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Oregon Department of Environmental Quality
c/o Jackie Ray, Permit Coordinator
800 SE Emigrant, Ste. 330
Pendleton, OR 97801

Submitted via email

RE: Public Comments on the Draft NPDES Permit for the City of Hood River Wastewater Treatment Plant and Biosolids Management Plan, Permit No. 101729.

Dear Oregon Department of Environmental Quality:

Columbia Riverkeeper ("Riverkeeper") submits the following comments on the Oregon Department of Environmental Quality's ("DEQ") proposed National Pollution Discharge Elimination System permit for the City of Hood River Wastewater Treatment Plant (hereafter "Permit" or "NPDES Permit") and Biosolids Management Plan.

Riverkeeper's 8,000 members live, recreate, and work throughout the Columbia River Basin, including near and downstream of the City of Hood River Wastewater Treatment Plant's (hereafter "Hood River WWTP" or "facility") existing and proposed outfalls. The facility discharges treated sewage wastewater to one of the most popular watersport recreation areas on the Columbia River. The existing outfall, Outfall 1, is just downstream of the City's Waterfront Park, which includes the City's premier swimming beach for children and the general public. A slow moving eddy carries the facility's effluent plume upstream. DEQ and the City propose building a new outfall buried deeper and farther offshore. Even at the new location, the facility's outfall is still co-located with a popular watersport and fishing area. For this reason, DEQ must ensure the Permit includes conditions that reduce toxic and bacterial pollution and protect people who swim and recreate in the Columbia River.

The City of Hood River WWTP is one of many sources of pollution to the Columbia. Every day, thousands of pipes discharge contaminated stormwater and wastewater to the

Columbia River. For this reason, Riverkeeper requests that DEQ revise the Permit to protect water quality and comply with federal and state law.

Background on Laws and Regulations to Protect Water Quality

Congress enacted the Clean Water Act (“CWA”) in 1972 to “restore and maintain the chemical, physical, and biological integrity of the Nation’s waters.” 33 U.S.C. § 1251(a). Congress set a national goal “that the discharge of pollutants into navigable waters be eliminated by 1985.” *Id.* Similarly, the Oregon Legislature has declared that “pollution of the waters of the state constitutes a menace to public health and welfare.” ORS 468B.015. The legislature declared a public policy: 1) to conserve the waters of the state; 2) to protect, maintain and improve the quality of the waters of the state; and 3) to provide that no waste be discharged into any waters of the state without first receiving necessary treatment or other corrective action to protect the legitimate beneficial uses of waters of the state. *Id.* Congress and the Oregon legislature made clear that limiting pollution discharges is critical to restoring our waterways.

Specific Comments & Questions

1. **Public Education & Awareness:** The public has the right to know where the City discharges pollution and what types of pollutants are entering the river. This is particularly important because the permit authorizes a mixing zone—a section of the river where the City is allowed to discharge pollution at levels that exceed state water quality standards. DEQ has a responsibility to work with the City and Port of Hood River to facilitate public education and awareness. Specifically, DEQ should require the City to work with the Port to post signs that educate people about the location of the outfall, mixing zone size, and types of pollutants discharged to the Columbia. The public can make informed decisions about how and where to use the Columbia if the City posts signs near the waterfront. In addition, signs will increase public awareness about the connection between what goes down the drain in our homes and businesses and the Columbia River.

If ever there was a location where signs were warranted, this is it. Thousands of children swim at a beach just upstream of the facility’s outfalls. Swimmers, kiteboarders, standup paddle boarders, and other recreationists use the Columbia where the existing and new outfalls discharge to the Columbia. Anglers fish in the vicinity of the outfalls. Informational signs empower the public to make informed decisions. The signs should include clear maps illustrating the outfall locations and mixing zones, as well as

information on water quality, efforts to reduce pollution in wastewater, and the type of pollution entering the river.

The purpose of signs is not to discourage people from using and enjoying the Columbia. Instead, signs serve a fundamental public education purpose: if a public entity (here a city) is discharging pollution to a public resource (here the Columbia), the public deserves to have basic information to inform how and where they use the Columbia. If the signs prompt people to question why pollution is entering the river decades after the Clean Water Act promised a different future, if the signs spur people to think twice before pouring a pharmaceutical product or toxic chemical down the drain, or if the signs result in a swimmer making an informed decision to avoid the mixing zone, the signs achieve their purpose.

