Spokane Riverkeeper Upper Columbia River
Group Sierra Club

Please find our comments uploaded.

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4/29/22

Thomas Soeldner,
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ATT: Karl Rains,
Water Quality Planner, Washington Department of Ecology,
Eastern Regional Office
4601 N. Monroe, Spokane, WA 99205-1295

RE: Comments for Draft NPDES Permits for Inland Empire Paper (# WA0000825)

Dear Mr. Rains,

The following are comments on the draft NPDES permit (Permit No. WA0000825) for Inland Empire Paper Company (IEP), which is being submitted by both Riverkeeper as well as the Upper Columbia River Group – Spokane River Group - Sierra Club. Both organizations are advocates for the Spokane River Watershed as well as the public who uses and values a healthy and clean Spokane River Watershed. Please find several other submissions designed to support the comments below.

- **Background and perspective on NPDES Permitting Process:**

Both Sierra Club (SC) and the Spokane Riverkeeper (SRK) conceptualize the NPDES permit as a way to 1) ensure that the states waters meet the legal water quality standard for the State of Washington (thereby ensuring "designated uses" under law) and 2) work on regulating all dischargers such that they will minimize their pollution loading to the eventual end of water pollution in the states waters. In their memo, submitted during the informal comment period (see attachment) on variances in the Spokane River Basin, lawyers from Bricklin and Newman state that the objective of the Clean Water Act (CWA) is *"to restore and maintain the chemical, physical, and biological integrity of the Nation's waters," and to achieve "wherever attainable, an interim goal of water quality which provides for the protection and propagation of fish, shellfish, and wildlife and provides for recreation in and on the water." 33 U.S.C. § 1251(a) and (a)(2) Additionally, the National Pollution Elimination System Permit (NPDES) contains the word "elimination" as the architects of the CWA foresaw, not only limiting pollution to our waters but*

the actual "elimination of water pollution by 1985. The CWA stated, "it is the national goal that the discharge of pollutants into the navigable waters be eliminated by 1985" (CWA101(a)(1)).[1]

Washington Department of Ecology's Preliminary Proposed Rulemaking for PCB Variances on the Spokane River

Comments on Discharge Effluent Limits:

SC and SRK appreciate and support the WDOE using numeric limits for Total PCBs in the effluent of IEP's discharge to the Spokane River. We appreciate and support the (average monthly) numeric effluent limit of 170 picograms per liter at the end of outfall 001 as it conforms to the Washington State water quality standard.

This represents progress moving to state WQS for IEP and has been a benchmark that has been asked for by numerous stakeholders and members of the public since the NPDES permit was issued for IEP in 2011. Notably, the 2011 permit was absent from the numeric effluent limits for PCBs.

Total PCB Compliance – Use test method 1668c:

Section D of the Fact Sheet - Total analytical methods - on page 52, states that *"Evaluating compliance with numeric effluent limits – Use only 40 CFR part 136 methods. This is currently Method 608. 40 CFR 122.44(i)(1) specifically requires monitoring to assure compliance with permit limitations according to Part 136 approved methods."*

On page 52, it is stated in Table 32 that using test method 608 the detection limit for PCBs is 0.065 parts per billion (ug/L). This means that the detection limit is 65,000 parts per quadrillion (picograms/Liter). However, the human health criteria (HHC) limit is set at only 170 parts per quadrillion (pg/l) to protect the health of the public. In other words, test method 608 is not sensitive enough to adequately detect whether the WQS for PCBs is being met at the end of the outfall pipe. This leaves a public, who is entitled to be able to consume fish (designated use) without risk to their health, vulnerable to bioaccumulated toxics. According to the EPA, PCBs have been established to have negative health effects when consumed at very low levels. They cause cancer, they have negative impacts on the reproductive and endocrine system and they cause disruption to the immune system.[2] According to the Department of Health fish consumption advisories, the public is at risk of consuming unhealthy levels of PCBs that have bioaccumulated into Spokane River fish.[3] This makes the detection and effective regulation of PCBs being dumped into the Spokane River extremely important.

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[1] Washington Department of Ecology's Preliminary Proposed Rulemaking for PCB Variances on the Spokane River – Comments developed by Bricklin and Newman and submitted for Gonzaga Law School
[2] https://www.epa.gov/pcbs/learn-about-polychlorinated-biphenyls-pcbs#healtheffects
[3] https://doh.wa.gov/community-and-environment/food/fish/advisories/publications

Test method 608 would allow for a potentially false sense of compliance with water quality standards under RCW 90.48.520 and allow IEP to potentially pollute the States waters, violate the human health criteria, and cause and contribute to downstream water quality violations with Washington State and other entities such as the Spokane Tribe of Indians.

Test method 1668c has detection limits that are accurate enough to assess the actual PCBs amounts, levels, and types being discharged from outfalls into the Spokane River.

Therefore, we ask that the total PCB loads from the IEP outfall be monitored for compliance with test method 1668c rather than the test method 608 as currently required in the draft permit.

PCB Monitoring, Fact Sheet:

The fact sheet states on page 46 that: "*the proposed permit does not include this additional monitoring. (for PCBs)".*

We believe that this is inappropriate, and that ongoing monitoring should be conducted by IEP in receiving waters for the duration of this permit. This is IEPs responsibility to the State of Washington and the public, given the surface waters of the Spokane River in this section are on the States Category 5 list for PCB impairments.

Further, IEP is extremely late in optimizing their tertiary treatment and PCBs may well continue to be discharged at levels that cause and contribute to water quality violations and human health criteria violations for the State of Washington. Additionally, discharges of PCBs from IEP's facilities contribute to violations of the downstream water quality standard of the Spokane Tribe (which has a WQS of 1.3 pg/L). Monitoring should be the responsibility of the discharger (IEP) in this case.

Monitoring for the total sum of PCBs should be conducted in the discharged effluent during this permit cycle.

Delay in AKART implementation to address PCB pollution. On page 46 the Fact Sheet states:

Ecology will delay the analysis of effluent PCB and TSS data until sufficient effluent data is available from the system. The following statement on page 46 of the Permit Fact Sheet states, "***This analysis will likely occur at the next permit renewal".*** This is an unacceptable subordination of the public values of clean water and perhaps illegal under the Clean Water Act of 1972 and the Washington Water Pollution Control Act. RCW 90.48.

We ask that the analysis of PCB Effluent and TSS data be conducted during the impending (***this)*** *permit cycle* and that this analysis be made publicly available.

Compliance Schedule extension for meeting Total Phosphorus and CBOD, Fact Sheet Page 35-39:

The Fact Sheet states, "*In a letter dated November 10, 2021, IEP requested additional time to meet its final WQBELs for total phosphorus and CBOD5*".

