

# **Appendix F1 - Ecology Response to Comments for Inland Empire Paper Company Draft Permit WA0000825 and Fact Sheet**

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The legal notice that informed the public that a draft permit and fact sheet were available for review was published in the Spokesman Review on March 4, 2022. Ecology also hosted two identical online workshops, each immediately followed by a public hearing, on April 5, 2022 and April 7, 2022. Ecology received written comments on the draft documents during the 60-day public comment period with no comments from the public hearing testimony. Below are a summary of the comments, the comments, and Ecology's responses. A copy of all comment documents are available upon request.

After release of the draft permit and fact sheet, Ecology became aware of a correction to the fact sheet language regarding natural conditions. Ecology has made changes to this language based on EPA's recent disapproval of 'natural conditions' language in the State's Water Quality Standards in Section III.C, Designated uses and surface water quality criteria and Section III.F, Evaluation of surface water quality-based effluent limits for numeric criteria, Temperature discussion.

Generally, Ecology does not revise the fact sheet based on comments received during the public comment period. In consideration of selected comments made by EPA (A-1-2 on aluminum and A-1-1 on PCB analytical method); and Inland Empire Paper Company (B-1-20 on reasonable potential), Ecology also made corrections and additions to the fact sheet as described in the response to those specific comments. Ecology considered other comments made on the draft permit and fact sheet, and made changes to the proposed permit as determined appropriate.

The comments received were reviewed and evaluated by Washington State Department of Ecology. Comments were categorized into 13 areas for response, though many comments touched on aspects of more than one comment category. The comment categories include:

- |  |                                 |
|--|---------------------------------|
| <b>1. Reopener Clause</b>                  | <b>17. Sediment Monitoring</b>  |
| <b>2. Aluminum</b>                         | <b>18. Reasonable Potential</b> |
| <b>3. Variances</b>                        | <b>19. BOD/CBOD Limit</b>       |
| <b>4. SRRTTF</b>                           | <b>20. Bubble Limit</b>         |
| <b>5. PFAS Monitoring</b>                  |                                 |
| <b>6. PCB Monitoring</b>                   |                                 |
| <b>7. PCB Analytical Method</b>            |                                 |
| <b>8. Compliance Schedule</b>              |                                 |
| <b>9. Effluent Guidelines</b>              |                                 |
| <b>10. Metals</b>                          |                                 |
| <b>11. Monitoring Schedule</b>             |                                 |
| <b>12. Other</b>                           |                                 |
| <b>13. PCB Other</b>                       |                                 |
| <b>14. PCB Pollutant Minimization Plan</b> |                                 |
| <b>15. PCB Reasonable Potential</b>        |                                 |
| <b>16. PCB Receiving Water Monitoring</b>  |                                 |

17. A total of 18 individuals, an Agency, two organizations, a business, and a Tribal Government provided comments regarding the draft documents. The comment table below lists each commenter with an assigned commenter number.

Affiliation	Commenter Name	Topics where comments were assigned	Associated Comment numbers
<b>Individuals</b>			
	Susan AMSTADTIER	Reopener Clause	I-1-1
		SRRTTF	I-1-2
		PFAS Monitoring	I-1-3
	Kirsten Angell	Reopener Clause	I-12-1
		SRRTTF	I-12-2
		PFAS Monitoring	I-12-3
	Carla Brooks	Reopener Clause	I-9-1
		SRRTTF	I-9-2
		PFAS Monitoring	I-9-3
	Deanna Camp	Reopener Clause	I-5-1
		SRRTTF	I-5-2
		PFAS Monitoring	I-5-3
	Barry Chapman	Reopener Clause	I-10-1
		SRRTTF	I-10-2
		PFAS Monitoring	I-10-3
	James Cronin	Reopener Clause	I-3-1
		SRRTTF	I-3-2
		PFAS Monitoring	I-3-3
	Bridget Curran	Reopener Clause	I-14-1
		SRRTTF	I-14-2
		PFAS Monitoring	I-14-3
	Marc Fryt	Reopener Clause	I-7-1
		SRRTTF	I-7-2
		PFAS Monitoring	I-7-3
	Hollis Higgins	Reopener Clause	I-2-1
		SRRTTF	I-2-2
		PFAS Monitoring	I-2-3
	Paulette Hines	Reopener Clause	I-4-1
		SRRTTF	I-4-2
		PFAS Monitoring	I-4-3
	Claudia Hume	Reopener Clause	I-16-1
		SRRTTF	I-16-2
		PFAS Monitoring	I-16-3
	Jonathan Keefe	Reopener Clause	I-6-1
		SRRTTF	I-6-2
		PFAS Monitoring	I-6-3
	Charles Martin	Reopener Clause	I-17-1
		SRRTTF	I-17-2
		PFAS Monitoring	I-17-3
	Alex Richardson	Reopener Clause	I-11-1
		SRRTTF	I-11-2
		PFAS Monitoring	I-11-3
	GARY ROGERS	Reopener Clause	I-13-1
		SRRTTF	I-13-2
		PFAS Monitoring	I-13-3
	Debbie Stempf	Reopener Clause	I-18-1

		SRRTTF	I-18-2
		PFAS Monitoring	I-18-3
	C. G. Sweeney	Reopener Clause	I-15-1
		PFAS Monitoring	I-15-3
		PCB Other	I-15-2
	James Tuck	Reopener Clause	I-8-1
		SRRTTF	I-8-2
		PFAS Monitoring	I-8-3
Agency			
Environmental Protection Agency	Susan Poulosom	Aluminum	A-1-2
		PCB Monitoring	A-1-3 , A-1-4
		PCB Analytical Method	A-1-1
Business			
Inland Empire Paper Company	Douglas Krapas	SRRTTF	B-1-10
		Compliance Schedule	B-1-8 , B-1-18
		PCB Pollutant Minimization Plan	B-1-9, B-1-10
		Monitoring Schedule	B-1-1 , B-1-5 , B-1-6 , B-1-7 , B-1-18 , B-1-19
		Metals	B-1-2 , B-1-12
		BOD/CBOD Limit	B-1-3 , B-1-4
		PCB Reasonable Potential	B-1-13 , B-1-14 , B-1-15
		Effluent Guidelines	B-1-11
		Reasonable Potential	B-1-20
		Other	B-1-17
Organizations			
Spokane Riverkeeper, Upper Columbia River Group - Sierra Club	Jerry White, Jr	Reopener Clause	O-1-10
		Variances	O-1-8
		SRRTTF	O-1-9
		PFAS Monitoring	O-1-11
		PCB Monitoring	O-1-3
		PCB Analytical Method	O-1-2
		Compliance Schedule	O-1-5 , O-1-14 , O-1-16
		Sediment Monitoring	O-1-12
		PCB Other	O-1-1 , O-1-4
		PCB Pollutant Minimization Plan	O-1-6 , O-1-7
		PCB Receiving Water Monitoring	O-1-13
		Bubble Limit	O-1-15
Tribal Government/Agency			
Spokane Tribe of Indians	Chad McCreia	Reopener Clause	T-1-4
		PCB Monitoring	T-1-1 , T-1-2 , T-1-3

Comments and Responses are grouped together and organized by topic. Under each topic heading you can see all the comments Washington State Department of Ecology received for that topic followed by Washington State Department of Ecology's single response to all the comments on that topic when applicable.

## **1. Comments on Reopener Clause**

**Summarized Commenters:** Susan AMSTADTER, Hollis Higgins, James Cronin, Paulette Hines, Deanna Camp, Jonathan Keeve, Marc Fryt, James Tuck, Carla Brooks, Barry Chapman, Alex Richardson, Kirsten Angell, GARY ROGERS, Bridget Curran, Spokane Riverkeeper, Upper Columbia River Group - Sierra Club, C. G. Sweeney, Claudia Hume, Spokane Tribe of Indians, Charles Martin, Debbie Stempf:

### **Commenter: Susan AMSTADTER - Comment I-1-1**

Every one of these permits needs to have a "reopener clause" or definite language that will trigger an absolute reopener when the state standard for PCBs is revised to 7 pg/L and/or the PCB TMDL is approved in 2024 and requires a Waste Load Allocation (limit) for the facilities in question.

### **Commenter: Kirsten Angell - Comment I-12-1**

Every one of these permits needs to have a "reopener clause" or definite language that will trigger an absolute reopener when the state standard for PCBs is revised to 7 pg/L and/or the PCB TMDL is approved in 2024 and requires a Waste Load Allocation (limit) for the facilities in question.

### **Commenter: Carla Brooks - Comment I-9-1**

Every one of these permits needs to have a "reopener clause" or definite language that will trigger an absolute reopener when the state standard for PCBs is revised to 7 pg/L and/or the PCB TMDL is approved in 2024 and requires a Waste Load Allocation (limit) for the facilities in question.

### **Commenter: Deanna Camp - Comment I-5-1**

Every one of these permits needs to have a "reopener clause" or definite language that will trigger an absolute reopener when the state standard for PCBs is revised to 7 pg/L and/or the PCB TMDL is approved in 2024 and requires a Waste Load Allocation (limit) for the facilities in question.

### **Commenter: Barry Chapman - Comment I-10-1**

1. This permit should include a "reopener clause" or definite language that will trigger an absolute reopener when the state standard for PCBs is revised to 7 pg/L and/or the PCB TMDL is approved in 2024 and requires a Waste Load Allocation (limit) for the facility in question.

