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June 16, 2015

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Via Email and Hand Delivery

RE: Georgia-Pacific Consumer Products (Camas), L.L.C. NPDES Permit Renewal; Individual NPDES Permit No. WA0000256

Columbia Riverkeeper ("Riverkeeper") submits these comments on the Washington Department of Ecology's ("Ecology") proposed National Pollution Discharge Elimination System Permit No. WA0000256 for Georgia-Pacific Consumer Products (Camas), L.L.C. (hereinafter, the "Draft Permit") and the accompanying Fact Sheet.

Riverkeeper's mission is to protect and restore the Columbia River and all life associated with it, from its headwaters to the Pacific Ocean. Riverkeeper represents over 8,000 members and supporters in Oregon and Washington and regularly comments on decisions impacting water quality in the Columbia River. Riverkeeper's members boat, swim, and catch and eat fish from the Columbia River nearby and downstream from Camas, Washington.

The GP Camas mill is a significant industrial point source on the lower Columbia River. Conventional, toxic, and stormwater pollutants from the mill have the potential to seriously harm human and environmental health. The dioxins and furans in the mill's effluent are among the most toxic pollutants ever tested on fish, and are especially harmful to juvenile salmon and steelhead. Because this permit may govern the mill's discharges for the next decade, Ecology's permitting decisions will have a significant and lasting effect on the water quality and environmental health of the Columbia River.

I. GP Camas' toxic discharges may harm salmon and steelhead, and people who eat them.

Discharges from the GP Camas mill contain toxic substances such as 2,3,7,8-tetrachlorodibenzo-p-dioxin (hereinafter "dioxin"), as well as furans, phenols, chloroform, and toxic metals. While Ecology proposes effluent limits for some of these pollutants, it is not clear that the Draft Permit's proposed limits would actually protect the Columbia River's Endangered Species Act-listed salmon and steelhead, and people who eat locally-caught fish.

1. Ecology's fact sheet does not discuss biomagnification of persistent toxic chemicals like dioxins.

The Draft Permit and Fact Sheet do not adequately analyze factors like biomagnification, additive toxicity, and multiple exposure pathways that impact how toxic pollutants actually affect aquatic organisms. For example, Ecology states that "[t]oxic pollutants . . . are near-field pollutants; their adverse effects diminish rapidly with mixing in the receiving water." This is not true with respect to persistent toxic pollutants like dioxins or PCBs, which can accumulate to dangerous levels in fish and other organisms even when ambient levels of these chemicals in the water are below thresholds that Ecology deems safe.

Ecology should revise the permit and Fact Sheet to explain and ensure that toxic pollution from the mill will not violate Washington's narrative water quality standards, which protect beneficial uses of the Columbia River like salmon and steelhead survival and human fish consumption. WAC 173-201A-510(1); WAC 173-201A-240. Specifically, the Fact Sheet should explain how bioaccumulation and biomagnification of extremely toxic pollutants such as dioxins and furans will impact aquatic organisms. Washington's narrative water quality standard for toxic pollution requires that toxic substances in a discharge not have the potential, either singularly or cumulatively, to harm sensitive aquatic life like salmon and steelhead, or adversely impact characteristic water uses like fish consumption.[1] Because the Fact Sheet does not discuss factors like biomagnification, additive toxicity, and multiple toxic exposure pathways regarding dioxin and its congeners, the effluent limits in the Draft Permit may authorize toxic discharges that violate the narrative water quality standards, in violation of 40 C.F.R. 122.44(d)(1)(i) and WAC 173-201A-510(1).

2. Ecology must explain why the GP Camas mill cannot adopt Total Chlorine Free technology.

Ecology should have considered whether switching to total chlorine free technology would be reasonable, and therefore required. Every NPDES permit issued by Ecology must require the permittee to apply "[a]ll known, available, and reasonable methods of prevention, control, and treatment" to decrease pollution discharges. WAC 173-216-110(1)(a); WAC 173-216-020(1). This standard, commonly called "AKART," is the underlying legal standard for technology-based effluent limits in NPDES permits issued by Ecology. The use of total chorine free technology would eliminate the mill's production of dioxins and some other toxics, but the Fact Sheet never even mentions this possibility. Instead, Ecology cites the 17-year-old federal standards for pollution control technologies at Kraft pulp mills and concludes—without

[1] Ecology, *Water Quality Program Permit Writer's Manual*, p.VI-4 (2011) (citing WAC 173-201A-240).

explanation—that "G-P's wastewater treatment system constitutes AKART." Fact Sheet, pp.15–16. Technology to keep some of the most toxic chemicals on earth out of the Columbia River is known and available; Ecology must explain why it would not be "reasonable" for the mill to use this technology.

3. The dioxin effluent limit in the Draft Permit appears too high.

a. Why didn't the dioxin limit decrease based on the mill's decreased production?

The mill's total production has declined, so the amount of dioxin that the mill is allowed to emit should also decline. Otherwise, Ecology is allowing the mill to become less efficient at controlling dioxin pollution (a result that would violate the AKART standard). Ecology must, and has, set mass-based, production-normalized effluent limits for the pollutants in the mill's discharge. *See* Draft Permit, p.7. The Fact Sheet repeatedly explains that the mill's paper production has declined in recent years, and that the volume of effluent has declined as a result. In order to maintain appropriate limits, Ecology decreased the mass-based, production-normalized effluent limits for BOD, TSS, AOX, and Chloroform in this version of the permit. *See* Fact Sheet, Table 17. The mass-based production-normalized effluent limit for dioxin, however, stayed the same. *Id*. If the mill discharges less total effluent, it should discharge less total dioxin—regardless of the existence of a 25-year-old dioxin waste load allocation.

b. The 1.31 mg/day limit for dioxin does not ensure compliance with the mill's waste load allocation.