We are unclear why IEP is late in delivering on pollution upgrades that are promised with the implementation of tertiary treatment or AKART. The law demands that AKART (tertiary treatment) be implemented under the DO TMDL and the compliance schedules that WDOE had developed to ensure meeting the clean water goal. The DO TMDL/Ecology clearly laid out the timelines over ten years ago. The Fact Sheet (page 35) states that installation of the "ultrafiltration system" was not completed until "*late 2019*" now in 2022, IEP is "unable" to meet its waste load allocations from the DO TMDL. We are curious as to why it took 9 years to complete the implementation of tertiary treatment.

In 2021 IEP asked for 5 more years to meet waste load allocation for phosphorus and CBOD In the Fact Sheet (page 38), it states:

> *"IEP had requested an additional five years to meet these limitations. In considering this request, Ecology has proposed to extend the compliance schedule an additional two compliance seasons (2022 and 2023). Ecology believes this will:*
>
> - *Allow sufficient time for the Permittee to optimize its mill processes and effluent treatment system*
> - *Allow time to address any unforeseen circumstances*
> - *Meet the 'as soon as possible' requirement*.

We ask that the "annual status updates" in the process of meeting the effluent limitations for total phosphorus and CBOD5, be provided to the public via letters filed in the PARIS database at Ecology. We also ask that these updates be posted on the Spokane River webpage at the WDOE website under "Directory of improvement projects".

On page 35 the Bubble Permit (Delta Elimination Tool) for CBOD and Total Phosphorus is discussed and states that "*The Permittee will not be considered in violation of the seasonal average individual limit for CBOD5 unless the seasonal average bubble (aggregate) limit is also exceeded.*"
We wonder about how this will work in practice. For example, if IEP exceeds their portion of the seasonal average individual" bubble limit" what portion of the legal liability lies with Kaiser Aluminum, LLC?

We ask that you ask that no more allowances be made to exceed the limits and timelines and that Ecology hold IEP responsible to achieve the goal of compliance with the WLA at the "Beginning with the 2024 Compliance Seasons" (page 54, Fact Sheet).

BMPs Fact Sheet:

These tasks consist of regulatory reform of the Federal Toxic Substances Control Act (TSCA) and the Food and Drug Administration's (FDA) food packaging regulations to:

- *revisit currently allowed concentration of PCBs in chemical processes*
- *eliminate or reduce the creation of inadvertently generated PCBs*
- *reassess the current use authorizations for PCBs"*

The above conditions that require the listed BMPs are not adequate.

Labeling these "Best Management Practices" is inappropriate as they will not, in fact, lead to a reduction of PCB loading in this permit cycle. For example, TSCA reform may not happen for 10 years. Therefore - while perhaps laudable outside a permit process - they do not constitute a practice that is a pollution reduction strategy for a permittee inside the NPDES program. It would be more appropriate for WDOE and dischargers to pursue the outcomes of TSCA reform by petitioning petition the EPA to reform TSCA outside this process or program.

We ask that you strike these actions and develop further BMPs that will have actual, demonstratable reductions in PCB loading to the Spokane River from IEP effluent.

Comments on Section S8, Draft Permit Page 30:

SC and SRK recommend re-naming the Pollutant Minimization Plan to Toxic Management Plan. We support the rest of the section in the draft permit.

Reject or deny all applications for discharger and/or waterbody variances for PCBs:

Discharger and/or waterbody variances should not be used (in this or any future permit cycle) to downgrade the designated uses in the Spokane River and allow for the discharge of bioaccumulative toxic such as PCBs, PFAS, or PBDEs. Variances for bioaccumulative toxins will violate EPA regulations regarding variances. Discharger or water body variances for bioaccumulative toxins in a system wherein polluters continue to discharge these same pollutants amounts to a violation of the spirit and intentions of the CWA and frustrates the goals and outcomes envisioned by the original architects of the CWA. Additionally, we believe that any variance for bioaccumulative toxics will prove to be ultimately illegal.

Please refer to the attached document assembled in 2020 by Gonzaga Law School and included in this submission which was originally a part of the SEPA (unofficial comment period) on the 5 applications for PCB variances in the Spokane River.

Cut the SRRTTF requirement for IEP:

Omit the requirement to take part in the Spokane River Regional Toxics Task Force. The SRRTTF should be dissolved.

NPDES Permit must have automatic and specific re-opener clauses:

The permit must contain a reopener clause that initiates the reopening of the NPDES permit to:
1) conform to the federal or State promulgation of a new Human Health Criteria and Water Quality Standard for any number of parameters including PCBs.
2) To the development of a new Total Maximum Daily Load for PCBs and its attendant new Waste Load Allocation for PCB pollution.
3) The federal or State promulgation of a new Aquatic Life Criteria for toxics.
4) After the two-year extension in the compliance schedule is completed and the appropriate waste load allocations as prescribed in the DO TMDL are codified in a modified permit.

Please add PFAS and PBDEs to the list of Persistent Bioaccumulative Toxins (PBT) and require monitoring and reporting to the public:

Per-and polyfluoroalkyl substances (PFAS) are finally being recognized as a persistent and present danger to our communities and our waters and their ecosystems. Additionally, they are being identified in wastewater treatment systems, biosolids, sewers, and stormwater systems. The CWA states clearly that it aims to prevent, reduce, and eliminate pollution in the nation's water in order ‘‘to restore and maintain the chemical, physical, and biological integrity of the Nation’s waters,’’ and to achieve ‘‘wherever attainable, an interim goal of water quality which provides for the protection and propagation of fish, shellfish, and wildlife and provides for recreation in and on the water.’’

U.S.C. § 1251(a) and (a)(2). As per the CWA and EPA guidance, the permits should address all pollutants are known to threaten our waters and their ecological integrity. Therefore, the permit should require that IEPs WWTP test for PFAS. Please see EPA statements on their future ambitions and strategic directions with regards to finding and preventing PFAS from entering our ground and surface waters. Monitoring of Receiving Waters should be included in this permit as well as monitoring of wastewater effluent.

Additionally, request that PBDEs (Polybrominated diphenyl ethers) be monitored in wastewater effluent and receiving waters under Permit. Spokane has had an extremely high level of these chemicals in the aquatic ecosystems and continues to have levels high enough to warrant Department of Health Fish Consumption Advisories on the River.[4]

Section H Sediment Quality of the IEP - reference pg 47 Fact Sheet:

In this section - Page 47 of the Fact Sheet - it states that “The Spokane River in the vicinity of the discharge is not an area of sediment deposition.” However, that does not appear to be the case upon a site visit. We ask that you establish how this area around outfall 001 is not a depositional environment.

[4] https://doh.wa.gov/sites/default/files/legacy/Documents/Pubs//334-164.pdf

We are asking that IEP does a study that shows that the toxins (such as PCBs or heavy metals) in their effluent do not accumulate in sediment in the reservoir environment near outfall 001 to the extent that a violation of the sediment-water quality violation does not occur. We feel that there is a possibility at some low flow times of the year, this outfall is far enough into the reservoir environment that it could be a deposition zone.

We appreciate the opportunity to comment and look forward to reading the response to comments.