**Commenter: James Cronin - Comment I-3-1**

Every one of these permits needs to have a "reopener clause" or definite language that will trigger an absolute reopener when the state standard for PCBs is revised to 7 pg/L and/or the PCB TMDL is approved in 2024 and requires a Waste Load Allocation (limit) for the facilities in question.

**Commenter: Bridget Curran - Comment I-14-1**

Every one of these permits needs to have a "reopener clause" or definite language that will trigger an absolute reopener when the state standard for PCBs is revised to 7 pg/L and/or the PCB TMDL is approved in 2024 and requires a Waste Load Allocation (limit) for the facilities in question.

**Commenter: Marc Fryt - Comment I-7-1**

Every one of these permits needs to have a "reopener clause" or definite language that will trigger an absolute reopener when the state standard for PCBs is revised to 7 pg/L and/or the PCB TMDL is approved in 2024 and requires a Waste Load Allocation (limit) for the facilities in question.

**Commenter: Hollis Higgins - Comment I-2-1**

Every one of these permits needs to have a "reopener clause" or definite language that will trigger an absolute reopener when the state standard for PCBs is revised to 7 pg/L and/or the PCB TMDL is approved in 2024 and requires a Waste Load Allocation (limit) for the facilities in question.

**Commenter: Paulette Hines - Comment I-4-1**

Every one of these permits needs to have a "reopener clause" or definite language that will trigger an absolute reopener when the state standard for PCBs is revised to 7 pg/L and/or the PCB TMDL is approved in 2024 and requires a Waste Load Allocation (limit) for the facilities in question.

**Commenter: Claudia Hume - Comment I-16-1**

1. Every one of these permits needs to have a "reopener clause" or definite language that will trigger an absolute reopener when the state standard for PCBs is revised to 7 pg/L and/or the PCB TMDL is approved in 2024 and requires a Waste Load Allocation (limit) for the facilities in question.

**Commenter: Jonathan Keeve - Comment I-6-1**

1. Every one of these permits needs to have a "reopener clause" or definite language that will trigger an absolute reopener when the state standard for PCBs is revised to 7 pg/L and/or the PCB TMDL is approved in 2024 and requires a Waste Load Allocation (limit) for the facilities in question.

**Commenter: Charles Martin - Comment I-17-1**

1. Every one of these permits needs to have a "reopener clause" or definite language that will trigger an absolute reopener when the state standard for PCBs is revised to 7 pg/L and/or the PCB TMDL is approved in 2024 and requires a Waste Load Allocation (limit) for the facilities in question.

**Commenter: Alex Richardson - Comment I-11-1**

Every one of these permits needs to have a "reopener clause" or definite language that will trigger an absolute reopener when the state standard for PCBs is revised to 7 pg/L and/or the PCB TMDL is approved in 2024 and requires a Waste Load Allocation (limit) for the facilities in question.

**Commenter: GARY ROGERS - Comment I-13-1**

Each of these permits needs to have a "reopener clause" or definite language that will trigger an absolute reopening if/when the State standard for PCBs is revised to 7 pg/L and/or the PCB TMDL is approved in 2024 and requires a Waste Load Allocation (limit) for the facilities in question.

**Commenter: Debbie Stempf - Comment I-18-1**

1. Every one of these permits needs to have a "reopener clause" or definite language that will trigger an absolute reopener when the state standard for PCBs is revised to 7 pg/L and/or the PCB TMDL is approved in 2024 and requires a Waste Load Allocation (limit) for the facilities in question.

**Commenter: C. G. Sweeney - Comment I-15-1**

Given the urgency of protecting the Spokane River with enforced clean water standards, each permit granted should include a reopener clause, or similar language, to guarantee compliance when the state standard for PCBs is revised to Fed Standard of 7 pg/L and/or if the PCB TMDL is approved in 2024.

**Commenter: James Tuck - Comment I-8-1**

1. Every one of these permits needs to have a "reopener clause" or definite language that will trigger an absolute reopener when the state standard for PCBs is revised to 7 pg/L and/or the PCB TMDL is approved in 2024 and requires a Waste Load Allocation (limit) for the facilities in question.

**Commenter: Jerry White, Jr - Comment O-1-10**

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.

**Commenter: Chad McCrea - Comment T-1-4**

**Applicable Standards**

This permit should account for the uncertainty presented by developing permits when the very standards used to develop the permits are subject to two separate lawsuits and an EPA administrative process, along with the development of a PCB TMDL. The permits should include an automatic reopener to address any discrepancies that arise if the water quality standards change during the term of these permits and when WLAs are finalized.

**Ecology's Response to Reopener Clause**

Thank you for your comments. We have added language in General Condition G3 to indicate that Ecology will reopen the permit should the Human Health Criteria for PCBs be revised. General Permit Condition G3 also allows Ecology to modify a permit when EPA completes a PCB TMDL with waste load allocations, or Aquatic Life Criteria are revised.

**2. Comments on Aluminum**

**Summarized Commenters:** Environmental Protection Agency:

**Commenter: Susan Poulson - Comment A-1-2**

Fact Sheet, Technical Calculations. EPA published updated Clean Water Act Section 304(a) recommended criteria for aluminum in 2018. These updated criteria superseded the recommended criteria from 1988, which are used in the reasonable potential analysis for aluminum on Page 71 of the fact sheet Ecology should repeat the reasonable potential analysis for aluminum using the updated recommended aluminum criteria. The 2018 aluminum criteria are dependent upon receiving water PH, hardness and organic carbon. Dissolved organic carbon data are available in Ecology's Environmental Information Management System for the Spokane River near Upriver Dam, downstream from the discharge.

**Ecology's Response to Aluminum**

Ecology has repeated the analysis with the updated recommended aluminum criteria values which resulted in no reasonable potential. Ecology evaluated upstream receiving water data from Ecology's EIM data system and found 14 instances of paired pH, dissolved organic carbon, and hardness values during the low flow months from July through October.

Ecology used the paired data with the lowest pH value of 6.91 standard units and the corresponding dissolved organic carbon and hardness values of 1.5 and 21.7 mg/L, respectively.

Using EPA's aluminum criteria spreadsheet (<https://www.epa.gov/sites/default/files/2018-12/aluminum-criteria-calculator-v20.xlsm>), Ecology calculated a CMC (acute criterion) of 640 µg/L and a CCC (chronic criterion) of 300 µg/L.

The reasonable potential spreadsheet in the final fact sheet has been updated to include the criteria and calculations.

### 3. Comments on Variances

**Summarized Commenters:** Spokane Riverkeeper, Upper Columbia River Group - Sierra Club:

**Commenter: Jerry White, Jr - Comment O-1-8**

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.

#### **Ecology's Response to Variances**

Ecology has re-reviewed the 2020 material by the Gonzaga Law School. Thank you for providing this information.

### 4. Comments on SRRTTF

**Summarized Commenters:** Susan AMSTADTER, Hollis Higgins, James Cronin, Paulette Hines, Deanna Camp, Jonathan Keeve, Marc Fryt, James Tuck, Carla Brooks, Barry Chapman, Alex Richardson, Inland Empire Paper Company, Kirsten Angell, GARY ROGERS, Bridget Curran, Spokane Riverkeeper, Upper Columbia River Group - Sierra Club, Claudia Hume, Charles Martin, Debbie Stempf:

**Commenter: Susan AMSTADTER - Comment I-1-2**

End the mandatory participation of these pollution dischargers in the Spokane River Regional Toxics Task Force as it is no longer a community-based process.



**Commenter: Kirsten Angell - Comment I-12-2**

End the mandatory participation of these pollution dischargers in the Spokane River Regional Toxics Task Force as it is no longer a community-based process.

**Commenter: Carla Brooks - Comment I-9-2**

End the mandatory participation of these pollution dischargers in the Spokane River Regional Toxics Task Force as it is no longer a community-based process.

**Commenter: Deanna Camp - Comment I-5-2**

End the mandatory participation of these pollution dischargers in the Spokane River Regional Toxics Task Force as it is no longer a community-based process.

**Commenter: Barry Chapman - Comment I-10-2**

2. End the mandatory participation of this pollution discharger in the Spokane River Regional Toxics Task Force as it is no longer a community-based process.

**Commenter: James Cronin - Comment I-3-2**

End the mandatory participation of these pollution dischargers in the Spokane River Regional Toxics Task Force as it is no longer a community-based process.

**Commenter: Bridget Curran - Comment I-14-2**

End the mandatory participation of these pollution dischargers in the Spokane River Regional Toxics Task Force as it is no longer a community-based process.

**Commenter: Marc Fryt - Comment I-7-2**

End the mandatory participation of these pollution dischargers in the Spokane River Regional Toxics Task Force as it is no longer a community-based process.

**Commenter: Hollis Higgins - Comment I-2-2**

End the mandatory participation of these pollution dischargers in the Spokane River Regional Toxics Task Force as it is no longer a community-based process.

**Commenter: Paulette Hines - Comment I-4-2**

End the mandatory participation of these pollution dischargers in the Spokane River Regional Toxics Task Force as it is no longer a community-based process.

**Commenter: Claudia Hume - Comment I-16-2**

2. End the mandatory participation of these pollution dischargers in the Spokane River Regional Toxics Task Force as it is no longer a community-based process.

**Commenter: Jonathan Keeve - Comment I-6-2**

2. End the mandatory participation of these pollution dischargers in the Spokane River Regional Toxics Task Force as it is no longer a community-based process.

**Commenter: Charles Martin - Comment I-17-2**

2. End the mandatory participation of these pollution dischargers in the Spokane River Regional Toxics Task Force as it is no longer a community-based process.

