Northwest Indian Fisheries Commission

6730 Martin Way E., Olympia, Washington 98516-5540
Phone (360) 438-1180 www.nwifc.org FAX # 753-8659

October 24, 2014

Heather Bartlett
Water Quality Program Manager
Department of Ecology
P.O. Box 47600
Olympia, WA 98504-7600

Re: Comments on Scope of Environmental Impact Statement for Washington's Human Health Criteria and Implementation Tools Rulemaking

Dear Mrs. Bartlett:

On behalf of the Northwest Indian Fisheries Commission, please find attached comments regarding the Department of Ecology's request for input on the scope of the proposed Environmental Impact Statement (EIS) for Human Health Criteria (HHC) and Implementation Tools rulemaking. These comments represent the collective views of the NWIFC member tribes; however, they in no way supersede or supplant comments or recommendations submitted by the individual member tribes. Should you have any questions regarding these comments, please do not hesitate to contact Fran Wilshusen at 438-1180.

Sincerely,

Mike Grayum, Executive Director

Enclosure

cc: Commissioners

Comments from the NWIFC Regarding Scope of Proposed Environmental Impact Statement

1. **Probable Significant Adverse Impacts**

The State Environmental Policy Act requires the development of an EIS to "analyze only those probable adverse environmental impacts which are significant." [1] Washington regulations further define significant impacts as those that have a "reasonable likelihood of more than a moderate adverse impact on environmental quality."[2] The "environment" is broadly defined by Washington regulations as inclusive of both the natural and built environments, which encompass a wide array of elements ranging from human health and cultural preservation to aquatic species, the water column, and sediments.[3]

In the consideration of the reasonable likelihood of more than moderate impacts resulting from rulemaking and subsequent acts or omission in implementing the rule, the NWIFC respectfully requests that the Department of Ecology (Department) analyze the following elements:

a. *In considering the scope and extent of impacts associated with human health criteria, it will be essential to compare beneficial and adverse environmental impacts of the proposed rules against alternatives that include more protective standards.* If proposed rules are solely compared with a baseline of the current (under) implementation of human health criteria, it is likely that little impact or benefit[4] will be observed, particularly, given that numerous criteria are proposed not to change. Alternatively, if the Department analyzes potential impacts in comparison to more protective alternatives (see recommendations in section 2), the EIS will likely provide a more thorough analysis by highlighting not only impacts, but also whether rules have been "under developed" [5] or how they might improve protection. This type of review is within agency discretion,[6] and is consistent with the Department's guidance on SEPA non-project actions:

> *In most instances, the development of a nonproject action (i.e. plan or policy) involves an analysis of alternatives and the potential consequences of future project actions. Since an EIS also evaluates alternatives and probable impacts, it should be possible to combine the EIS with the analysis of the nonproject action and issue an integrated document.*[7]

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[1] RCW 43.21C.031

[2] WAC 197-11-794(2)(a) &(c)

[3] See WAC 197-11-444

[4] SEPA allows lead agencies to consider environmental benefits as well as adverse impacts, and we strongly encourage the agency to do so. See WAC 197-11-402(1)

[5] According to the SEPA Handbook, "Review of a nonproject proposal should include a consideration of other existing regulations and plans, and any *under development*." Department of Ecology, State Environmental Policy Act Handbook, Chapter 4 Nonproject Actions, Section 1 General Guidance for Nonproject Actions, Available at http://www.ecy.wa.gov/programs/sea/sepa/handbk/hbch04.html#4.2

[6] WAC 197-11-442(1) providing that "the lead agency shall have more flexibility in preparing EISs on nonproject proposals, because there is normally less detailed information available on their environmental impacts and on any subsequent project proposals."

[7] Department of Ecology, State Environmental Policy Act Handbook, Chapter 4 Nonproject Actions, Section 2 Contents of a Nonproject EIS. Available at http://www.ecy.wa.gov/programs/sea/sepa/handbk/hbch04.html#4.2

SEPA regulations also call attention to the importance of using a comparative analysis approach in the development of a nonproject EIS:

