Response to Comments on the Draft NPDES permit for the PotlatchDeltic Corporation St. Maries Complex

EPA Region 10
Water Division
Permitting, Drinking Water and Infrastructure Branch
NPDES Permitting Section
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Background

On July 28, 2021, EPA issued a draft permit for the PotlatchDeltic St. Maries complex (SMC) for public review and comment. The public comment period was scheduled to close on August 27, 2021 but was subsequently extended until October 26, 2021. EPA received comments from PotlatchDeltic during the first public comment period.

On February 16, 2022, EPA reopened the public comment period for the draft permit for the PotlatchDeltic St. Maries complex to take comments on changes to the draft permit. The public comment period closed on March 18, 2022, and EPA received comments from PotlatchDeltic.

The Coeur d'Alene Tribe only has treatment as a state for the receiving water for outfall 001 (the St. Joe River). EPA received a Clean Water Act Section 401 certification from the Coeur d'Alene Tribe for the discharge from outfall 001 on June 1, 2022. The certification did not include any conditions more stringent than those in the draft permit. The certification stated that the Coeur d'Alene Tribe approved the mixing zones and compliance schedules as proposed in the draft permit. EPA is the certifying authority for the discharges from outfalls 002, 003, and 004 and is issuing a Clean Water Act Section 401 certification concurrently with this permit (40 CFR 121.13).

Response to Comments Received during the First Public Comment Period

Comment #1-1

For the first time, EPA proposes to impose numeric limits on stormwater discharges from the SMC without any evaluation as to whether such limits are technologically or economically feasible. Despite numerous efforts to consistently achieve the benchmark levels set forth in the Multi-Sector General Permit (MSGP), achieving such levels has proven difficult under current stormwater management technologies. We are very concerned that these proposed limits are not necessary and will put the SMC at a competitive disadvantage.

Response #1-1

As explained in the July 28, 2021 fact sheet, the discharges from the SMC have the reasonable potential to cause or contribute to excursions above water quality standards for total suspended solids (TSS) and

zinc for all four outfalls as well as iron at outfall 001. Therefore, water quality-based effluent limits are required (40 CFR 122.44(d)(1)(i), (iii)). Water quality-based effluent limits are not based on technological or economic feasibility. No change was made to the permit as a result of this comment.

Comment #1-2

EPA's finding that the SMC's stormwater discharges are a "significant contributor" of pollutants to the St. Joe River warranting such numeric limits appears both factually and legally flawed. From a factual standpoint, the pollutants found in the SMC's stormwater discharges are not meaningfully different from stormwater runoff that occurs throughout the St. Joe River watershed during storm events. Furthermore, it does not appear that the SMC's stormwater discharges are having a significant impact on water quality conditions in the St. Joe River, as the river complies with all of the constituents of concern that the draft Permit proposes to regulate. Thus, EPA's finding that the SMC's discharges are a significant contributor of pollutants to the St. Joe River is not supportable.

Response #1-2

EPA's finding that the PotlatchDeltic St. Maries complex is a significant contributor of pollutants is explained in the July 28, 2021 fact sheet beginning on Page 10 in Part II.B *Proposed Requirement for an Individual Permit for Stormwater.* EPA's finding that the discharge is a significant contributor of pollutants is based on the fact that discharges from the facility have the reasonable potential to cause or contribute to excursions above water quality standards for iron (at Outfall 001 only), TSS, and zinc to a receiving water which is designated bull trout critical habitat.

Regarding the commenter's statement that "the pollutants found in the SMC's stormwater discharges are not meaningfully different from stormwater runoff that occurs throughout the St. Joe River watershed during storm events," Table 1, below, provides a comparison of the effluent data for the SMC to the effluent data for other permitted industrial stormwater facilities in the St. Joe watershed. Average effluent concentrations of TSS and zinc at the SMC (with statistical outliers excluded) are generally higher than concentrations of these pollutants for other industrial stormwater discharges, particularly at outfall 004.

Table 1: Average Concentrations of TSS and Zinc for Industrial Stormwater Discharges in the St. Joe Watershed

Permit Number	Facility Name	Date Range of Effluent Data[1]	Outfall	TSS Avg. (mg/L)	TSS Count	Zinc Avg. (µg/L)	Zinc Count
ID0000019 and IDR05I310	PotlatchDeltic St. Maries Complex	6/30/2017 - 12/31/2021	001	84	14	73	15
			002	44	11	51.6	15
			003	104	15	56.7	14
			004	495	15	202	13
IDR053235	Emerald Creek Jig Plant	12/31/2021 - 12/31/2021	001	54	2	N/A	0
IDR05I304	Stimson Lumber Company, Plummer Operation	3/31/2017 - 3/31/2020	001	9	1	17	1
			005	N/A		137	9
			006	N/A		91.2	9
IDR053232	DMP 306	3/31/2018 - 4/30/2021	001	19.2	5	N/A	0

IDR05J01K	DMP 327	12/31/2021 - 12/31/2021	001	12	1	N/A	0
IDR053018	Potlatch Land and Lumber LLC - Lumber Drying Division	3/31/2017 - 12/31/2021	001	477	16	251	16
IDR053233	DMP 301	3/31/2018 - 12/31/2021	001	33	6	N/A	0
IDR05I314	Young Living Lavender Farms, St. Maries, Idaho Facility	12/31/2018 - 12/31/2021	001	50	12	N/A	0
			002	5	1	N/A	0
			003	12	8	N/A	0
Notes: 1. Based on monitoring period end dates.							

EPA interprets the commenter's statement that the St. Joe River "complies with all of the constituents of concern that the draft Permit proposes to regulate" to mean that the river complies with water quality criteria for those constituents. However, this is not correct, as water quality criteria excursions have been observed in the St. Joe River for TSS and pH. As shown in Table 6 *Receiving Water Data for St. Joe River* of the July 28, 2021 fact sheet, the 5th percentile pH observed at USGS NWIS stations 12415135 and 12415140 is 6.4 standard units, which is lower than the criterion of 6.5 standard units. The maximum suspended sediment concentration observed at USGS NWIS stations 12415135 and 12415140 is 261 mg/L, which is higher than the Tribe's agricultural water supply criterion of 75 mg/L, and about 4% of suspended sediment samples at these locations exceed 75 mg/L.

In summary, water quality criteria exceedances are one of several factors that EPA may consider in determining whether a discharge is a significant contributor of pollutants. Other factors include, but are not limited to, the location of the discharge and the quantity and nature of the pollutants discharged. EPA need not demonstrate that water quality criteria violations have occurred for pollutants discharged by the PotlatchDeltic St. Maries complex in order to find that the facility is a significant contributor of pollutants. No change was made to the permit as a result of this comment.

Comment #1-3

It appears that EPA bases its finding that stormwater discharges from the SMC are a significant contributor of pollutants solely on the fact that the SMC has not consistently met the benchmark levels in the MSGP for zinc and total suspended solids (TSS) at all four of its outfalls. We are unaware of any EPA precedent for the proposition that failure to meet benchmark levels means a facility is automatically considered a significant contributor of pollutants warranting an individual permit with numeric limits. Moreover, from a technical standpoint, EPA's finding that SMC stormwater discharges have the reasonable potential to exceed Tribal water quality standards for zinc and TSS does not provide any added support for EPA's significant contributor determination. Most if not all of the benchmark levels are based on water quality criteria, and under some unrealistic scenario, EPA could always find that an exceedance of a benchmark level has the reasonable potential to exceed standards.

Response #1-3

As explained in the fact sheet at Page 11, EPA's finding that the discharge is a significant contributor of pollutants is based on the fact that discharges from the facility have the reasonable potential to cause or

contribute to excursions above water quality standards for iron (at Outfall 001 only), TSS, and zinc to a receiving water which is designated bull trout critical habitat. This finding is not based solely on benchmark exceedances. For example, the multi-sector general permit for industrial stormwater (MSGP) does not have a benchmark for iron. Instead, as explained in the Fact Sheet and in the response above, EPA determined that the facility is a significant contributor of pollutants based upon a reasonable potential analysis and the fact that the facility's discharge flows into a waterbody that is designated critical habitat for an ESA-listed species, bull trout. Since EPA has determined that the facility is a significant contributor of pollutants as defined in 40 CFR 122.28(b)(3)(i)(G), the facility cannot obtain coverage under the MSGP and, instead, must obtain an individual permit for the stormwater discharges. No change was made to the permit as a result of this comment. See also Response #1-2.