**Commenter: Alex Richardson - Comment I-11-2**

End the mandatory participation of these pollution dischargers in the Spokane River Regional Toxics Task Force as it is no longer a community-based process.

**Commenter: Gary Rogers - Comment I-13-2**

Please, end the mandatory participation of these pollution dischargers in the Spokane River Regional Toxics Task Force as it is no longer a community-based process.

**Commenter: Debbie Stempf - Comment I-18-2**

2. End the mandatory participation of these pollution dischargers in the Spokane River Regional Toxics Task Force as it is no longer a community-based process.

**Commenter: James Tuck - Comment I-8-2**

2. End the mandatory participation of these pollution dischargers in the Spokane River Regional Toxics Task Force as it is no longer a community-based process.

**Commenter: Douglas Krapas - Comment B-1-10**

Comment No. 10 – Permit Condition S8.C. Spokane River Regional Task Force

IEP respectfully requests that Ecology remove the mandatory requirement for continued participation in the task force in Condition S8.C. EPA has now agreed under the terms of a consent decree with the Sierra Club and Spokane Tribe of Indians to prepare a PCB TMDL. The role of the task force as an alternative process to identify and remove PCB loading to the river is evidently not supported by EPA, environmental groups, or tribes and is subsequently no longer relevant. Furthermore, it is inappropriate to delegate to IEP the obligation to implement regulatory reform of the federal Toxic Substance Control Act (TSCA). IEP has no authority to effect amendment of the TSCA regulations. This is a matter solely within the discretion of EPA and Ecology. Rather than imposing an impractical permit condition on IEP for "regulatory reform" of TSCA, Ecology should commit to pressing EPA to amend TSCA or undertake state rulemaking to limit the presence of PCBs in commercial and consumer products.

**Commenter: Jerry White, Jr - Comment O-1-9**

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.

### **Ecology's Response to SRRTTF**

Thank you for your comments. The previous permits required permittees to participate in the Spokane River Regional Toxics Task Force (SRRTTF) and the permits contained a provision that the SRRTTF prepare a "Comprehensive Plan to Reduce Polychlorinated Biphenyls (PCBs) in the Spokane River."

Once EPA completes the Spokane River PCB TMDL, Ecology will be tasked with writing the TMDL Implementation Plan and will be establishing a citizen's advisory group. We believe the current situation is an opportunity for Ecology to work towards a more inclusive organization and advisory process.

Ecology has also found that SRRTTF made measurable environmental progress in finding and reducing PCB inputs to the Spokane River. Specifically, the concentrations of PCBs in the river have been reduced. The central tendency for concentrations of PCBs in the river are currently below the current 170 ppq water quality criterion. Also, significant reductions of PCBs have been achieved as a result of education and outreach, environmental cleanup, the implementation of best management practices (BMPs), improved stormwater management, and installation of membrane treatment technology.

We have modified the permits in Section S8.C to allow the permittees to substitute participation in the Task Force with participation in an equivalent citizen advisory organization. This will provide permittees with the ability to work collaboratively on best management practices (BMPs) while Ecology initiates the process to create a more inclusive advisory group.

## **5. Comments on PFAS Monitoring**

**Summarized Commenters:** Susan AMSTADTER, Hollis Higgins, James Cronin, Paulette Hines, Deanna Camp, Jonathan Keeve, Marc Fryt, James Tuck, Carla Brooks, Barry Chapman, Alex Richardson, Kirsten Angell, GARY ROGERS, Bridget Curran, Spokane Riverkeeper, Upper Columbia River Group - Sierra Club, C. G. Sweeney, Claudia Hume, Charles Martin, Debbie Stempf:

### **Commenter: Susan AMSTADTER - Comment I-1-3**

Please test for PFAS toxics in the pollution effluent coming out of the WWTP.

### **Commenter: Kirsten Angell - Comment I-12-3**

Please test for PFAS toxics in the pollution effluent coming out of the WWTP.

### **Commenter: Carla Brooks - Comment I-9-3**

Please test for PFAS toxics in the pollution effluent coming out of the WWTP.

### **Commenter: Deanna Camp - Comment I-5-3**

Please test for PFAS toxics in the pollution effluent coming out of the WWTP.

**Commenter: Barry Chapman - Comment I-10-3**

3. Include language that insures testing for PFAS toxics in the pollution effluent coming out of the discharge pipe(s) of this facility.

**Commenter: James Cronin - Comment I-3-3**

Please test for PFAS toxics in the pollution effluent coming out of the WWTP.

**Commenter: Bridget Curran - Comment I-14-3**

Please test for PFAS toxics in the pollution effluent coming out of the WWTP.

**Commenter: Marc Fryt - Comment I-7-3**

Please test for PFAS toxics in the pollution effluent coming out of the WWTP.

**Commenter: Hollis Higgins - Comment I-2-3**

Please test for PFAS toxics in the pollution effluent coming out of the WWTP.

**Commenter: Paulette Hines - Comment I-4-3**

Please test for PFAS toxics in the pollution effluent coming out of the WWTP.

**Commenter: Claudia Hume - Comment I-16-3**

3. Please test for PFAS toxics in the pollution effluent coming out of the WWTP.

**Commenter: Jonathan Keeve - Comment I-6-3**

3. Please test for PFAS toxics in the pollution effluent coming out of the WWT

**Commenter: Charles Martin - Comment I-17-3**

3. Please test for PFAS toxics in the pollution effluent coming out of the WWTP.

**Commenter: Alex Richardson - Comment I-11-3**

Please test for PFAS toxics in the pollution effluent coming out of the WWTP.

**Commenter: GARY ROGERS - Comment I-13-3**

Additionally, please test for PFAS toxins in the pollution effluent out of the WWTP.

**Commenter: Debbie Stempf - Comment I-18-3**

3. Please test for PFAS toxics in the pollution effluent coming out of the WWTP.

**Commenter: C. G. Sweeney - Comment I-15-3**

In each case for each discharger listed above, a test for PFAS toxics in the pollution effluent should also be included.

**Commenter: James Tuck - Comment I-8-3**

3. Please test for PFAS toxics in the pollution effluent coming out of the WWTP.

**Commenter: Jerry White, Jr - Comment O-1-11**

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 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.

**Ecology's Response to PFAS Monitoring**

Thank you for your comments. While PFAS is of concern in the Spokane area, the primary PFAS impacts are associated with groundwater and drinking water contamination in the area near Fairchild AFB, west of the Spokane aquifer and river. In 2016 Ecology conducted a statewide study that provides data about Spokane River water, fish and wastewater treatment plant effluent.

Compared to other waterbodies, the Spokane River has some of the lowest concentrations of PFAS in the state. The concentrations of PFAS in fish are below DOH's level of concern for high fish consumers. PFAS concentrations in effluent are in the median range compared to other wastewater treatment plants.

We currently do not have federal criteria for regulating PFAS discharges under the Clean Water Act. However, the Department of Health recently passed regulations that establish monitoring and State Action Levels for PFAS in public water systems. Should PFAS be discovered in Spokane public water systems, the public water system operators are required to report, investigate the cause of contamination, and take action.

Ecology will not be requiring PFAS (and related chemicals) monitoring in this permit. However, because PFAS in Spokane drinking water supplies would be a source to wastewater treatment plants, we will track the situation and evaluate next steps should PFAS be discovered in the Spokane public water systems or EPA issues a drinking water standard for PFAS.

## **6. Comments on PCB Monitoring**

**Summarized Commenters:** Environmental Protection Agency, Spokane Riverkeeper, Upper Columbia River Group - Sierra Club, Spokane Tribe of Indians,

### **Commenter: Susan Poulosom - Comment A-1-3**

Draft Permit, Monitoring Requirements. The fact sheet states on Page 52 that PCB monitoring using method EPA Method 1668 is required for the purpose of BMP effectiveness monitoring.

The permit states on Page 30 that the Quality Assurance/Quality Control plan for PCB source control and effluent characterization must include testing frequencies for routine monitoring of PCBs in the final effluent using EPA method 1668, but it does not specify a monitoring frequency.

### **Commenter: Susan Poulosom - Comment A-1-4**

In the Permitting Recommendations for the Spokane River Watershed submitted to Ecology on July 13, 2015 EPA recommended that Ecology require monitoring of the final effluent for Inland Empire Paper Company for PCB congeners using EPA Method 1668C at least quarterly. EPA continues to recommend this effluent monitoring to evaluate the effectiveness of both source control BMPs and treatment and to quantify PCB loadings from point sources.

### **Commenter: Jerry White, Jr - Comment O-1-3**

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.

**Commenter: Chad McCrea - Comment T-1-1**

On behalf of the Spokane Tribe of Indians' Department of Natural Resources (Tribe), please accept these comments on the Washington State Department of Ecology's (Ecology) draft NPDES Permit for Inland Empire Paper Company. These comments do not, nor are they intended in any way to impact the Tribe's August 18, 1877 federally reserved water rights within the Spokane River ("River") which includes quantities necessary to carry out the purposes of the Spokane Indian Reservation ("Reservation") which include but are not limited to guaranteeing the Tribe access to fish for food within Tshimakain Creek and the Columbia and Spokane Rivers. This fishing purpose of the Reservation also includes water of a quality necessary to carry out that purpose. Unfortunately, pollution that originates upstream of the Tribe's waters impacts the Tribe's citizens ability to safely exercise their fishing rights.

