluated at the next triennial review by incorporating additional consumption data to reach an accurate historic consumption rate.

zero, and by extension equivalent in terms of effect, this simply is inaccurate. Only the excess cancer lifetime risk of 10^{-6} , currently used in the state water quality standards, is considered as the “safe dose” that is “negligible” in effect (“essentially zero”). This is considered “acceptable risk” – we agree. This is the basis of why it is this cancer risk level that is used in EPA’s nationally recommended criteria. With both a significantly high cancer incidence rate in our own Tribal members and the highest cancer incidence in the west, changing the cancer risk rate to a less protective level would be reckless and certainly not in the interest of the Puyallup Tribe or Washington State. We expect the state to make risk management decisions to protect the designated uses of the waters of the state as required under the Clean Water Act, and the State must do so in ways that prevent increased risk of harm to all of us, but especially to those who eat significantly more fish. This must include consideration of those at increased risk such as children and elders. Retaining the cancer risk rate of 10^{-6} is not only the correct technical and legal conclusion, it is also the right decision since one in every two men and one in every three women can expect cancer in their lifetimes.

Washington State’s Problem Chemicals – Arsenic, Mercury, and PCBs

Section 304(a)(1) of the Clean Water Act (CWA) requires EPA to develop, publish, and, from time to time, revise criteria for protection of water quality and human health that accurately reflect the latest scientific knowledge. Water quality criteria developed under section 304(a) are based solely on data and scientific judgments on the relationship between pollutant concentrations and environmental and human health effects. Unlike the Safe Drinking Water Act maximum contaminant levels (MCLs), Section 304(a) criteria do not reflect consideration of economic impacts or the technological feasibility of meeting pollutant concentrations in ambient water. *Nationally recommended Water Quality Criteria: 2002*, U.S. EPA Office of Water, Washington, D.C. EPA-822-R-02-047, November 2002.

In its 2014 update, EPA has revised 94 of the existing human health criteria to reflect the latest scientific information, including updated exposure factors (body weight, drinking water intake, fish consumption rate), bioaccumulation factors, and toxicity factors (reference dose, cancer slope factor). *Fact Sheet: Human Health Ambient Water Quality Criteria: Draft 2014 Update*. U.S. EPA, Office of Water, Washington D.C.; EPA-820-F-14-003, 2014, available at: <http://water.epa.gov/scitech/swguidance/standards/criteria/current/upload/Human-Health-Ambient-Water-Quality-Criteria-Draft-2014-Update-Factsheet.pdf>. The criteria have also been updated to follow the current EPA methodology for deriving human health criteria. *2000 Methodology*.

Due to “outstanding technical issues”, EPA did *not* update the draft 2014 304(a) nationally recommended criteria for some toxics, which include the state’s list of the problem toxics: arsenic, methylmercury, and PCBs. These outstanding issues relate to the toxicity factors, namely the cancer slope assumptions and the bioaccumulation factors which are particularly important in these carcinogens. Particularly of importance, the bioaccumulation

factors are critical in methylmercury and PCBs. In the case of arsenic, uncertainty in the mode of action and cancer slope factor also are critical to the update. *Guidelines for Drinking Water Quality – 3rd Edition. Chapter 12 – Chemical Fact Sheets, 12.8 “Arsenic subsection on the basis of guideline derivation,”* World Health Organization, International Program on Chemical Safety, available at <http://www.greenfacts.org/en/arsenic/1-3/arsenic-9.htm#0p0>.

The Safe Drinking Water Act MCL is not protective of the designated uses of the State of Washington’s waters, namely for “water + organisms” (or those waters designated for drinking water and fishing uses). It must be reiterated that under the Clean Water Act, the state is required to protect designated uses.

Arsenic

In the case of arsenic, the state should retain the NTR criteria until such time as the federal updates are complete. The Puyallup Tribe is particularly concerned about arsenic due to the uncertainties with regard to the toxicity factors and mode of action. This is particularly alarming in light of the fact that the former Asarco smelter’s arsenic-laden slag was used for ballast on much of the land base in the Tacoma tideflats, including the Puyallup Reservation lands. We know, too, that groundwater in the vicinity of the former smelter has been adversely impacted. Thus, our tribal members have additional routes of exposure (i.e. dermal, inhalation). At this time, amendments should be based on the sound science and only those that have the current best available science in place be included in any updates incorporated into the state rule. Although the conditions of Oregon’s waters are very similar to Washington’s (both have a background of about 1-3 ppm total arsenic), the uncertainties regarding the toxicity factors and modes of action suggest a cautionary approach. To update this element prematurely, Washington risks significant health impacts to citizens until any subsequent triennial review.

Furthermore, based on our 20+ years of implementation in the Puyallup watershed, we have found that even Oregon’s WQS of 2.1 ppm would mask many anthropogenic inputs we have detected through discharge monitoring. Through the Puyallup Tribe’s direct experience with regulating arsenic, the Tribe has found cost-effective remedies such as product substitutions lead to significant improvements in water quality. Arsenic is discharged by POTWs, yet few have effluent limits for arsenic. Surprisingly, arsenic is also in a variety of compounds such as scalars, which control biological growth, and other products that don’t include the word “arsenic” on the label. To address this, pollutant minimization plans including interim, enforceable benchmarks and timelines should be included in discharge permits and monitoring should be included in permits.

Ecology’s decision on its treatment of arsenic is not based upon sound science, and seeks to jump the gun on the appropriate criteria by beating out the finalization of appropriate data. As such, it is arbitrary, capricious, contrary to law, and violates Tribal treaty rights.

Methylmercury

Ecology has chosen not to update the criteria on Methylmercury. Unlike arsenic, considerable new data has been provided since the State's last update, and been adopted by EPA. Yet Ecology has chosen not to utilize the best available data, without any sound science based rationale.