Comment #1-4

Although EPA acknowledges the uniqueness and challenge of setting effluent limits for stormwater discharges with numeric limits in the Fact Sheet at p. 24, the reasonable potential analysis fails to take such an undertaking into consideration. It stands to reason that when stormwater discharges are occurring there will be increased flows in the river; however, EPA does not consider this reality.

Response #1-4

In the Fact Sheet at p. 24 in Part IV.E. Stormwater Discharges, EPA has explained how the characteristics of stormwater influence the analysis for whether water quality based effluent limits are necessary and the calculation of those effluent limits. While stormwater is a type of non-continuous discharge, EPA had sufficient data from the facility concerning the discharge to calculate effluent limits for the outfalls. In addition, EPA conducted the reasonable potential analysis and calculated the effluent limits consistent with federal regulations (40 CFR 122.44(d)(1) as well as Section 3.3 of the TSD.

The Coeur d'Alene Tribe's water quality standards state that determination of the dilution available and size of mixing zones will consider critical conditions, which are defined as "when the physical, chemical, and biological characteristics of the receiving water environment interact with the effluent to produce the greatest potential adverse impact on aquatic biota and existing or characteristic water uses. For steady-state discharges to riverine systems the critical condition may be assumed to be equal to the 7Q10 flow event unless determined otherwise by the department."

A plot of monthly average effluent flows for outfall 001 against monthly average stream flows for the St. Joe River shows a weak relationship between effluent flow and stream flow (Figure 1). Thus, it is reasonable to use critical low flows such as the 7Q10 to establish effluent water quality-based effluent limits for the PotlatchDeltic St. Maries complex. No change was made to the permit as a result of this comment.

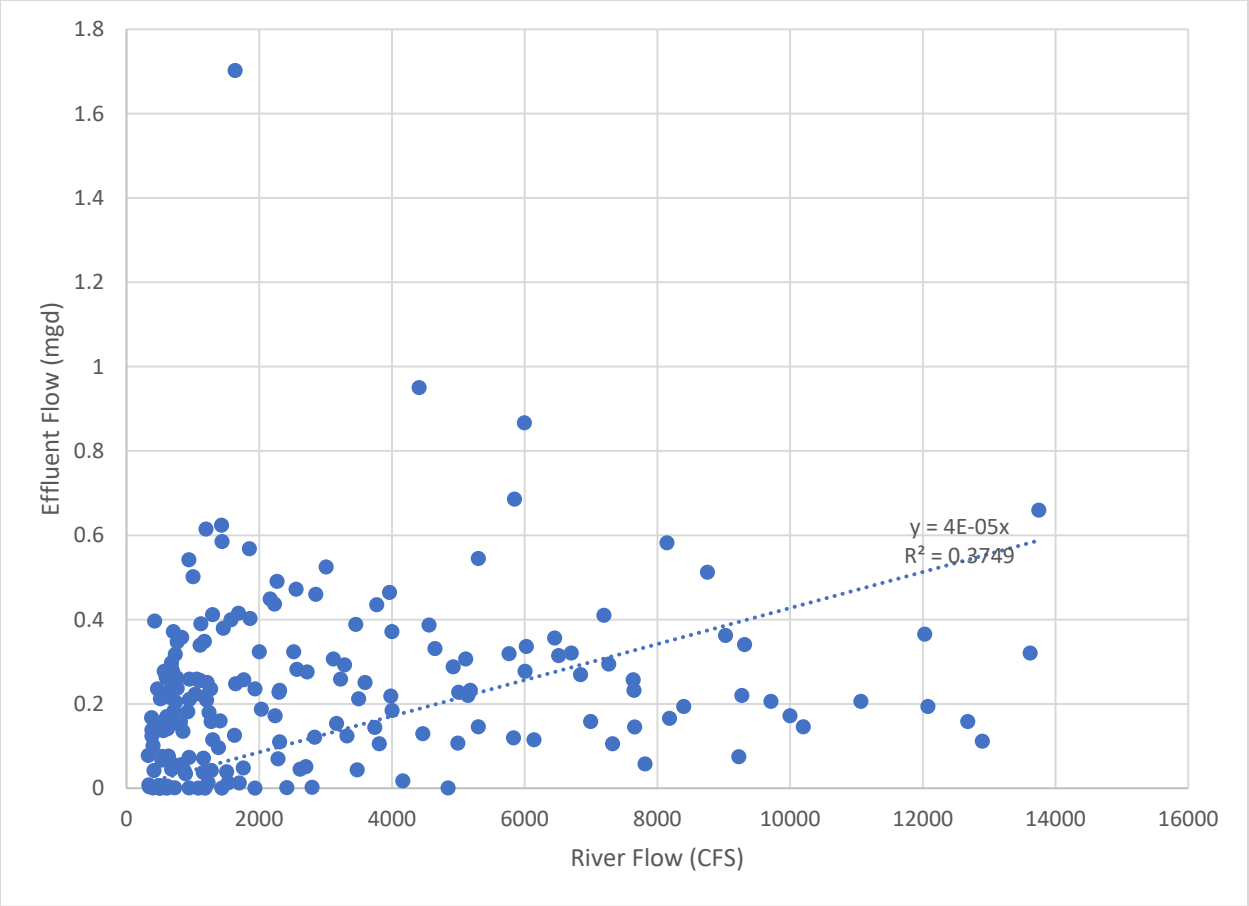

Figure 1: Effluent Flow for Outfall 001 vs. River Flow

Comment #1-5

We acknowledge that zinc levels in the St. Joe River are a concern for bull trout; however, that does not mean that numeric limits are required. We acknowledge the U.S. Fish and Wildlife Service's prior concern around this issue, but we are unaware of that agency advocating for numeric limits in lieu of the approach under the MSGP. We think the better approach here would be continued reliance on the best management practice (BMP) approach, similar to what is already specified in the MSGP.

Response #1-5

As explained in the fact sheets, EPA has determined that the discharges of zinc from all four outfalls at the PotlatchDeltic St. Maries complex have the reasonable potential to cause or contribute to excursions above water quality standards for zinc. When the permitting authority determines that a discharge causes, has the reasonable potential to cause, or contributes to an in-stream excursion above the allowable ambient concentration of a state numeric criteria within a state water quality standard for an individual pollutant, the permit must contain effluent limits for that pollutant (40 CFR 122.44(d)(1)(i, iii)). Given that the facility has reasonable potential to cause or contribute to excursions above water quality standards for zinc and given the ESA-listed species designated critical habitat, EPA has determined that the discharges from the facility are more appropriately controlled through an individual permit versus the MSGP.

No change was made to the permit as a result of this comment.

Comment #1-6

Further, even if EPA determines that an individual permit is warranted for stormwater discharges because of the commingling of stormwater and other facility discharges at Outfall 001, the BMP approach is still the best approach where numeric limits are impractical. See 40 CFR 122.44(k). Indeed, the BMP approach is the specified method that EPA and all states have adopted to control stormwater discharges. This is because it is impractical and indeed infeasible to set numeric limits for stormwater discharges. Despite these well recognized and mandated requirements for stormwater discharges under EPA regulations, EPA has concluded, based on no information in the record, that numeric limits are feasible and required. Not only does this seem arbitrary, but it also appears that PotlatchDeltic is being singled out for such requirements. Here it is impractical to set numeric limits, as generally acknowledged in the Fact Sheet and demonstrated by PotlatchDeltic's numerous attempts at corrective actions to achieve the benchmark levels.

Response #1-6

As explained in the fact sheets, EPA has determined that the discharges of zinc and TSS from all four outfalls at the PotlatchDeltic St. Maries complex have the reasonable potential to cause or contribute to excursions above water quality standards, and that discharges of iron from outfall 001 have the reasonable potential to cause or contribute to excursions above water quality standards. When the permitting authority determines that a discharge causes, has the reasonable potential to cause, or contributes to an in-stream excursion above the allowable ambient concentration of a State numeric criteria within a state water quality standard for an individual pollutant, the permit must contain effluent limits for that pollutant (40 CFR 122.44(d)(1)(i, iii)).