2. **Odor:** The facility frequently emits a putrid odor right next to a popular swim beach and kids' play area.¹ The Permit and Permit Evaluation Report and Fact Sheet (hereafter "Fact Sheet") fail to acknowledge, let alone address, odor from the facility.² In turn, it is unclear if the City has an active program or plans to reduce odor from the facility. Riverkeeper urges DEQ to investigate and propose permit terms to address odor to ensure the permit complies with the state's narrative water quality standards. *See* OAR 340-041-0007(1) ("Notwithstanding the water quality standards contained in this Division, the highest and best practicable treatment and/or control of wastes, activities, and flows must in every case be provided so as to maintain . . . overall water quality at the highest possible levels and . . . odor . . . and other factors at the lowest possible levels.").

As discussed above, the waterfront surrounding the facility is one of the region's most popular fishing, swimming, and watersport recreation areas. The waterfront's popularity skyrocketed in recent years due to the City and Port of Hood River's investment in waterfront development, including industrial, commercial, and recreational development. For these reasons, DEQ should acknowledge and address odor during this permit renewal.

¹ The City of Hood River acknowledged the odor problem in a 2008 City Council resolution approving the Hood River Waterfront Urban Renewal Plan, noting the "the odor problems of the Wastewater Treatment Plant." City of Hood River, Ordinance No. 1959 (2008), <http://ci.hood-river.or.us/pageview.aspx?id=24026>.

² The Biosolids Management Plan addresses odor; however, the NPDES permit is silent on odor. Due to lack of discussion on odor in the Fact Sheet, the source of odor and any efforts to mitigate odor are not clear.

3. **Toxics Generally:** Many resident fish in the Columbia River are unsafe to eat due to high levels of toxic pollution. This is unacceptable. Riverkeeper urges DEQ to use every permit renewal as an opportunity ratchet back toxic pollution. This includes evaluating new technology, imposing more restrictive water quality-based effluent limits, and requiring source control programs as permit conditions.

The following comments demonstrate that DEQ's NPDES permitting program is not living up to the State of Oregon and DEQ's commitment to reduce toxic pollution. In 2011, the Oregon Environmental Quality Commission ("EQC") adopted, and the U.S. Environmental Protection Agency ("EPA") approved, the most protective state water quality standards for toxics in the nation. DEQ also developed a voluntary Toxics Reduction Strategy. In adopting the new standards and Strategy, EQC and DEQ underscored the importance of protecting people who eat locally caught fish. Unfortunately, the City's Permit joins a long list of other post-2011 permits in failing to ratchet back toxic pollution.

As an initial matter, the Permit relies on toxic mixing zones, which are not authorized by the CWA. Specifically, the CWA requires a strict timeline for compliance with water quality based effluent limits. 33 U.S.C. § 1311(b). The statutory deadline by which point sources were to meet water quality standards was July 1, 1977. 33 U.S.C. § 1311(b)(1)(C). By that date, dischargers were required to meet "any more stringent limitation, including those necessary to meet water quality standards, treatment standards, or schedules of compliance, established pursuant to any State law or regulations . . . or required to implement any applicable water quality standard established pursuant to this Act." *Id.* To protect our nation's waterways from toxic pollutants, Congress expressly required all dischargers to comply with all effluent limitations by March 31, 1989 at the latest. 33 U.S.C. § 1311(b)(2). Nonetheless, EPA and DEQ sanction the use of toxic mixing zones.

Riverkeeper does not support the use of mixing zones for toxic pollutants. This is particularly true for bioaccumulative toxins.