In January 2001, EPA published a new recommended CWA section 304(a) water quality criterion for methylmercury based on fish tissue residues. . Water Quality Criterion for the Protection of Human Health: Methylmercury. U.S. EPA , Office of Science and Technology, Office of Water, Washington D.C. EPA-823-R-01-001, January 1, 2001, available at http://water.epa.gov/scitech/swguidance/standards/criteria/health/upload/2009_01_15_criteria_methylmercury_mercury-criterion.pdf. This new criterion replaced the prior total mercury recommended criteria. Prior to 2001, the U.S. Environmental Protection Agency (EPA) recommended that states adopt mercury HHC as "total mercury" measured in surface waters. The updated, 2001 recommended water quality criterion [0.3 milligram (mg) methylmercury per kilogram (kg) fish tissue wet weight], is a limit for the concentration of methylmercury in freshwater and estuarine fish and shellfish tissue that EPA recommends not be exceeded in order to protect consumers of fish and shellfish. However, the new EPA 2001 recommended national criterion (0.3 mg/kg) was calculated using a fish consumption rate of 17.5 g fish/day of freshwater and estuarine fish. *Id.*

The exposure pathway for methylmercury is consumption of contaminated fish. Dietary methylmercury is almost completely absorbed into the blood and is distributed to all tissues including the brain; it also readily passes through the placenta to the fetus and fetal brain. *Id.* at p. ix.

Sources of mercury include atmospheric deposition, erosion, urban discharges, agricultural materials, mining, combustion, and industrial discharges. *Sources and remediation for mercury contamination in aquatic systems – a literature review*, Wang, Q., D. Kim, D.D. Dionysiou, G.A. Sorial, and D. Timberlake, *Environmental Pollution* 131: 323-336 (2004). Methylmercury is the most important form of mercury toxicologically, because it can be readily taken up across lipid membrane surfaces. Methylmercury can also be bioconcentrated in fish tissues over a thousand times from water concentrations as low or lower than 1 micrograms per liter ($\mu\text{g/L}$). *Mercury: its occurrence and effects in the ecosystem*, Peakall, D.B. and R. J. Lovett, *Bioscience* 22: 20-25 (1972). Exposure to methyl mercury is usually through ingestion of fish and shellfish. Based on these facts, it is clear that the criterion should be updated to include the tissue-based limit in the 2001 EPA recommendations *and* include the revised FCR of 175 grams per day.

The state's reasoning for not updating the methylmercury criteria because of the absence of an implementation plan has no merit, is without sound scientific rationale and, therefore, arbitrary and capricious. Furthermore, the Proposed Rule is contrary to law and violates Tribal

treaty rights with regarding to its failure to update the methylmercury criteria. The development of criteria is distinct from how the criteria get implemented under Sections 401 and 402 and other implementing regulations of the CWA. The problems that come from regulating methylmercury due to implementation issues should not be addressed in the more objective measure found in the criteria. Ecology can address the difficulties through use of the April, 2010 EPA guidance for implementing the methylmercury criteria and work via a public process on closing data gaps, including questions regarding mixing zones, variances, and other provisions.

PCBs

Washington's cancer-based human health criteria for PCBs are based on revisions to the 1992 NTR. EPA revised the 1992 NTR criteria to incorporate new science on the cancer potency factor based on the toxicity of PCB mixtures and different exposure pathways in 1999. The updated criterion is the one currently in Washington's rule and is 0.00017 ug/L for the protection of human health from consumption of aquatic organisms. *Rule Overview*. In fact, in this regard Ecology utilized its policy for this rulemaking that no criteria should be less stringent than the criteria currently in place, which has been in place since 1992. In this case, Ecology had to go to this anti-backsliding default due to all the other criteria they wrongfully weakened (as discuss herein) after running the calculations with the other elements.

PCBs are ubiquitous, bioaccumulative carcinogens that are the culprit of many fish advisories throughout the State of Washington and impaired waters. PCBs are widespread in the environment, but have been decreasing since the 1979 ban was effectuated. *Rule Overview*.

PCBs are known endocrine disruptors and have been shown to cause cancer in animals. Research studies show "conclusive evidence that PCBs cause cancer" in animals and "the data strongly suggests that PCBs are probable human carcinogens." *Hazardous Waste PCBs Fact Sheet*, U.S. Environmental Protection Agency, 2014, available online at: <http://www.epa.gov/solidwaste/hazard/tsd/pcbs/about.htm>. PCBs concentrate in low trophic level organisms and through the gills of fish that filter large amounts of water. Bioaccumulation of PCBs takes place in predatory organisms as the body burden of prey is transferred to the predator including humans. *Id.* A prerequisite for a substance's strong bioaccumulation factor is an affinity for fat and persistence in the environment. This further highlights that bioaccumulation factors should be utilized when developing criteria for persistent, bioaccumulative, toxic pollutants, as discussed above, and it critical with high bioaccumulation factors such as PCBs.

Ecology has recommended EPA standard method 608 for PCBs with a quantitation limit of 0.5 µg/L that is more than three orders of magnitude higher than the proposed standard of 0.00017 µg/L. In September 2010, EPA proposed to add EPA Method 1668C "Chlorinated Biphenyl Congeners in Water, Soil, Sediment, Biosolids, and Tissue by HRGC/HRMS" to 40 CFR Part 136. EPA's suggested method is a significant improvement in sensitivity. The

reporting limits for congeners in aqueous samples using HRGC/HRMS are 0.0001- 0.0004 µg/L. Washington must recognize that analytical techniques for PCBs have evolved beyond method 608 and the state should require their use as part of a comprehensive effort to limit the release of PCBs into the environment, or at a minimum provide a clear scientific basis for failing to utilize the updated method.