The mill's proposed effluent limit for dioxin appears to be based on the waste load allocation in EPA's Total Maximum Daily Load ("TMDL") for dioxin discharges into the Columbia River.[2] However, the daily dioxin limit in the Draft Permit is not sufficient to ensure compliance with the mill's waste load allocation. The TMDL expresses the mill's waste load allocation as a long-term average of 0.41 mg/day (mg/day) of dioxin. Fact Sheet, p.27. The Draft Permit purports to meet that waste load allocation by imposing a maximum daily dioxin limit of 1.31 mg/day, and requiring monitoring just once a year. Draft Permit, pp.7, 11. EPA recommends an average monthly limit for dioxin—not just a daily maximum—to ensure that the mill complies with the TMDL's waste load allocation over the long term.[3] Furthermore, federal regulations require Ecology to apply an average monthly limit for dioxin in the permit. *See* 40 C.F.R. 122.45 (d)(1). Accordingly, the final permit must contain an average monthly (or annual) dioxin limit of 0.41 mg/day, in addition to the maximum daily limit, to ensure that the mill does

[2] *See* EPA, *Total Maximum Daily Load to Limit Discharges of 2,3,7,8-tetrachlorodihenzo-p-dioxin (TCDD) to the Columbia River* (Feb. 25, 1991).
[3] EPA, *Technical Support Document for Water Quality-based Toxic Control*, p.105 (March 1991).

not exceed its long-term waste load allocation. Applying only a maximum daily dioxin limit of 1.31 mg/day is not sufficient to ensure compliance with the TMDL.[4]

II. GP Camas' thermal pollution contributes to human-induced water quality violations; Ecology must set limits on the mill's thermal effluent.

Summertime temperatures in the Columbia River at Camas are too hot to support juvenile salmon and steelhead, and GP Camas' discharge exacerbate this problem. Ecology determined that juvenile salmon and steelhead need water cooler than 17.5 °C (63.5 °F) for rearing and migration. WAC 173-201A-200. According to the Fact Sheet, the summertime temperatures in the Columbia River at Camas already reach 21.5 ºC (70.7 °F) for sustained periods of time—much higher than is safe for young salmon and steelhead. Fact Sheet, p.10. On top of that, the GP Camas mill discharges water that averages 22.8 ºC (73.0 °F) and can be as hot as 31.2 ºC (88.2 °F). *Id.* at 12. The heat in the mill's effluent is making a bad situation worse and, by Ecology's own definition, harming the Columbia's ability to produce salmon and steelhead smolts.

Because the Columbia River's summertime temperature exceedances are human caused rather than naturally occurring, Ecology may not allow the GP Camas mill to increase the temperature of the Columbia River. A basic rule of NPDES permitting is that discharges may not contribute to a water quality violation. WAC 173-201A-510(1). But as the preceding paragraph explained, that is precisely what the mill's discharge does. Ecology attempts to avoid this rule by relying on WAC 173-201A-200(1)(c)(i) and explaining that the mill's discharge will not increase water temperatures by more than .3 ºC at the edge of the chronic mixing zone.[5] Fact Sheet, pp.31–34. Assuming WAC 173-201A-200(1)(c)(i) comports with the Clean Water Act, Ecology's approach is illegal. WAC 173-201A-200(1)(c)(i)'s '.3 ºC increase' exception only applies when the receiving water is violating the applicable temperature standard "due to natural conditions." Nowhere in the Draft Permit or Fact Sheet does Ecology determine or assert that the summertime temperatures in the Columbia are 'due to natural conditions.' In fact, the Columbia's summertime temperature exceedances were previously determined to be caused by humans.[6] Accordingly, Ecology must not permit GP Camas to contribute to the Columbia's temperature problems.

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[4] *See* Attachment 1: EPA, *Comments on Draft Weyerhaeuser Longview NPDES Permit No. WA0000124*, p.3 (Feb. 14, 2014).

[5] Even if Ecology could legally allow an increase of .3 °C, the point of compliance would be the end of the pipe, not the edge of the mixing zone. Application of AKART to a discharge is a pre-requisite for authorizing a mixing zone. WAC 173-201A-400(2). There is no evidence in the Draft Permit or Fact Sheet that the GP Camas mill has applied AKART with regard to temperature.

[6] *See* EPA, *Draft Total Maximum Daily Load for Temperature in the Mainstem Columbia and Snake Rivers* (2002).

Ecology must set effluent temperature limits for the mill below the applicable water quality criteria of 17.5°C (63.5°F) for salmon and steelhead rearing and migration. *See* WAC 173-201A-200. Ecology must also require monitoring and reporting of the temperature of Outfall 001's effluent to ensure compliance with the temperature limit.

III. Outfall 002 to Blue Creek and the mill's filter backwash.

Riverkeeper understands that GP Camas is working towards eliminating the discharge of filter backwash into Blue Creek from the water filtration plant. The mill apparently intends to pipe the filter backwash into the mill's main wastewater treatment system which discharges through OF 001, or eliminate filtration (and filter backwash) entirely. A letter from Ecology to GP Camas purports to be an extension to a compliance schedule, giving the mill until May 1, 2016, to complete an AKART engineering report, and until November 1, 2016, to implement the chosen treatment approach.