Respectfully,

Jerry White, Jr.
Spokane Riverkeeper

Tom Soeldner
Spokane River Team, Upper Columbia River Group - Sierra Club
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BRICKLIN & NEWMAN LLP
lawyers working for the environment

TO: Gonzaga Environmental Law Clinic
Rick Eichstaedt, Director

FR: Bricklin & Newman, LLP
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DT: July 22, 2020

RE: Washington Department of Ecology's Preliminary Proposed Rulemaking for PCB Variances on the Spokane River—Issues Arising Under the State Environmental Policy Act and Clean Water Act

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I. INTRODUCTION AND SUMMARY OF CONCLUSIONS

The Gonzaga Environmental Law Clinic has asked our firm to evaluate the legality of the Washington Department of Ecology's preliminary proposed rulemaking for PCB variances on the Spokane River. Specifically, you have asked us to assess the legality of the proposal under the federal Clean Water Act, 33 U.S.C. § 1251 et seq. You have also asked us to assess the adequacy of Ecology's Preliminary Draft Environmental Impact Statement (herein, "Preliminary DEIS") under Washington's State Environmental Policy Act ("SEPA"), Chapter 43.21C RCW.

We discuss these issues below, beginning with SEPA. The various rulemaking documents discussed in this memo, such as Ecology's Preliminary DEIS and Technical Support Document ("TSD"), are available on Ecology's rulemaking website at https://ecology.wa.gov/Regulations-Permits/Laws-rules-rulemaking/Rulemaking/WAC173-201A-variances.

With respect to SEPA, this memo concludes that the Preliminary DEIS:

(1) Fails to properly define the "no-action" alternative;

(2) Fails to consider a reasonable range of alternatives;

(3) Fails to explain Ecology's rejection of other, non-variance alternatives; and

(4) Fails to use the proper framework for assessing the environmental impacts of the proposed variances.

With respect to the Clean Water Act, this memo concludes the proposed variances:

(1) May violate the Clean Water Act's prohibition on the removal or downgrading of existing uses;

(2) Fail to explain why PCB levels in the Spokane River "cannot be remedied," as required for a variance.

(3) Fail to require Inland Empire and Kaiser Aluminum to implement Best Available Technology as a necessary prerequisite;

(4) Are based on incomplete data and analysis by Inland and Kaiser; and

(5) Fail to explain why the municipal dischargers covered by the variances (Liberty Lake, Spokane County, and the City of Spokane) cannot do a better job of removing PCBs from their effluent.

II. SEPA ISSUES

A. Overview of SEPA

SEPA represents Washington's State's policy regarding the environmental impacts of government decisions, and the mandate that government actors timely and thoroughly consider those impacts in the decision-making process. *See, e.g., Stempel v. Dept. of Water Resources*, 82 Wn.2d 109, 118, 508 P.2d 166 (1973) (describing purposes of SEPA); *ASARCO, Inc. v. Air Quality Coalition*, 92 Wn.2d 685, 707, 601 P.2d 501 (1979) (same). In essence, SEPA is an environmental full-disclosure law. *Norway Hill Pres. & Prot. Ass'n v. King County Council*, 87 Wn.2d 267, 272, 552 P.2d 674 (1976). It requires state agencies other government bodies to assess potential impacts of their decisions up front, and if those impacts might be significant, to undertake a thorough environmental study known as an Environmental Impact Statement ("EIS"), where those impacts must be analyzed and disclosed, and where alternatives and mitigation measures must be considered. *See generally* RCW 43.21C.030; WAC 197-11-400 to -440 (discussing contents of EIS). By requiring government actors to evaluate environmental impacts and alternatives up front, SEPA aims to ensure that environmental consequences are adequately evaluated, disclosed, and considered during the decision-making process. In this way, SEPA represents "an attempt by the people to shape their future environment by deliberation, not default." *Stempel*, *supra*,82 Wn.2d at 118.

The Department of Ecology's SEPA regulations emphasize that "[a]n EIS shall provide impartial discussion of significant environmental impacts and shall inform decisionmakers and the public of reasonable alternatives, including mitigation measures, that would avoid or minimize adverse impacts or enhance environmental quality." WAC 1970-11-400(2). An EIS must "provide a reasonably thorough discussion of the significant aspects of the probable environmental consequences of the proposed action." *Weyerhaeuser v. Pierce County*, 124 Wn.2d 26, 37, 873 P.2d 498 (1994). A decision made based upon inadequate environmental analyses is unlawful. *Leschi Imp. Council v. Wash. State Highway Comm'n*, 84 Wn.2d 271, 284-85, 525 P.2d 774 (1974).

SEPA, like its federal counterpart (NEPA), requires agencies to take a "hard look" at environmental issues. *PUD No. 1 of Clark County v. PCHB*, 137 Wn. App. 150, 158, 151 P.3d

1067 (2007) (citing *National Audubon Society v. Department of Navy*, 422 F.3d 174, 184 (4th Cir. 2005)). SEPA does not require every single environmental effect to be considered, but an EIS "must include a reasonably through discussion of the significant aspects of the probable environmental consequences of the agency's decision." *City of Des Moines v. Puget Sound Regional Council*, 98 Wn. App. 23, 35, 988 P.2d 27 (1999). *See also Weyerhaeuser v. Pierce County*, 124 Wn.2d 26, 37, 873 P.2d 498 (1994); *Gebbers v. Okanogan County PUD*, 144 Wn. App. 371, 379, 183 P.3d 324 (2008). What is "reasonably thorough" is, of course, a function of the nature of the decision at hand. SEPA requires "a level of detail commensurate with the importance of the environmental impacts and the plausibility of alternatives." *Klickitat County Citizens Against Imported Waste v. Klickitat County*, 122 Wn.2d 619, 641, 860 P.2d 390 (1993).

The "heart" of an EIS is its discussion of alternatives to the proposed action. *Oregon Natural Desert Ass'n v. Bureau of Land Management*, 531 F.3d 1114, 1121 (9th Cir. 2008) (quoting 40 C.F.R. § 1502.14). SEPA itself requires every EIS to contain a "detailed statement" regarding "alternatives to the proposed action." RCW 43.21C.030(c)(iii). "The required discussion of alternatives to a proposed project is of major importance, because it provides a basis for a reasoned decision among alternatives having differing environmental impacts." *Weyerhaeuser, supra*, 124 Wn.2d at 38. "Pursuant to WAC 197-11-440(5)(b), the reasonable alternatives which must be considered are those which could 'feasibly attain or approximate a proposal's objectives, but at a lower environmental cost or decreased level of environmental degradation." *Id*. (quoting WAC 197-11-440(5)(b). The EIS must also inform decision makers of the impacts that would be associated with alternative levels of development. The EIS must "devote sufficiently detailed analysis to each reasonable alternative to permit a comparative evaluation of the alternatives including the proposed action." WAC 197-11-440(5)(c)(v). Finally, "[t]he 'no-action' alternative shall be evaluated and compared to other alternatives." WAC 197-11-440(5)(b)(ii).