Nothing in the Act or regulations prevents the establishment of numeric water quality-based effluent limits for stormwater discharges. 40 CFR 122.44(k) allows for BMPs to control or abate the discharge of pollutants when authorized under Section 402(p) of the Clean Water Act (CWA) for control of stormwater discharges or when numeric effluent limitations are infeasible, however, it is not always infeasible to calculate numeric effluent limits for stormwater discharges. CWA section 402(p)(3)(A) states that permits for stormwater discharges associated with industrial activity shall meet all applicable provisions of CWA section 301, which includes the requirement for water quality-based effluent limitations (section 301(b)(1)(C)). Further, the MSGP includes numeric technology-based effluent limits that are based on effluent limitations guidelines. In the case of the SMC, as explained in the fact sheets, there was enough effluent data that EPA could calculate numeric effluent limits for all outfalls.

The permit includes compliance schedules for those limits that the permittee cannot comply with immediately.

Comment #1-7

PotlatchDeltic is concerned that in order to meet these numeric limits, it may be necessary to install expensive water treatment, which will be difficult to design and implement given the unpredictable volume and frequency of stormwater discharges. We would like the opportunity to further explore additional engineering options, in consultation with the Tribe and EPA, as a BMP-type approach as opposed to facing numeric limits in the fifth year that will present compliance challenges. The BMP approach is how EPA and states regulate stormwater discharges throughout the country, including the

regulation of PotlatchDeltic's competitors. We think this Permit should give SMC the opportunity to rely on the BMP approach again.

The SMC acknowledges that it has faced challenges in consistently meeting the benchmarks for zinc and TSS as specified in the MSGP in the past. However, PotlatchDeltic has been implementing corrective actions and adjusting BMPs, as required by the MSGP, resulting in meaningful reductions of the pollutants of concern in all of the facility's stormwater discharges. PotlatchDeltic has taken an iterative approach to these corrective actions to allow the system to adjust, as well as monitoring data to demonstrate whether the actions are adequate. One of the most recent actions, addition of a passive multimedia filter for Outfall 002, has proven to be the most effective to date and has brought concentrations for Outfall 002 below MSGP benchmarks for the last year. The SMC would like the opportunity to continue to work within the BMP framework. The draft Permit already imposes a series of BMP-type requirements identical or similar to the MSGP. We believe a better approach would be to remove numeric limits for stormwater and continue the BMP approach in the final Permit.

Response #1-7

As explained in the fact sheet and in Response #1-6, effluent limits are required because the pollutants in the discharge have the reasonable potential to cause or contribute to excursions above water quality standards (40 CFR 122(d)(1)(i, iii)). The fact that the permit has numeric water quality-based effluent limits does not preclude the use of BMPs to achieve these effluent limits. No change was made to the permit as a result of this comment.

Comment #1-8

In February 2021, EPA addressed a letter to Jacob Odekirk, environmental manager for the SMC, informing him of EPA's decision to require an individual NPDES permit for stormwater discharges at the SMC. We understand that this decision was driven by previous MSGP benchmark exceedances and request that this permit provide a provision for Outfalls 002, 003, and 004 to return to MSGP coverage once they comply with the limits established in NPDES Permit No. ID0000019 for a period of one year.

Response #1-8

The individual permit is issued for a term of 5 years.

The permittee may request coverage under the MSGP in the future by submitting a NOI. Covering industrial stormwater discharges under the MSGP would require terminating or modifying the individual permit, which would be at EPA's discretion. As explained on Page 11 of the July 28, 2021 fact sheet, the cooling water discharges from outfall 001 are not authorized under the MSGP, so, at a minimum, an individual NPDES permit would be required for such discharges. No change was made to the permit as a result of this comment.

Comment #1-9

The mixing zone for Outfall 001 as calculated compounds multiple conservative parameters on top of one another such that the conditions that were modeled are extremely unlikely to coincide with a discharge from Outfall 001. Discharges from Outfall 001 between June and September are driven primarily by precipitation events, which do not coincide with the low-flow conditions that are modeled. Additionally, the flow and velocity data used to develop the mixing zone were sourced from the U.S. Geological Survey (USGS) NWIS station 12415135 (Ramsdell), located approximately 6 river miles

downstream of our outfalls and likely more impacted by backwater effects from Lake Coeur d'Alene than the St. Joe River is at Outfall 001. EPA published a fact sheet for the reissuance of permit ID0022799 for the City of St. Maries Wastewater Treatment Plant in 2020. The outfall for that facility is located approximately 220 feet downstream of our Outfall 001. The fact sheet for that permit indicates that daily discharge data from the St. Joe River at Calder (USGS Station 12414500) and St. Maries River NR Santa (USGS Station 12414900) from 1988 to 2019 were combined and a drainage basin ratio of 1.33 was calculated and applied. PotlatchDeltic requests that the same approach that EPA selected for an immediately adjacent discharger less than two years ago be applied to our site as well. Because we are authorized to discharge year-round, we understand that the datasets for the sources noted above would include year-round daily discharge data.

Response #1-9

This comment was addressed by changes made to the February 16, 2022 revised draft permit. Changes to the mixing zone for outfall 001 are discussed in the February 16, 2022 fact sheet at Page 14 - 16. The revised acute dilution factors were more than doubled relative to those proposed in the July 28, 2021 fact sheet, with corresponding increases in the zinc effluent limits for outfall 001.

Comment #1-10

Schedule of Submission Item 7 and Section I.B.2.—there are zinc limits in the draft Permit that EPA knows PotlatchDeltic cannot currently meet, thus the proposed compliance schedule. Please clarify what is intended by the phrase "violation of the maximum daily limits" in this section. PotlatchDeltic interprets this to mean that 24-hour reporting for zinc exceedances is required at the end of the compliance schedule, when the maximum daily limits go into effect. Until the end of the compliance schedule, zinc monitoring would be reported in monthly discharge monitoring reports, as is the case for all other constituents. It is unreasonable to require 24-hour reporting for a constituent that is not yet regulated under the permit. Regarding the iron exceedance reporting in this section, we request that it be removed. Iron is not a toxic pollutant that generally requires 24-hour reporting (in fact, iron is not even specifically regulated under the Tribe's Water Quality Standards).

Response #1-10

During the term of the compliance schedule for the zinc effluent limits, the final zinc effluent limits are not in effect. Thus, there can be no violation of the final zinc effluent limits during the term of the compliance schedule. However, 24-hour reporting is required during the term of the compliance schedule for exceedances of the interim maximum daily limits for zinc.

EPA is maintaining the requirement for 24-hour reporting of exceedances of the maximum daily limits for iron. Although EPA has only established a recommended chronic criterion for iron, iron can also cause acute toxicity. No change was made to the permit as a result of this comment.

Comment #1-11

Table 1 - PotlatchDeltic requests that the flow and temperature monitoring for Outfall 001 include a grace period for the purchase and installation of the meters due to the unprecedented supply chain issues we are facing and associated difficulty obtaining devices for continuous monitoring. We can commit to placing the order on or before the effective date of the final permit but have no control over when the meters will be delivered. Installation would be completed as soon as possible upon delivery.

Response #1-11

This comment was addressed by changes made to the February 16, 2022 revised draft permit. The revised draft permit defers the continuous monitoring requirement for temperature at outfall 001 until January 1, 2023. Prior to January 1, 2023, the permit requires weekly grab sample monitoring of temperature for outfall 001, which is the same as the prior permit.

No changes have been made to the flow monitoring requirements for outfall 001. Both versions of the draft permit proposed to require weekly effluent flow monitoring at outfall 001, which is unchanged from the prior permit.

Comment #1-12

Table 1—PotlatchDeltic requests that the monitoring frequency for TSS be reduced to monthly. This is consistent with the sampling frequency for other parameters requiring laboratory analysis.

