



October 25, 2024

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Re: Comments on NEXT Renewable Fuels Oregon, LLC’s Application for Clean Water Act § 401 Certification, U.S. Army Corps of Engineers No. NWP-2020-393, Oregon Department of State Lands No. 63036.

Dear Oregon § 401 Coordinator,

The Northwest Environmental Defense Center (“NEDC”) and Columbia Riverkeeper (“CRK”), collectively, Commenters, submit the following comments on NEXT Renewable Fuels Oregon’s (“NEXT” or “Applicant”) application for Clean Water Act (“CWA”) § 401 Certification (“Certification” or “401”) for the construction and operation of a non-conventional diesel refinery capable of producing 50,000 barrels per day of renewable diesel and other fuel products. Commenters urge DEQ to deny NEXT’s 401 because of the project’s unacceptable impacts to water quality.

NEDC is an independent, nonprofit environmental organization established in 1969 by a group of professors, law students, and attorney alumni at Lewis & Clark Law School. The organization's members include citizens, attorneys, law students, and scientists. NEDC’s mission is to protect the environment and the natural resources of the Pacific Northwest by providing legal support to individuals and grassroots organizations with environmental concerns, and by engaging in education, advocacy, and litigation independently and in conjunction with other groups. NEDC’s membership includes individuals who live and recreate on the Columbia River, including the Columbia Estuary, and attribute great environmental, economic, and cultural value to the quality of the river basin and its ability to support various aquatic species, including federally listed salmon and steelhead populations.

Columbia Riverkeeper’s mission is to protect and restore the water quality of the Columbia River and all life connected to it, from the headwaters to the Pacific Ocean. Columbia Riverkeeper has over 16,000 members and supporters in Oregon and Washington. Columbia Riverkeeper has members and supporters who live and work in the Port Westward region, as well

as many members who work, boat, fish, and swim in the Columbia River nearby and downstream from the proposed refinery site and the Beaver Dock. Columbia Riverkeeper regularly comments on decisions impacting water quality, climate, and salmon habitat in the Columbia River. At Port Westward specifically, Columbia Riverkeeper has successfully opposed two proposed coal export terminals and a methanol refinery, as well as the planned expansion of an oil-by-rail export terminal and the rezone of hundreds of acres of agricultural land and wetlands for industrial use. Columbia Riverkeeper’s experiences with NEXT’s backers—in the context of this proposal and their past, failed proposals¹ elsewhere in the Columbia River watershed—shows NEXT to be untrustworthy, lawless, and wholly unqualified to build and run a project of this magnitude.

I. Impacted Water Bodies and Summary of Likely Water Quality Violations

NEXT’s chosen site contains extensive potential for water quality violations due to its proximity to and direct interaction with several bodies of water. DEQ’s draft permit correctly identifies the Columbia River, McLean Slough, and the Clatskanie River as affected waters of the state, but fails to identify and account for potential water quality violations in Bradbury Slough, Beaver Slough, and smaller waterways within and near the project site. NEXT’s refinery will add pollutants to the smaller waterways and drainage ditches on the property. By definition, these drainage ditches transport water—and pollutants—to waterways within the levee system that DEQ has not considered. And, the Beaver Drainage Improvement Company (“BDIC”) actively pumps water from inside the levee system into Bradbury Slough and Beaver Slough. NEXT does not provide adequate information about impacts to these waterways and improperly assumes that water within the site is contained.² As a result, DEQ fails to identify all of the water bodies potentially impacted by the project, undermining the conclusion that the project will not result in water quality violations.

The relevant segment of the Columbia River is impaired for a number of parameters, including pH, temperature, DDE 4,4, Polychlorinated Biphenyls (“PCBs”), dioxin, and dissolved gases.³ These pollutants hinder the Columbia River’s ability to support a number of beneficial uses, including supporting drinking water uses, aquatic life uses, and fish and shellfish consumption uses. However, the Applicant has not provided the requisite analysis to demonstrate

¹ Shick & Wilson, *Businessmen Who Abandoned Toxic Mess Now Want To Build Refinery In Washington*, KLCC (Feb. 2, 2016), <https://www.klcc.org/2016-02-02/environmental-cleanup-unpaid-bills-in-refinery-backers-last-venture>; US EPA, *Odessa Biodiesel Site*, https://response.epa.gov/site/site_profile.aspx?site_id=9819.

² See *infra*, Section VI.A.1.