Ultimately, the EIS "must indicate that the agency has taken a searching, realistic look at the potential hazards and, with reasoned thought and analysis, candidly and methodically addressed those concerns." *Conservation Nw. v. Okanogan County,* 2016 WL 3453666, *31 (June 16, 2016) (quoting *Found. on Econ. Trends v. Weinberger*, 610 F. Supp. 829, 841 (D.D.C. 1985)). "'SEPA seeks to ensure that environmental impacts are considered and that decisions to proceed, even those completed with knowledge of likely adverse environmental impacts, are 'rational and well documented.'" *Columbia Riverkeeper v. Port of Vancouver, USA*, 188 Wn.2d 80, 92, 392 P.3d 1025 (2017) (quoting 24 Wash. Practice: Environmental Law and Practice § 17.1, at 192).

B. Ecology's Preliminary Draft Environmental Impact Statement

In this case, Ecology's Preliminary DEIS contains a number of deficiencies under SEPA.

1. Failure to Properly Define the "No-Action" Alternative.

First, Preliminary DEIS fails to properly define the "no-action" alternative—*i.e.,* the alternative of not granting *any* variances requested by the five dischargers discussed in Ecology's proposed rulemaking. Below, we refer to these dischargers—Liberty Lake Sewer and Water District, Kaiser

Aluminum, Inland Empire Paper Company, Spokane County Regional Water Reclamation Facility, and the City of Spokane—as the "covered facilities."

In essence, the Preliminary DEIS defines the no-action alternative as simply re-issuing the covered facilities' NPDES permits under the federal Clean Water Act, with an effectively unenforceable requirement to meet the state's current PCB water quality criterion of 7 ppq.[1] *See* Preliminary DEIS at 9. We say "unenforceable" because, as Ecology explains, compliance with such a permit limitation would be evaluated using EPA's "Method 608.3," which "only measures down to 50,000 ppq." *Id*. In other words, while the permits themselves would require the covered facilities to meet the 7 ppq PCB limit, the facilities would effectively be allowed to discharge up to 50,000 ppq due to Ecology's view that reliably testing for lower PCB concentrations is not feasible.

However, Ecology's assessment of this issue mis-states the law. While it may be true that Method 608.3 would need to be used to evaluate compliance with any re-issued NPDES permits, it does not follow that the permits must be issued in the first place. The Clean Water Act generally forbids the issuance of any NPDES permit that would cause or contribute to a violation of water quality standards. *See, e.g.,* 40 C.F.R. § 122.4(d) ("No permit may be issued: . . . When the imposition of conditions cannot ensure compliance with the applicable water quality requirements of all affected States[.]"); RCW 90.48.520 ("In no event shall the discharge of toxicants be allowed that would violate any water quality standard, including toxicant standards . . . ."). In this case, Ecology has admitted that the covered facilities cannot meet the state's PCB criterion of 7 ppq. *See, e.g.,* TSD at 22 (opining that "[t]reatment technology that would reduce PCBs in the Spokane River to levels that achieve the human health criterion necessary to protect for the fish harvest and water supply uses in the river is not presently available."). Thus, a true "no-action" alternative would not be to re-issue NPDES permits that Ecology knows will violate water quality standards. Rather, the no-action alternative would be to allow the covered facilities' current NPDES permits to expire, without renewal.

In making this criticism of the Preliminary DEIS, we are fully aware of the Washington Supreme Court's recent decision in *Puget Soundkeeper Alliance v. State, Dep't of Ecology*, 191 Wn.2d 631, 424 P.3d 1173 (2018). In that case, the Supreme Court approved of Ecology's issuance of an NPDES requiring use of Method 608.3 to test for compliance with Washington's 7 ppq PCB standard, notwithstanding that Method 608.3 has a much higher quantitation limit. However, notwithstanding its holding on the validity of Method 608.3, the Court also noted that compliance testing is only one method for ensuring compliance with applicable water quality standards as required by 40 C.F.R. 122.4. Instead, "[r]requiring the permittee to implement specific water treatment practices that are designed to reach the required PCB cap is, as logic would dictate, a more effective method of preventing unlawful discharges *before* they can occur than simply to monitor a release of harmful chemicals that has already occurred." *Puget Soundkeeper*, 191 Wn.2d at 641 (emphasis in original). Here, where Ecology has admitted that no "specific water treatment

[1] "NPDES" stands for National Pollutant Discharge Elimination System, which in turn refers to the federal permitting program under Section 402 of the Clean Water Act, 33 U.S.C. § 1342. We discuss the regulatory elements and requirements of NPDES permits in Section II below.

practices" exist that would ensure compliance with applicable standards, any re-issued NPDES would be unlawful.

2. Failure to Include a Reasonable Range of Alternatives

Second, the Preliminary Draft EIS fails to include a discussion of a reasonable range of alternatives, in addition to the no-action alternative. In general, the Preliminary DEIS describes the choice of alternatives as being effectively binary in nature—either Ecology denies the variances, and re-issues the NPDES permits which will admittedly not meet applicable water quality standards; or, alternatively, Ecology can grant the variance requests and issue the specific variances described the agency's draft rulemaking. *See* Preliminary DEIS at 10 (description of Alternative 2, "Issue Individual Discharger Variances"). However, this binary approach fails to address many issues relevant to determining a reasonable range of alternatives.

For example, preliminary DEIS and proposed rulemaking would establish the variances for 20 years (or 10 years in the case of Kaiser Aluminum). This is an exceedingly long time, and the Preliminary DEIS fails to analyze any alternatives to the proposed duration of the variances.

Also, the proposed "pollution minimization plans" or "PMPs" associated with the proposed variances contain many terms and conditions aimed at ensuring that the covered facilities make reasonable progress toward eventually meeting Washington's 7 ppq PCB water quality criterion. However, the Preliminary DEIS is entirely silent on whether alternative measures exist that could be incorporated into the PMPs, or if the current terms of the PMPs could be clarified or strengthened to better ensure eventual compliance with the PCB criterion.