Riverkeeper urges DEQ to propose rulemaking that expressly prohibits mixing zones for bioaccumulative toxic pollutants. Under the Great Lakes Initiative, eight Great Lakes states adopted, and EPA approved, a ban of mixing zones for bioaccumulative toxic pollutants. *See* EPA, Great Lakes Initiative—Final Regulation to Ban Mixing Zones in the Great Lakes, <http://water.epa.gov/lawsregs/lawsguidance/cwa/criteria/gli/finalfact.cfm>; *see also* U.S. EPA, Technical Support Document for Water Quality-based Toxics Control, EPA/505/2-

90-001 at 71 (March 1991) (“[A] State regulatory agency may decide to deny a mixing zone in a site-specific case. For example, denial should be considered when bioaccumulative pollutants are in the discharge.”). DEQ should undertake a similar rulemaking. Study after study demonstrate the serious problem of toxic pollution in the Columbia River and underscore the importance of reducing bioaccumulative toxic pollutants. The current mixing zone rule and associated IMDs are failing to protect Columbia River fish and public health. DEQ must abandon its outdated policy.

4. **Flame Retardants:** Riverkeeper urges DEQ to require monitoring for and conditions to restrict flame retardants discharged by the facility. The Permit and Fact Sheet fail to acknowledge and discuss flame retardants (polybrominated diphenyl ether or PBDEs). This includes sampling results collected by the U.S. Geological Survey (“USGS”) as part of a study published in 2012. *See* Morace, J.L., 2012, Reconnaissance of contaminants in selected wastewater-treatment plant effluent and stormwater runoff entering the Columbia River, Columbia River Basin, Washington and Oregon, 2008-10: U.S. Geological Survey Scientific Investigations Report 2012-5068, 68 p. (hereafter “the USGS study”). USGS collected and analyzed samples from nine wastewater treatment plants on the Columbia River, including the facility. USGS found flame retardants in effluent from every wastewater treatment plant. Table 13 from the USGS study, copied below, demonstrates that the City’s effluent includes PBDEs and other toxic chemicals.

Flame retardants are persistent, bioaccumulative, and toxic to both humans and the environment. According to EPA, PBDEs accumulate in the environment, harming mammals’ reproduction, development, and neurological systems. *See* EPA, Columbia River Basin: State of the River Report for Toxics (2009) at 15, <http://www2.epa.gov/columbiariver/state-river-report-toxics>. PBDEs can increase the risk of cancer and disrupt hormone systems. *Id.* For example, a recent study found that exposure to PBDEs is associated with depressed levels of thyroid-stimulating hormone in pregnant women, the health implications of which are unknown. USGS Study at 17 (citation omitted). In response to research on the presence and threats posed by PBDEs, EPA developed an Action Plan and initiated rulemaking, which is still ongoing.

In 2009, EPA identified flame retardants as one of the top four most widespread toxic contaminants in the Columbia River Basin. *Id.* Studies on the Columbia River demonstrate that flame retardants are present in river water, sediment, and juvenile Chinook salmon. Lower Columbia River Estuary Partnership (“LCREP”), Ecosystem Monitoring: Water Quality and Salmon Sampling Report (2007), <http://www.lcrep.org/sites/default/files/pdfs/WaterSalmonReport.pdf>. Flame retardants are moving from river water and sediment into salmon prey and then into salmon tissue.

The State of Oregon’s failure to adopt water quality standards for flame retardants does not excuse DEQ’s duty to address flame retardants in NPDES permits. Specifically, DEQ must ensure the Permit complies with the state’s narrative water quality standards. OAR 340-041-0007(1) (“Notwithstanding the water quality standards contained in this Division, the highest and best practicable treatment and/or control of wastes, activities, and flows must in every case be provided so as to maintain . . . overall water quality at the highest possible levels and . . . toxic materials . . . and other factors at the lowest possible levels.”). DEQ has the authority, and a duty, to require flame retardant monitoring and impose conditions to restrict flame retardants.

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Table 13. Halogenated compounds detected in solids filtered from wastewater-treatment-plant effluent, Columbia River Basin, Washington and Oregon, 2008–09.