Response #1-12

This comment was addressed by changes made to the February 16, 2022 revised draft permit. The revised draft permit proposed monthly monitoring for TSS at outfall 001.

Comment #1-13

Table 1—PotlatchDeltic requests that iron be added to the compliance schedule given that there is currently no limit for iron, no monitoring for iron, and the only sample results available indicate uncertainty about whether the SMC would immediately be in compliance. The iron results available for Outfall 001 are 6.66 mg/L from the 2001 application (as noted in the Fact Sheet). PotlatchDeltic recently collected another iron sample near Outfall 001 on October 10, 2021 because of concern about meeting the draft iron limits. The result of that sample was 16.2 mg/L. The sample was collected upstream of the Outfall 001 compliance monitoring point because we were not discharging when sample collection occurred. This is not a representative sample for Outfall 001 but may be a good indicator of anticipated iron concentrations. Because there was no discharge from Outfall 001 at the time the sample was collected, it will not be reported in the discharge monitoring report under the current permit. As such, we have attached the lab report for that sample to this letter. Since we did not know that discharges of iron were a concern until receiving the draft permit limits, PotlatchDeltic is in the process of evaluating the source(s) of iron in the discharge.

Response #1-13

This comment was addressed by changes made to the February 16, 2022 revised draft permit. The revised draft permit proposed a compliance schedule for the water quality-based effluent limits for iron.

Comment #1-14

Table 1—the monitoring frequency for whole effluent toxicity (WET) must be changed to one time per year to match the description of annual monitoring in Part I.D. Additionally, PotlatchDeltic requests that WET testing be reduced to only the most sensitive species identified during the first five years for the continuation after five years. This allows continued monitoring for protection of the species most sensitive to SMC effluent (and thus protects the other species as well) while reducing the sampling and analysis burden on the SMC once it is established that the Permit trigger is not being exceeded.

Response #1-14

The monitoring frequency mismatch between Table 1 and Part I.D.2.a. was corrected in the February 16, 2022 revised draft permit.

EPA has not changed the annual WET monitoring to use the most sensitive species. As explained in Section 3.3.3 of the *Technical Support Document for Water Quality-based Toxics Control* (USEPA, 1991), EPA recommends against selecting a "most sensitive" species for toxicity testing because, in order for one organism to consistently be the most sensitive, the toxicants present in the effluent and their relative amounts must remain the same over time, and this is unlikely to occur.

Comment #1-15

Table 1—PotlatchDeltic requests that a mixing zone be added for TSS at Outfall 001 and the limit updated accordingly. A mixing zone for TSS is reasonable, given the assimilative capacity of the St. Joe River for this parameter and the fact that the Tribal Standard for TSS does not preclude a mixing zone. The proposed limit is based on the Coeur d'Alene Tribe Water Quality Standard for TSS for agricultural water supply uses. The application of this water quality standard as the basis of the permit limit without inclusion of a mixing zone would be appropriate only if there were an intake for an agricultural use at the end of the Outfall 001 discharge pipe. Not only is this not the case, but PotlatchDeltic is unaware of any intake in the immediate area of Outfall 001 for agricultural use. Furthermore, EPA acknowledges that a mixing zone for zinc is appropriate for Outfall 001. The mixing zone for TSS should be based on the chronic aquatic life criterion, for which EPA has calculated a 38.9 dilution factor. Using this dilution factor, the average concentration of TSS from Outfall 001, and the 90th percentile TSS concentration in the St. Joe River, Outfall 001 shows no reasonable potential to exceed the water quality standard in the St. Joe River at the extent of the mixing zone. EPA's rationale for providing no mixing zone for TSS is not clear and appears to rely on a state total maximum daily load that is not applicable to Tribal waters. And in any event, such reliance does not support failing to provide a mixing zone. PotlatchDeltic's stormwater discharges of TSS into the St. Joe River are not causing water quality exceedances after mixing, and therefore a mixing zone is warranted.

Response #1-15

Mixing zones are part of EPA-approved water quality standards. Outfall 001 discharges to the portion of the St. Joe River which is within the TAS portion of the Tribe's reservation. The Tribe's mixing zone water quality standard provides that only the Tribe can authorize mixing zones. See the Tribe's WQS at Section 12(a), (f), (j), (k) and (m). When EPA is the permitting authority and there is a discharge to tribal TAS waters, the authorization of mixing zones by the Tribe is done through the CWA section 401 certification. Here, the Coeur d'Alene Tribe has not authorized a mixing zone for TSS at outfall 001. PotlatchDeltic also submitted a comment on the Tribe's CWA section 401 certification requesting a mixing zone for outfall 001, and the Tribe declined to authorize a mixing zone. Therefore, EPA cannot provide for a mixing zone for outfall 001. No change was made to the permit as a result of this comment.

Comment #1-16

Table 2—PotlatchDeltic requests that the zinc limit be calculated using the hardness in the unnamed ditch receiving water. Since no data were available prior to the draft Permit development, PotlatchDeltic

has collected hardness data for the unnamed ditch; these are included in the attached table and were provided to EPA permit writer Brian Nickel by email on October 1, 2021.

Response #1-16

This comment was addressed by changes made to the February 16, 2022 revised draft permit. Water quality criteria for zinc, for outfalls 002, 003, and 004, were recalculated using the minimum hardness value observed in the unnamed ditch, which was 279 mg/L as CaCO3.

Comment #1-17

Tables 1 and 2—PotlatchDeltic requests that the monitoring frequency for orthophosphate, phosphorus, and COD be reduced to two times per year, consistent with the monitoring frequency for nutrients (nitrate-nitrite as N and total Kjeldahl nitrogen).

Response #1-17

In the February 16, 2022 revised draft permit, EPA reduced the monitoring frequency for total phosphorus and orthophosphate to quarterly at outfall 001 and twice per year at outfalls 002, 003, and 004. The monitoring frequency for COD remains quarterly, consistent with the 2021 MSGP requirements for forest products, however, EPA has allowed COD monitoring to be discontinued after two years if COD is not observed above the MSGP benchmark concentration of 120 mg/L.

Comment #1-18

Tables 1 and 2—PotlatchDeltic understands EPA's desire to monitor for parameters for which no limits have been set to support future permit reissuance; however, this is a substantial effort to track and maintain for many parameters that we do not expect to find in our effluent. PotlatchDeltic proposes to conduct the monitoring as indicated for the first two years of the permit and to discontinue monitoring for any parameters that are not detected above MSGP benchmark concentrations during those first two years.

Response #1-18

The basis for the monitoring requirements for parameters without effluent limits is explained in the July 28, 2021 fact sheet. As explained in the July 28, 2021 fact sheet, required monitoring frequencies are based on the nature and effect of the pollutant, as well as a determination of the minimum sampling necessary to adequately monitor the facility's performance. All monitored parameters that are not subject to effluent limits are pollutants of concern, either because they have a benchmark under the MSGP, have been detected in previous effluent monitoring, or they are expected to be in the discharge due to its nature.

The only parameter with required monitoring that is subject to an MSGP benchmark but not an effluent limit is chemical oxygen demand (COD). EPA agrees that monitoring for COD can be discontinued at a given outfall after two years (8 quarterly samples) if COD is not observed at that outfall above the MSGP benchmark concentration of 120 mg/L. This change has been made to the final permit.

Comment #1-19

Tables 1 and 2—since the analysis presented in the Fact Sheet indicates that there is no reasonable potential to cause or contribute to a violation of the water quality criteria for ammonia, PotlatchDeltic requests that ammonia monitoring be removed from this permit.

Response #1-19

EPA does not have effluent data for ammonia for outfalls 002, 003, or 004 and therefore could not perform a reasonable potential analysis for ammonia for those outfalls. Effluent monitoring for ammonia is required for those outfalls so that a reasonable potential analysis may be performed when the permit is reissued.

EPA did have ammonia effluent data for outfall 001 and did perform a reasonable potential analysis for ammonia for that outfall. EPA found that the discharge from outfall 001 does not have the reasonable potential to cause or contribute to excursions above water quality standards for ammonia. In the revised draft permit, EPA has reduced the monitoring frequency for ammonia for outfall 001 to annual. Monitoring for ammonia for outfall 001 is retained in part because applicants for discharges of non-process wastewater must submit effluent data for ammonia unless they have been granted a waiver by the permitting authority (40 CFR 122.21(h)(4)(i)(H)).