Riverkeeper appreciates that the mill intends to stop discharging its filter backwash into the relatively small and highly impacted Blue Creek. Riverkeeper offers the following comments on Outfall 002 and the implementation of AKART for filter plant backwash:

- Blue Creek—not the Columbia River or Camas Slough—is the receiving water for Outfall 002. While the page 9 of the Fact Sheet admits this, and the January 2013 AKART study makes this clear, the Draft Permit obscures this point. Rather, page 10 of the Draft Permit cagily states that the mill may discharge water "to the Columbia River via the permitted location (Outfall 002)."

- Ecology never discusses the impacts of Outfall 002 on the water quality of Blue Creek. Ecology has an affirmative duty to ensure that permitted discharges will not cause or contribute to violations of water quality standards in receiving waters. WAC 173-201A-510(1). Fulfilling this obligation starts by describing the characteristics of the receiving water. *See, e.g.*, Draft Fact Sheet, pp.10–11. Based on the Fact Sheet, Ecology never considered the water quality in the relevant receiving water—Blue Creek—or whether or not the filter backwash from Outfall 2 will cause or contribute to water quality violations.

- GP Camas' forthcoming Engineering Report and AKART determination should have been subject to public review and comment in this permit renewal process. The requirement to ascertain and apply AKART goes to the very heart of the NPDES permitting process. Unfortunately, Ecology's practice of de-coupling AKART studies and analyses from the permit renewal process deprives the public

of the ability to review, understand, and provide meaningful input on why a facility is or is not applying "all known and reasonable technology" to reduce water pollution.

Conclusion

Riverkeeper is deeply concerned about GP Camas' impacts on the Columbia River. Specifically, Riverkeeper requests that the final permit ensures that the mill does not contribute to the ongoing temperature problems in the Columbia River, and that the mill discharges the absolute minimum amount of dioxins and other extremely toxic chemicals. We look forward to Ecology's responses and hope that the renewed permit will help create a clean and safe Columbia River.

Sincerely,

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Attachment 1

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OFFICE OF
WATER AND
WATERSHEDS

February 14, 2014

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Re: U.S. Environmental Protection Agency's Comments on Draft NPDES Permit
Weyerhaeuser – Longview, NPDES Permit No. WA0000124

Dear Mr. Yamazaki:

The U.S. Environmental Protection Agency reviewed the above-referenced draft National Pollutant Discharge Elimination System (NPDES) permit pursuant to the *NPDES Memorandum of Agreement between the Washington Department of Ecology and United States Environmental Protection Agency Region 10* (MOA)[1] and the EPA's obligation to oversee implementation of the NPDES programs by delegated states. The EPA reviewed the draft permit for consistency with the Clean Water Act (CWA), NPDES implementing regulations, Department of Ecology's (Ecology) regulations, and permit writing guidance.

Ecology proposes to reissue the NPDES permit for Weyerhaeuser NR Company. Ecology issued the current permit on May 11, 2004 and modified the permit in 2004 and 2007. The permit expired on June 1, 2009 and was subsequently administratively extended. The permit authorizes the discharge of treated industrial wastewater, treated domestic wastewater, and industrial stormwater to the Columbia River and the Consolidated Diking Improvement District Ditch o. 3 (CDID #3) in accordance with the limits and conditions stipulated in the current administratively extended NPDES permit.

The 700-acre Weyerhaeuser-Longview site is located along the Columbia River in Longview, Washington. The industrial site includes Weyerhaeuser's Kraft Pulp Mill, North Pacific Paper Corporation's (NORPAC) deinking, thermo-mechanical pulping, newsprint operations, and other wood processing facilities. NORPAC is a 50/50 joint venture between Weyerhaeuser and Nippon Paper Corporation. Weyerhaeuser operates an industrial wastewater treatment plant (WWTP) that accepts wastewater from their pulp mill and paper bleaching operations, NORPAC's industrial operations, and seven other companies/facilities operating near the site.

The proposed permit is a complex and significant permit based on several factors including

- the variety of industrial processes operating on the site and discharging to the WWTP,
- the potential to discharge numerous pollutants of concern (POC), and
- the large volume of treated wastewater and untreated stormwater discharged each day.

[1] National Pollutant Discharge Elimination System - Memorandum of Agreement - Between the Washington Department of Ecology and United States Environmental Protection Agency Region 10, signed by EPA January 9, 1990. <http://www.epa.gov/compliance/resources/policies/state/moa/wa-moa-npdes.pdf>

In addition to authorizing the discharge from the industrial WWTP, the permit authorizes stormwater discharges, and discharges from other companies to Weyerhaeuser's industrial WWTP through Ecology's State Waste Discharge (SWD) Permit program. The industrial WWTP discharges an average of 50 million gallons per day (mgd) through Outfalls 001 and 002 to the Columbia River.[2] The domestic WWTP discharges an average of 0.28 mgd through Outfall 001 to the Columbia River.[3] Additionally, untreated stormwater and industrial process wastewater are discharged from five other outfalls to the Columbia River and from three outfalls to CDID #3.

The EPA performed a comprehensive review of the draft permit[4] and fact sheet[5] using the EPA's Permit Quality Review (PQR) Checklist as a guide. This letter summarizes the EPA's general comments, and specific concerns about the draft permit and fact sheet in the order found in each document.