The Puyallup Tribe recommends Washington's standards should be updated for PCBs using parameters the 10^{-6} cancer risk level and updated bioaccumulation factors because PCBs are bioaccumulative carcinogens. Ecology needs to fully consider the health impacts of this bioaccumulative carcinogen and seriously evaluate opportunities for product substitution on the myriad materials that contain PCBs. Ecology's failure to implement those items above is not based upon science. Absent a sound scientific justification for Ecology's position on PCB's the Proposed Rule is arbitrary, capricious, contrary to law, and violates Tribal treaty rights.

IMPLEMENTATION TOOLS

Compliance Schedules

According to federal regulations, compliance schedules must require compliance "as soon as possible, but not later than the applicable statutory deadline under the CWA." 40 C.F.R. §122.47(a)(1). Existing Washington State regulations set compliance schedule limits at 10 years. This is consistent with most states' rule provisions and is based on the 5-year NPDES discharge permit durations.

The proposed draft rule language mandates compliance with "water quality standards in the shortest practicable time". *See* Proposed Rule. Instead, Ecology should revise its rule to utilize the federal language in 40 C.F.R. §122.47(a)(1) – "as soon as possible". There is a significant difference between "practicable" and "possible" as the impermissible subjective factors creep in with the use of "practicable" with regard to the regulated community. The Federal Regulations avoided this difficult issue in complying with the Clean Water Act's mandate and using "possible."

Not providing a time certain timeframe for compliance schedules is a significant and unacceptable deviation from existing rule language that provides a time certain deadline for complying with water quality standards. In fact, the draft rule language as written provides an open-ended off ramp from meeting water quality standards in a timely way and delays measurable progress in water quality in the interim. This is contrary to the Clean Water Act. The draft rule language as written misconstrues the intent of compliance schedules in the CWA. Notably, compliance schedules that are longer than one year in duration must set forth interim requirements and dates for their achievement. 40 C.F.R. §122.47(a)(3). Instead of a "schedule for compliance", the Proposed Rule grants polluters a wide berth to pollute and not meet effluent limits necessary to achieve water quality standards.

Even in those circumstances where a TMDL is in place, state statute allows for a compliance schedule to exceed 10 years but the terms for compliance are strictly constructed under the statute:

- (1) The permittee is meeting its requirements under the total maximum daily load as soon as possible;
- (2) The actions proposed in the compliance schedule are sufficient to achieve water quality standards as soon as possible;
- (3) A compliance schedule is appropriate; and
- (4) The permittee is not able to meet its waste load allocation solely by controlling and treating its own effluent. RCW 90.48.605.

The Hanlon Memo precisely defines the requirements of compliance schedules further:

Any compliance schedule contained in an NPDES permit must *include an enforceable final effluent limitation and a date for its achievement* that is within the timeframe allowed by the applicable state or federal law provision authorizing compliance schedules as required by CWA sections 301(b)(1)(C); 502(17); the Administrator's decision in *Star-Kist Caribe, Inc.* 3 E.A.D. 172, 175, 177-178 (1990); and EPA regulations at 40 C.F.R. §§ 122.2, 122.44(d) and 122.44(d)(I)(vii)(A).

Memorandum from James A. Hanlon, Director of the EPA Office of Water to Alexi Strauss, Director of Water Division EPA Region 9, Re: compliance schedules for water quality based effluent limitations in NPDES permits, U.S. EPA, May 10, 2007, available at <http://water.epa.gov/lawsregs/guidance/wetlands/upload/signed-hanlon-memo.pdf> (“Hanlon Memo”).

Although, EPA does not expressly state the limitations of the “timeframe allowed,” everything in the CWA points to the fact that such schedules should be, at a minimum or “as soon as possible”.

Furthermore, the rule language should include enforceable interim numeric limits and narrative limits when the narrative provisions are enforceable, as in the case of facility construction deadlines. This is consistent with the Hanlon Memo. *Hanlon Memo* at 2.

Therefore, based on the law and policy above, the Puyallup Tribe recommends that for non-TMDL Waters, Ecology require the shortest timeframe possible on a case-by-case basis. Ecology must mandate that schedules of compliance may not exceed ten years, and

shall generally not exceed the term of any permit. When appropriate and as soon as possible, Ecology should require that the compliance schedule shall lead to compliance with the state water quality standards and the Clean Water Act and implementing regulations. For TMDL waters, Ecology must mandate that compliance schedules may not exceed the 10 year timeline, unless permittees meet the requirements of the four part test established in RCW 90.48.605, as discussed above. If the permittee meets the four part test requirements, compliance schedules must be the shortest timeframe possible on a case-by-case basis, but not longer than a maximum of 15 years, whichever is less, so long as it is not later than the applicable statutory deadline under the Clean Water Act 40 CFR §122.47(a)(1). When appropriate, and as soon as possible, the compliance schedule shall lead to compliance with the state water quality standards, Clean Water Act and implementing regulations.