Comment #1-20

Section I.B. last paragraph—in the discussion of application deadlines, please include that the application was postmarked on May 12, 2021.

Response #1-20

The purpose of the fact sheet is to briefly set forth the principal facts and the significant factual, legal, methodological and policy questions considered in preparing the draft permit. Thus, the July 28, 2021 fact sheet will not be edited. The February 16, 2022 fact sheet for the revised draft permit states that the application was postmarked on May 12, 2021. It should be noted that EPA Region 10 does not revise fact sheets at the time of permit issuance. Instead, the response to comments document provides for clarification of any statements in the fact sheet.

Comment #1-21

Section II. A. The permitting history of the facility is misstated. The 1996 Permit did cover stormwater discharges from Outfall 001. The Fact Sheet supporting that Permit made clear that the commingling of stormwater and other cooling water was not permitted under the MSGP and therefore both stormwater and cooling water had to be covered under the Permit. This is why the SMC included stormwater discharges in the 2001 permit application.

Response #1-21

The purpose of the fact sheet is to briefly set forth the principal facts and the significant factual, legal, methodological and policy questions considered in preparing the draft permit. EPA Region 10 does not revise fact sheets at the time of permit issuance. Instead, the response to comments document provides clarification of any statements in the fact sheet if necessary.

The 1996 permit does not state that it authorizes stormwater. The response to comments for the 1996 permit states that stormwater BMPs that had been included in the draft permit were deleted from the final permit, since such BMP requirements were already in place “through the stormwater program.” Even if the 1996 permit did authorize stormwater discharges, more recently, PotlatchDeltic applied for and obtained coverage for the MSGP for stormwater discharges from outfall 001.

Comment #1-22

Section II.B. last paragraph on page 10—it is inaccurate to state that stormwater from Outfalls 002, 003, and 004 is discharged to the unnamed ditch without treatment. PotlatchDeltic has implemented numerous corrective actions under the previous MSGP coverage for these outfalls, including the corrective actions described on pages 3 and 4 above.

Response #1-22

The purpose of the fact sheet is to briefly set forth the principal facts and the significant factual, legal, methodological and policy questions considered in preparing the draft permit. The fact sheet for the revised draft permit includes the information about recent corrective actions and treatment for outfalls 002, 003, and 004 that were provided in the permittee's comments. It should be noted that EPA Region 10 does not revise fact sheets at the time of permit issuance. Instead, the response to comments document provides clarification of any statements in the fact sheet if necessary.

Comment #1-23

PotlatchDeltic does not discharge the ditch water to the St. Joe River. Such discharges are controlled by the City of St Maries, and PotlatchDeltic has no control on when or if such ditch water is discharged to the St. Joe River.

Response #1-23

The July 28, 2021 fact sheet does not state that the pump which conveys flow from the ditch and Mutch Creek to the St. Joe River is operated by PotlatchDeltic. EPA Region 10 does not revise fact sheets at the time of permit issuance. Instead, the response to comments document provides clarification of any statements in the fact sheet if necessary.

Comment #1-24

PotlatchDeltic has the following concerns with Table 6 of the Fact Sheet:

- USGS NWIS station 12413875 (Red Ives), which was used for aluminum, is more than 60 miles upstream of the SMC, and water quality in that location is unlikely to be the same as the water quality in the St. Joe River immediately upstream of our outfalls. PotlatchDeltic requests that the one aluminum result available at USGS 12415075 be used similar to what was done for barium and boron.
- USGS NWIS station 12415135 (Ramsdell) is located 6 to 7 river miles downstream of our outfalls, and therefore data from this location include contributions from our site and others that make these data less representative of the receiving water quality at our outfalls. We request that station 12415075 be used for all parameters for which data are available at that station.
- USGS NWIS station 12415140 is 8 to 9 river miles downstream of our outfalls, and therefore data from this location include contributions from our site and others that make these data less representative of the receiving water quality at our outfalls. We request that station 12415075 be used for all parameters for which data are available at that station.
- USGS NWIS station 12415075 is approximately 1 to 2 miles upstream of SMC outfalls and is the most appropriate station for receiving water quality. Where data are available at this station, PotlatchDeltic requests that they be used.

Response #1-24

EPA agrees that the location of USGS NWIS station #12415075 is ideal for upstream water quality data for this facility. However, other considerations led EPA to use other stations for ambient water quality data.

As explained in the July 28, 2021 fact sheet at Page 26, for aluminum, EPA used ambient data from USGS 12413875 (St. Joe River at Red Ives Ranger Station) instead of the single result from NWIS station 12415075 (St. Joe River at St. Maries, Idaho) because more data were available, and the data were more recent and not influenced by the Mt. St. Helens eruption.

It would not be in the permittee's interest to use aluminum data from NWIS station #12415075, because the single result for aluminum for that location exceeds the acute and chronic water quality criteria for aluminum, thus, no mixing zone could be allowed for aluminum if the background aluminum concentration were set equal to the aluminum concentration measured at that station.

NWIS station #12415075 does not have water column data for dissolved organic carbon.

Older USGS data for certain metals, including boron and zinc, may be overstated due to trace level contamination and are no longer supported by USGS (Pendergast, 1992). The most recent water quality data from USGS NWIS station #12415075 were collected in 1992.

In general, station numbers 12415135 and 12415140 were used for ambient data for ammonia, hardness, manganese, pH, orthophosphate, total phosphorus, TSS and zinc because these stations have more recent data than station #12415075.

It is preferable to use hardness data collected downstream from the facility (e.g., at USGS station numbers 12415135 and 12415140) because such data will reflect the discharge's influence upon the receiving water hardness. It is the downstream, mixed hardness to which organisms will be exposed.

Response to Comments Received During the Reopened Public Comment Period

Comment #2-1

PotlatchDeltic requests a compliance schedule for pH at Outfalls 001 and 003. Based on available pH data for Outfall 001 and 003 from December 2016 to January 2022 and March 2018 to November 2021, respectively, PotlatchDeltic has consistently complied with the technology-based effluent limit for pH of 6.0 to 9.0 standard units (s.u.). The available data for both outfalls indicates that compliance with the proposed change to more stringent, water quality-based discharge limits for pH of 6.5 to 8.5 s.u. may not immediately be met upon the effective date of the final permit.

Adjustment to pH generally requires a stepwise approach when considering the addition of chemical treatment to a discharge stream (e.g., bench testing, options analysis, design, and implementation). To ensure the appropriate means and methods for pH adjustment are implemented, PotlatchDeltic requests a 2-year compliance schedule for pH at Outfalls 001 and 003. The 2-year schedule will allow PotlatchDeltic adequate time to summon resources and conduct proper testing and analysis to inform the selection of an optimal chemical treatment method for the Outfall 001 and 003 discharges. Regarding Outfall 003, from January 2018 to March 2022, only 6 pH samples have been collected since

monitoring was required annually under the 2015 MSGP. The proposed permit has a pH sampling frequency of quarterly. Because Outfall 003 is typically not flowing during Q2 and Q3, however, we need time to continue collecting pH samples at the more frequent quarterly rate to assess our compliance with this limit and to help determine whether pH adjustment is needed. The most recent grab sample from March 2022 reported a pH value of 6.32 s.u., which indicates that compliance with the proposed change to more stringent, water quality-based discharge limits for pH of 6.5 to 8.5 s.u. may not be met upon the effective date of the final permit.

Furthermore, as described in more detail below, PotlatchDeltic plans to combine Outfalls 003 and 004 into a single outfall (i.e., Outfall 003) for which no representative pH data is currently available. The combined Outfall may not need a pH adjustment but without a compliance schedule, PotlatchDeltic will have to act prior to the permit effective date on Outfall 003 and attempt to implement a chemical injection system for an Outfall with inconsistent flows, no flow monitoring system to meter chemical injection, and limited pH data, and then request a modification to the permit or an update to the permit application, depending on timing. The 2-year compliance schedule will provide PotlatchDeltic sufficient time to: (1) implement plans to combine Outfalls 003 and 004, the construction of which is largely dependent upon construction contractor and materials availability (both of which have been negatively impacted by COVID-19 pandemic-related disruptions); (2) collect water quality data from the combined outfall; and (3) develop an appropriate treatment protocol.