³ See Oregon DEQ, *EPA Approved Integrated Report: Water Quality*, available here: <https://geo.maps.arcgis.com/apps/instant/sidebar/index.html?appid=7d13b19e01a44f1dbfd12903576e6d29>

that the proposed activity will not cause further degradation of water quality for the aforementioned parameters and beneficial uses. Moreover, the facility’s Biological Assessment (“BA”), prepared pursuant to the Endangered Species Act, is the Applicant’s only attempt of substantive analysis of the myriad of water quality-related impacts from the facility’s entire operation.⁴ In this BA, discussed in full *infra* Section V.B.1., consultants determined that there are various avenues that will result in aquatic species’ exposure to contaminants, which will adversely affect the species, water quality, and their critical habitat.⁵ This analysis is highly relevant to protecting the beneficial uses of the Columbia River and its tributaries. Yet, DEQ does not engage in the requisite analysis, mandated by OAR 340, Division 41, to assure that the activity will comply with water quality standards.

II. Project Overview

NEXT proposes what would be one of the largest refineries of its kind, in a liquefaction zone next to the Columbia River Estuary, at a time when the US is on track to overproduce “renewable” diesel.⁶ Throughout its five-year conception, NEXT’s proposal has undergone dizzying, fundamental site design changes, adding to its fraught history and building mistrust in Port Westward’s agricultural community.⁷ To this day, NEXT’s permits authorize inconsistent plans that demonstrate regulators’ unwillingness to take a holistic view of the project and protect the surrounding environment and communities from obvious, substantial harms.

The risks posed by NEXT’s ill-conceived project are numerous. Despite its “renewable” label, the core refinery infrastructure and activities will carry environmental impacts well beyond any marginal end-use benefits. For example, NEXT is permitted to produce over 1 million tons of greenhouse gas emissions each year, using the same amount of fracked gas as the City of Eugene on an annual basis to power the refinery.⁸ These numbers do not count emissions from mobile sources: significant increased vessel and rail traffic from transporting feedstocks and finished product. Not only will these pollutants burden the local and regional airshed—these new

⁴ *NEXT Renewable Fuels Oregon, LLC: Biological Assessment for Renewable Green Fuel Facility* (Mar. 30, 2023) (hereinafter “NEXT BA”).

⁵ See e.g., NEXT BA at 51.

⁶ Shariq Khan and Nicole Jao, Renewable diesel glut hits US refiner profits, threatens nascent industry, Reuters (May 14, 2024), <https://www.reuters.com/markets/commodities/renewable-diesel-glut-hits-us-refiner-profits-threatens-nascent-industry-2024-05-13/>.

⁷ Audrey Leonard, Greenwashing on the Columbia, Columbia Riverkeeper (Feb. 2024), <https://www.columbiariverkeeper.org/2024/greenwashing-on-the-columbia/>.

⁸ Oregon Department of Environmental Quality, Air Contaminant Discharge Permit for NEXT Renewable Fuels LLC (2022) at 26, <https://www.oregon.gov/deq/Programs/Documents/NEXT-ACDP-permit.pdf>.

emissions are the antithesis of Oregon’s stated climate targets and will hinder our state’s ability to meet them.

The lifecycle emissions of NEXT’s product’s feedstocks are key to understanding the project’s overall impacts. While renewable diesel *can* be produced from truly waste feedstocks like “fish grease” and used cooking oil, the vast majority of these low-carbon feedstocks are spoken for on the market—a direct result of California’s Low Carbon Fuel Standard that prioritizes these feedstocks. In actuality, NEXT’s product will be made primarily from carbon-intensive, purpose-grown feedstocks like corn and soybean oil, shipped from the midwest on long trains.⁹ Regulators must take into account the lifecycle emissions of a product labeled as “renewable” before buying into greenwashed selling points and authorizing a massive refinery in a sensitive area.

The refinery’s day-to-day operations pose major threats to the surrounding area: the Columbia River Estuary and vibrant farmland situated in an intricate drainage system. First, NEXT’s operations would greatly increase vessel traffic in the estuary, with an estimated 115 vessels per year carrying feedstocks and 56 larger fuel vessels transporting finished product. Each new vessel causes pollution just by operating, and increases the risk of a catastrophic fuel spill in a part of the estuary known for difficult navigation.¹⁰ Operations at the refinery itself are poorly suited for the area’s notoriously soggy landscape, high water table, and diking system. Regular flooding and the interconnectedness of the diking district’s drainage ditches mean that stormwater at the facility cannot be properly contained. In the event of spills—large or small—from feedstock or finished product, pollutants will easily move through the water and put local farms in danger. Spill risk and stormwater runoff are amplified by the extensive rail facility NEXT proposes. Finally, all of the infrastructure and fuel storage tanks would sit in a liquefaction zone. No amount of on-site management of pollutants can remedy the disaster of over 50 million gallons of fuel and feedstock that would leak as a result of the Cascadia Subduction Zone earthquake.¹¹

⁹ Industrial Tech Acquisitions II, Inc., Amendment No. 1 to Form S-4, as filed with the U.S. Securities and Exchange Commission (Oct. 17, 2023), p. 106 (showing 60% of feedstocks as “Soybean oil-Midwest,” which would arrive via rail).