[Station names are shown in [table 2](#). Concentrations reported in nanograms per liter. See [table A1](#) for a listing of halogenated compounds analyzed and their reporting limits. Present, presence is verified, but concentration is not quantified; sometimes the reporting limit for an individual sample is raised because of matrix interference, these instances of non-detection are shown as less than (<) the raised reporting limit. Abbreviations: L, liter; –, not detected; ND, not determined because of poor compound recoveries]

Analyte	Wenatchee	Richland	Umatilla	The Dalles	Hood River	Portland			Vancouver	St. Helens	Longview
						(a.m.)	(noon)	(p.m.)			
Volume filtered (L)	21	19	18	18	19	20	10	9	18	12	20
Polybrominated diphenyl ethers (PBDEs) or brominated flame retardants											
Dechlorane plus	Present	Present	–	–	–	–	–	–	–	Present	–
Firemaster 680	0.02	0.07	0.02	0.04	0.13	0.05	0.03	0.08	0.06	0.05	–
PBDE-47	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present
PBDE-66	0.07	0.22	0.14	0.15	0.09	0.10	0.02	0.11	0.45	0.04	0.05
PBDE-85	0.07	0.28	0.09	0.09	0.08	0.17	0.09	0.21	0.21	0.08	0.12
PBDE-99	Present	Present	Present	Present	Present	Present	Present	4.8	Present	Present	Present
PBDE-100	Present	1.6	Present	Present	Present	Present	Present	Present	Present	Present	Present
PBDE-138	0.02	0.06	0.04	0.03	0.03	0.05	0.02	0.08	0.06	0.03	–
PBDE-153	0.12	0.40	0.25	0.14	0.15	0.06	0.11	0.36	0.27	0.16	0.16
PBDE-154	0.12	0.38	0.27	0.15	0.15	0.25	0.08	0.31	0.28	0.15	0.16
PBDE-183	–	0.05	0.03	0.03	0.04	0.04	0.02	0.04	0.04	–	–
Polychlorinated biphenyls (PCBs)											
PCB-101	–	–	–	–	–	–	–	–	–	–	Present
PCB-146	0.01	–	–	–	–	–	–	–	–	–	–
PCB-170	0.01	–	–	–	–	–	–	–	–	–	–
PCB-174	0.01	–	–	–	–	–	–	–	–	–	–
PCB-177	0.01	–	–	–	–	–	–	–	–	–	–
PCB-180	0.02	–	–	–	–	–	–	–	–	0.02	0.01
PCB-183	Present	–	–	–	–	–	–	–	–	–	–
PCB-187	0.01	–	–	–	–	–	–	–	–	–	–
PCB-194	Present	–	–	–	–	–	–	–	–	–	–
Herbicides and insecticides											
<i>cis</i> -Chlordane	0.03	0.19	0.02	0.08	0.05	0.10	–	0.05	0.05	0.07	0.09
<i>trans</i> -Chlordane	0.02	0.19	0.01	0.05	0.03	0.08	0.02	0.06	0.03	0.01	0.05
Chlorpyrifos	–	–	–	–	–	0.18	0.18	0.43	–	0.04	0.03
Cyfluthrin	–	0.26	–	0.18	–	0.26	0.07	0.41	–	–	–
<i>lambda</i> -Cyhalothrin	0.02	Present	–	–	–	Present	–	Present	–	–	–
Desulfenylfipronil	–	Present	Present	0.02	0.02	Present	–	Present	0.07	–	–
Dieldrin	0.01	0.17	–	–	0.05	0.14	–	0.09	0.08	–	< 0.04
<i>alpha</i> -Endosulfan	0.01	–	–	–	–	–	–	–	–	–	–
Fipronil	ND	0.22	0.06	0.17	0.20	0.99	0.35	0.77	1.4	ND	0.05
Fipronil Sulfide	–	0.03	0.02	Present	0.02	0.06	0.02	0.06	0.08	0.04	0.01
<i>cis</i> -Nonachlor	Present	–	–	–	–	–	–	–	–	–	0.01
<i>trans</i> -Nonachlor	0.01	0.10	Present	0.03	–	0.04	–	0.04	–	0.01	0.03
Pentachloroanisole	Present	Present	–	–	Present	–	–	–	0.85	–	Present
Trifluralin	Present	–	–	–	–	0.02	–	0.02	–	–	–
Other compounds											
Hexachlorobenzene (HCB)	–	–	Present	–	–	–	–	–	–	–	–
Methoxy triclosan	1.2	3.7	–	–	4.6	1.7	–	–	13	Present	1.1
Triclosan	Present	Present	–	Present	Present	55	Present	57	86	–	ND

- PCBs:** Riverkeeper commends DEQ for retaining PCB monitoring in the Permit. The Columbia River is “water quality limited” (*i.e.*, exceeds the state’s water quality standards) for polychlorinated biphenyls (“PCBs”). DEQ has not developed a Total

Maximum Daily Load (“TMDL”), also known as a water quality recovery plan, to restrict PCBs entering the Columbia. Riverkeeper urges DEQ to develop promptly a TMDL to reduce PCBs in the Columbia.