General Comments

Interested stakeholders including National Marine Fisheries Service (NMFS), Columbia Riverkeeper, the Cowlitz Tribe, and the Yakama Nation raised concerns about the draft permit to the EPA. Generally, their concerns centered on the discharge of Persistent Bioaccumulative Toxic (PBT) chemicals and impacts to ESA-listed species. The EPA shares their concerns and asks Ecology to propose actions that can be taken to reduce the discharge PBTs in their response to comments.

The permittee discharges to the Columbia River where both the State of Washington's and the State of Oregon's water quality standards apply. Federal NDPES regulations, 40 CFR 122.4(d), prohibit issuance of a NPDES permit "[w]hen the imposition of conditions cannot ensure compliance with the applicable water quality requirements of all affected States." Ecology must consider Oregon's WQS' in the analysis of this permit.

Comments on the Permit

1. Cover Page

The permit identifies only Weyerhaeuser NR Company as the permittee. However, the fact sheet (Page 18) states that NORPAC, among other companies, discharge wastewater to Weyerhaeuser's industrial WWTP under this permit, other NPDES permits, and SWD permits. Ecology should name all dischargers on the permit as co-permittees to ensure enforceability of permit limits and conditions.

2. Page 2

Under facility location, the facility's physical address should be provided. The address is provided in the fact sheet, but it would be helpful to provide the physical address in the permit as well.

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[2] Based on data EPA summarized from discharge monitoring report (DMR) data from Ecology's PARIS database. Data summarized for period 2005-2013.

[3] Based on data EPA summarized from discharge monitoring report (DMR) data from Ecology's PARIS database. Data summarized for period 2005-2013.

[4] Draft Permit <http://www.ecy.wa.gov/programs/swfa/industrial/pdf/weycoNPDES13PublicComment.pdf>

[5] Fact Sheet <http://www.ecy.wa.gov/programs/swfa/industrial/pdf/weycoFS13PublicComment.pdf >

3. Page 8

The permit authorized non-stormwater discharges to surface waters without treatment. Only the combined process and stormwater discharge is monitored for select pollutants.

> *Additionally, the following non-stormwater discharges are authorized to the Consolidated Diking Improvement District Ditch #3: vehicle wash water, dust control water, area wash-up water, equipment wash water, non-contact cooling water overflow, emergency fire control water, and any other non-stormwater discharges identified in a permit application approved by Ecology. These non-stormwater discharges are addressed by Special Condition S14.*

The EPA urges Ecology to take more immediate action to mitigate non-stormwater discharges that are likely to contain pollutants, such as, requiring containment and pumping to appropriate treatment systems, refer to Comment No. 19 regarding Section S14 of the permit (Outfalls 003 and 004 AKART Study).

4. Page 8, Effluent Limits Outfall 001/002

The effluent limit for 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD) is based on the *EPA's Total Maximum Daily Load (TMDL) to Limit Discharges of 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD) to the Columbia River.*[6] The TMDL expresses the wasteload allocation (WLA) as a long-term average of 0.26 milligrams/day (mg/day) TCDD.[7] The permit applies the WLA as a maximum daily limit (MDL) of 0.38 mg/day TCDD requiring semi-annual monitoring. The EPA's *Technical Support Document for Water Quality-based Toxic Control* recommends that the WLA be applied as an average monthly limit (AML) to ensure that the TMDL will be met over the long term.[8] Furthermore, NPDES regulations [40 CFR 122.45 (d)] require an AML, unless impracticable. The EPA recognizes that applying the WLA as an AML with semi-annual monitoring may be problematic and does take into adequate account sample variability. Alternately, it is reasonable to apply an average annual limit or longer-term limit of 0.26 mg/day TCDD, in addition to the MDL, to ensure the long term WLA is not exceeded. Applying only a MDL of 0.38 mg/day TCDD is not sufficient to ensure compliance with the long-term average WLA.

5. Page 11, Effluent Limits Outfall 005 (discharges through Outfall 001)

The treated sanitary wastewater (Outfall 005) discharge comingles with the flow discharging through Outfall 001 after the final sample point for Outfall 001 as described in the fact sheet (Page 15). The discharge from the sanitary WWTP must meet all required technology-based effluent limits (TBELs) before combined with flows from Outfall 001. The permit correctly incorporates TBELs to comply with secondary treatment standards for biochemical oxygen demand 5-day (BOD_5 or BOD), total suspended solids (TSS), pH, and a minimum of 85% removal of BOD and TSS. However, federal regulations also require mass-based effluent limits for BOD and TSS [40 CFR 122.45(f)]. The EPA notes that the current permit contains mass-based effluent limits for TSS and BOD; removal of these limits constitutes backsliding [40 CFR

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[6] *EPA's Total Maximum Daily Load (TMDL) to Limit Discharges of 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD) to the Columbia River.* Feb 25 1991. http://yosemite.epa.gov/R10/water.nsf/ac5dc0447a281f4e882569ed0073521f/062e4bb7e44b8e90882569a700767e8d/$FILE/columbia%20dioxin%20tmdl.PDF

[7] Ibid, p 3-9.

[8] EPA's *Technical Support Document for Water Quality-based Toxic Control,* March 1991, p. 105. <http://water.epa.gov/scitech/datait/models/upload/2002_10_25_npdes_pubs_owm0264.pdf>

122.44(l)]. Additionally, Ecology must apply their TBELs for total residual chlorine of AML 0.5 mg/L and MDL 0.75 mg/L or WQBELs, whichever is more stringent. The proposed chlorine limit of greater than 0.3 mg/L imposes no upper limit on the concentration of chlorine allowable in the discharge.