¹⁰ Last November, a vessel crashed into the Port of Columbia County dock, narrowly avoiding a major fuel spill. Will Lohre, *Incident at Beaver Dock narrowly avoids oil spill into Columbia*, *The Chief* (Nov. 23, 2023), <https://www.waheagle.com/story/2023/11/23/news/incident-at-beaver-dock-narrowly-avoids-oil-spill-into-columbia/22985.html>.

¹¹ NEXT’s Application refers to “ten large product and feedstock tanks (125,000 to 225,000 barrels each).” This will exceed *50 million gallons* of storage of fuel and feedstock storage, when full.

NEXT chose to site its refinery in an untenable location, near sensitive waterways. DEQ's conclusion on water quality impacts in the draft certification is unfounded and does not align with the administrative record. For the reasons explained below, NEXT fails to demonstrate that the project, and associated discharges to federal- and state-jurisdictional waters, will comply with water quality standards.

III. DEQ's Authority to Deny NEXT's 401 Certification

NEXT has not provided sufficient information in its application materials for DEQ to support a 401 Certification. The Applicant carries the burden of demonstrating that a proposed project will comply with water quality standards. Here, NEXT has provided virtually no information as to how the project—including discharges from construction and future operation at the site—will impact water quality in the Columbia River, Bradbury Slough, McLean Slough, or associated wetlands. Before Certification may be issued for this proposed project, DEQ must require, at minimum, sufficient information as to how the project will comply with state and basin standards for individual criteria, Oregon's Antidegradation standard, and statewide narrative criteria.

The State has both a right and a responsibility to deny an application requesting a 401 Certification when the applicant fails to meet the burden of demonstrating compliance with applicable water quality standards. Other states have exercised this authority under Section 401 of the Clean Water Act to safeguard their water resources, setting a precedent for Oregon to follow suit.

For example, the State of Washington denied, *with prejudice*, Millennium Bulk Terminals-Longview's application for a 401 Certification in 2017.¹² After review of both the Application and the Environmental Impact Statement, the State found that there would be irreparable and unavoidable harm to the Columbia River. This harm stemmed from the installation of 537 pilings into the riverbed, the destruction of 24 acres of wetlands, the elimination of five acres of aquatic habitat, the increase of ship traffic on the Columbia by 1,680 trips a year and the impairment of tribal access to protected fishing sites.¹³ Indeed, the State even noted that the facility's stormwater plan, to be regulated by a separate permit, did not provide "detailed information and analyses necessary to understand, evaluate, and condition wastewater and stormwater discharges" in order to assure compliance with Washington State water quality.¹⁴

¹² Washington State Dep't of Ecology, *Millennium Bulk Terminals Longview*, <https://ecology.wa.gov/regulations-permits/sepa/environmental-review/sepa-at-ecology/millennium>.

¹³ *Id.*

¹⁴ See Washington State Dep't of Ecology, *Order # 15417, In the Matter of Denying Section 401 Water Quality Certification to Millennium Bulk Terminals-Longview, LLC in Accordance with 33 U.S.C. § 1341*, at 13-17.

Moreover, the State questioned the efficacy of the mitigation plan, and condemned Millennium's failure to include a detailed analysis for process wastewater and stormwater as it pertained to evaluating the project's potential to cause measurable degradation of water quality.¹⁵ As such, the project could not demonstrate compliance with the State's Antidegradation Policy.¹⁶ Millennium appealed this decision to the Cowlitz County Superior Court and the Pollution Control Hearings Board.¹⁷ The Cowlitz County Superior Court dismissed the petition for review while the Pollution Control Hearings Board upheld Ecology's decision to deny the 401 permit.¹⁸