The rule language for compliance schedules in both non-TMDL and TMDL waters alike should incorporate as much of the Hanlon Memorandum language or intent as possible. The Hanlon Memo specifically recommends

1. "When appropriate," NPDES permits may include "a schedule of compliance leading to compliance with CWA and regulations ... as soon as possible, but not later than the applicable statutory deadline under the CWA." (40 CFR 122.47(a)(1)). Compliance schedules that are longer than one year in duration must set forth interim requirements and dates for their achievement. (40 CFR 122.47(a)(3)).
2. Any compliance schedule contained in an NPDES permit must be an "enforceable sequence of actions or operations leading to compliance with a [water quality-based] effluent limitation ["WQBEL"]" as required by the definition of "schedule of compliance" in section 502(17) of the CWA. *See also* 40 CFR 122.2 (definition of schedule of compliance).
3. Any compliance schedule contained in an NPDES permit must include an enforceable final effluent limitation and a date for its achievement that is within the timeframe allowed by the applicable state or federal law provision authorizing compliance schedules as required by CWA sections 301(b)(1)(C); 502(17) and EPA regulations at 40 CFR 122.2, 122.44(d) and 122.44(d)(I)(vii)(A).
4. Any compliance schedule that extends past the expiration date of a permit must include the final effluent limitations in the permit in order to ensure enforceability of the compliance schedule as required

by CWA section 502(17) and 40 CFR 122.2 (definition of schedule of compliance).

5. In order to grant a compliance schedule in an NPDES permit, the permitting authority has to make a reasonable finding, adequately supported by the administrative record, that the compliance schedule "will lead to compliance with an effluent limitation ... " "to meet water quality standards" by the end of the compliance schedule as required by sections 301(b)(1)(C) and 502(17) of the CWA. *See also* 40 CFR 122.2, 122.44(d)(1)(vii)(A).
6. In order to grant a compliance schedule in an NPDES permit, the permitting authority has to make a reasonable finding, adequately supported by the administrative record and described in the fact sheet (40 CFR 124.8), that a compliance schedule is "appropriate" and that compliance with the final WQBEL is required "as soon as possible." *See* 40 CFR 122.47(a), 122.47(a)(1).
7. In order to grant a compliance schedule in an NPDES permit, the permitting authority has to make a reasonable finding, adequately supported by the administrative record, that the discharger cannot immediately comply with the WQBEL upon the effective date of the permit. 40 CFR 122.47, 122.47(a)(1).
8. Factors relevant to whether a compliance schedule in a specific permit is "appropriate" under 40 CFR 122.47(a) include: how much time the discharger has already had to meet the WQBEL(s) under prior permits; the extent to which the discharger has made good faith efforts to comply with the WQBELs and other requirements in its prior permit(s); whether there is any need for modifications to treatment facilities, operations or measures to meet the WQBELs and if so, how long would it take to implement the modifications to treatment, operations or other measures; or whether the discharger would be expected to use the same treatment facilities, operations or other measures to meet the WQBEL as it would have used to meet the WQBEL in its prior permit.
9. Factors relevant to a conclusion that a particular compliance schedule requires compliance with the WQBEL "as soon as possible," as required by 40 CFR 122.47(a)(1) include: consideration of the steps needed to

modify or install treatment facilities, operations or other measures and the time those steps would take. The permitting authority should not simply presume that a compliance schedule be based on the maximum time period allowed by a State's authorizing provision.

10. A compliance schedule based solely on time needed to develop a Total Maximum Daily Load is not appropriate.

11. A compliance schedule based solely on time needed to develop a Use Attainability Analysis is also not appropriate.

Ecology's Proposed Rule fails to sufficiently limit compliance schedules. Based upon the items discussed above regarding compliance schedules, the Proposed Rule is arbitrary, capricious, contrary to law, and violates Treaty Rights.

Variances

Ecology proposes to provide variances for individual permittee, groups of permittees and even whole water bodies to avoid compliance with water quality standards. Ecology's proposed provisions for variances are ambiguous, broad, arbitrary, capricious, and contrary to law.

The Clean Water Act provides no express authority for states to issue variances. The Act does allow states to authorize general policies for the implementation of water quality standards. The intent for allowing variances is to prevent a permanent downgrade of a use and provide a mechanism for maintaining standards "where attainable". *National Assessment of State Variance Procedures*, U.S. EPA, 1990, available at

http://water.epa.gov/scitech/swguidance/standards/upload/1999_11_03_standards_variancereport.pdf. The underlying presumption is that by preventing a permanent downgrade in a designated use, further improvements in water quality will occur. Of course, this is not necessarily true,

unless prescriptions are stipulated that define under what circumstances and for how long variances will be in effect. In fact, the legal basis for granting a variance is that the state has fulfilled the same regulatory requirement for removing a designated use. *Water Quality Standards Handbook: Second Edition*, U.S. EPA Office of Water, Washington D.C, 1994, as updated in 2014, available at

<http://www.epa.gov/waterscience/library/wqstandards/handbook.pdf>.

The history of the concept of variances dates back to at least the 1980s, when in 1985, the Office of general Counsel indicated that, in addition to the substantial and widespread economic and social impact test that was imposed by regulation, 48 Fed.Reg 51403, Nov. 8, 1983, variances could be granted on any of the factors specified in 40 C.F.R. §131.10(g) for removal of

a use. But in addition to these requirements, EPA imposed two additional operating assumptions:

First, variances would not exceed 3 years, the time frame stipulated for the triennial review and the review of any water body segment that does not include the uses specified in Section 101(a)(2) of the CWA, the “fishable/swimmable uses”. Second, variances would be granted to an individual discharger. This discharger-specific element evolved because the agency developed the variance mechanism to ensure that permits issued complied with the CWA.

Memorandum from Edwin L. Johnson, Director Office of Water Regulations and Standards to Water Division Directors, entitled “Variances in Water Quality Standards,” U.S. EPA, March 15, 1985, available at http://water.epa.gov/scitech/swguidance/standards/upload/2008_08_04_standards_wqsvariance.pdf.