For example, each of the PMPs require the permit holder to "[s]ubmit a proposed schedule for performing and completing PMP actions." Why could this schedule not be developed now, as part of the rulemaking itself? Relatedly, several of the PMPs require the covered facilities to do such things as "[e]valuate infiltration and inflow (I/I) to collection systems," to "[i]mplement measures to optimize operation and maintenance and to reduce PCBs discharged in final effluent," to "[e]valuate and optimize the solids dewatering and storage processes," to "[i]ncorporate adaptive management to identify and reduce sources of PCBs through active participation in the Spokane River regional toxics task force (SRRTTF)," and to "[i]nvestigate Technical, Legal and Policy Solutions through the federal Toxics Substance Control Act (TSCA)." *See* Preliminary Draft Rule Language at 13–20. Many similar provisions are included in the PMPs. *See id*. For all of them, the Preliminary DEIS fails to discuss whether (a) specific timelines and milestones can be established for the various PMP elements, to ensure they are completed or acted upon on a timely basis, and (b) whether the details of any of these elements can be clarified and delineated up front, before the variances are granted.[2]

[2] The proposed variance rule does note that more information about the PMPs may be found in "Ecology Publication 20-10-020." However, the proposed variances do not identify what this document is. Nor were we able to find it online. Regardless, if there are any additional details relating to the PMPs that Ecology proposes to treat as binding, they should be identified and disclosed in the draft rule language, so that the

In general, an EIS for a "nonproject action" must discuss impacts and alternatives "in [a] level of detail appropriate to the scope of the nonproject proposal and to the level of planning for the proposal." WAC 197-11-442(2). Here, where a core element of the proposal is to draft PMPs to move the covered facilities toward eventual compliance with the PCB criterion, it is unclear why Ecology cannot provide more specificity about what will actually be required, or when the various PMP components will actually be completed. In this way, the Preliminary DEIS does not contain an adequate discussion of a reasonable range of alternatives.

At the very least, Ecology should explain why it believes no greater detail can be provided at this time regarding the specifics of each PMP component. Ecology should also explain why none of the steps can be performed now, or why no milestones can be established now to judge the reasonableness of progress made by the covered facilities over the terms of the variances.

3. Failure to Explain Rejection of Other Non-Variance Alternatives—TMDL and Compliance Schedule.

At pages 8 to 9 of the Preliminary DEIS, Ecology rejects two alternatives suggested during the DEIS scoping phase—the first is to address PCBs in the Spokane River through a TMDL, the second is to issue compliance schedules to the covered facilities rather than variances. The Preliminary DEIS rejects the TMDL alternative because TMDLs are "not self-implementing and therefore would not meet the objective of issuing the NPDES permits by fall 2021." The Preliminary DEIS rejects the compliance schedule option because "[a] compliance schedule can only be used when it is shown that a discharger can meet effluent limits at the end of the compliance schedule period," whereas here, "it was clear [to Ecology] that all dischargers could not meet the final end of pipe effluent limit of 7 ppq within the timeframe of a compliance schedule due to technology limitations . . . ." Preliminary DEIS at 9.

Regarding Ecology's rejection of the TMDL alternative, we agree that TMDLs are "not self-implementing." In general, a TMDL sets a pollution budget for the affected waterbody, and then distributes that budget among various point and nonpoint sources of pollution. *See generally* 33 U.S.C. § 1313(d); 40 C.F.R. § 130.7. Once the pollution budget is established, however, the TMDL does not technically force Ecology or any other state, municipal, or private actors to implement the pollution budget as it applies to nonpoint sources of pollution. However, TMDLs are required under the federal Clean Water Act. They can provide important information for determining how to reduce harmful sources of pollution, and where such work is best focused. It is unclear in this case why the covered facilities cannot or should not be required to fund the creation of a PCB TMDL to help aid future pollution reduction work in the Spokane River area, as a required element of the variance. Such a requirement would clearly be of the same spirit as many other requirements of the proposed PMPs, such as working with Spokane River Regional Toxics Task Force to find and reduce PCBs in the Spokane River.

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public can meaningfully comment and the covered facilities may be held accountable to them as such.

In short, while the Preliminary DEIS rejects the creation of a TMDL as a stand-alone alternative *to* the proposed variances, it does not consider requiring a TMDL as a required component *of* the proposed variances.

As for the Preliminary DEIS's rejection of the compliance schedule alternative, it is unclear why Ecology's Ecology's stated rationale would not also require denial of the proposed variances. It is true, as Ecology observes in the Preliminary DEIS, that a compliance schedule cannot be granted unless there is some guarantee that the facility will be capable of complying with applicable water quality standards at the end of the schedule. *See* WAC 1730-201A-510(4)(b) ("Schedules of compliance shall be developed to ensure final compliance with all water quality-based effluent limits and the water quality standards as soon as possible."). But the same rule also applies to variances. *See* WAC 173-201A-420(5)(a) ("A variance is a time-limited designated use and criterion. . . . Each variance will be granted for the *minimum time estimated to meet the underlying standard(s)* or, if during the period of the variance it is determined that a designated use cannot be attained, then a use attainability analysis . . . will be initiated.") (emphasis added).

Ultimately, if it is true that the covered facilities cannot be expected to come into compliance with Washington's PCB criterion over any reasonable period of time, then not only should the compliance schedule alternative be rejected, so should the variance alternative. The Preliminary DEIS fails to explain why one of these alternatives is available, but not the other, when both require assurances that water quality standards will ultimately be achieved.

4. Failure to Consider Environmental Impacts of the Alternatives

Finally, throughout the Preliminary DEIS, the variance alternative is presented as having no adverse environmental impacts whatsoever, and as having only positive environmental impacts. In large part, this appears to be due to Ecology's artificial juxtaposition between what the Preliminary DEIS defines as the "no-action" alternative (*i.e.,* issuing new NPDES permits that fail to achieve water quality standards) and the preferred alternative (approving the variances). Viewed through the lens of that juxtaposition, the Preliminary DEIS argues that granting the variances will be environmentally beneficial in comparison to simply reissuing the permits without variances.

But as discussed above, this juxtaposition is false—a true "no action" alternative would be to allow the covered facilities' NPDES permits to lapse without renewal, thus ending the discharges altogether. Compared to that alternative, allowing the covered facilities to continue to discharge may indeed have adverse impacts, since allowing any continuing discharge of PCBs is no doubt more harmful than completely eliminating those discharges.

The Preliminary DEIS should be revised so that it compares (a) the environmental impacts of issuing the variances with (b) the environmental impacts of ending the discharges because the covered facilities cannot comply with applicable standards. We cannot say at this time what the results of such an analysis would be. But comparing the proposed variances to a false no-action alternative does not constitute the type of "hard look" mandated by SEPA.

III. CLEAN WATER ACT ISSUES

A. Overview of the Clean Water Act

The objective of the Clean Water Act is ‘‘to restore and maintain the chemical, physical, and biological integrity of the Nation’s waters,’’ and to achieve ‘‘wherever attainable, an interim goal of water quality which provides for the protection and propagation of fish, shellfish, and wildlife and provides for recreation in and on the water.’’ 33 U.S.C. § 1251(a) and (a)(2). To these ends, the Act makes it unlawful for any person to discharge any pollutant to any river, lake, or similar surface waterbody unless the discharge is authorized under, and compliant with, an NPDES permit issued under Section 402 of the Act, 33 U.S.C. § 1342. Such permits are the Act’s primary tool for regulating and reducing the discharge of harmful pollutants from “point sources” such as industrial and commercial facilities such as Kaiser Aluminum and Inland Empire Paper Company), and publicly owned treatment works such as Liberty Lake, the Spokane County Regional Water Reclamation Facility, and the City of Spokane.