The State of New York has also exercised its 401 denial authority for proposed pipeline projects on three occasions. Of most relevance to this Application, is the New York State Department of Environmental Conservation's ("NYSDEC") denial of the 401 Certification for the Constitution Pipeline, a 124 mile intrastate pipeline proposal. NYSDEC required a draft EIS from the Federal Energy Regulatory Commission analyzing the environmental impacts of the proposal, prior to issuing a 401 Certification. NYSDEC, in 2016, then denied the 401 Certification request, noting that the applicant "fail[ed] in a meaningful way to address the significant water resource impacts that could occur from this Project and has failed to provide sufficient information to demonstrate" compliance with water quality standards.¹⁹ In noting that the application, including supplemental materials, contemplated the disturbance of 251 streams, 87 of which support trout or trout spawning, the "cumulative construction would disrupt a total of 3,161 linear feet of streams and result in a total of 5.09 acres of temporary stream disturbance impacts."²⁰ The Second Circuit affirmed NYSDEC's decision to deny the application, holding that it was not arbitrary and capricious for NYSDEC to evaluate the environmental impacts in light of the State's water quality standards.²¹ Indeed, the Second Circuit noted that NYSDEC "is responsible" for evaluating the environmental impacts of a proposed pipeline on water bodies, given the relevance of NYSDEC's considerations of impacts to water quality compliance.²²

¹⁵ Cowlitz County Hearing Examiner, *Findings of Fact, Conclusions of Law and Decision Denying Permits*, File No. 12-04-0375, available at https://earthjustice.org/wp-content/uploads/millennium-bulk-terminals_findings-facts.pdf (finding that the denial of the 401 Certification, based on "unavoidable significant environmental impacts" identified in the EIS was reasonable).

¹⁶ It is important to note that the denial also contemplates unavoidable impacts from "vehicle transportation," "air quality," "rail transportation," "vessel transportation," and "noise and vibration" as relevant to the water quality certification denial. *Id.* at 4-13.

¹⁷ Washington State Dep't of Ecology, *Millennium Bulk Terminals Longview*, <https://ecology.wa.gov/regulations-permits/sepa/environmental-review/sepa-at-ecology/millennium>.

¹⁸ *Id.*

¹⁹ *Const. Pipeline Co., LLC v. New York State Dep't of Env't Conservation*, 868 F.3d 87, 96 (2d Cir. 2017).

²⁰ *Id.*

²¹ *Id.* at 103.

²² *Id.*

Here, NEXT has not provided substantial evidence to assure DEQ of compliance with the applicable standards. NEXT's application contains many of the fundamental flaws that served as the basis for denials from the State of Washington and the State of New York. As such, NEXT is not entitled to receive this Certification and the state must assert its authority—as Washington and New York have—to deny the application to protect Oregon's water quality and public health.

Given that the water quality impacts from biofuel production have not been studied extensively, DEQ must critically analyze the wealth of impacts that will affect water quality, both directly and indirectly. Despite NEXT's unsupported claims that there will be no pollutant loading to the Columbia, it is documented that biodiesel refining, regardless of process and feedstocks, produces wastewater that has high levels of COD, BOD, nitrogen, oil and grease, and has a considerably high pH, amongst other impacts.²³ The Application does not even contemplate what kind of pollutant load will result from the construction and operation of the large refining facility, much less provide the requisite information to assure that its pollutant load will not further degrade water quality. While biodiesel refining is a relatively new process, DEQ cannot blindly accept NEXT's unsupported conclusion that there will be no impacts to water quality. Moreover, the Applicant continues to evade any substantive water quality impacts analysis by stating that process wastewater will be transported to the Port of Columbia County for further treatment, in compliance with NPDES Permit No. 102650, and stormwater runoff will be analyzed pursuant to the 1200-Z permit. However, this conclusion does not analyze the quantity or quality of process wastewater that will be generated onsite. This is a concerted attempt to evade any substantive, cumulative, and meaningful analysis of the impacts to water quality that are sure to follow from this operation. DEQ cannot accept this segmentation for a facility of this magnitude, especially in light of the documented water quality concerns. NEXT's habitual bifurcation and segmentation of project descriptions—which renders submissions void of any substantive and meaningful analyses—mirrors that of the Constitution Pipeline and Millennium Bulk Terminals' playbook. DEQ cannot reward this behavior and should follow the precedent set by Washington and New York State.

A. DEQ's Public Notice is Fatally Flawed

DEQ's public notice for NEXT's draft 401 is flawed because it improperly authorizes work from the original 2021 Joint Permit Application ("JPA"), misrepresents basic project information, and does not reference the most recent, accurate Stormwater Management Plan. Improper notice frustrates the public participation process *and* undermines the assumption that DEQ has sufficiently accurate information about the project to be reasonably assured of compliance with water quality standards. DEQ is required to provide a notice that describes

²³ See I.M. Atadashi, et. al., *The effects of water on biodiesel production and refining technologies: A review*, Renewable and Sustainable Energy Reviews, 3466 (Mar. 2012).

public participation opportunities, identifies the proposed certification decision and is to properly identifies related documents as available for public inspection and copying.²⁴ DEQ has, in multiple instances, relied on documents that are not included as part of the most recent Certification, in conflict with the Public Participation obligations set forth in OAR 340-048-0027(1). These flaws are significant because this information goes to the core of the public’s review and input on the draft 401, and forms the basis of DEQ’s approval.