As you are aware, the Spokane Tribe received "treatment in the same manner as a state" (TAS) status under the Clean Water Act in 2002. The Tribe's first water quality standards were approved by the EPA in 2003. Since that time, attainment of the Tribe's water quality standards within its jurisdictional waters has been difficult, particularly in regards to toxins that bioaccumulate such as PCBs. Accordingly, the Tribe in 2013 intervened in a lawsuit<sup>1</sup> over the lack of a PCB TMDL for the 303d listed sections of the Spokane River. On February 12, 2022 the Court entered a consent decree that binds EPA to develop a PCB TMDL for the Spokane River by no later than December 29, 2024. (Dkt. 253). The Tribe has a significant interest in ensuring that the PCB TMDL is developed and implemented to lead to the attainment of the Tribe's downstream water quality standards. Accordingly, these comments will primarily focus on what it views as shortcomings in these permits as they relate to PCBs.

For background, the Tribe's first EPA approved fish consumption rate ("FCR") in 2003 was 86.3 grams/per day. This resulted in a surface water quality standard of 3.37 pg/L for PCBs. The Tribe adopted new standards in 2010 based on a fish consumption rate of 865 grams of fish per day to recognize a subsistence quantity of fish consumption, along with 4 liters of water intake all calculated utilizing a 1/1,000,000 cancer risk rate. This resulted in a PCB surface water quality standard of 1.3 pg/L for total PCBs. These new standards were approved by EPA in December of 2013. [Washington State's current water column PCB standard is based on a 1/100,000 cancer risk rate and is 170 pg/L, which is currently subject to two lawsuits in the Western District of Washington]. Discharges from upstream NPDES permittees contribute to violations of the Tribe's water quality standards for PCBs and other parameters.

The Tribe recognizes the current loophole in the enforcement of PCB water quality standards eloquently described by Justice Gonzalez dissenting in *Puget Sound Keeper v. Dep't of Ecology, et al.*, 191 Wn.2d 631, 646-653 (2018). This as interpreted by Ecology requires that enforcement monitoring for PCBs only be conducted with a method that cannot detect down to the water quality standards for PCBs, method 608. PCBs are currently an unenforceable limit in Ecology's view.

With that said, it is critically important that Ecology revise these draft permits to include appropriate monitoring for PCBs utilizing Method 1668 or an equal and similar method for all monitoring purposes. This is an appropriate use of Method 1668. *Nw. Pulp & Paper Ass'n v. Dep't of Ecology*, No. 55164-1-II, 2021 Wash. App. LEXIS 2970, at \*7–8 (Ct. App. Dec. 14, 2021).

It is important that all discharges into the Spokane River be monitored for PCBs appropriately for three important reasons.

First, the PCB TMDL will be completed by the EPA and will include appropriate Waste Load Allocations (WLA) for PCBs. The data EPA uses to develop the WLAs should be the best quality possible to increase the PCB TMDL's effectiveness.

Requiring the entities that discharge toxic pollution into the Spokane River to monitor their effluent at all discharge points will help gather the most relevant and current data and will in turn make the PCB TMDL more accurate.

**Commenter: Chad McCrea - Comment T-1-2**

Second, apart from the numeric limits for PCBs, Ecology has narrative limits that must be monitored which Method 1668 can assist with. The following applies to all NPDES permits.

- (b) Human health protection. The following provisions apply to the human health criteria in Table 240. All waters shall maintain a level of water quality when entering downstream waters that provides for the attainment and maintenance of the water quality standards of those downstream waters, including the waters of another state. The human health criteria in the tables were calculated using a fish consumption rate of 175 g/day. Criteria for carcinogenic substances were calculated using a cancer risk level equal to one-in- one-million, or as otherwise specified in this chapter. The human health criteria calculations and variables include chronic durations of exposure up to seventy years. All human health criteria for metals are for total metal concentrations, unless otherwise noted. Dischargers have the obligation to reduce toxics in discharges through the use of AKART.

WAC 173-201A-240(b)(emphasis added). Here, the Tribe is a downstream state (with a PCB water column standard of 1.3 pg/L) and Method 1668 monitoring of effluent can help provide data on whether this standard can be attained and maintained under the permit conditions.



**Commenter: Chad McCrea - Comment T-1-3**

Third, 40 C.F.R. Section 122.4(d) requires that: "No permit may be issued: (d) When the imposition of conditions cannot ensure compliance with the applicable water quality requirements of all affected States." Again, the Tribe is an "affected" State for purposes of the Clean Water Act and requiring Method 1668 for effluent monitoring will allow the Tribe and the EPA to better monitor the effectiveness of the permit conditions.

**Ecology's Response to PCB Monitoring**

The proposed and final permits specified that the Permittee conduct routine monitoring of PCBs in the final effluent (Outfall 001) using EPA method 1668 (see Permit Section S8.A.7). Currently, the Permittee tests for PCBs once per quarter and Ecology has added language to Permit Section S8.A.7 to require a minimum testing frequency of once per quarter.

**7. Comments on PCB Analytical Method**

**Summarized Commenters:** Environmental Protection Agency, Spokane Riverkeeper, Upper Columbia River Group - Sierra Club:

**Commenter: Susan Poulosom - Comment A-1-1**

Fact Sheet, PCB Analytical Methods. The discussion of total PCB analytical methods beginning on Pages 51 and 52 of the fact sheet should include EPA Method 1628. This is a PCB congener method which was published in July 2021: and which has undergone multi-laboratory validation, although it has not yet been approved under 40 CFR Part 136 for use in NPDES permit compliance monitoring.

**Commenter: Jerry White, Jr - Comment O-1-2**

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.

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. This makes the detection and effective regulation of PCBs being dumped into the Spokane River extremely important.

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.

#### **Ecology's Response to PCB Analytical Method**

**Comment A-1-1.** Ecology has modified Section D of Monitoring Requirements in the final fact sheet to include a discussion of EPA method 1628.

**Comment O-1-2.** The proposed and final permits specified that the Permittee conduct routine effluent characterization monitoring for PCBs at Outfall 001 using EPA method 1668 (see Permit Section S8.A.7). Currently, the Permittee tests for PCBs once per quarter and Ecology has added language in Permit Section S8.A.7 to require a minimum testing frequency of once per quarter. The data generated from this routine testing will allow an accurate assessment of PCB loadings, concentrations, and congeners discharged by the Permittee.

As noted in Section D of Monitoring Requirements in the draft Fact Sheet, EPA has not approved Method 1668 under 40 CFR Part 136 for determining compliance with effluent limits set in NPDES permits. Ecology will continue to use the most sensitive methods approved by EPA to evaluate compliance with numeric effluent limits which is currently EPA method 608.3.

### **8. Comments on Compliance Schedule**

**Summarized Commenters:** Inland Empire Paper Company, Spokane Riverkeeper, Upper Columbia River Group - Sierra Club

#### **Commenter: Douglas Krapas - Comment B-1-8**

Comment No. 8 – Permit Condition S4, Table 15, Compliance Schedule:

IEP requests that the compliance schedule provided in Condition S4, Table 15, be extended for the entire permit term due to the following concerns with the proposed two-year extension of the compliance schedule to November 1, 2024.

a. IEP supports the compliance schedule as proposed in the entity review draft permit:

Item	Task	Due Date
1.	Annual Status Reports	November 1 of each year
2.	Scope of Work for Ecology Review and Acceptance – Updated Engineering Report for Treatment Technology	within six months after permit effective date
3.	Approvable Engineering Report for Ecology Review and Approval – Updated Engineering Report for Treatment Technology	within 18 months after permit effective date
4.	Confirmation of Implementation of Recommendations of Approved Engineering Report	within 30 months after permit effective date
5.	Meet Final Water Quality Based Effluent Limits for CBOD <sub>5</sub> and Total Phosphorus (as P)	November 1, 2026

b. In response to these comments can Ecology explain why it shortened the compliance schedule to two years? This is not sufficient time for IEP to operate under a bubble permit for nutrients and to optimize its treatment systems to meet the final effluent limits. It is also insufficient time for IEP to evaluate and implement additional treatment if necessary to meet the final effluent limits.

c. The draft permit, unlike the entity review draft permit, includes no allowance for submission of an engineering report. In response to these comments, can Ecology explain why this provision was removed from the draft permit? Section S4 should provide a reasonable schedule for submittal of a revised engineering report no sooner than eighteen (18) months from the permit effective date. This amount of time is minimally necessary to evaluate the performance of the WWTS and make recommendations on system improvements necessary to attain compliance with the final effluent limits.

d. IEP requests that Ecology likewise restore the additional eighteen (18) months for submittal of the Engineering report and the thirty (30) months for implementation of the approved engineering report, both due from the permit effective date. This will provide sufficient time for Ecology approval of an engineering report. Upon approval of the Engineering Report by Ecology, sufficient time may be needed for WWTS upgrades that includes equipment specifications, request for proposals, proposal evaluation, contract award, engineering design, procurement, equipment/systems manufacture, delivery of equipment, installation, commissioning, optimization and assessment for compliance with the DO TMDL WQBELs. In response to these comments, can Ecology explain why this was deleted from the entity review draft permit?

IEP believes that an extension to the compliance schedule throughout this permit cycle as stated in the version of Section S4 above is reasonable to provide IEP and Ecology with the confidence that the final nutrient effluent limits can be achieved, in lieu of having to reopen the permit for modification during this cycle. It is important to note that IEP will be making every effort to meet the effluent limits as soon as is practicable and that attainment of the limits during the permit cycle may be possible.

**Commenter: Douglas Krapas - Comment B-1-16**

On Page 5 of the Draft Permit, Table 1, S4 Item 1. Revise Compliance Schedule Annual Status Report Submittal Date based on issuance date.