6. Page 12-13, Effluent Limits, Outfalls 003 and 004

Outfall 003 has performance-based limits based on the "average monthly maximum" while Outfall 004 has limits based on the "average monthly" values for settleable solids, oil, grease and BOD_5. Minimum sample frequency is monthly or weekly for these parameters. Please clarify and correct the required statistical basis for reporting for each limit.

Outfalls 003 and 004 discharge stormwater, car/truck wash water, dust control water, and other sources of contaminated water to CDID #3. The permit does not authorize a mixing zone for either outfall; however, the fecal coliform effluent limits for both outfalls exceed the water quality standards. The fecal coliform effluent limits for Outfalls 003 and 004 are 24,300 and 380 colonies/100 mL, respectively, whereas, the water quality standard is 100 colonies/100 mL based on a monthly geometric mean. The permit cannot authorize discharges of process wastewater that cause or contribute to excursions above the water quality standards [40 CFR 122.44(d)(1)(i)] except on an interim basis under a compliance schedule.

7. Page 14, Discharge Benchmarks for 001/002 Ditch and other discharges

The permit incorporates some new and changed benchmarks for this discharge by including new benchmarks for copper (14 µg/L), TSS (100 mg/L), and COD (120 mg/L), removing the benchmark for BOD (30 mg/L) and narrowing the allowable pH range (6 to 9 SU). The fact sheet must explain the rationale for these changes.

8. Page 15, Mixing Zone Authorization

Refer to Comment No. 25 for comments and concerns about the mixing zone authorizations for Outfalls 001 and 002.

9. Pages 16-18, Authorization for other discharges

Sections S1.D through S1. L authorize the discharge of other wastewater streams either to the industrial WWTP or directly to Outfalls 001/002. For several of these dischargers, Ecology has issued permits under their SWD Permit Program (WAC 173-216) as indicated by facilities with permit numbers in the table below.[9] Federal Effluent Guidelines Limitations (ELGs) apply to several of the authorized discharges as indicated in the table. Implementation of effluent guidelines occurs under two EPA programs, depending on the way a facility discharges its wastewater: the NPDES program for direct dischargers and the pretreatment program for indirect dischargers.

Table 1. Summary of Off-Site Authorized Discharges

Permit	Facility Name	Description	Permit Number	Notes and Effluent Guidelines
S1.D.	Filter Plant backwash water.	Weyerhaeuser Discharge	NA	NA

[9] WAC 173-261, State Waste Discharge Permit Program <http://apps.leg.wa.gov/WAC/default.aspx?cite=173-216>

Permit	Facility Name	Description	Permit Number	Notes and Effluent Guidelines
S1.E.	Hasa, Inc	Bleach Repackaging	ST0006225	Limit pH 6-12.4 based on AKART. Should have total residual chlorine limits (TRC). Potential to upset biological treatment process. Permit requires monitoring for TRC.
S1.F	Landfill Leachate	Weyerhaeuser Discharge	NA	ELG may apply
S1.G	Eagle US 2 LLC	Chloro-Alkali Plant	ST0006199	Limits, pH 5-12, TRC <100 mg/L. FS not available online. ELG should apply **40 CFR 415** includes limits for copper, lead and nickel (Identify type of process to determine correct ELG)..
S1.H	Mint Farm Generation LLC	Gas Power Generation	WA0039641	NPDES to discharge to CDID #3. Limits based on **40 CFR Chapter Part 423, NSPS Subpart 423.15**. The subpart include limits for copper. Limits free chlorine to 2 hrs/day.
S1.I	Solvay Chemicals Inc	Hydrogen Peroxide Manufacturer	ST0006070	Limit pH 4-12.2 based on AKART. Permit only authorizes discharge to Longview sewer system. Max pH increased from 11.5 in previous permit.
S1.J	Specialty Minerals Inc Longview	Precipitated Calcium Carbonate	ST0006068	Limit pH 6-12.4 based on AKART. **Federal ELG CFR 415 Subpart AD** requires TSS limits as well.
S1.K	Columbia & Cowlitz Railway, LLC		Permit is being processed.	
S1.L	Other Weyerhaeuser Facilities	Weyerhaeuser's discharge of comparable wastewater from treatment facilities in Oregon and Washington.	NA	Unknown sources of wastewater.

The application of pretreatment type permits for discharges to an industrial is inconsistent with Federal pretreatment regulations. Additionally, the EPA questions Ecology's regulatory authority to issue SWD permits for industrial discharges to other than a public owned treatment works (POTW). Based on WAC 173-216-010(1),

> *The purpose of this chapter is to implement a state permit program, applicable to the discharge of waste materials from industrial, commercial, and municipal operations into ground and surface waters of the state and into municipal sewerage systems.*

Where WAC 193-216(10) defines

> *"Municipal sewerage system" or "publicly owned treatment works (POTW)" means a publicly owned domestic wastewater facility or a privately owned domestic wastewater facility that is under contract to a municipality.*

Please provide additional information about Ecology's authority in this regard.

The EPA briefly reviewed the permitted facilities authorized to discharge to Weyerhaeuser's industrial WWTP and outfalls; refer to the notes provided in Table 1. We have concerns and questions about the lack of clarity regarding the applicable ELGs and derivation of effluent limits for discharges occurring outside the proposed permit. Again, the complexity of this permit necessitates a detailed discussion that clearly identifies all the discharges, volume of discharges, and pollutants of concern so that interested parties can understand the contribution of each

authorized discharge to the total volume and pollutant load discharging from the facility. Please provide a clear and concise summary and evaluation of all of the wastewater streams discharging from the facility (refer to Comment No. 24).