6. **Mercury:** Riverkeeper urges DEQ to reconsider its decision to require limited mercury testing and not include a condition requiring a Methylmercury Minimization Plan. Oregon Health Authority fish advisories warn people to restrict the amount of resident fish consumed in the Columbia River due to mercury pollution. Oregon Health Authority, Fish Advisories and Guidelines, <https://public.health.oregon.gov/HealthyEnvironments/Recreation/FishConsumption/Pages/fishadvisories.aspx>. Mercury is a potent neurotoxin. According to EPA, “For fetuses, infants, and children, the primary health effect of methylmercury is impaired neurological development. Methylmercury exposure in the womb, which can result from a mother’s consumption of fish and shellfish that contain methylmercury, can adversely affect a baby’s growing brain and nervous system.” EPA, Health Effects of Mercury, <http://www.epa.gov/mercury/effects.htm>. Studies on mercury exposure in fetuses demonstrate that mercury exposure can harm a child’s thinking, memory, attention, language, and fine motor and visual spatial. *Id.*

The Permit does not include any restrictions on discharging mercury to the Columbia River. *See* Fact Sheet at 28 (describing DEQ’s rationale for not include a water quality based effluent limitation for mercury or a condition requiring a Methylmercury Reduction Plan). DEQ explains that total mercury was detected in one out of four samples of the City’s effluent and the amount reported was less than the Quantitation Level. DEQ concludes that “the proposed permit will not include effluent limits for mercury and it will not require routine monitoring.” *Id.* DEQ’s analysis, however, fails to acknowledge and discuss sampling results described in the USGS study. Specifically, USGS sampled the Hood River WWTP effluent in 2009 and detected total mercury levels of 2.7 ng/L. Riverkeeper requests that DEQ evaluate the USGS mercury data and consider increased mercury monitoring and a Methylmercury Minimization Plan.

7. **Copper, Ammonia, and Jeopardy.** The National Marine Fisheries Service (“NMFS”) issued a final Biological Opinion on Oregon’s aquatic life criteria for toxics in 2012. NMFS concluded that Oregon’s aquatic life criteria for copper and ammonia jeopardize threatened and endangered salmonids. At this writing, EQC has not taken final action to remedy the copper criterion’s deficiencies. EQC adopted a revised ammonia criterion earlier this year; to date, EPA has not approved the criterion. Given the nature of NMFS’s finding, the fact that both copper and ammonia are present in the facility’s

effluent, and the fact that changes in the criteria could affect the outcome of the Reasonable Potential Analysis, the Permit should contain a re-opener tied to completion of new copper and ammonia criteria. The Permit contains Schedule B, Conditions 5.f.a.ii to address new or revised criteria and new 303(d) listings of impaired waters, but those conditions only apply to monitoring. Schedule B, Conditions 5.f.a.ii (“If after permit issuance, the EQC adopts water quality standards for a new parameter or parameters, characterization of effluent and ambient water quality for the newly listed pollutant parameter(s).”). Riverkeeper suggests the re-opener should apply to permit limits after such criteria are established. This is particularly important given DEQ’s significant time lag in renewing existing NPDES permits.