**Commenter: Jerry White, Jr - Comment O-1-14**

We ask that the "annual status updates" in the process of meeting the effluent limitations for total phosphorus and CBOD<sub>5</sub>, 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".

**Commenter: Jerry White, Jr - Comment O-1-16**

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).

**Commenter: Jerry White, Jr - Comment O-1-5**

Compliance Schedule extension for meeting Total Phosphorus and CBOD<sub>5</sub>, 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 CBOD<sub>5</sub>".

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<sub>5</sub>. 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.

#### **Ecology's Response to Compliance Schedule**

**Comment B-1-8.** In extending the compliance schedule, Ecology must require compliance with effluent limitations as soon as possible. As explained in Section III.F of the Fact Sheet, Ecology believes a two year extension will:

- Allow sufficient time for the Permittee to further optimize its mill processes and effluent treatment system
- Allow time to address any unforeseen circumstances
- Meet the 'as soon as possible' requirement.

If after optimization, IEP still cannot meet its effluent limits and needs additional time to evaluate additional treatment technologies, provisions of WAC 173-201A-510(4) may still apply. Ecology would consider such a request based on requirements listed in WAC 173-201A-510(4).

**Comment B-1-16.** Table 13 in the final permit sets the compliance schedule annual status reports based on the issuance date of the permit.

**Comments O-1-14, O-1-16, and O-1-5.** As explained in their request for a compliance schedule extension, IEP has completed numerous upgrades to its pulp and paper mill processes and effluent treatment system over the past 20 years, and included installation of state-of-the-art ultra-filtration (UF) membrane technology. While IEP has made significant reductions in total phosphorus and CBOD<sub>5</sub> in its final effluent, their monitoring results have not demonstrated consistent compliance with the DO TMDL water quality based effluent limits.

The final permit will require that IEP's annual status reports be upload into the Water Quality Permitting and Reporting Information System (PARIS) system.

Finally, Ecology set the 2 year compliance schedule extension based on the assumption that only further optimizations to mill processes and the effluent treatment system, in combination with evaluation of delta elimination tools, are needed to achieve compliance.

However, the need to add additional ultra-filtration units, or other wastewater treatment units, may require additional time for design, construction, and optimization. Any additional time granted to meet these final water quality based effluent limitations must meet the provisions WAC 173-201A-510(4). Further, any proposed extension will require a permit modification, which will follow normal public review and comment procedures.

## 9. Comments on Effluent Guidelines

**Summarized Commenters:** Inland Empire Paper Company:

**Commenter: Douglas Krapas - Comment B-1-11**

Comment No. 11 – Fact Sheet, New Source

The "Effluent Guidelines and Standards" listed in the Fact Sheet are for new sources (NSPS technology-based limits). IEP should not be characterized as a new source simply because of the addition of new effluent treatment technology. Ecology needs to provide the reasons for using NSPS for IEP consideration and if IEP is more accurately characterized as an existing source, the Fact Sheet should be corrected.

### **Ecology's Response to Effluent Guidelines**

Ecology made the determination of new source status based on the deinking and thermo-mechanical pulping operations, not on the addition/upgrade of effluent treatment technologies.

EPA has provided guidance for determining what sources are new sources in a Memorandum from the Office of Water, dated September 28, 2006, entitled 'New Source Dates for Direct and Indirect Dischargers': [2006 EPA Memo - New Sources](https://www3.epa.gov/npdes/pubs/newsources_dates.pdf) available online at [https://www3.epa.gov/npdes/pubs/newsources\\_dates.pdf](https://www3.epa.gov/npdes/pubs/newsources_dates.pdf).

Under the Clean Water Act (CWA), any source, the construction of which is commenced after promulgation of New Source Performance Standards (NSPS) applicable to the source, is a new source.

The CWA defines a "source" as any building, structure, facility or installation from which there is or may be a discharge of pollutants. Because the statute broadly defines "construction" as "any placement, assembly, or installation of facilities or equipment (including contractual obligations to purchase such facilities or equipment) at the premises where such equipment will be used, including preparation work at such premises", a number of activities may fall into a new source status.

IEP installed both the secondary fiber deink facilities (1991) and the new thermo-mechanical pulping system (2009), after promulgation of NSPS for each subcategory found in "Effluent Guidelines and Standards" in the Code of Federal Regulations (CFR) for the Pulp, Paper, and Paperboard Point Source Category (see Appendix B of the above referenced EPA Memo). Therefore, both the deink and thermo-mechanical production are characterized as new sources.

## 10. Comments on Metals

**Summarized Commenters:** Inland Empire Paper Company:

**Commenter: Douglas Krapas - Comment B-1-2**

Comment No. 2 – Permit Condition S1, Table 2, Effluent Limits for Cadmium

The Spokane River is currently meeting the water quality standard for Cadmium and therefore can be removed from the 303(d) listing of impairments. Furthermore, IEP has a long history of non-detectable values for Cadmium through permit monitoring and requests that Cadmium be removed as a permit limit. Can Ecology please describe how Cadmium will be removed from the 303(d) listing and subsequently from IEP's NPDES permit?

**Commenter: Douglas Krapas - Comment B-1-12**

Comment No. 12 – Fact Sheet Reasonable Potential Analysis for Metals

The Reasonable Potential (RP) calculations for Cadmium, Lead & Zinc in the Fact Sheet (Reasonable Potential Spreadsheet – No Mixing Zone; Part 2, page 74) have incorrect values for Effluent Concentrations. The data included in the spreadsheet do not represent currently available metals data and indicate that RP exists based on these inputs. Therefore, this spreadsheet should be revised to reflect actual IEP data that results in no RP for these metals.

### **Ecology's Response to Metals**

**Comment B-1-2.** The Spokane River currently meets water quality standards for cadmium. Both the current and candidate water quality assessments include a Category 1 listing for cadmium in the river segment at the Washington-Idaho border (Assessment Unit ID of 17010305000012\_001\_001). A Category 1 listing means that the water body meets state water quality standards. Other downstream segments in the Spokane River contain both Category 1 and 3 listings. A Category 3 listing means that a water body has insufficient data to place them into any of the other categories.

The Spokane River metals TMDL included cadmium based on data collected at the Washington-Idaho border showing water quality criteria exceedances. Since that time, cadmium concentrations have lowered and currently concentration meet the water quality criteria.

However, until Ecology revises the Spokane River metals TMDL, the requirements of the TMDL will still apply. For further details, please contact [303d@ecy.wa.gov](mailto:303d@ecy.wa.gov).

**Comment B-1-12.** Ecology used this spreadsheet to calculate water quality based effluent limitations at the end-of-pipe (100% effluent, no mixing zone specified). In order to obtain results, effluent concentrations must be entered that will exceed a reasonable potential value. For this condition, the spreadsheet will output daily maximum and monthly average limits using a monthly sampling frequency.

In other words, the effluent metals concentrations entered in this spreadsheet do not correspond to actual effluent concentrations and are used solely to convert water quality criteria to end-of-pipe effluent limits according to the procedures from EPA's Technical Support Document for Water Quality-based Toxics Control, ([EPA 505/2-90-001](https://www3.epa.gov/npdes/pubs/owm0264.pdf)) located online at <https://www3.epa.gov/npdes/pubs/owm0264.pdf>.

## 11. Comments on Monitoring Schedule

**Summarized Commenters:** Inland Empire Paper Company:

### **Commenter: Douglas Krapas - Comment B-1-1**

Comment No. 1 – Permit Conditions S1 & S2, Outfalls 001, 003 and 004

Due to interim limits associated with an extension to the compliance schedule, IEP suggests continuing with the use of only Outfall #001 to measure compliance for this permit cycle. This will greatly simplify implementation of the permit (sampling, monitoring, etc.), the Discharge Monitoring Reports (DMRs) and avoid any confusion throughout this permit cycle with the use of Outfalls #003 and #004. Compliance with interim limits is most effectively measured at the location of existing Outfall #001. IEP suggests revisiting compliance measurement at Outfalls #003 and #004 during the next permit cycle when the final effluent limits go into full effect.

### **Commenter: Douglas Krapas - Comment B-1-5**

Comment No. 5 – Permit Condition S2.A. Monitoring Schedule,

Tables 9 through 11 In accordance with Comment #2 above, Tables 9 through 11 should be modified and simplified to monitoring at Outfall #001 only for this permit cycle. Monitoring frequencies can be greatly reduced and seasonal calculations can be eliminated with elimination of Outfalls #003 & #004. Additionally, Outfall #004 is Non-Contact Cooling Water (fresh water) and therefore does not require a frequent monitoring schedule considering it will not result in detectable values for TSS, BOD<sub>5</sub>, CBOD<sub>5</sub> and ammonia. IEP requests a monitoring frequency of 1/month maximum if Ecology requires any testing of NCCW.

Outfall #004 monitoring requirements should be for TP only to establish the phosphorus credit to be used for compliance. Additionally, IEP requests that any sampling/monitoring at Outfall #004 be through "grab sampling" methods, in lieu of "composite sampling," due to logistical challenges that preclude effective composite sampling.

### **Commenter: Douglas Krapas - Comment B-1-6**

Comment No. 6 – Permit Condition S2.A. Monitoring Schedule, Tables 10 & 11

Reporting requirements for running and seasonal averages for Ammonia, CBOD<sub>5</sub> and TP need clarification. The "Units and Specification" column should be "lbs/day, running average." The seasonal average is not necessary since it is redundant with the running average at the end of the season (i.e.: October).



If Ecology insists upon keeping the seasonal average requirement, then the "Units and Specification" column should be "lbs/day, seasonal average" in lieu of the "lbs/season."