10. Page 18 S1.L. Discharges from other Weyerhaeuser Facilities
The permit authorizes discharges of waste streams of comparable characteristics from other facilities to the industrial WWTP. Accepting various waste streams from other facilities puts the permittee at higher risk of possible process upset or pass-through of pollutants due to unknown characteristics of or pollutants in hauled waste streams. At a minimum, the permit should require a record of receipt for off-site materials discharged to the industrial WWTP and other relevant information including date, time, total volume, type of discharge, pollutants, and pollutant concentrations, etc. The permit should include a statement that the permittee is not authorized to accept waste streams that contain pollutants not disclose in their NPDES permit application.

11. Page 18, Temperature, Sample Type
The temperature reporting requirement vaguely states "maximum," leaving in question whether only the monthly maximum need be reported. The permit should clarify the maximum daily temperature must be reported. Daily maximum data is needed to evaluate compliance with the 7-day average of the maximum daily temperatures (7-DADmax) temperature standard.

12. Page 18, Secondary Treatment Wastewater Effluent
Footnote C appears to be incorrect. Please clarify whether this monitoring location is upstream of the addition of non-contact cooling water. If so, the permit must require flow monitoring at this point in order to calculate the mass loading of 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD) as required by the permit.

13. Page 18, 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD) Monitoring Frequency
The fact sheet should provide data to support the rationale for semi-annual monitoring of TCDD. This highly toxic pollutant warrants additional scrutiny when determining an appropriate monitoring frequency. Since the permittee monitored for this pollutant under the current permit, Ecology should consider the variability and magnitude of the previously reported sample results to determine if more frequent monitoring is warranted to demonstrate compliance with the water quality-based effluent limits.

14. Page 19, Sanitary Wastewater Influent/Effluent Monitoring
The permit lacks influent monitoring of the sanitary wastewater stream. Monitoring influent concentrations of TSS and BOD is required to calculate the percent removal as mandated under federal secondary treatment standards. Ecology's Permit Writer's Manual[10] prescribes 24-hr composite samples, not grab samples, for BOD and TSS. The permit should require this level of monitoring or the fact sheet should explain the rationale for an alternative sample type.

15. Page 20, Monitoring Tables Outfall 003 and 004
Outfalls 003 and 004 discharge stormwater, car/truck wash water, dust control water, and other sources of contaminated water to the CDID #3. DMR data from Ecology's PARIS database shows the average monthly flow rate from Outfall 003 and 004 was 0.41 and 0.24 mgd, respectively, for the 12-month period ending Nov. 30, 2013. The required minimum sample frequency for pollutants from these outfalls are not the same, with only monthly monitoring required for BOD, fecal coliform and pH for Outfall 004. Based on past discharge data, the flow

[10] Ecology's Permit Writer's Manual, December 2011, p XIII-31. <https://fortress.wa.gov/ecy/publications/publications/92109.pdf>

from these outfalls appears significant. Additionally, based on the description of discharges to each outfall, the character of the discharge could be highly variable. The EPA recommends more frequency sampling for settable solids, oil, grease, BOD, fecal coliform, and pH at these discharge locations, especially in light the of required AKART study requirements.

The current permit includes monthly TSS and turbidity monitoring (at base flows) for both Outfalls 003 and 004. This permit removes these monitoring requirements. DMR data from PARIS shows the average turbidity discharged from Outfalls 003 and 004 were 165 and 32 NTU, respectively, for the 12-month period ending Nov. 30, 2013. The EPA recommends turbidity (and/or TSS as a surrogate) monitoring be retained in the permit to evaluate the discharges potential to cause or contribute to excursions above the WQS for turbidity.

16. Page 21, Effluent Characterization – Final Wastewater Effluent – Priority Pollutant Scan

The permittee is required to perform annual priority pollutant testing on the final effluent after mixing with clean water sumps and non-contact cooling water. The clean water streams may dilute the process water to the degree that toxic pollutants are no longer detectable. In addition to monitoring the final effluent, the EPA recommends requiring priority pollutant monitoring on the process wastewater stream before dilution with clean water streams to better assess the overall pollutant load to the river (e.g., monitor secondary treatment wastewater effluent). This additional monitoring should be done in addition to testing the final effluent.

17. Page 36, S11. Wastewater Treatment Efficiency Study

Based on the large discharge volume and the potential to discharge a variety of toxic pollutants, the EPA strongly agrees with the requirement to evaluate the overall effectiveness of the industrial WWTP with the expectation that it be operated at peak efficiency. The EPA further recommends that the permittee be required to evaluate new technologies and treatment options that may be used to remove higher levels of pollutants, particularly PBT chemicals known to be present in the wastewater. This is consistent with the state regulatory requirement for "all known, available and reasonable methods of treatment" (AKART). To ensure that this analysis is thorough, comprehensive, and meets Ecology's expectations, we recommend that Ecology work with the facility to refine and agree upon the scope prior to commencing with the study. The EPA recommends the permit require Ecology's review and approval of the study plan prior to implementation.

18. Page 37, S13 Cooling Water Intake Report

With an average daily cooling water intake of approximately 58 mgd, the facility falls within the threshold for compliance with 316(b) of the Clean Water Act[11], which is 2 mgd. The permit states that impingement and entrainment studies must be included in the report, "if applicable." The EPA urges Ecology and/or the permittee to coordinate with National Marine Fisheries Service (NMFS) to ensure that the resulting study report will address their concerns regarding impingement and entrainment. The study should include a determination regarding the potential for impingement and entrainment of aquatic species to demonstrate compliance with 316(b).