Response #2-1

It was not clear from the comment whether the commenter was requesting a compliance schedule for the lower bound pH limit of 6.5 standard units, the upper bound pH limit of 8.5 standard units, or both limits. On March 25, 2022, PotlatchDeltic clarified in an e-mail that it was requesting a compliance schedule for the lower bound pH limit of 6.5 standard units specifically.

EPA agrees that a 2-year compliance schedule is appropriate for the lower-bound pH limits for outfalls 001 and 003. The compliance schedule has been incorporated into the final permit. The interim lower-bound pH limit for outfalls 001 and 003 is 6.0 standard units, which is the lower-bound technology-based pH effluent limit for wet storage of logs (40 CFR 429.101), which was previously applicable to these outfalls under the MSGP and the prior individual permit.

The pH compliance schedule for outfall 003 has also been applied to outfall 003 following its combination with outfall 004 as well to outfall 002 following its combination with outfalls 003 and 004. See the discussion under "Other Changes to the Draft Permit," below.

Comment #2-2

PotlatchDeltic plans to combine Outfalls 003 and 004, which will eliminate discharge from Outfall 004. The combined flow will discharge from Outfall 003. In addition, the detention/infiltration pond at Outfall 003 will be retrofitted with a passive multimedia filtration system, modeled after a similar stormwater corrective action implemented at Outfall 002 that resulted in PotlatchDeltic meeting TSS, total zinc, and COD MSGP benchmarks. PotlatchDeltic requests that the interim effluent limits and compliance schedule proposed in the draft permit for zinc and TSS at Outfall 004 be transferred to Outfall 003 at the time that the existing Outfall 004 is taken out of commission and Outfall 003 is accepting the combined flow from existing Outfalls 003 and 004.

Because there is currently no effluent zinc or TSS data representative of the combined flow and the zinc data that is available for the existing Outfall 004 indicates its discharge stream would not comply with the updated zinc limits upon the effective date of the final permit, PotlatchDeltic requires time to assess this planned system modification. A compliance schedule will allow PotlatchDeltic to monitor the seasonal flows and collect the data required to inform its ability to comply with the new zinc limit under these future conditions. The compliance schedule will also provide PotlatchDeltic adequate time to account for the construction schedule, which is largely dependent upon construction contractor availability and materials lead times, both of which currently exhibit delays due to work and supply chain disruptions consequential of the COVID-19 pandemic.

Response #2-2

In general, EPA agrees that the final permit should anticipate the permittee's planned consolidation of outfalls. However, on June 10, 2022, after the public comment period closed, PotlatchDeltic notified EPA of modified plans for outfall consolidation. The permittee now plans to combine outfalls 003 and 004 into outfall 002, although, because this requires pumping water from basins 003 and 004, discharges from outfall 003 would still be possible if pumps are not operational. EPA has anticipated these modified plans for outfall consolidation in the final permit. The changes to the permit are explained under "Other Changes to the Draft Permit", below.

Comment #2-3

PotlatchDeltic reiterates the request for a mixing zone for TSS at Outfall 001. This is based on the assimilative capacity of the St. Joe River to support the use of a mixing zone and the rationale previously provided by PotlatchDeltic to EPA on October 26, 2021, in the initial public comment period.

Response #2-3

As stated in Response #1-15, the Coeur d'Alene Tribe has not authorized a mixing zone for TSS at outfall 001.

Comment #2-4

PotlatchDeltic requests a 5-year compliance schedule as authorized under EPA regulations and the Coeur d'Alene Tribal Water Quality Standards. The Revised Fact Sheet now proposes a 3.25-year compliance schedule which is based on the Additional Implementation Measures (AIMs) adopted in the 2021 MSGP for the first time. Reliance on the AIMs in the draft Permit is not appropriate or warranted. The AIMs were adopted by EPA in the MSGP 2021 as a more structured way to address benchmark exceedances because benchmark levels are not enforceable effluent limits. The AIMs were adopted to avoid concerns about the so-called "endless loop" of modifying best management practices in prior MSGPs which may or not have resulted in water quality protection or certainty on what was expected from the permittees. See MSGP 2021 Fact Sheet at p. 100. Moreover, the MSGP 2021 provides numerous exceptions to compliance with benchmark levels even after implementation of Tier 3 AIMs. None of these considerations apply to the draft Permit.

EPA has determined that the St. Maries complex is no longer entitled to coverage under the MSGP. Moreover, EPA has proposed both interim and final numeric water quality-based effluent limits in the draft permit, which are enforceable with no exceptions to compliance. Accordingly, the facility should be entitled to a 5-year compliance schedule like all other facilities facing water quality-based effluent limits for the first time. The draft individual permit includes multiple changes from the previously effective

1996 permit issued 25 years ago, substantial increases in monitoring requirements, and water quality-based effluent limits for numerous parameters for the first time. It is unfair and improper to use the AIM language from the 2021 MSGP to defend a shortened compliance schedule under an individual permit. This permitting action is too complex with interim limits, final limits, and multiple outfalls (including stormwater and non-stormwater discharges), to arbitrarily rely on language from a general permit to set the length of time we must comply with an individual permit. If EPA believes that MSGP requirements should apply to Outfalls 002, 003 and 004, it is questionable that an individual permit should be required for these outfalls.

To ensure the appropriate means and methods are implemented to achieve compliance under the new effluent discharge limits set forth in the draft permit, PotlatchDeltic requires time and resources to adapt to the new permit. Planning, design, and capital cycles limit how quickly we can devise solutions to address issues. PotlatchDeltic takes compliance seriously and would like appropriate time to ensure decisions made will have lasting and permanent effects on our water quality. As stated above, PotlatchDeltic plans to design and construct a passive multimedia filtration system for the combined Outfalls 003 and 004 during the 2022 construction season. However, based on contractor availability and the short construction season, this project may be delayed to the 2023 construction season. PotlatchDeltic will also be focusing on plans for Outfall 001 as this is our largest outfall (by volume discharged) due to the size of runoff area (~50 acres), groundwater recharge, and the sprinkler water addition. During 2022-2024, PotlatchDeltic will work to understand the water balance of the log yard (Outfall 001) by installing continuous flow meters on the input (river sprinkler intake pump) and output (Outfall 001) and conducting an evaporation study. During this time and as data is collected, PotlatchDeltic hopes to optimize the operation of the log yard water system and reduce the volume discharged whenever possible with a focus on summertime discharges. After optimization and with continued Outfall 001 flow data collection, PotlatchDeltic plans to identify treatment alternatives and develop a timeline for project(s) implementation by the end of 2025.

Response #2-4

The compliance schedule authorizing provision in the Coeur d'Alene Tribe's water quality standards (Section 15(1)) states that "…schedules of compliance shall be developed to ensure final compliance with all water quality criteria in the shortest practicable time, but not to exceed five years." The federal compliance schedule rule (40 CFR 122.47(a)(1)) states that "Any schedules of compliance under this section shall require compliance as soon as possible…." Thus, five years is the maximum amount of time that may be authorized under the Coeur d'Alene Tribe's compliance schedule authorizing provision. Compliance schedules should be shorter than 5 years if compliance can be achieved sooner.

By the permittee's own statements, the planned combination of outfalls 003 and 004 will occur no later than the 2023 construction season. This was reiterated in the permittee's June 10, 2022 letter explaining the planned combination of outfalls 003 and 004 into outfall 002. Work to better understand the water balance of the log yard contributing to outfall 001 will be complete by the end of 2024. The 3-year and 3-month compliance schedule proposed in the draft permit ends on October 31, 2025, which allows at least 10 months following the water balance work to achieve compliance with effluent limits at outfall 001 and approximately two years following construction to combine outfalls 003 and 004 into outfall 002 to achieve compliance with effluent limits for the combined outfall 002/003.

Therefore, the proposed compliance schedule length of 3 years and 3 months for certain zinc and TSS effluent limits has been maintained in the final permit.