A variance does not replace a waterbody’s designated use, but instead merely provides a temporary standard while still preserving the underlying use. It must be based on a use attainability demonstration and targets achievement of the highest attainable use and criteria (or best achievable water quality) during the period of the variance. As such, the variance is a revised water quality standard that must be supported on the basis of the factors specified in 40 CFR §131.10(g), it requires a full public review process, and EPA and approval before it can be used for Clean Water Act purposes. *Variance Compendium*, Oregon Department of Environmental Quality. January 24, 2011, Salem, Oregon. In addition to ensuring the highest level of water quality is attained, every 3 (not 5 as proposed in the rule) years, the state must consider whether there is any new information that may indicate that a 101(a) use is attainable, and if so, revise the WQS accordingly 40 C.F.R. §131.20(a).

EPA continues to substantially limit the duration and scope of variances, while the Proposed Rule broadens the scope of application and provides no timeframe for their expiration. In the public process, variances for durations of 40 years were discussed for some pollutants that would be applicable statewide or to entire watersheds. This timeframe was reportedly based on timeframes for municipal capital budget planning, with no regard for required compliance with the Clean Water Act through achievement of the highest water quality during the interim and preventing the permanent downgrade of the use.

The state’s variance proposal and anticipated policy is perhaps the most egregious portion of the state’s proposed rulemaking in that it provides a steep and swift off-ramp from the goals and requirements of the Clean Water Act and its implementing regulations. By definition variances are not protective of human health or, in the case of conventional pollutants, not the

fishery, and variances pose a significant possibility for the diminishment of the tribe's treaty rights.

Accordingly, in compliance with the Clean Water Act, federal regulations, and to meet the State's obligations to protect tribal treaty rights, the Puyallup Tribe has the following recommendations:

1. Variances shall be applied under very limited circumstances and only apply to individual dischargers for a 3 to 10 year timeframe as intended. In working with the NWIFC for the last few years on this process, we agree with the words of the NWIFC staff:

“Absent express authorization under the CWA, the legality of variances is suspect, and application of the program should be reconsidered, or at a minimum should be applied in extremely limited circumstances. Authorization of a program that allows dischargers to violate existing water quality standards should be firmly grounded in explicit statutory direction, and currently neither statute nor subsequent rules provide the authorizing environment for such deviations from CWA compliance. Despite subsequent EPA approvals of variances, EPA also appears to have come to similar conclusions, in that early application of variances, although authorized, were encouraged to be of very limited scope and duration - only at the individual discharger scale and for a limited time period of three years. *See Comments of the Northwest Indian Fisheries Commission*, submitted as part of this Rulemaking.

2. Variance definition should be changed to be consistent with EPA's draft federal clarification rule.

The state's proposed definition of a variance is different than the federal definition, which if not rectified will have unintended consequences as to implementation. According to EPA, a variance does not replace a waterbody's designated use, but instead merely provides a temporary standard while still preserving the underlying use. *Discharger-specific Variances on a Broader Scale: Developing Credible Rationales for Variances that Apply to Multiple Dischargers*, U.S. EPA, EPA-820-F-13-012. 2013, available at <http://water.epa.gov/scitech/swguidance/standards/upload/Discharger-specific-Variances-on-a-Broader-Scale-Developing-Credible-Rationales-for-Variances-that-Apply-to-Multiple-Dischargers-Frequently-Asked-Questions.pdf>. Furthermore, “the interim requirements do not replace the designated use and criteria for the water body as a whole.” *Id.* at 2. “Variances are different from changes to the designated use and associated criteria in that they are intended as a mechanism to provide time for states, authorized tribes and stakeholders to implement adaptive management approaches that

will improve water quality where the designated use and criterion currently in place are not being met, but still retain the designated use as a long term goal”. 78 Fed. Reg. 54518 (Sept. 4, 2013) at 54531. Proposed Ecology rules define a variance as a “modification to the designated use *and* associated water quality criteria based on the factors specified in 40 C.F.R. 131.10(g).” The proposed variance definition should include that the underlying use shall be preserved for the time frame the variance is in effect.

3. The definition of a variance should include a sunset date and duration timeframe. Proposed variance regulations should be consistent with EPA’s guidance, internal directives, and memoranda as to limiting the duration. In order to comply with the recent clarification rule, variances must be required to include a sunset date, and the duration of any given variance should be limited between three and ten years. *Supplemental Information for Water Quality Standards Regulatory Clarifications Proposed Rule*, U.S. EPA, EPA 820-F-13-027 2013, available at http://water.epa.gov/lawsregs/lawsguidance/wqs_index.cfm#proposed. Ecology’s proposed rule language defines variances as “temporary,” without any sideboards. Ecology’s rule also fails to require that all variances contain a sunset date. It is recommended these are included in the definition section of the rule. Extended term variances should not be authorized. Extended term variances are inconsistent with both the Clean Water Act and the state’s anti-degradation procedures, and result in the unintended consequence of permanently downgrading designated uses .
4. Variances should not apply for purposes of implementing section 303(d) of the Clean Water Act.

EPA proposed regulations on variances further underscore that variances should not apply for purposes TMDL development or 303(d) listing. As discussed above, since a variance is intended to preserve the underlying designated use, Clean Water Act programs such as 303(d) listing should still be based the underlying use, and not the interim criteria, i.e., the variance. EPA has clearly stated that “any implementation of Clean Water Act section 303(d) to list impaired waters must continue to be based on the designated uses and criteria for the waterbody rather than the interim requirements.” *Discharger-specific Variances on a Broader Scale: Developing Credible Rationales for Variances that Apply to Multiple Dischargers*, U.S. EPA, EPA-820-F-13-012, 2013, available at <http://water.epa.gov/scitech/swguidance/standards/upload/Discharger-specific-Variances-on-a-Broader-Scale-Developing-Credible-Rationales-for-Variances-that-Apply-to-Multiple-Dischargers-Frequently-Asked-Questions.pdf>. Variances must only apply to individual dischargers.