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[11] Cooling Water Intake Structures—CWA §316(b). <http://water.epa.gov/lawsregs/lawsguidance/cwa/316b/index.cfm>
"316(b) Any standard established pursuant to section 301 or section 306 of this Act and applicable to a point source shall require that the location, design, construction, and capacity of cooling water intake structures reflect the best technology available for minimizing adverse environmental impact."

19. Page 37, S14. Outfalls 003 and 004 AKART Study
These outfalls discharge comingled stormwater and process water. The comingling of process water and stormwater should be avoided. The report should include a plan to, where possible, segregate process waters to receive appropriate treatment prior to discharge.

The permit expresses Ecology's intentions to issue a compliance schedule through an administrative order to address necessary changes recommended by the study. The EPA recommends that the permit contain a reopener clause and that additional requirements be incorporated into the permit through a major permit modification to ensure requirements for public notification are met.

Comments on the Fact Sheet

20. Page 17, 1st paragraph
Remove the sentence, "During the winter, raw sewage overflows due to storm events greater in size than a one-in-five-year event are permitted from the City of Rainier wastewater treatment plant." The permit no longer authorizes raw sewage discharges as of Oregon's issuance in June 2012.

21. Page 17, Table 2. Ambient Background Data
The table does not provided the statistical basis for the values used for each parameter (e.g., maximum, average, 95th percentile, etc.). This information is needed to understanding the data set and the level of conservatism used for the reasonable potential analysis (RPA).

22. Page 19, Wastewater Characterization
The current permit requires annual priority pollutant testing of the final effluent (current permit, S18, Page 39) yet Tables 3 and 4 (Fact Sheet, Pages 19-23) do not include all 126 priority pollutants and for many parameters only a single sample result is presented. The waste characterization upon which pollutants of concern (POC) are identified and reasonable potential is determined, must be inclusive of all the data required by the permit and submitted in the application for permit renewal. Ecology must complete a comprehensive evaluation of and clearly identify POC in the fact sheet (refer to Comment No. 26).

23. Page 32-34, Table 13. Submittals
The current permit required annual priority pollutant scans (S16.) and a Total Chlorine Free (TCF) Study (S18.), which do not appear in this table. Of particular interest, the fact sheet should include a discussion about the findings and conclusions of the TCF study, which was to be a comprehensive analysis of the conversion to a totally bleach free bleaching process.

24. Page 35, Technology-based Effluent Limits
As already mentioned, this is a complex industrial permit authorizing the collection and treatment of process wastewater from a variety of industries located both on- and off-site. National regulations establish technology-based numerical effluent limits for specific pollutants at several control levels: BAT, BPT, BCT, NSPS, PSNS, or PSES. The EPA has promulgated ELGs for many of the industries authorized to discharge under the draft permit. To the layperson, the unfamiliar terminology and complex application of ELGs is not easily understood. Ecology has neglected to identify clearly the ELGs that apply to each of the discharges. In the spirit of transparency, Ecology should provide the specific regulatory citation, applicable level of control, and numeric limits as cited in the ELG that apply to each authorized discharges. As it is, the fact

sheet does not present the ELGs and associated limits that apply to each discharge in a clear and comprehensive manner.

25. Page 39-43, Mixing Zone
The draft permit authorizes the size of mixing zones for Outfalls 001 and 002 based on Ecology's regulatory provision for mixing zones in estuaries (i.e., radius of 200 feet plus the depth of the diffuser) rather than using the provision for rivers. In contradiction, the permit does not cite the regulatory basis for the mixing zone size and the fact sheet cites only the provision applicable to river discharges (Fact Sheet, Page 39). Ecology must explain the basis for applying the estuary provision [WAC 173-201A-400(7)(b)] instead of the river provision [WAC 173-201A-400(7)(a)].

The dilution factors used in evaluating the need for water quality-based effluent limits come from the *Outfall Dilution and Temperature Study* by CH2M Hill in 2004. The fact sheet should present key data and assumptions used in the model of dilution achieved under worst-case conditions. The fact should state whether the outfall dilution report was reviewed by Ecology's mixing zone modeling expert and approved by an authorized staff person.

Regardless of the provisions used to establish the size of the mixing zone, estuarine or river, the issue of the overlapping mixing zones must be address when evaluating reasonable potential. The fact sheet includes the following figure depicting the mixing zones for Outfalls 001 and 002 (Page 46). The EPA has overlaid the hash-marked circle to identify overlapping area of the mixing zones. The EPA believes that independent analysis of the reasonable potential to cause or contribute to excursions above the chronic criteria would result in pollutant concentrations at twice the criteria at the outer edge of the overlapping zones. Furthermore, the following statement in the fact sheet regarding Ecology's assessment of overlapping mixing zones is confusing, *"[d]ue to the authorized dilution ratio of the east and west diffusers, Ecology has determined the combined effect of the diffusers will not cause an exceedance of the water quality standards."* (Page 43) The EPA suggests that Ecology consider the implications of overlapping mixing zones when re-evaluating reasonable potential (refer to Comment No. 26).

Ecology's assessment that the mixing zone is "effectively minimized" (Page 42) by the use of conservative assumptions in the dilution model is flawed. The mixing zone regulatory provision [WAC 173-201A(6)] calls for minimizing the size of the mixing zone. The permit authorizes the maximum size based on the estuarine provision.