NPDES permits, in turn, have two essential components—technology-based effluent limitations (also known as “TBELs”), and water-quality based effluent limitations (also known as “WQBELs”). In essence, the former (TBELs) require the permittee to install and comply with increasingly stringent water treatment technology so that the level of pollution reduction keeps pace with advances in technological capacity. In this way, TBELs are supposed become stricter and stricter over time, as new pollution reduction technology becomes available.[3] For example, for toxic pollutants like PCBs discharged from private facilities, these TBELs generally must require the permittee to comply with a standard known as “Best Available Technology” or “BAT.” As one court has explained, BAT is “‘the CWA’s most stringent standard’ for setting discharge limits for existing sources.” *Sw. Elec. Power Co. v. United States Envtl. Prot. Agency*, 920 F.3d 999, 1016 (5th Cir. 2019) (citing 33 U.S.C. §§ 1311(b)(2), 1314(b)(2). BAT essentially requires each facility to install the water treatment technology used by the “single best-performing plant in [its] industrial field,” which acts as “a beacon to show what is possible.” *Id.* at 1018. BAT is literally a “best of the best” standard, reflecting the great harm that can be done by discharges of toxic pollutants to surface waters of the United States.

WQBELs, in contrast, represent any *additional* permit limits over and above technology-based permit limits that are needed to comply with state-adopted (and EPA-approved) water quality standards. In general, water quality standards consist of “designated uses,” which set out, for each waterbody, the environmental objectives that the state seeks to achieve (*i.e.,* maintaining water quality suitable for swimming or fishing); water quality criteria, the purpose of which is to define minimum water quality conditions necessary to protect the designate use; and an antidegradation

[3] *See, e.g., Nat. Res. Def. Council, Inc. v. U.S. E.P.A.*, 822 F.2d 104, 123 (D.C. Cir. 1987) (observing, “the most salient characteristic of [the CWA], articulated time and again by its architects and embedded in the statutory language, is that it is technology-forcing”).

policy, the purpose of which is to provide a framework for maintaining and protecting water quality that has already been achieved. *See* 40 C.F.R. 131.3(b, e, h). For example, the topic of this memo concerns Washington's PCB criterion of 7 ppq, the purpose of which is to protect the designated use of human fish consumption in the Spokane River.

The Clean Water Act generally requires all polluting discharges to comply with these basic requirements, and forbids any discharge that would violate state water quality standards. *See, e.g.,* 33 U.S.C. § 1342(b)(1)(C) (requiring, "[n]ot later than July 1, 1977, any more stringent [permit] limitation . . . to implement any applicable water quality standard established pursuant to this chapter."). However, the Act also contains limited mechanisms for allowing a discharger to avoid compliance with these requirements on a time-limited, temporary basis.

One such mechanism is a variance, which is defined under the Clean Water Act as "a time-limited designated use and criterion for a specific pollutant(s) or water quality parameter(s) that reflect the highest attainable condition during the term of the WQS variance." 40 C.F.R. § 131.3(o). In essence, a variance is a temporary change to a state's water quality standards, the purpose of which is to allow a particular permittee to continue discharging, notwithstanding that the discharge violates applicable standards. The ultimate purpose of a variance is to give the permittee time to come into compliance, not simply to excuse non-compliance with water quality standards in perpetuity. For this reason, Washington's own regulations make clear that a variance should only be granted "for the minimum time estimated to meet the underlying standard(s)." WAC 173-201A-420(5)(a). There must be credible estimate that, at the end of the variance period, the permittee will be capable of complying with applicable water quality standards.

In this case, the variances proposed by Ecology would effectively allow the five covered facilities to continue discharging PCBs to the Spokane River, in violation of the state's 7 ppq criterion for human fish consumption. The variances have essentially two components. First, the variances would replace state's "fish harvesting" and "water supply" designated uses for the Spokane River (intended to protect human fish consumption) with new designated uses called "limited fish harvest" and "limited water supply." In other words, in order to allow the covered facilities to continue discharging, these designated uses will be downgraded for the next 20 years (the term of the variances), supporting only "limited" consumption and water supply from the Spokane River over that period of time.

Second, the variances establish a framework for each covered facility to make steps toward ultimate compliance with the 7 ppq PCB criterion over the next 20 years. These steps are discussed in the Pollution Minimization Plans (or PMPs) referenced above. In part, the PMPs require each facility covered by the proposed variances to study possible new technologies during the variance period, and to evaluate their effectiveness at removing PCBs. If more effective technologies are found, the variances would allow Ecology to require their ultimate installation and use.

Below, we identify several potential problems with the proposed variances under the Clean Water Act.

B. Failure to Evaluate Whether the "Fish Harvest" and "Water Supply" Designated Uses Are Also Existing Uses

First, Ecology fails to discuss whether the designated uses of full fish harvesting and water supply, currently designated for the Spokane River, are also "existing uses" as that term is used in the Clean Water Act. In general, an existing use is one that was "actually attained in the water body on or after November 28, 1975, whether or not they are included in the water quality standards." 40 C.F.R. 131.3(e). In turn, this definition refers the date of EPA's first adopted regulations under the Clean Water Act, in which EPA established that "no further water quality degradation which would interfere with or become injurious to existing instream water uses is allowable." *See* 40 C.F.R. § 130.17(e)(1) (1978); 40 Fed. Reg. 55336 (Nov. 28, 1975). The upshot of this definition the Clean Water forbids the removal or downgrading of any designated use that is also an existing use under the Act. *See* 40 C.F.R. § 131.10(h) ("States may not remove designated uses if . . . [t]hey are existing uses, as defined in § 131.3, unless a use requiring more stringent criteria is added."); 40 C.F.R. § 131.12(a)(1) ("Existing instream water uses and the level of water quality necessary to protect the existing uses shall be maintained and protected.").[4] The idea is that beginning on November 28, 1975, water quality would only improve, and any uses existing on that date would be maintained.

In this case, Ecology proposes to downgrade the Spokane River's fish harvest and water supply uses on the basis of 40 C.F.R. § 131.10(g), which enumerates a series of factors that may be used for the removal of designated uses. In particular, Ecology proposes to downgrade the use on the basis of 40 C.F.R. § 131.10(g)(6), which allows a designated use to be downgraded when it "[h]uman caused conditions or sources of pollution prevent the attainment of the use and cannot be remedied or would cause more environmental damage to correct than to leave in place." However, the preamble to that factor makes clear that it cannot be used to downgrade a designated use that is also an existing use. *See* 40 C.F.R. §131.10(g) (states may only "remove a use that is *not* an existing use" based on factors) (emphasis added).

Applied here, the Spokane River has undoubtedly been used (to some degree or other) for fish harvesting and water supply since before November 28, 1975. Yet, the various documents supporting Ecology's proposed variances provide no assessment of whether the current designated uses (full fish harvesting and full water supply) are also existing uses under the Act. Ecology should evaluate this issue and, if it is determined that the current designated uses are also existing uses, then Ecology's current proposal to downgrade the uses is illegal.