**Commenter: Douglas Krapas - Comment B-1-7**

Comment No. 7 – Permit Condition S2.A. Table 9, Hardness vs. Alkalinity

The draft permit has eliminated the monitoring requirement for Hardness and now requires Alkalinity testing. How will Ecology make future determinations for end-of-pipe metals calculations without continued Hardness data and can Ecology explain why the draft permit now requires Alkalinity testing?

**Commenter: Douglas Krapas - Comment B-1-18**

On Page 12 of the Draft Permit, S.2.A, Table 10. Reduce TSS testing to 1/month due to non-detects from membranes.

**Commenter: Douglas Krapas - Comment B-1-19**

On Pages 12-15 of the Draft Permit, S.2.A, Tables 10 & 11. Eliminate monitoring for TRP - can be added later if IEP elects to pursue bioavailability.

**Ecology's Response to Monitoring Schedule**

**Comment B-1-1.** Due to the potential confusion and added complexity of a dual monitoring schedule, the final permit removes all requirements for sampling at internal Outfalls 003 and 004 (except for the total phosphorus at Outfall 004 to determine intake credits for this parameter). The final permit specifies the use of Outfall 001 for compliance monitoring.

**Comment B-1-5.** See Response to Comment B-1-1. The final permit removes routine monitoring at Outfall 004 (non-contact cooling water) except for total phosphorus to determine intake water credits for this parameter. Table 11 of the draft permit contained errors in monitoring parameters testing frequencies for Outfall 004. Table 9 of the final permit specifies monitoring for total phosphorus at once per week at Outfall 004.

**Comment B-1-6.** Table 8 in the final permit clarifies the running and seasonal averages for ammonia, CBOD, and total phosphorus by specifying a "Units and Specification" as "lbs/day, running average" and "lbs/day, seasonal average".

**Comment B-1-7.** Ecology has reconsidered the lack of hardness monitoring in the draft permit. Table 8 in the final permit adds monitoring for hardness at the final effluent (Outfall 001) at a frequency of once per month.

When two sources of water mix, the resulting pH depends on the pH and alkalinity of each source. Ecology lacks effluent alkalinity data, and the final permit retains the once per month testing for alkalinity. Ecology will use this data to reassess the reasonable potential determination for pH at the next permit cycle.

**Comment B-1-18.** Table 8 in the final permit reduces effluent TSS sampling during the TMDL compliance season (February - October) from 5/week to 2/week.

During the remainder of the year (November - January), the final permit retains the 5/week sampling frequency due to expected off-season maintenance on the membrane system to ensure their efficient operation.

**Comment B-1-19.** In the final permit, Ecology has removed the requirement for monitoring total reactive phosphorus in the final effluent.

## **12. Comments on Other**

**Summarized Commenters:** Inland Empire Paper Company:

Commenter: Douglas Krapas - Comment B-1-17

On Page 8 of the Draft Permit, S1.A.1, Table 4, Footnote a. Ammonia Seasonal Limit - begin in 2023 or start average from permit effective date.

### **Ecology's Response to PCB Other**

Table 4 in the final permit specifies that the ammonia seasonal limit will begin after the effective date of the permit.

## **13. Comments on PCB Other**

**Summarized Commenters:** Spokane Riverkeeper, Upper Columbia River Group Sierra Club, C. G. Sweeney:

**Commenter: C. G. Sweeney - Comment I-15-2**

Also require a Waste Load Allocation (limit) for the facilities in question.

**Commenter: Jerry White, Jr - Comment O-1-1**

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.

**Commenter: Jerry White, Jr - Comment O-1-4**

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.

#### **Ecology's Response to PCB Other**

**Comment I-15-2.** Ecology will be responsible for incorporating into the permits Waste Load Allocations for PCBs based on the upcoming EPA TMDL, when completed.

#### **Commenter: Jerry White, Jr - Comment O-1-1**

Comment noted.

**Comment O-1-4.** The Permittee continues to optimize and evaluate their effluent treatment system for meeting their final water quality based effluent limits for CBOD<sub>5</sub>, ammonia, and total phosphorus. Once optimized, Ecology expects the treatment system will achieve the greatest level of pollutant reduction for both TSS and PCB.

The evaluation of any correlation between TSS and PCBs will likely occur at the next permit renewal when sufficient data has been collected from the optimized treatment system. In the interim, you can find routine monitoring data (TSS, Flow, etc.) for the Permittee at Ecology's Water Quality Permitting and Reporting Information System (PARIS). The PARIS system will also contain the routine monitoring results for PCBs using EPA method 1668.

#### **14. Comments on PCB Pollutant Minimization Plan**

**Summarized Commenters:** Inland Empire Paper Company, Spokane Riverkeeper, Upper Columbia River Group - Sierra Club:

#### **Commenter: Douglas Krapas - Comment B-1-9**

Comment No. 9 – Permit Condition S8.A.5. PCB PMP, Incoming Materials

Please delete this condition, as this is an unreasonable requirement for a private business to undertake and is a regulatory matter for Ecology or the EPA. It is also irrelevant for reducing PCB loading to the Spokane River. The 2015 source identification study has already documented the overwhelming source of PCBs coming into IEP are from TSCA allowable inks and pigments in recycled paper, and not from other products entering its facility. Furthermore, this requirement is an unreasonable request, particularly as the Permit requires the use of EPA Method 1668 for which samples from nearly any source can be shown to contain detectable levels of PCB congeners. This condition could be construed to require IEP to eliminate the use of recycled paper and other raw materials as PCBs are detectable in all matrices when EPA Method 1668 is applied.

**Commenter: Douglas Krapas - Comment B-1-10**

Comment No. 10 – Permit Condition S8.C. Spokane River Regional Task Force

IEP respectfully requests that Ecology remove the mandatory requirement for continued participation in the task force in Condition S8.C. EPA has now agreed under the terms of a consent decree with the Sierra Club and Spokane Tribe of Indians to prepare a PCB TMDL. The role of the task force as an alternative process to identify and remove PCB loading to the river is evidently not supported by EPA, environmental groups, or tribes and is subsequently no longer relevant. Furthermore, it is inappropriate to delegate to IEP the obligation to implement regulatory reform of the federal Toxic Substance Control Act (TSCA). IEP has no authority to effect amendment of the TSCA regulations. This is a matter solely within the discretion of EPA and Ecology. Rather than imposing an impractical permit condition on IEP for "regulatory reform" of TSCA, Ecology should commit to pressing EPA to amend TSCA or undertake state rulemaking to limit the presence of PCBs in commercial and consumer products.

**Commenter: Jerry White, Jr - Comment O-1-6**

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 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, demonstrable reductions in PCB loading to the Spokane River from IEP effluent.

**Commenter: Jerry White, Jr - Comment O-1-7**

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.

### **Ecology's Response to PCB Pollutant Minimization Plan**

**Comments B-1-9.** Ecology believes minimizing the risks of PCBs discharged from incoming materials to the facility remains an important task in reducing PCBs discharged from the facility. For newsprint recycling, this would include the substitution of materials that contain lower PCB content, for example, substituting office paper for newspaper stock. Since condition S8.A.4 already covers the substitution of materials, the final permit omits condition S8.A.5, the source identification study.

**Comments B-1-10 and O-1-6.** Ecology has reviewed these comments and condition S8.C regarding the regulatory reform of TSCA and agrees that this condition may be inappropriate to include in an NPDES permit. Ecology has omitted this language in the final permit.

**Comment O-1-7.** The final permit retains the use of Pollutant Minimization Plan for consistency with the proposed permit.

### **15. Comments on PCB Reasonable Potential**

**Summarized Commenters:** Inland Empire Paper Company, **Commenter: Douglas Krapas -**  
**Comment B-1-13**

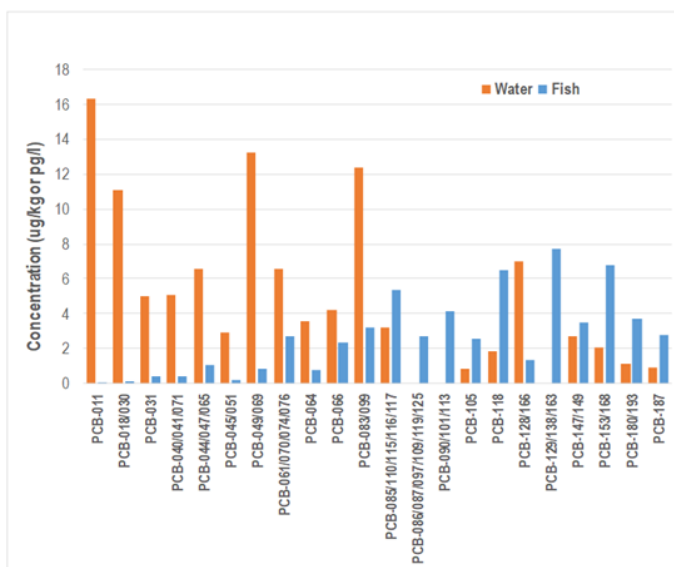
Comment No. 13 – Reasonable Potential Analysis for PCBs

Ecology has made a reasonable potential analysis on the determination that "based on the presence of PCBs in the effluent and the 303(d) listing for PCBs in fish tissue in the Spokane River at the point of discharge." The Fact Sheet is devoid of any analysis that PCBs in IEP's effluent actually contribute to elevated PCB concentrations in fish tissue. That is, there is no evidence or discussion in the Fact Sheet that PCBs in the effluent are actually causing or contributing to elevated fish tissue concentrations.