> In particular, agencies are encouraged to describe the [nonproject] proposal in terms of alternative means of accomplishing a stated objective (see WAC 197-11-060(3)). Alternatives including the proposed action should be analyzed at a roughly comparable level of detail, *sufficient to evaluate their comparative merits.*[8]

b. *Consider single and connected actions as well as both cumulative and individual impacts to the environment in comparison to the alternatives.* Washington regulation requires that lead agencies for SEPA include analysis of direct, indirect, and cumulative impacts from single and connected actions.[9] Regulations also direct lead agencies to look at both short and long term impacts.[10] Impacts associated with toxic chemicals often occur from both chronic and acute exposures through direct and indirect pathways. In some cases, impacts to human health, cultural resources and the aquatic environment may not be fully realized if only single pollution parameters are used for impact analysis.[11] In considering probable cumulative direct and indirect impacts, consider that the environment, including human health, is exposed to numerous sources of toxics from numerous exposure pathways, humans carry preexisting body burdens of toxics, and toxics have additive and synergistic adverse effects on resources and health. Therefore, analysis of impacts must look to those adverse effects caused by multiple pollutants, from multiple exposures, consider the synergistic and additive effect of chemicals, and look at impacts that are both acute and chronic.

c. *Consider the impacts associated with point and nonpoint sources of pollution in comparison to the alternatives in section 2.* It has been argued that revised water quality standards will only address a small portion of the problem, i.e. point source discharges, or more specifically, individual NPDES permit holders. Although the water quality standards do have a clear connection with the development and regulation of NPDES permits, they are also foundational in the development and regulation of other point and nonpoint sources of pollution. The following are a few examples of how water quality standards apply those regulations:

- state law provides that no waste discharge permits (which are defined more broadly than CWA NDPES permits)[12] are allowed to violate any water quality standards, including toxicant standards and sediment criteria;[13]
- municipal stormwater permits explicitly provide that discharges may not violate any water quality standards including toxicant standards;[14]

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[8] WAC 197-11-442(2) *emphasis added*
[9] WAC 197-11-792
[10] WAC 197-11-060(4)(c)
[11] See e.g. K WAh Chu, King L Chow, Synergistic toxicity of multiple heavy metals is revealed by a biological assay using a nematode and its transgenic derivative, Aquatic Toxicology, November 2002, Pg 53-64.
[12] See RCW 90.48.160
[13] See RCW 90.48.520
[14] See e.g. Western Washington Stormwater Permit Phase II, August 1, 2013 - Special Conditions S.4.A&B;

- Total Maximum Daily Loads (TMDLs), which are based on monitoring and modeling designs intended to set new pollution limits to bring pollution sources into compliance with water quality standards, establish waste load and load allocations for both point and nonpoint sources of pollution; [15]and
- state regulation requires nonpoint sources of pollution to comply with water quality standards .[16]

Therefore, since water quality standards govern regulation for both point and nonpoint sources of pollution, impacts analysis should consider the potential impacts from all types of permitted and non permitted sources.

d. *Comparatively consider impacts associated with implementation of revised human health criteria assuming full implementation of the rules*. In the consideration of impacts associated with the HHC, assume full implementation of standards to assess impacts. In doing so, assume that TMDL development for toxics would be consistent with required timelines and duties established in the Clean Water Act. Additionally, assume timely development of subsequent water quality based effluent limitations to implement Waste Load Allocations. Also, assume effective translations of HHC criteria into stormwater permits and effective implementation of the Washington Nonpoint Plan. The implementation assumptions provided by the Departments Cost Benefit Analysis, are not reflective of the potential for full implementation of HHC - rather they clearly demonstrate a historical and current lack thereof.

e. *Comparatively consider impacts and benefits to tribal member health and preservation of tribal cultural values.* Washington regulations explicitly include the consideration of impacts to environmental health and cultural preservation in the scope of an EIS analysis.[17] The member tribes of the NWIFC have constitutionally protected, treaty-reserved rights, to manage, harvest and consume seafood of all types in their Usual and Accustomed Areas. The consumption of seafood is an integral element of the tribes' cultures, economies, and life-ways. It is also a cultural practice and reserved-right that has been exercised since time immemorial. When fish, shellfish, and other seafood are unfit for consumption, the tribes' cultures are clearly significantly impacted by an inability to carry out cultural practices. Moreover, when traditional tribal foods are consumed, but nonetheless contain chemicals that cause (often synergistically) numerous health impacts, including cancer and non-cancer effects, then tribal cultures are also significantly impacted by early mortality, sickness, and the subsequent degradation to general well being. In considering impacts to tribal cultures, consider that tribal fish consumption studies show regional cultural consumption patterns (occurring at suppressed levels well below historical rates) are much higher than those utilized in the development of the proposed rule, and therefore tribal exposures are likely to be greater than those represented in the development of the HHC.[18] Also, in analyzing these health impacts consider differences of effect on women and children, particularly breast feeding infants.

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[15] See *Pronsolino v Nastri*, 291 F.3d 1123 (9th Cir. 2002) *holding* that TMDL development is still obligated for those waters solely impaired by nonpoint sources of pollution.