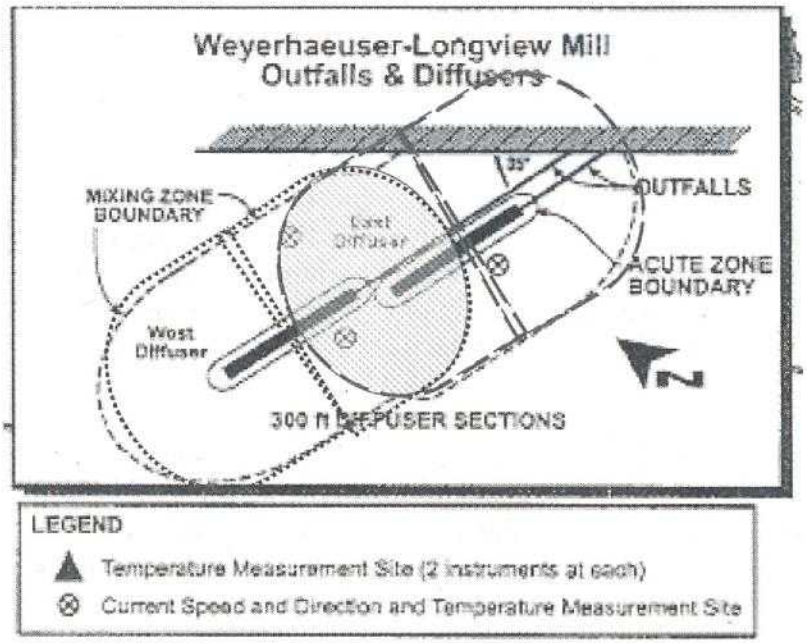

Figure 1. Overlapping Mixing Zones

26. Pages 47-52, Evaluating Water Quality-based Effluent limits

The fact sheet states, "[t]urbidity may be exceeded during filter plant backwash and/or filter plant sedimentation basin wash outs. As stated in the in Fact Sheet, Section V.I, the permit seeks to address the reasonable potential by requiring a *Water Supply Plant Discharge AKART study*. (Fact Sheet Page 48). The permit cannot authorize discharges that have a reasonable potential of causing or contributing to excursions above the WQS except on an interim basis and under a compliance schedule. Interim limits must be imposed if practicable and a compliance schedule must meet the requirement of 40 CFR 122.47.

The list of toxic pollutants present in the discharge appears to be incomplete (Page 48). There are more than 13 toxic pollutants in the discharge. Furthermore, Ecology simply refers to the reasonable potential analysis (RPA) done in the 2004 *Outfall Dilution and Temperature Study* to conclude that there is not reasonable potential for all, but one pollutant on the list, aluminum. The fact sheet presents RPA calculations for only aluminum out of the 13 pollutants in the list of toxic pollutants. Ecology must use available data submitted during the permit term and with the application for permit renewal to evaluate reasonable potential for all pollutants of concern (refer to Comment No. 22).

27. Page 49. Table 20 Toxic Pollutant Reasonable Potential Analysis

Although this data table appears to have intended to provide a summary of the RPA, it does not include the sample number (n) or coefficient of variation (CV) used in the analyses. The EPA urges Ecology to rework the RPA using all available effluent data and Ecology's new RPA workbook (PermitCalc Workbook at: http://www.ecy.wa.gov/programs/wq/permits/guidance.html or from Ecology's Permit Writer's SharePoint site). Use of the most recent permit writers' tools ensures consistency in the RPA methodology and presentation.

28. Page 52, Table 21, RPA for Temperature
The data table indicates maximum effluent temperature of 38.8°C and a maximum ambient river temperature of 20.96°C for the various model runs (2004 *Outfall Dilution and Temperature Study)*. However, Table 3 (Fact Sheet, Page 19) indicates a maximum effluent temperature of 46.6 °C (115 °F) and Table 2 (Fact Sheet, Page 17) indicates a maximum receiving water temperature of 22°C. Ecology must re-evaluate temperature RPA based on all available data.

29. Page 53, Human Health Criteria
It is unclear if Ecology evaluated RPA for all POC for which there are human health criteria. The fact sheet shows RPA for only chloroform.

30. Page 56-59, Table 24
Double check table headings, six headings appear to be mislabeled.

31. Page 78, Appendix D, TBELs
Due to the complexity of this permit, the EPA suggests this section provide some background and more detail about the application of ELGs in this permit. Providing information about historic production and effluent trends would provide context in relation to the calculated effluent limits.

32. Page 79, RPA Worksheets
The fact sheet must include RPA for all pollutants of concern – the fact sheet only includes RPA for aluminum and chloroform.

The EPA requests that response to these comments be provided by letter or email prior to issuance of the final permit. Please contact me at (206) 553-1755 or by email at lidgard.michael@epa.gov if you have any questions about this letter or related matters, or you may contact Karen Burgess, of my staff, at (206) 553-1644 or by email burgess.karen@epa.gov.

Sincerely,

Michael J. Lidgard, Manager
NPDES Permits Unit

cc: *(transmitted by email only)*

Mr. Taylor Aalvik, Cowlitz Indian Tribe, Director of Natural Resources Department (taalvik@cowlitz.org)

Dr. Jeff Fisher, Lower Columbia/Washington Coast, Branch Chief, National Marine Fisheries Service (jeff.fisher@noaa.gov)

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Mr. McClure Tosch, Yakama Nation Fisheries (tosm@yakamafish-nsn.gov)

Attachment 1