Comment #2-5

PotlatchDeltic is unable to comment on the zinc interim limits at Outfall 001 as the calculations supporting the interim limits were not included in the Fact Sheet.

PotlatchDeltic requests that the performance-based calculation for the TSS interim effluent limits for Outfall 001 include data points from dates 1/6/2020 and 11/4/2021. The data points used in the calculations provided in Appendix C of the Fact Sheet are those collected quarterly from 5/12/2017 to 11/4/2021 , excluding data points from 1/6/2020 and 11/4/2021. These two data points do not appear to be outliers based on historical performance prior to 5/12/2017 and include the most recent data point (11/4/2021) from Outfall 001 effluent discharge. PotlatchDeltic also requests that the performance-based calculation for the TSS interim effluent limits for Outfall 003 include data points from dates 5/12/2017, 9/18/2017, 11/9/2017, 11/4/2021, and 11/12/2021.

Table 2: PotlatchDeltic November 2021 Sampling

Date	Outfall	Total Zinc (µg/L)	TSS (mg/L)
11/4/2021	001	49.7	100
11/4/2021	002	<10	20
11/4/2021	003	31.8	120
11/12/2021	003	50.3	120
11/4/2021	004	1800	744

Response #2-5

Outfall 001 Zinc Interim Limits

The calculation of interim zinc limits for outfall 001 proposed in the revised draft permit is shown in Table 3, below.

Table 3: Performance-based Zinc Limits for Outfall 001 for the Revised Draft Permit

Performance-based Effluent Limits

INPUT			Pollutant (µg/L)	ln(Pollutant cc
LogNormal Transformed Mean:	4.1299		65	4.174
LogNormal Transformed Variance:	0.4076		172	5.147
Number of Samples per month for compliance monitoring:	1		162	5.088
Autocorrelation factor (n_e) (use 0 if unknown):	0		78	4.357
OUTPUT			114	4.736
E(X) =	76.2300		27	3.296
V(X) =	2924.288		76	4.331
VARn	0.4076		43	3.761
MEANn=	4.1299		60	4.094
VAR(Xn)=	2924.288		63	4.143
Maximum Daily Effluent Limit:	**275**		86	4.454
Average Monthly Effluent Limit:	**178**		38	3.638
177.7175457	165.1861568		40.6	3.704
			18.1	2.896

Adding the November 4, 2021 zinc result provided in PotlatchDeltic's comments results in the revised interim effluent limits in Table 4.

Table 4: Revised Performance-based Zinc Limits for Outfall 001 for the Final Permit

Performance-based Effluent Limits

INPUT			Pollutant (µg/L)	ln(Pollutant cc
LogNormal Transformed Mean:	4.1150		65	4.174
LogNormal Transformed Variance:	0.3818		172	5.147
Number of Samples per month for compliance monitoring:	1		162	5.088
Autocorrelation factor (n_e) (use 0 if unknown):	0		78	4.357
OUTPUT			114	4.736
E(X) =	74.1388		27	3.296
V(X) =	2555.824		76	4.331
VARn	0.3818		43	3.761
MEANn=	4.1150		60	4.094
VAR(Xn)=	2555.824		63	4.143
Maximum Daily Effluent Limit:	**258**		86	4.454
Average Monthly Effluent Limit:	**169**		38	3.638
169.2745882	157.3020768		40.6	3.704
			18.1	2.896
			49.7	3.906

Outfall 001 TSS Interim Limits

As stated on Page 19 of the February 16, 2022 fact sheet, statistical outliers were excluded from the effluent data when calculating performance-based effluent limits. The effluent TSS concentration measured at outfall 001 on January 6, 2020 was 333 mg/L, and it was a statistical outlier. Thus, that effluent result was excluded when calculating the interim limits. EPA has included the TSS result of 100 mg/L from November 4, 2021. The revised interim TSS limits for outfall 001 are shown in Table 5.

Table 5: Revised Performance-based Effluent Limits for TSS at Outfall 001

Performance-based Effluent Limits

INPUT			Pollutant ($m_{g/L}$)	ln(Pollutant conc)
LogNormal Transformed Mean:	4.2579		135	4.905
LogNormal Transformed Variance:	0.3458		49	3.892
Number of Samples per month for compliance monitoring:	1		40	3.689
Autocorrelation factor (n_e) (use 0 if unknown):	0		50	3.912
OUTPUT			99	4.595
E(X) =	83.9955		27	3.296
V(X) =	2914.888		47	3.850
VARn	0.3458		62	4.127
MEANn=	4.2579		58	4.060
VAR(Xn)=	2914.888		215	5.371
Maximum Daily Effluent Limit:	**277**		66	4.190
Average Monthly Effluent Limit:	**186**		172	5.147
185.9024368	172.8085765		53	3.970
			100	4.605

Outfall 003 Interim TSS Limits

In its comments on the July 2021 draft permit, PotlatchDeltic stated that modifications to address stormwater discharged from outfall 003 were completed in 2018. TSS data for outfall 003 prior to 2018 were excluded because they predated these modifications. Thus, EPA has not included the 2017 TSS results listed by the commenter in the calculation of interim TSS limits for outfall 003. EPA has included the two November 2021 results in the calculation of interim TSS limits for outfall 003. The revised interim TSS limit for outfall 003 is shown in Table 6.

Table 6: Revised Performance-based Effluent Limit for TSS for Outfall 003

Performance-based Effluent Limits

INPUT		Pollutant ($m_{g/L}$)	ln(Pollutant conc)
LogNormal Transformed Mean:	4.3697	30	3.401
LogNormal Transformed Variance:	0.7810	216	5.375
Number of Samples for compliance monitoring:	3	110	4.700
Autocorrelation factor (n_e) (use 0 if unknown):	0	159	5.069
OUTPUT		16	2.773
E(X) =	116.7705	106	4.663
V(X) =	16139.163	205	5.323
VARn	0.3326	15	2.708
MEANn=	4.5939	114	4.736
VAR(Xn)=	5379.721	71	4.263
		68	4.220
Average Effluent Limit:	**255**	120	4.787
255.3346444	237.4256146	120	4.787

Comment #2-6

PotlatchDeltic requests that a hardness value of 400 mg/L be used to set the zinc limit for the Unnamed Ditch. 400 mg/L is the maximum hardness value allowed for use in the equations used to calculate effluent limits for certain metals (e.g., zinc) under water quality standards at IDAPA 58.01 .02.210.c.i. Based on the hardness data collected between August 5, 2021 and September 16, 2021, the 5th percentile hardness value is 526 mg/L. The 10th percentile hardness value is 773 mg/L. The hardness value chosen to set the zinc limits for the Unnamed Ditch (i.e., 279 mg/L) is the minimum value from the dataset and is 2.8-7.1x lower than the other values in the dataset. The value 279 mg/L lies at an abnormal distance from the other values in the dataset and should be considered an outlier. The hardness value chosen for use to set limits for zinc was based on concern for a greater aquatic toxicity effect from zinc due to a low calcium-to-magnesium (Ca:Mg) ratio in the Unnamed Ditch relative to the Ca:Mg ratio in the St. Joe River. The Unnamed Ditch does not support aquatic life, which mitigates the concern for aquatic life toxicity within this water channel.

Response #2-6

As explained on Page 16 of the February 16, 2022 fact sheet, although EPA generally uses the 5th percentile hardness value to calculate water quality criteria for hardness-dependent metals, "it is appropriate to use a more conservative hardness value due to the small sample size (n = 11) collected over a period of only 42 days and low calcium-to-magnesium ratios relative to the St. Joe River. Calcium has a greater mitigating effect on zinc toxicity than magnesium, thus, at a given hardness, the toxicity of zinc will be greater with a lower calcium-to-magnesium ratio."

There is no evidence for the commenter's statement that the unnamed ditch does not support aquatic life. Even if there are no fish in the ditch, zinc can have effects on other types of aquatic life such as crustaceans, invertebrates and worms, at low concentrations, as shown in Figure 2, which was generated using EPA's ECOTOX Knowledgebase (https://cfpub.epa.gov/ecotox/). No change was made to the permit as a result of this comment.