[16] See WAC 173-201A-500 & 510(3)(a)

[17] See WAC 197-11-444(2)(a)(iii) &(3)(b)(vi)

[18] See e.g. Department of Ecology, Fish Consumption Rates Technical Support Document, A review of data and Information about Fish Consumption in Washington, version 2.0 Final, January 2013, Publication No. 12-09-058, page 61, *citing* fish consumption rates as high as 797 grams per day in the Puget Sound region.

f. *Comparatively analyze the potential for disproportionate effects of the proposed rules on minority and low-income populations, consistent with principles and guidelines on environmental justice*. The EIS, although primarily a creature of state law, may eventually be used to support both state and federal decision making, given that the federal Clean Water Act requires federal approval of all new or revised water quality standards.[19] Therefore, state rulemaking decision documents, such as the EIS, should anticipate upcoming federal requirements applied in the review of rules, and address those at the outset. One such requirement is for federal agencies to achieve environmental justice by addressing the "disproportionately high and adverse human health and environmental effects [of an action] on minority and low-income populations." [20] The EIS should analyze impacts and benefits consistent with federal requirements, including the impacts, both positive and negative, on achieving environmental justice. Analysis of environmental justice issues should include potential impacts on the physical and natural environment, as well as social, cultural, and economic effects of the action.

g. *Consider impacts associated with implementation tools rulemaking using longest possible timelines, and clearly state assumptions used in the development of scenarios*. The current proposed rules provide no maximum timelines, and therefore leave the temporal scope of impacts open for consideration. In developing the scope of the EIS, we recommend that the Department analyze for impacts associated with the implementation of the rule, including both acts and omissions as a result of the compliance tools, and utilize maximum allowable timelines reasonably foreseen. For example evaluate all impacts on all elements of the environment associated with variances and compliance schedules, using the maximum foreseen timeline for noncompliance with the standards. Also, it will be important to clearly state in writing the assumptions used for these timelines.

h. *Consider impacts associated with implementation tools rulemaking on all designated uses*. Implementation tools apply to all water quality standards, and therefore may have an impact on all Clean Water Act designated uses. For example, variances and compliance schedules could be granted for temperature standards, providing for a potential significant impact on aquatic life, including fish and benthic organisms.

i. *Consider the consequences and impacts of failing to revise 57 criteria against the alternatives identified in section 2.* In the development of the EIS, specifically consider that the proposed rule revisions will result in 57 criteria that will remain the same as the National Toxics Rule for Washington. These criteria should be compared against criteria developed under the alternatives identified in section 2, and analyzed for impacts consistent with the recommendations herein.

j. *Consider the impacts from increasing allowable Arsenic concentrations in standards*. Consider the impacts on the environment, including but not limited to tribal cultures, human health, aquatic environments, and sediments, as a result of increasing allowable concentrations of arsenic in the environment. In considering impacts, avoid analysis that rationalizes exposure due to "background" levels that include anthropogenic sources of arsenic. For example, portions of the Puget Sound region were contaminated throughout the 20th century by the

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[19] 33 USC § 1313(c)(2)

[20] Exec Order No. 12,898, 59 Fed. Reg. 7629 (February 11, 1994)

airborne deposition of arsenic from a smelter in the south Puget Sound region. This widespread historical contamination is not "natural," and may not be permanent due to processes of natural attenuation, which may serve to reduce the level of contaminant overtime. Therefore, considering anthropogenic sources as background could impede analysis of long term potential impacts standard setting on the environment, and should be avoided. Also, consider effects of bioconcentration and bioaccumulation of arsenic, including the subsequent health effects on high fish consuming populations as well as other natural predators. Also, when considering impacts associated with Arsenic concentrations, be mindful that Washington's proposed Arsenic criteria are only intended to protect human health through drinking water exposures and fail to consider the health effects from exposures of arsenic that include consumption of fish (which may bioaccumulate Arsenic) in addition to drinking water intake.

k. *Consider impacts from taking no action to revise Mercury criteria.* Please consider the direct, indirect and cumulative environmental impacts associated with taking no action on Mercury criteria.

l. *Consider impacts from employing a Relative Source Contribution* of *1 in the calculation of standards*. The proposed HHC utilize a relative source contribution value of 1 in the calculation of the criteria. A value of one 1 indicates that Washington does not believe the standards should account for other known chemical exposures when calculating threshold effects of non-carcinogenic chemicals on human health. Although the Department believes that humans are exposed to other sources of chemicals, the Department has determined that the use of the RSC is a "risk management decision that states need to carefully weigh."[21] However, Washington's decision to calculate standards which will not factor in the reality of human exposure to other chemical sources could skew the calculation of how much of a pollutant a person can "safely" be exposed to. When considering the impacts associated with rules, directly consider that humans are exposed to many chemicals via exposure pathways other then fish consumption and drinking water intake.[22] Also, consider that proposed rules do not take into consideration preexisting body burden, or synergistic adverse effects of exposure to other chemicals. In analyzing this, consider the impacts of a proposed rule that is intended to calculate pollution limits based on threshold and non threshold effects of exposure to the chemical, but fails to factor in known sources of exposure in addition to drinking water and fish consumption intake.