C. Failure to Demonstrate that PCB Levels in the Spokane River "Cannot be Remedied"

Even if Ecology could remove or downgrade the current fish harvesting and water supply designated uses, it has not shown that PCB levels in the Spokane River cannot be remedied by

[4] This concept is also expressed in Washington's Tier I Antidegradation rules, which apply to the Spokane River. *See* WAC 173-201A 310(1) (providing that "[e]xisting . . . uses *must* be maintained and protected") (emphasis added).

implementing available technology and nonpoint source controls. As noted above, Ecology's justification for the proposed variances relies on the "use removal" factors at 40 C.F.R. § 131.10(g). Specifically, Ecology cites 40 C.F.R. §131.10(g)(6), which allows a use to be removed or downgraded when "[h]uman caused conditions or sources of pollution prevent the attainment of the use and cannot be remedied or would cause more environmental damage to correct than to leave in place." Applying that factor, the TSD discusses several technologies and nonpoint source control methods that could be used to reduce PCB levels, but dismisses them as "not feasible" and too expensive. On this basis, Ecology asserts that PCB levels in the Spokane River "cannot be remedied" within the meaning of 40 C.F.R. §131.10(g)(6).

But on its face, 40 C.F.R. §131.10(g)(6) does not contain a feasibility component. Other 131.10(g) factors do contain such a component.[5] But the (g)(6) factor does not. Instead, it asks only whether the harmful conditions "*cannot* be remedied"—an absolute standard.

Ecology should either assess the validity of the proposed variances under other factors at 40 C.F.R. § 131.10(g)—*i.e.,* factors other than (g)(6)—or it should explain why PCB levels in the Spokane River truly cannot be remedied even with the various technologies and nonpoint source control methods rejected in the TSD.

D. Ecology's "Variance to the Variance" Approach to Kaiser and Inland Empire

PCBs are toxic pollutants listed in Table 1 of Committee Print No. 95–30, House Committee on Public Works and Transportation, as set out at CWA § 307. That list of toxic pollutants is codified at 40 C.F.R. § 401.15 and PCBs are listed as number 54. The regulations set out at 40 C.F.R. § 125.3 describe the technology standard that applies to private industrial dischargers of PCBs like Kaiser Aluminum and Inland Empire Paper. As discussed above, that technology standard is "Best Available Technology" or "BAT." 40 C.F.R. § 125.3(a)(2)(iii).

Currently, neither of the two private facilities addressed by Ecology's proposed rulemaking are complying with the BAT requirement. For example, Kaiser Aluminum is using a filtration system based on walnut shells, which it installed 18 years ago in 2002. That system is no longer (if it ever was) best available technology and "a beacon to show what is possible." Kaiser is currently exploring two other candidate technologies for removing PCBs from its effluent: ultraviolet treatment coupled with advanced oxidation processes ("UV/AOP") and a membrane bioreactor ("MBR"). But as Ecology states in its Technical Support Document, Kaiser "has not yet installed the best available pollutant control technologies that provide the greatest pollutant reduction achievable." TSD at 47. In other words, Kaiser is not currently meeting BAT.

Similarly, Ecology's Technical Support Document reports that Inland Empire Paper is currently testing a new Membrane Pilot System, which may achieve a PCB removal rate of 99%. TSD at 50, Table 21. However, that system has not been fully implemented and only limited effluent

[5] *See* 40 C.F.R. § 131.10(g)(4) (allowing designated use to be removed or downgraded when "[d]ams, diversions or other types of hydrologic modifications preclude the attainment of the use, *and it is not feasible* to restore the water body to its original condition . . . .") (emphasis added).

sampling data from the new system is reported in the TSD. It is possible that Inland's new membrane system will constitute BAT, and based on information provided in the TSD, it appears to do a better job of removing PCBs. But like Kaiser, it appears that the Inland facility is not currently in compliance with the Act's Best Available Technology requirement.

For both Kaiser and Inland, the proposed variances would allow them time to determine how upgrade their facilities, and what currently-available technologies they will use to better remove PCBs from their discharges to the Spokane River—despite that even those newer technologies likely will not meet the state's 7 ppq PCB criterion. In other words, the variances do not simply provide time to figure out how to meet the applicable criterion. Instead, they appear to provide time for these facilities to figure out even how to begin making initial steps toward that ultimate goal.

Importantly, this "variance from the variance" approach was recently rejected by the United States District Court for the District of Montana. In that case, the court held that a variance cannot be used simply to buy a facility time to determine what base-line technology will be used, or what initial steps should be taken towards even partial compliance with applicable water quality standards. Rather, the variance period must *begin* with the facility *already* doing all that is possible to achieve applicable water quality standards—also known as the "highest attainable condition" under EPA's variance rules. *See* 40 CFR § 131.14(b)(1)(ii). Then, if standards still cannot be achieved even after those initial steps are taken, a variance may be granted to allow the facility time to figure out how ultimately to comply with the standards. As the court held:

> Congress contemplated that attainment of a state's base WQS would not always be attainable immediately. The regulations effectuate this purpose by allowing dischargers time-limited variances to reach base criteria. Montana's Base [water quality standards] constitute the base criteria. Defendants acted arbitrarily and capriciously when they set forth a seventeen-year timeline after their first triennial review merely to meet the relaxed criteria of the Current Variance Standard. The CWA does not contemplate the ability of a state to adopt a variance from the variance.

Upper Missouri Waterkeeper v. United States Envtl. Prot. Agency, 377 F. Supp. 3d 1156, 1169–70 (D. Mont. 2019).

Under *Upper Missouri Waterkeeper*, the requirements to implement "best available technology" and to attain the "highest attainable condition" are effectively the same standard. Both are measured at the present day, not at some later point in time during the variance period. Nor can a facility logically achieve the "highest attainable condition" without first complying with the Act's baseline technological requirements, such as BAT. In short, variances are not supposed to give polluters time to work *toward* a highest attainable condition. Rather, they allow a facility a limited amount of time to work *from* that condition to achieve the base water quality standards—here, the state's 7 ppq PCB criterion.

The newer technologies cited in Ecology's TSD appear to be available to Kaiser and Inland now. Thus, Ecology should require these facilities to demonstrate, prior to issuing *any* variance, that they have *already* implemented BAT and that they have *already* attained the "highest attainable condition" within the meaning of EPA's variance rules. Only after implementation of technology meeting those standards should Ecology even consider granting a variance.

E. Kaiser's and Inland Empire's Failure to Provide Sufficient Water Quality Data

In order to obtain a variance, state regulations require the submission of "[s]ufficient water quality data and analyses to characterize receiving and discharge water pollutant concentrations." WAC 173-201A-420(3)(d). This data is then used by Ecology to determine the facility's particular variance requirements and "highest attainable condition." But as described below, neither Kaiser Aluminum nor Inland Empire has satisfied this requirement.