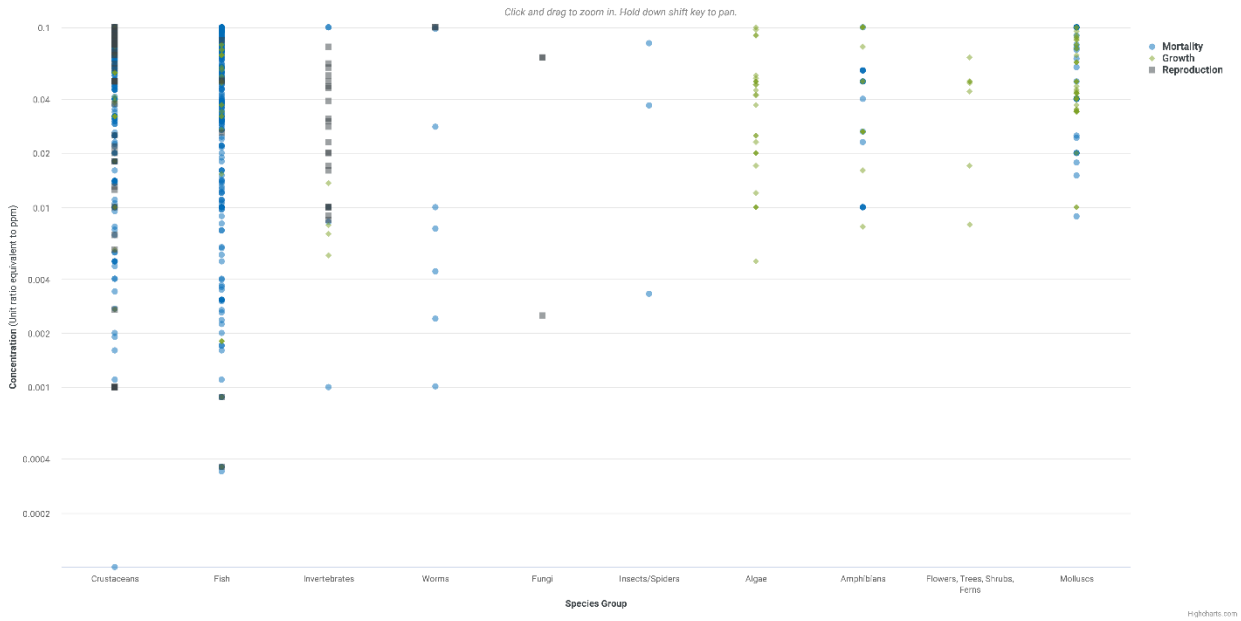

Figure 2: Zinc Effects on Mortality, Growth and Reproduction by Species Group

Comment #2-7

PotlatchDeltic acknowledges the addition of chloride to the effluent monitoring schedule due to the use of magnesium-chloride for dust abatement. The use of magnesium-chloride for the purpose of dust abatement is carried out by a subcontractor that specializes in magnesium chloride application and does so in accordance with industry standard practices.

Response #2-7

EPA acknowledges the comment.

Other Changes to the Draft Permit

Outfall Consolidation

On June 10, 2022, PotlatchDeltic notified EPA that it intended to consolidate outfalls 002, 003, and 004, by pumping stormwater from basins 004 and 003 to a mixed media filtration system. The combined, treated flows will be discharged from outfall 002. Discharges from outfall 003 could still occur if the pumping system is offline, but discharges from outfall 004 will be eliminated.

PotlatchDeltic requested that EPA apply the compliance schedules and interim limits for outfall 004 to outfall 002 after combining with outfalls 003 and 004 and to outfall 003 after combining with outfall 004.

In Comment #2-1, PotlatchDeltic requested that the pH compliance schedule for outfall 003 continue to be applicable after outfall 003 is combined with outfall 004. Since the pH characteristics of outfall 002 after combining with outfalls 003 and 004 and outfall 003 after combining with outfall 004 are uncertain, EPA is applying the 2-year compliance schedule for the lower-bound pH limit to outfall 002 after combining with outfalls 003 and 004 and to outfall 003 after combining with outfall 004.

The interim TSS and zinc limits for outfall 004 are the least stringent of any of the stormwater-exclusive outfalls, and demonstrated performance for TSS and zinc at outfalls 002 and 003 is better than at outfall 004. In addition, the permit needs to address the possibility of a discharge from outfall 003 after it is combined with outfall 004, and outfall 004 is eliminated.

Thus, instead of applying the interim limits for outfall 004 to the combined outfalls 002 and 003, EPA has established interim limits for the combined outfalls that are area-weighted averages of the limits (interim or final, as applicable) for the individual outfalls.

For example, the area-weighted average interim limit for zinc at outfall 002 after combining with outfalls 003 and 004 is calculated as follows.

$$\frac{7.09acres\times 286\frac{\mu g}{L}+6.52acres\times 286\frac{\mu g}{L}+7.23acres\times 545\frac{\mu g}{L}}{7.09acres+6.52acres+7.23acres}=376\,\frac{\mu g}{L}$$

The area-weighted average interim limits are as follows:

Table 7: Area-weighted Average Interim Effluent Limits for Stormwater Outfalls

Outfall	Drainage Area (acres)	TSS Interim Limit (mg/L)	Zinc Limit (µg/L)
002	7.09	114	286 (final)
003	6.52	255	286 (final)
004	7.23	1278	545 (interim)
Area-weighted averages	Total Area	TSS Interim Limit (mg/L)	Zinc Interim Limit (µg/L)
002, 003, and 004	20.84	**562**	**376**
003 and 004	13.75	**793**	**422**

Dinitrophenols Monitoring Requirement

The draft permit proposed annual effluent monitoring requirements for dinitrophenols, chemical abstracts service registry number (CASRN) 25550-58-7, at all four outfalls. Dinitrophenols are a class of compounds that includes six isomers: 2,3-, 2,4-, 2,5-, 2,6-, 3,4-, and 3,5-dinitrophenol. Additionally, the draft permit proposed annual monitoring for 2,4-dinitrophenol (CASRN 51-28-5) specifically. The draft permit also proposed annual monitoring for 2-methyl-4,6-dinitrophenol (CASRN 534-52-1), although that compound is distinct from the dinitrophenol isomers.

In the final permit, the monitoring requirements for dinitrophenols (CASRN 25550-58-7) have been removed. Among the dinitrophenol isomers, only 2,4-dinitrophenol has approved analytical methods in 40 CFR 136.3. In addition, the Idaho human health water quality criteria for dinitrophenols are based on the same reference dose as the criteria for 2,4-dinitrophenol (IDEQ, 2015). Because of a lack of approved analytical methods for dinitrophenol isomers other than 2,4-dinitrophenol, and because the Idaho human health water quality criteria for 2,4-dinitrophenol are based on the same reference dose as the water quality criteria for dinitrophenols, monitoring requirements for dinitrophenols (CASRN 25550-58-7) have been removed from the final permit. Monitoring requirements for 2,4-dinitrophenol (CASRN 51-28-5) remain in the final permit.

Analytical Methods for 2,4,5-Trichlorophenol

The draft permit proposed annual monitoring requirements for 2,4,5-trichlorophenol. This compound does not have approved analytical methods listed in 40 CFR 136.3. 40 CFR 122.44(i)(1)(iv)(B) states that,

for pollutants for which there are no approved methods, monitoring shall be conducted according to a test procedure specified in the permit. The final permit specifies the use of either EPA Method 625.1 or EPA Method 1625B for analysis of 2,4,5-trichlorophenol. Appendix A to the final permit specifies a minimum level of 10 µg/L for 2,4,5-trichlorophenol, consistent with Table 4 of EPA Method 1625B.

Minimum Level for Nonylphenol

The draft permit proposed annual effluent monitoring for nonylphenol at all four outfalls. However, no minimum level for nonylphenol was listed in Appendix A to the draft permit. The final permit specifies a minimum level of 5.0 µg/L, consistent with the lower bound of the reporting range in Table 1 in ASTM Method D7065-17, which is the only approved analytical method for nonylphenol in 40 CFR 136.3.

References

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