5. Ecology should include variance eligibility requirements to ensure that variances do not violate other state and federal regulations or impair treaty rights. Eligibility requirements should include:
 - Variances may not jeopardize ESA-listed species or critical habitat
 - Variances may not impair treaty-reserved rights and resources.
 - Variances may not result in unreasonable risk to human health or environment
 - Variances may not impair an existing use
 - Variances must comply with antidegradation requirements
 - Variances may not impair downstream tribal waters

6. Variances rules should require that notice of a variance application and all subsequent actions are given to all affected tribes – not just tribes with water quality standards. Proposed rules require notice to only those tribes with water quality standards. Treaty tribes have a right to co-manage treaty-reserved resources regardless of whether they have adopted water quality standards.

7. Variances must contain enforceable limits that address nonpoint sources. Ecology proposed rules provide for documentation of the BMPs for nonpoint sources. However, Washington currently lacks approved BMPs and an adequate program to ensure their implementation consistent with the requirements of WAC 173-201A-510. Ecology should detail how BMPs for unpermitted dischargers will be implemented.

8. The proposed rule must require that variances establish numeric criteria for the “*highest attainable condition*” or *highest water quality as soon as possible during the specified time period of the variance.* To ensure consistency with the federal regulations, Ecology proposed rules must require that variances establish numeric criteria which represents the “the highest attainable condition during the specified time period.” This requirement is intended to be accomplished “as soon as possible”. Without these numeric benchmarks, variances will lack assurances of being set at the highest attainable levels that best protects the underlying use. *Id.*

9. Variance renewals should not be authorized and mandatory 3 year, not 5 year reviews, should be subject to EPA review and public process. Variances are intended to be temporary only. Therefore, variance rules should prohibit both administrative extensions and renewals.

10. For achieving certainty in “a pathway to compliance” that leads to measurable improvements to waters of the state and protection of public health, the variance review schedule and process should be put into the rule. Articulating procedural requirements as well as timelines provides dischargers with a clear pathway to compliance with permits; holds them accountable; and is transparent, clear, and consistent in application.

11. Variances must include requirements for dedicated monitoring and funding to implement it. Monitoring to ensure measurable progress is made in the water column and the “highest water quality as soon as possible” is achieved. Without such monitoring data, enforcement and adaptive management will be impossible, and attainment of standards as approved by EPA will be thwarted.

For the above stated reasons, without incorporation of the Puyallup Tribe’s recommendations into the section of the Proposed Rule on variances, Ecology’s proposal is arbitrary, capricious, contrary to law, and violates Tribal Treaty rights.

Intake Credits

Current Washington State surface water quality standards rules (Chapter 173-201A WAC) does not include language on the use of intake credits as an implementation tool. The intake credit rule section in the Proposed Rule is new and will be used for the first time in the State of Washington, if approved by EPA. Federal regulations allow for the use of intake credits to be applied to technology-based effluent limitations 40 C.F.R. §122.45(g)). It is essential that the state’s water quality standards rule provide a sufficient definition, and specify how and when these tools will be used.

An intake credit is a tool used to account for the level of a pollutant in the intake water of a facility when establishing a permit limit for the effluent of that facility. *See* 40 C.F.R §122.45(g). As typically used in federal permits and other states, intake credits have a limited applicability due to requirements that the intake pollutant must not be altered in such a way as to cause or contribute to an excursion of a water quality standard.

The use and application of intake credits should be narrowly construed to and only applied in circumstances that will not cause or contribute to violations of water quality standards or degrade tribal waters. To avoid potential violations of water quality standards, intake credits should be limited to the following circumstances:

- The facility does not add the intake pollutant of concern
- The facility does not alter the intake pollutant chemically or physically
- When intake of the pollutant of concern comes from the same surface body of water from the immediate vicinity of the discharge.
- When the intake credit is used to demonstrate *compliance with* effluent limitations, as opposed to avoiding the setting of effluent limitations through the Reasonable Potential Analysis review.

Furthermore, the proposed definition and regulations regarding intake credits in the Proposed Rule are too broad. Ecology’s proposed language provides:

"Intake credit" is a procedure for establishing effluent limits in waste discharge permits issued pursuant to the National Pollutant Discharge Elimination System that take into account the amount of a pollutant that is present in public waters, at the time water is removed from the body of water by the discharger or other facility supplying the discharger with intake water.

The proposed definition for intake credits is too broad in that it allows the application of intake credits for the development of both technology based effluent limits (TBEL), water quality based effluent limits (WQBEL) and conducting a Reasonable Potential Analysis (RPA) for the determination if an effluent limit is needed. It does not adequately define what bodies of water the intake water can come from and where subsequent discharge will occur. It also does not include "no net loss" language or define the amount to be mass and concentration. Therefore, definitions and subsequent rule language should prohibit use of intake credits for making a reasonable potential determination. Federal regulations provide that intake credits should only apply to TBELs. 40 C.F.R. §122.45(g). Additionally, intake credits should not apply to the RPA, because they should not be used as a procedure to avoid triggering effluent limitations, but instead used solely as a means to demonstrate compliance with end of pipe standards under very limited circumstances.