m. *Consider the impacts from proposing to eliminate WAC 173-201A-240(6).* Washington's current Water quality standards provide that "risk-based criteria for carcinogenic substances shall be selected such that the upper-bound excess cancer risk is less than or equal to one in one million."[23] The proposed rules eliminate this provision, and instead "apply[s] the risk level of 10-5 to highly exposed pollutions..."[24] Consider the impact of eliminating WAC 13-201A-240(6) on

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[21] Department of Ecology, Washington Water Quality Standards; Human Health Criteria and Implementation Tools: Overview of Key Decisions in Rule Development, September 2014 page 23.

[22] For example Inhalation of PAHs in air is estimated account for about 10% of exposure, while total food sources including cereals, meat and nuts include up to 80 to 90% of exposures. Department of Ecology, PAH Chemical Action Plan, December 2012, page 13. See also European Food Safety Authority, The EFSA Journal 724: 1-114. Polycyclic Aromatic Hydrocarbons in Food. Scientific Opinion of the Panel on Contaminants in the Food Chain. (Question No. EFSA-Q-2007-136). Adopted on 9 June 2008;

[23] WAC 173-201A-240(6)

[24] Department of Ecology, Washington Water Quality Standards; Human Health Criteria and Implementation Tools: Overview of Key Decisions in Rule Development, September 2014, at page 20.

all related regulatory processes including but not limited to establishing human health criteria, sediment quality criteria, setting site specific water quality standards, conducting clean ups, as well as the subsequent impacts to the environmental elements enumerated above.

n. *Consider Impacts associated with proposal to ignore EPA recommendations to use bioaccumulation factors (BAF) in lieu of Bioconcentration Factors (BCF).* The proposed human health criteria utilize old and outmoded Bioconcentration factors, [25] and ignores recent EPA recommendations to utilize BAF models.[26] The use of BCFs may result in underestimating pollutant uptake due to the fact that Bioconcentration reflects only uptake from the water column, while bioaccumulation reflects uptake from food, water, and sediment. The Department's underestimation of pollutant uptake could result in standards are that are substantially less protective, therefore potential environmental impacts should be analyzed.

2. Alternatives for Consideration in the EIS

Please consider the following alternatives when developing the EIS:

- Development of human health criteria using a fish consumption rate based on consumption patterns of western Washington tribes, which represents, at a minimum, the 95th percentile consuming all species groups.
- Development of human health criteria retaining WAC 173-201A-240(6), and therefore utilizing a risk level of 10^{-6} in the development of freshwater and marine carcinogenic criteria.
- Development of Implementation rules that limit the duration of variances and compliance schedules to the 5 year NPDES permit cycle.
- Development of Arsenic criteria based on EPA recommended methodology (2000)that includes consideration of exposure pathways in addition to drinking water intake. Also, consider a no-action alternative for Arsenic.
- Development of human health criteria that includes the use of bioaccumulation factors in lieu of bioconcentration factors.
- Development of human health criteria that includes use of relative source contribution variables consistent with EPA recommended defaults or locally derived percentages.
- Calculation of Mercury criteria using EPAs methodology (2000).

3. Mitigation Measures

Mitigation measures to compensate for impacts to tribal cultures, treaty-reserved rights, and tribal-member heath should not be considered. In lieu of mitigation, the Department should focus time and resources on the development of alternatives which could result in improved protection of human health and the environment as enumerated above. In the event that mitigation is considered in the EIS for reasons other than to offset the ill effects above, analyze mitigation measures that will result in more comprehensive implementation of water quality standards, including:

- development of all known, available, and reasonable methods of prevention, control, and treatment (AKART) for toxicants pursuant to RCW 90.48.520;
- improved NPDES effluent limit development based on sediment quality criteria, sediment-based listings, fish tissue sampling, etc;

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[25] Id at page 30
[26] 79 FR 27303

- eliminate the use of mixing zones for effluent limits based on human health criteria;
- development, application, and enforcement of numeric effluent limitations for stormwater permits;
- increased and timely development and implementation of TMDLs for human health criteria;
- submittal of sediment management standards to EPA for review and approval as water quality standards; and
- expanded geographic scope and increased amount of fish tissue monitoring and 303(d) listing.