8. **Outfall 1:** The City plans to build a new outfall, Outfall 2, and reroute the facility’s effluent to Outfall 2. However, the City does not propose, and the Permit does not address, plans to remove Outfall 1. The Fact Sheet states that “after the City begins using Outfall 002 for discharge of treated wastewater, there may be some facility storm water that will continue to be discharge at Outfall 1.” Fact Sheet at 1. The Fact Sheet, however, includes detailed discussion on the inadequacy of Outfall 1. *Id.* at 5, 12. Did DEQ and the City evaluate rerouting stormwater to Outfall 2 and removing Outfall 1? If not, will DEQ consider requiring that the City investigate removing Outfall 1 as a condition of the Permit?
9. **Stormwater and Outfall 2:** The Fact Sheet is unclear on whether the facility would discharge any stormwater via Outfall 2. The Permit does not include stormwater related requirements such as development of a stormwater pollution prevention plan (“SWPPP”) or implementation of best management practices (“BMPs”). In comments on DEQ’s draft NPDES permit for the Northwest Aluminum facility in The Dalles, EPA identified the need for stormwater requirements if an NPDES permit authorizes discharges that include stormwater. *See* Letter from EPA Region X to DEQ, City of the Dalles WWTP NPDES Permit Comments at 3 (Sept. 26, 2013) (stating “[t]he draft permits must include requirements for the stormwater discharge or require coverage under Oregon’s industrial stormwater permit to fulfill the requirements of NPDES regulations pertaining to stormwater discharges.”). Please clarify if the facility would discharge stormwater via Outfall 2. If so, DEQ must include stormwater related requirements in the Permit.
10. **Post-Construction Mixing Zone Analysis:** Riverkeeper urges DEQ to include a condition requiring the City to conduct at least one dye test within three months after installing Outfall 3. DEQ relies on computer modeling to develop the facility’s mixing zone for Outfall 2 and, in turn, the Permit’s Reasonable Potential Analysis. The Permit,

however, does not include a condition requiring the City to verify the accuracy of the mixing zone modeling through dye testing. DEQ frequently requires dye testing to ensure that mixing zone modeling is predictive of in-water outfall performance. As part of a condition requiring dye testing, DEQ should also include a re-opener condition providing for permit modification in the event the new outfall and diffuser fail to perform as the modeling predicts.

11. **Potential for Underreporting Pollution:** The Permit requires reporting parameters with waste discharge limits using the same number of significant digits (or figures) as the waste discharge limit. *Compare* Schedule A (establishing waste discharge limits) to Schedule B.1.c (establishing significant figures and rounding conventions in reporting). However, several of the waste discharge limits are expressed to only one or two significant figures. For example, Biological Oxygen Demand (“BOD₅”) and Total Suspended Solids (“TSS”) monthly average 500 lbs/day, weekly average 750 lbs/day, and daily maximum 1000 lbs/day for seasonable limits. According to EPA, reporting in this manner could lead to significant underreporting of the noncompliance (e.g., rounding a calculated value of 1,449 to 1,000 for reporting purposes). *See* Letter from EPA Region X to DEQ, City of The Dalles WWTP NPDES Permit Comments (Sept. 26, 2013). EPA recommends permits include mass loading values that ensure rounding does not result in significant underreporting of actual mass load.
12. **Instream Water Quality Monitoring:** Riverkeeper requests that DEQ include a permit condition requiring ambient water quality monitoring near the new outfall, Outfall 2. Ambient water quality monitoring will confirm if the mixing zone computer modeling is predictive of instream conditions. This enhanced water quality monitoring requirement is appropriate given the outfall’s location within a popular waterfront recreation area.
13. **Facility’s Permit History in Fact Sheet:** The Fact Sheet includes a helpful summary of the facility’s NPDES permit history. The summary describes facility improvements and significant changes to permit terms. Riverkeeper and the public benefit from understanding past efforts to reduce pollution. Riverkeeper therefore encourages DEQ to include similar NPDES permit history descriptions in every permit Fact Sheet.
14. **Permit Development Outreach:** Riverkeeper appreciates DEQ’s efforts to share information and meet with Riverkeeper staff prior to issuing the Permit for public comment.

Conclusion

Through the NPDES permitting process, DEQ has a critical opportunity to ratchet back pollution and prevent new pollution into the severely degraded Columbia River system. We therefore urge DEQ to consider public comments and use its full authority to reduce pollution through the NPDES permitting program.

Riverkeeper appreciates DEQ's consideration of public input on this important permitting decision. Please direct any correspondence or questions to the undersigned at (541) 965-0985 or lauren@columbiariverkeeper.org.

Sincerely,



Lauren Goldberg
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