There is abundant data to the contrary. The advanced WWTS installed by IEP removes over 99.99% of PCBs entering the treatment system, including 100% of the heavier molecular weight congeners that are appreciably bio-accumulating in fish tissue. This is done in a manner that removes PCBs from the environment considering that IEP efficiently destroys the PCBs with its Fluidized Bed Combustion system. The remaining PCBs in the effluent are all lower molecular weight PCB congeners that are not present, with one exception, in fish tissue data. The one congener detected in fish tissues that is also present in the IEP effluent, PCB-31, is at very low concentrations in IEP's effluent and would therefore be a de minimis contribution to fish tissue. It appears that the remaining PCBs in IEP's effluent are not biologically available and do not contribute to the basis for the impairment listing in the river.

The following table illustrate the relationship between water column data and fish tissue data. It is apparent that PCB congeners from PCB-31 and below are not a factor in fish tissue concentrations of PCBs.

Row Labels	Average of AVG [c].FISH	Average of WC.Conc
PCB-011	0.1	16.3
PCB-018/030	0.1	11.1
PCB-031	0.4	5.0
PCB-040/041/071	0.4	5.0
PCB-044/047/065	1.1	6.6
PCB-045/051	0.2	2.9
PCB-049/069	0.8	13.3
PCB-061/070/074/076	2.7	6.6
PCB-064	0.7	3.6
PCB-066	2.4	4.2
PCB-083/099	3.2	12.3
PCB-085/110/115/116/117	5.4	3.2
PCB-086/087/097/109/119/125	2.7	0.0
PCB-090/101/113	4.1	0.0
PCB-105	2.6	0.9
PCB-118	6.5	1.8
PCB-128/166	1.3	7.0
PCB-129/138/163	7.7	0.0
PCB-147/149	3.5	2.7
PCB-153/168	6.8	2.1
PCB-180/193	3.7	1.1
PCB-187	2.8	0.9
Grand Total	3.1	4.9



In response to these comments, can Ecology explain how it translates PCB congener data from IEP's final effluent to fish tissue concentrations?

**Commenter: Douglas Krapas - Comment B-1-14**

Comment No. 14 – Fact Sheet, Unlawful use of test method 1668C data

Ecology has improperly used data from the unapproved test method 1668C to make a reasonable potential analysis. Ecology regulations are clear and unambiguous in the procedures under the state water quality standards for applying water quality criteria, that the "analytical testing methods for these numeric criteria must be in accordance with the "Guidelines Establishing Test Procedures for the Analysis of Pollutants" (40 C.F.R. Part 136)..." WAC 173-201A-260(3)(h). In response to these comments, can Ecology explain how it has authority to ignore this provision in state law?

EPA regulations similarly prohibit the use of data from an unapproved test method for any purpose in an NPDES permit. 40 CFR 136.1(a) provides that the "procedures [test methods] proscribed herein shall...be used to perform the measurements indicated whenever the waste constituent specified is required to be measured for:

1. An application...or reports required to be submitted under NPDES permits or other requests for quantitative or qualitative effluent data under parts 122 through 125 of this chapter; and
2. Reports required to be submitted by dischargers under the NPDES established by parts 124 and 125 of this chapter.

40 CFR Part 122 covers the requirements for coverage under a NPDES permit including the derivation of technology based effluent limitations, 40 CFR 122.44(a), water quality based effluent limitations, 40 CFR 122.44(d), including a reasonable potential analysis under 40 CFR 122.44(d)(1). In response to this comment, can Ecology explain how it has authority to disregard these federal regulations?

40 CFR Part 123 governs requirements for delegated state water quality programs including requirements for NPDES permitting under 40 CFR 123.25. The requirements of a state program also include "procedures for receipt, evaluation, retention and investigation of all notices and reports required" in NPDES permits. 40 CFR 136.1(a)(1) expressly limits monitoring under Part 123 to approved test methods. In response to this comment, can Ecology explain how it has the authority to disregard the limitation in 40 CFR 136.1(a)(1) to use an unapproved test method for NPDES permitting?

40 CFR Part 124 governs the NPDES permitting process. Under 40 CFR 124.8(a) Ecology is required to prepare and publish a fact sheet to support a proposed NPDES permit. Under 40 CFR 136.1(a)(1) a fact sheet prepared under Part 124 must rely on data using an approved test method. In response to this comment, can Ecology explain how it has the authority to disregard the limitation in 40 CFR 136.1(a)(1) to use an unapproved test method for NPDES permitting?

**Commenter: Douglas Krapas - Comment B-1-15**

Comment No. 15 – Fact Sheet, Ecology has improperly used unqualified 1668C data

The reasonable potential analysis for PCBs in Appendix D, Reasonable Potential Spreadsheet – No Mixing Zone Part 2, uses a receiving water value for PCBs that is apparently based on EPA Method 1668C data with a blank correction of 3X. If so, this is contrary to Ecology guidance in the Water Quality Program Permit Writers Manual. Section 4.5 of the manual expressly calls for a blank correction of 10X when using 1668C data in an NPDES permit:

- Using 10x censoring for summation of the 209 PCB congeners removes false positives that are not significantly above (e.g. less than 2 standard deviations from the mean) the blank level. The value of 10x equates to a 95% confidence level that the congener is present in the sample and is also quantifiable. For the purposes of developing effluent limits, the process of applying the 10x laboratory blank censor is appropriate.

This is particularly true in circumstances where the PCB concentrations in the Spokane River are very low to non-existent. Research by Ecology has, for example, been unable to confirm the environmental presence of PCBs in the water column using high volume sampling methods. Ecology, Spokane River PCBs and other Toxics at the Spokane Tribal Boundary, Table 14, pg. 38 (December 2017)(Pub. No. 17-03-019). It is irrational to use a lower blank correction factor in these circumstances. If Ecology applied the guidance in its own manual, the reasonable potential calculations in Appendix D would likely have no PCB concentrations in the receiving water.

The manual further provides that any use of EPA Method 1668C data should be based on an approved Quality Assurance Project Plan (QAPP). Ecology does not have an approved QAPP for the purpose of the surface water monitoring data relied on for its reasonable potential analysis. The data provided by IEP is not supported by a QAPP. The same is true for any surface water data Ecology has relied on from the monitoring data collected by the Spokane River Regional Toxics Task Force. Approved QAPP's for the task force are clear that any data is collected for the purpose of providing semi-qualitative information on the sources of PCB loading to the river and not for any regulatory purposes:

- QAPP - 3.2.4 Regulatory criteria or standards
- In this study, PCB concentrations are being used to support future temporal trend assessments. Results will not be compared to regulatory criteria or standards

It is beyond the scope of the QAPP for Ecology to now use that data for NPDES permitting purposes. The task force QAPP typically uses a blank correction of 3x for the purpose of source identification, not for regulatory purposes. In some circumstances the task force has applied no blank correction in order to have any data to use in its analyses and efforts to reduce PCB loading. It is unreasonable for Ecology to use a similar approach for a NPDES permit reasonable potential analysis and deriving effluent limitations.

#### **Ecology's Response to PCB Reasonable Potential**

**Comment B-1-13.** Absorption, distribution, metabolism, and excretion (ADME) processes can alter PCB congener patterns that bioaccumulate in fish. Therefore, the congener patterns in fish tissue may not match congener patterns in effluents and receiving waters. In making the reasonable potential determination, Ecology did consider the range of congeners detected in the effluent; the persistent and bio-accumulative nature of PCBs; and the ADME processes that likely alter congener patterns in fish tissue over time.

**Comment B-1-14.** Ecology used results from EPA Method 1668 to evaluate reasonable potential and has specified using EPA Method 1668 to evaluate the effectiveness of best management practices.

EPA's Technical Support Document (TSD), Section 3.2 supports the use of all available information when evaluating reasonable potential. In this permit, the data included PCB results from methods not approved for compliance monitoring under 40 CFR Part 136 (i.e., EPA Method 1668).

**Comment B-1-15.** Ecology used this spreadsheet to calculate water quality based effluent limitations at the end-of-pipe (100% effluent, no mixing zone specified). Since no mixing zone is specified, the water quality based effluent limit calculations are independent of receiving water concentrations.



Ecology included the geometric mean of PCB concentrations in the receiving water upstream of the discharge from PCB surveys for the Spokane River at below Trent Bridge (Spokane River Regional Toxics Task Force, Station SR-7) in the spreadsheet. However, this value had no bearing on the resulting calculations of the daily maximum or monthly average limitations for PCBs.

Ecology based its determination that the PCBs in the effluent contributes to water quality standards excursions based on the presence of PCBs in the effluent and the 303(d) listing for PCBs in fish tissue in the Spokane River at the point of discharge.

## **16. Comments on PCB Receiving Water Monitoring**

**Summarized Commenters:** Spokane Riverkeeper, Upper Columbia River Group - Sierra Club,

**Commenter: Jerry White, Jr - Comment O-1-13**

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.

### **Ecology's Response to PCB Receiving Water Monitoring**

The Fact Sheet language had referenced EPA's Plan for Addressing PCBs in the Spokane River. EPA's Plan recommended that the Spokane River permits require receiving water monitoring for PCB congeners upstream and downstream of individual outfalls using EPA Method 1668C at a frequency adequate to assess both high and low river flow conditions.

Ecology choose not to require this receiving water monitoring, since the Task Force has characterized PCB concentrations river-wide at both high and low flow conditions. Requiring this monitoring of the Permittee would provide little added understanding of PCB concentrations and loadings in the Spokane River system.