Ecology should include the language in their rule, from their Key Decision Overview Document that states "[i]ntake credits do not alter the permitting authority obligations under 40 CFR 122.44(d)(vii)(B) to develop effluent limitations as part of a TMDL prepared by the state department and approved by EPA as outlined in 40 CFR 130.7" *Draft Water Quality Standards Rulemaking - Implementation Tools: Intake Credits*, Washington State Department of Ecology November 6, 2013, available at <http://www.ecy.wa.gov/programs/wq/swqs/DraftIntakeCreditsv3.pdf>

With regard to groundwater, definitions and subsequent rule language must prohibit the application of intake credits when intake water is taken from groundwater and discharged to surface water. The proposed rules allow groundwater to count as part of an intake credit when "the department determines that the pollutant would have reached the vicinity of the outfall point in the receiving water within a reasonable period had it not been removed by the permittee." Proposed Rule at 17. However, groundwater often contains different chemical makeup than surface waters, including higher presence of some chemicals such as arsenic, and the flow and rate at which these waters may have reached the surface water is likely altered by the withdrawal from ground and subsequent discharge to surface waters. Additionally, the point of withdrawal and discharge are likely to have an effect on surface water quality and therefore discharges should not be given *carte blanche* to apply the intake credit simply because the ground water will *eventually* reach the surface water at some point and time.

Neither Ecology nor the dischargers should be afforded such broad discretion to determine what a "reasonable period" or the geographic scope of the "vicinity" is regarding time

or geographic distance from withdrawal to discharge. Since the rule lacks general guidance on this matter, and such withdrawals present a likelihood of violating water quality standards, the Puyallup Tribe recommends prohibiting groundwater withdrawals from the use intake credits and deleting section 1(d) which, without data to make a finding that the pollutant would or would not have reached the facility had it not been for the removed by the permittee is without basis and therefore arbitrary.

The Puyallup Tribe also recommends certain items be deleted in section (2) of the proposed language on intake credits to further refine application of intake credits and prevent violations of the Clean Water Act. First, Ecology should delete or amend section 460(2)(a)(vi). The proposed rules allow for facilities to add pollutants of concerns and still remain eligible for intake credits:

(vi) For the purpose of determining water quality-based effluent limits; the facility does not increase the identified intake pollutant concentration at the point of discharge as compared to the pollutant concentration in the intake water. A discharger may add mass of the pollutant to its waste stream if an equal or greater mass is removed prior to discharge, so there is no net addition of the pollutant in the discharge compared to the intake water. Proposed Rule at 17.

This provision has the effect of limiting treatment of the pollutant of concern to levels identified in the intake, instead of setting treatments at the levels required by the CWA such as TBEL and subsequently WQBEL, which have been determined necessary for compliance with water quality standards. If the facility has the capability to remove mass of the pollutant from the discharge, then that capability should be maximized to the extent provided by law. Dischargers should not be allowed to relax removal efficiencies merely because presence of the pollutant in the intake affords them the opportunity. Such an approach would be inconsistent with the Clean Water Act, and therefore it should be omitted. However, we would like to note that this provision as currently written is limited to development of WQBELs and is not available for use in RPA. Given the concerns stated above we would agree with Ecology that intake credits, especially when the pollutant of concern is added by the facility, should not be available for purposes of the RPA.

Furthermore, Ecology should delete section 460(2)(c). Section 460(2)(c) proposes:

(c) Where intake water for a facility is provided by a municipal water supply system and the supplier provides treatment of the raw water that removes an intake water pollutant, the concentration of the intake water pollutant will be determined at the point where the water enters the water supplier's distribution system.

The Proposed Rule proposes to allow dischargers to get an intake credit for the intake pollutant present prior to removal by a municipal water supply treatment, even though the discharger

receives water from municipal system after it is treated, and the pollutant is no longer present, or present at concentrations that the dischargers are seeking credit for. This provision provides a pollution allowance for a pollutant that is not present in the intake of the discharger. Therefore, there is no basis for providing for such an allowance in the Clean Water Act or federal regulations, because the pollutant is in the so-called background. Allowing credits for this purpose essentially allows permittees to fabricate credits for pollutants that do not even enter the facility, and could lead to facilities being allowed to add pollutants to a waterbody in complete contradiction of the Clean Water Act and the NPDES program. Intake credits must only be allowed for pollutants that merely pass through a facility without either an addition or alteration of the physical and chemical properties of the pollutant. As currently written this provision could help dischargers circumvent WQBEL development, because the extra allowance could be used to offset pollutants added at the facility site and thereby avoid triggering the requirement for an effluent limitation in Reasonable Potential Analysis. It could also be used to set less protective effluent limitations, because the facilities would be given credit for the discharge of a pollutant, even though the pollutant was actually added *after* intake. Such an approach violates the prohibition on the discharge of pollutants under the Clean Water Act.

Ecology must delete section 460(2)(d). Washington proposes to allow the use of intake credits when intake water is mixed with other intake water that is not from the same body of water as defined in 460(1). The rule provides that the department “may derive an effluent limit reflecting the flow weighted amount of each source of the pollutant.” This section potentially allows intake credits to apply to intake waters other than those that are from the “same body of water,” and therefore is inconsistent with the general provision provided in section 1 that prohibits intake credits applied to waters that are not hydrologically connected (see also issues regarding this provision above). Accordingly, we strongly oppose this provision.

Although Ecology proposes the use of flow-weighting as means to attempt to account for only those pollutants from the same water body in the Proposed Rule, at 18, the reality is that these calculations can only provide rudimentary estimations of pollution intake, especially when considering the complexity of accounting for toxics which are often present at low concentrations and are difficult to detect. Also, it is unlikely that flow weighted calculations will capture the changes in intake flow over the course of the five year permit cycle, or seasonal/yearly variations in the pollutant concentrations. The result is that it is likely, if not certain, that co-mingling of waters and pollutants are likely to occur that will not easily be accounted for. This introduces potential for discharge of unpermitted pollutants (from other waters), which are inconsistent with the Clean Water Act and federal regulations. Practically, this provision would allow an importation of pollutants of concern from other basins to be discharged in a different waterbody.