Ecology recognizes that Kaiser has not provided sufficient data and analysis in its variance application. For example, Ecology states: "In developing Kaiser's [variance], Ecology considered setting a numeric interim effluent condition reflecting the greatest pollutant reduction achievable. Setting an effluent loading value or minimum percent removal efficiency through the treatment system will depend on a number of variables (reduction of effluent flows and influent loadings, and type of treatment system ultimately installed) which Ecology cannot predict with certainty at this time." TSD at 52. But under WAC 173-201A-420(3)(d), data and analysis regarding effluent flows, influent loadings, and the type of treatment system installed is the kind of information that should ordinarily accompany a complete variance application.

This lack of information from Kaiser is again shown in Table 23 of the TSD. For example, Note 6 to Table 23 states that PCB levels in Kaiser's effluent are "[e]stimated using existing Kaiser effluent TSS data," presumably because Kaiser did not supply data and analysis regarding actual PCB levels in its effluent. Similarly, Notes 7–9 to Table 23 further state: "Specific studies would be needed on Kaiser's effluent to verify the feasibility and removal efficiencies of [granular activated carbon, powdered activated carbon, and advanced oxidation]." These studies should already have been conducted and the data and analysis from them supplied to Ecology with Kaiser's variance application. After Kaiser implements BAT, Ecology should require Kaiser to provide sufficient data and analysis of the efficacy of its new treatment system, in order to allow Ecology to determine the highest presently achievable condition (post-BAT). Only then should a variance be considered.

In turn, the TSD notes that setting a variance for Inland Empire "presented a challenge due to the limited number of samples for percent removal obtained from both the wastewater treatment system and membrane systems[.]" TSD at 50. Inland provided only two paired samples, notwithstanding that the minimum number required by Ecology is 10. *See* TSD at 47. As above with Kaiser, the answer to this problem is not to reward Inland with a variance based on incomplete information. Instead, the remedy should be to deny the variance until all necessary sampling has been completed, and sufficient data has been submitted to Ecology. Instead of refining Inland Empire Paper's variance as its "treatment system comes online and additional data are collected,"

TSD at 51, Ecology should require Inland Empire Paper to provide a minimum of ten or more paired samples at the outset.

Until Kaiser Aluminum and Inland Empire install and implement BAT, and provide sufficient data and analysis to characterize receiving and discharge water pollutant concentrations as required by WAC 173-201A-420(3)(d), any consideration of a variance is premature.

F. Failure to Show that the Municipal Dischargers Cannot Do a Better Job of Removing PCBs From Their Effluent

Last, Ecology has not provided sufficient information to show that the three municipal dischargers—Liberty Lake, Spokane County, and the City of Spokane—are taking all feasible steps toward meeting the state's 7 ppq PCB criterion. Such a showing is necessary, since a variance must demonstrate that the recipient is achieving the "highest attainable condition" short of full compliance with applicable water quality standards. *See* 40 C.F.R. § 131.14(b)(1)(ii). More specifically, the variance must demonstrate that the recipient is currently making "the greatest pollution reduction achievable," and that it is doing so "with the pollutant control technologies installed at the time [the variance is granted]." *Id*. at (b)(1)(ii)(A)(3).

Addressing this standard, Ecology's Technical Support Document discusses the current treatment technologies currently used at two of the municipal facilities covered by the proposed variances, and notes that the City of Spokane has plans to similarly upgrade its facility by 2021. *See* TSD at 25–30. These technologies include a "step-feed nitrification/denitrification membrane bioreactor that utilizes chemical phosphorus removal" at Spokane County; a "chemical coagulation and membrane ultrafiltration system" at Liberty Lake; and "tertiary membranes with microfiltration" planned for the City of Spokane. After providing a brief synopsis of each facility, the TSD concludes its discussion of these technologies with the following paragraph:

> PCBs are hydrophobic with low water solubility and they generally adhere to suspended solids, organic matter, and oils present in domestic and industrial wastewater. The municipal wastewater treatment facilities are designed to treat or remove both solids and organics. This results in PCB removal efficiencies of greater than 95%. Spokane County and Liberty Lake have installed and operate advanced treatment facilities. The City of Spokane is currently installing systems that include physical and chemical treatment processes, which when combined, provide the greatest pollutant reduction available for PCBs. Currently, there are no demonstrated technologies implemented at full scale for municipal wastewater treatment systems that can achieve the current water quality criteria for PCBs (7 ppq).

TSD at 30.

It appears from context that EPA intends the paragraph above to mean that each of these facilities is currently making "the greatest pollution reduction achievable," or will do so in the near future. However, with respect to Liberty Lake and Spokane County, that conclusion does not follow from the text of the paragraph quoted above. For example, use of an "advanced" system that can remove 95% of PCBs does necessarily mean they a facility is making "the greatest pollution reduction achievable." Nor is it relevant that no identified technology can meet the 7 ppq PCB standard when implemented at full scale. For example, other technologies might represent the "greatest possible reduction" even without meeting the criterion (they might just do a better job).

Later, the TSD includes a discussion of various physical, chemical, biological, and thermal technologies for treating PCB-contaminated effluent, concluding that none of them currently represents a complete solution to the problem. TSD at 34–35. But even if "no available full-scale technology exists to meet the current human health criterion" on its own (TSD at 34), a "treatment train" of several technologies combining physical, chemical, biological, and thermal treatments in sequence, for example, could be effective in treating effluent and protecting existing uses and public health. This treatment train solution would also confer significant co-benefits for public health, because the same technologies that are effective in PCB treatment are effective in removing a host of other dangerous chemicals. There is no analysis of this issue in the TSD.

Finally, the TSD also discusses possible alternative methods of reducing the level of PCB discharges from these facilities, such as beneficial reuse and evaporation, but concludes that none of these alternatives provide a complete solution, rejecting each of them in turn. *See* TSD at 39–45. But it does not appear that Ecology required the municipality's to assess the effectiveness of these alternative actions in combination with technological treatment technologies. For example, Ecology rejected evaporation as an available action because of the large "minimum amount of area, in acres, required for each of the facilities to be able to remove their *entire* discharge from the river and use evaporative lagoons exclusively for disposal of effluent." TSD at 45 (emphasis supplied). But it does not appear that Ecology analyzed the effectiveness of first using membrane filtration to send "clean" effluent to the river, thereby reducing the volume of water that remains contaminated with PCBs, and then using evaporation lagoons for that reduced volume of contaminated effluent. Similarly, the TSD rejects beneficial reuse as an alternative method of reducing PCB discharges, in part, because "it is unlikely that either [Spokane County or the City of Spokane] would be able to completely remove their discharges from the Spokane River without impairing downstream water rights." TSD at 41. But the TSD fails to discuss whether beneficial reuse could be used in conjunction with other treatment technologies, each on a partial scale, to better remove PCBs from the Spokane River.

Ultimately, lacking from Ecology's analysis is whether any of the various alternative technologies and methods discussed in the TSD can be used either (a) to provide a better partial solution to the PCB problem; or (b) can be used in conjunction with each other to provide a more complete solution.