## 17. Comments on BOD<sub>5</sub>/CBOD<sub>5</sub> Limit

**Summarized Commenters:** Inland Empire Paper Company:

### **Commenter: Douglas Krapas - Comment B-1-3**

Comment No. 3 – Permit Condition S1, Table 5, Effluent Limits for CBOD<sub>5</sub>

CBOD<sub>5</sub> limits in the draft permit are not representative of IEP operations with tertiary Ultrafiltration Membrane treatment (UF Membranes) that were installed in January, 2020. The following provides the basis for this misrepresentation and a proposed analysis to more accurately characterize CBOD<sub>5</sub> performance that is typical of IEP operations with the UF Membranes:

The approach taken by Ecology does not accurately capture representative wastewater treatment system (WWTS) performance and deviates from the usual approach outlined in the Permit Writer's Manual. The primary reasons for these discrepancies are due to the fact that IEP CBOD<sub>5</sub> data are not "log-normal" since CBOD<sub>5</sub> is sampled very infrequently compared to BOD<sub>5</sub>. The data also contains a significant number of non-detects that were obtained during business curtailment and mill outages at the height of the COVID pandemic. During the period of February to July 2020 the mill only operated intermittently (i.e.: 3 days/week) and at lower production rates, therefore operations during this time are not indicative of normal operations and should not be included in any data analyses.

Ecology should use an approach that provides a more accurate assessment of CBOD<sub>5</sub> performance during typical operations and one that comports much better with the statistical analysis favored by the Permit Writer's Manual. This approach is detailed in the attached MS Excel spreadsheet (Attachment "C") and is summarized below:

#### CBOD<sub>5</sub>/BOD<sub>5</sub> Ratio

The current permit only requires CBOD<sub>5</sub> testing once per month, however it is possible to establish a more accurate relationship using a CBOD<sub>5</sub>/BOD<sub>5</sub> Ratio over a longer period of time:

- Data is compiled from 2016-2022 when both CBOD<sub>5</sub> and BOD<sub>5</sub> were measured on the same sample
- Eliminate any data points when either CBOD<sub>5</sub> or BOD<sub>5</sub> were non-detect
- The remaining dataset is both normally and log-normally distributed
- The population mean was calculated from the sample mean and sample standard deviation using a 95% confidence interval
- The population mean (@ 95% confidence) for the CBOD<sub>5</sub>/BOD<sub>5</sub> ratio is between 87-92%, with an average of 90%

Compilation of a subset of representative and defensible BOD<sub>5</sub> data is derived from the larger dataset based on the following:

- Only data from January 2020 or later is included to account for UF membrane operation.
- Data from February 2020 to July 2020 is excluded due to unrepresentative mill operations resulting from the COVID pandemic described above. Wastewater characteristics were significantly altered, especially BOD<sub>5</sub> and CBOD<sub>5</sub>, during this time and are not representative of typical operations or performance.
- The balance of data from August 2020 to April 2022 are included in the analysis. January 2020, November 2020 to February 2021, and November 2021 to February 2022 are all included in the dataset despite being "off-season." IEP did not alter operations of the WWTS during these periods as we were continuing to evaluate and optimize the UF membranes, therefore these months are representative of typical WWTS operations and performance. Furthermore, the inclusion of this data provides a larger data set resulting in a more representative and defensible analysis.

Performance-based limits are then calculated for BOD<sub>5</sub> and converted to CBOD<sub>5</sub>:

- The larger BOD<sub>5</sub> dataset discussed above is log-normally distributed. The only minor exception is on the left tail which is populated with a significant number of non-detect values due to exemplary performance with the UF Membranes. Permit limits are based on the right tail so this is not an issue.
- The 95th and 99th percentile values for BOD<sub>5</sub> are then calculated and multiplied by the CBOD<sub>5</sub>/BOD<sub>5</sub> ratio (90%), resulting in the following limits:

Monthly average limit (based on 95th percentile) is 699 pounds/day and Maximum Daily limit (based on 99th percentile) is 1,093 pounds/day

**Commenter: Douglas Krapas - Comment B-1-4**

Comment No. 4 – Permit Condition S1, Table 5,

Effluent Limits for BOD<sub>5</sub> IEP requests that BOD<sub>5</sub> be replaced with CBOD<sub>5</sub> for all permit conditions and seasons to be consistent with DO TMDL WQBELs, simplify permit and DMR reporting requirements, and reduce laboratory resources. Limits for CBOD<sub>5</sub> during the "off-season" (November thru March) can be established using the same analysis outlined in Comment No. 3 above that resulted in a an average CBOD<sub>5</sub>/BOD<sub>5</sub> ratio of 90% and the following limits:

Monthly average limit is 1,020 pounds/day and Maximum Daily limit is 1,677 pounds/day

**Ecology's Response to BOD<sub>5</sub>/CBOD<sub>5</sub> Limit**

**Comment B-1-3.** Ecology has reviewed effluent BOD<sub>5</sub> data from January 2020 through April 2022, excluding the time from February to July 2020 data due to COVID 19 impacts, and the effluent BOD<sub>5</sub> data used in the draft permit determination (April 2017 through May 2021).

After review of both data sets, Ecology believes the BOD<sub>5</sub> limits from the draft permit better represents the variability in the effluent corresponding to changing paper production (newsprint versus brown paper stock).

Therefore, the final permit retains the BOD<sub>5</sub> limits applicable during the November to February winter season of 1,138 lbs/day average monthly and 1,872 lbs/day daily maximum.

For the interim CBOD<sub>5</sub> limits applicable during March through October season, Ecology used the CBOD<sub>5</sub>/BOD<sub>5</sub> ratio of 90% to calculate limits using the Ecology calculated performance-based effluent limits. This resulted in a monthly average CBOD<sub>5</sub> limit of  $0.9 \times 1,138 = 1,024$  lbs/day and a daily maximum of  $0.9 \times 1,872 = 1,685$  pounds per day.

**Comment B-1-4.** In 40 CFR Part 133, EPA has established secondary treatment standards for publicly owned treatment works (POTWs). This regulation contains technology-based requirements for municipal wastewater treatment plants and allows the substitution of CBOD<sub>5</sub> for BOD<sub>5</sub> effluent limits. In certain cases, basing permit limitations on CBOD<sub>5</sub> instead of BOD<sub>5</sub> eliminates the impact of nitrification on discharge limitations and compliance determinations.

However, technology based standards in 40 CFR Part 430 for the pulp, paper, or paperboard industry do not allow such substitutions. For the technology based standards during the winter season (November through March), the final permit retains the effluent limits and testing for BOD<sub>5</sub>.

## 18. Comments on Bubble Limit

**Summarized Commenters:** Spokane Riverkeeper, Upper Columbia River Group - Sierra Club,

**Commenter: Jerry White, Jr - Comment O-1-15**

On page 35 the Bubble Permit (Delta Elimination Tool) for CBOD<sub>5</sub> and Total Phosphorus is discussed and states that "The Permittee will not be considered in violation of the seasonal average individual limit for CBOD<sub>5</sub> 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?

### Ecology's Response to Bubble Limit

Compliance for each Permittee will be determined using a three step process as shown below:

Scenario	Compliance Determination	Bubble Allocation Available?
Each Permittee meets their individual limits	Each Permittee is in compliance	Yes, but not used
Both Permittees exceed their individual limit	Both Permittees are out-of-compliance	No, total allocation is exceeded

Scenario	Compliance Determination	Bubble Allocation Available?
Permittee A meets their individual limit and Permittee B exceeds their individual limit	Permittee A is in compliance; Permittee B is in compliance if their discharge falls below an amount equal to their individual limit plus the bubble allocation; Permittee B is out-of-compliance if their discharge exceeds an amount equal to their individual limit plus the bubble allocation.	Yes, available for compliance determinations for Permittee B

## 19. Comments on Reasonable Potential

### Commenter: Douglas Krapas - Comment B-1-20

On Page 71 of the Draft Fact Sheet. Reasonable Potential RPA shows RP for Manganese and needs to be updated with the latest data.

#### Ecology's Response to Reasonable Potential

The final Fact Sheet contains the updated data and shows no reasonable potential for manganese.

## 20. Comments on Sediment Monitoring

**Summarized Commenters:** Spokane Riverkeeper, Upper Columbia River Group - Sierra Club

### Commenter: Jerry White, Jr - Comment O-1-12

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.

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.

#### Ecology's Response to Sediment Monitoring

Ecology conducted a reconnaissance survey of sediments behind Upriver Dam in 1999, [Reconnaissance Survey of Sediments Behind Upriver Dam, Spokane River](https://apps.ecology.wa.gov/publications/SummaryPages/9903001.html) available online at <https://apps.ecology.wa.gov/publications/SummaryPages/9903001.html>.

This survey included multiple bank-to-bank transects in the Spokane River downstream from IEP's outfall.

The survey identified one area of sediment deposition located about 2.5 miles downstream of the outfall just above Upriver Dam. Sediment sampling along three transects (#6, #7, and #8) located up to 1.2 miles downstream of the outfall resulted in the grab samples bringing up gravel or cobble, or hitting hard surfaces and coming up empty.

Based on this information, Ecology believes the immediate area downstream of the outfall is not an area of sediment deposition. However, depositional areas do occur downstream from the Permittee behind Upriver Dam and the cleanup of the deposited sediments were the focus of an Ecology consent decree. You can find more information on the cleanup and routine follow-up monitoring at: [Spokane River Upriver Dam and Donkey Island Sediments](#) available online at <https://apps.ecology.wa.gov/cleanupsearch/site/4213>.