Furthermore, TMDL development must be required prior to allowing intake credits for discharges into 303(d) listed waters. When receiving waters are polluted, it is important that extra scrutiny is applied to facilitate cleanup, and provide accountability that NPDES permits are

not contributing to the problem. Under the Clean Water Act, total maximum daily load (TMDL) development is the process by which this occurs. If intake credits are allowed prior to TMDL development, then it will be impossible to determine impacts of the intake credits on the TMDL and result in frustration of the purposes of the Clean Water Act.

Permit tools which provide discharges enhanced flexibility from federal regulations - such as intake credits - should not apply under circumstances when receiving water are not in compliance with Clean Water Act standards and are in need of pollutant reductions, i.e., they are listed as category five on the 303(d) list of impaired waters. Tools such as intake credits should be limited on these waterbodies, because they may authorize dischargers to perpetuate a status quo condition which is contrary to the Clean Water Act. The situation to avoid is where the polluted waters in need of reductions are considered background pollutants in the intake, and therefore are used as the basis for avoiding effluent limitations, when in fact the CWA requires the opposite for 303(d) listed streams – a thorough analysis and assigned loading reductions via development of a TMDL, waste load allocations and eventually new WQBELs. Therefore, before assigning new permit limits using intake credits, Ecology should undertake the Clean Water Act TMDL process. Using this approach, Ecology will have a better informational foundation by which to judge whether an intake credit will ultimately impact downstream designated uses or cause or contribute to a violation of water quality standards, avoiding a clear violation of the Clean Water Act.

Similarly, intake credits should not be allowed for pollutants that are also listed as impairing the receiving waters (as demonstrated on the 303(d) list of impaired waters), until after a TMDL is conducted, and the appropriate waste load allocations have been assigned and translated into effluent limitations.

Documenting, reporting, and transparency requirements should be included when intake credits are applied. To ensure that intake credits are applied in transparent manner, proposed regulations should include requirements that NPDES permits clearly indicate:

- The application of an intake credit to development of a effluent
- The pollutant parameter(s) to which the credits are applied
- The basis for the determination

In addition, all calculations and justifications for credits should be included as part of the NPDES permits record, and should be easily accessible to the public.

Without modifications to the Intake Credit language in the Proposed Rule, Ecology's Proposed Rule is arbitrary, capricious, contrary to law, and violates the Tribe's treaty rights.

Protection of Downstream Uses

Pursuant to sections 303 and 101(a) of the Clean Water Act, the federal regulation at 40 C.F.R. §131.10(b) requires that “[i]n designating uses of a water body and the appropriate criteria for those uses, the State shall take into consideration the water quality standards of downstream waters and shall ensure that its water quality standards provide for the attainment and maintenance of the water quality standards of downstream waters.” This provision requires states and authorized tribes (hereinafter “states/tribes”) to consider and ensure the attainment and maintenance of downstream water quality standards (WQS) during the establishment of designated uses and water quality criteria in upstream waters. *See Protection of Downstream Waters in Water Quality Standards: Frequently Asked Questions*, U.S. EPA, EPA-820-F-14-001, 2014, available at <http://water.epa.gov/scitech/swguidance/standards/library/upload/downstream-faqs.pdf>.

Designated uses and criteria that ensure attainment and maintenance of downstream WQS facilitate consistent and efficient implementation and coordination of water quality-related management actions (e.g., water quality monitoring and assessment, development of Total Maximum Daily Loads (TMDLs) and other watershed-based restoration and protection plans, and National Pollutant Discharge Elimination System (NPDES) permitting and Clean Water Act Section 401 certifications).

Although states have flexibility and discretion as to how this requirement is accomplished, the Tribe prefers this approach. Consistent upstream and downstream uses and criteria provide consistency across jurisdictional waters for the successful management of resources and reduce the likelihood of interjurisdictional disputes. Based on the Proposed Rule, the State of Washington’s rules continue to become more and more disparate from Washington Tribe’s water quality standards and neighboring state like Oregon. Ninety percent of Oregon’s criteria differ from the State of Washington’s criteria set forth in the Proposed Rule.

The state’s proposed changes to the FCR and cancer risk levels broaden the chasm between neighboring states and Washington’s Tribes. The requirement to protect downstream uses mandates adopting either narrative or numeric criteria to ensure the attainment and maintenance of downstream and preferably, an antidegradation policy and implementation plan that expressly prevents degradation of downstream waters and a plan for assurances.

Specifically, when designating or revising upstream uses specified in Clean Water Act section 101(a)(2), or subcategories of such upstream uses, provisions should include how the state’s revised upstream uses (and associated criteria) will continue to demonstrate protection of existing or designated uses of downstream waters. The state has not provided the rationale as to *how* they will ensure downstream tribal and inter-state uses with neighboring states of Oregon and Idaho will be protected, particularly in light of the broadening of the off-ramps from the Clean Water Act provided by authorizing extensive undefined compliance schedules, variances

and, intake credits. The Puyallup Tribe would like to obtain assurances from the State of Washington that the integrity of our downstream waters will be maintained and human health and our resources will be protected.

Absent any clear evidence as to how Washington intends to meet the Clean Water Act's obligations regarding downstream waters, the Proposed Rule is arbitrary, capricious, contrary to law, and a violation of the Tribe's Treaty Right.

CONCLUSION

Based upon the extensive discussion and reasons stated herein, the Proposed Rule is arbitrary, capricious and a violation of law. In addition, the Proposed Rule violates the Tribe's Treaty rights. Absent significant changes to address the issues stated herein, Ecology risks significant ongoing litigation, and subsequent delay in implementing the water quality standards protective of human health.

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40 C.F.R. Parts 35, 120, and 131

40 C.F.R. §131.10

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