First, DEQ’s draft 401 authorizes an exceptionally broad range of work that includes former, current, and potentially future unknown site designs:

Work Authorized: Work authorized by this Order is limited to the work described in the Joint Permit Application signed on January 10, 2021 and additional application materials (hereafter “the permit application materials”), unless otherwise authorized by DEQ. If the project is operated in a manner that’s not consistent with the project description contained in the permit application materials, the Applicant is not in compliance with this Order and may be subject to enforcement.²⁵

NEXT has made numerous, substantive revisions to its site design since the original application in 2021. It is understandable that a project of this magnitude and complexity would experience design revisions. However, “[t]o ensure the project will comply with water quality standards, DEQ must understand all work involved in the construction and operation of the project.”²⁶ DEQ’s reference to the original application and “additional application materials,” generally, does not demonstrate an understanding of the work involved.²⁷ Worse, this condition goes further to *authorize* work described in outdated site designs without clarifying the specific site design DEQ understands as the final, permitted activity. As written, this condition authorizes any number of site plans since January 2021. This characterization also deprives the public of a meaningful understanding of the project. A reasonable person would interpret this condition to mean the draft 401 authorizes the work described in the 2021 JPA—an inaccurate conclusion that lacks complete information about the site design and DEQ’s authorization.

Second, the draft 401 contains errors in the project description regarding storage tanks and information about transportation of feedstocks and finished fuel products. The draft 401 project description notes the facility will have “twenty-two feedstock tanks.” This is incorrect:

²⁴ OAR 340-048-0027(1).

²⁵ Draft Certification at 2, General Condition 2.

²⁶ *Id.* (citing OAR 340-048-0015).

²⁷ When Columbia Riverkeeper raised this issue with DEQ at the start of the comment period, DEQ stated that it is certifying “the most recent/current valid request for a 401 water quality certification, which was sent to DEQ on January 13, 2024.” Sept. 12, 2024 email from Haley Teach. While this is helpful for clarifying what work DEQ intends to permit, it does not cure the inadequacy of the public notice, which is intended to inform public comment on the draft 401.

the application describes ten large product and feedstock tanks (125,000 to 225,000 barrels each) and eleven smaller feedstock and process tanks (10,000 to 50,000 barrels each). While this may seem like an insubstantial error, it demonstrates a concerning lack of specificity and inaccuracy.²⁸ Again, failing to provide complete and accurate information results in two failures: first, DEQ has frustrated the purpose of the public notice obligations, and second, DEQ cannot demonstrate that it is “reasonably assured” that the project will not violate water quality standards, because the basis of information used to support those conclusions is inaccurate.

Has DEQ grappled with important questions regarding the quantities and types of product (fuel, feedstocks, and process materials) stored on site? The draft 401 project description goes on to state, “[f]eedstocks will primarily be received via barge and vessels to [the Port of Columbia County].” This is inaccurate. In 2023, NEXT’s investors’ SEC filings show that the majority of NEXT’s feedstocks will be delivered by rail.²⁹

- The projections assumed the following compositions of feedstock for the applicable production years:

	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
Soybean oil-Midwest	60.0%	60.0%	50.0%	40.0%	35.0%	30.0%	30.0%	30.0%	30.0%	30.0%
Other Vegetable oil-foreign	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%
Used cooking oil (UCO)	5.0%	5.0%	10.0%	15.0%	15.0%	15.0%	15.0%	15.0%	15.0%	15.0%
Animal tallows-high energy	7.5%	7.5%	10.0%	15.0%	15.0%	15.0%	15.0%	15.0%	15.0%	15.0%
White/Yellow Greases	7.5%	7.5%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%
U.S. Distillers Corn oil	15.0%	15.0%	15.0%	15.0%	15.0%	15.0%	15.0%	15.0%	15.0%	15.0%
Other (emerging oils)	0.0%	0.0%	0.0%	5.0%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

- The projections assumed that BP will supply 100% of NXTCLEAN’s feedstock supply on substantially the terms of NXT’s previous feedstock supply agreement with BP, which has since been terminated.

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Additionally, the project description fails to mention that finished fuel products will be shipped via barge from the Port of Columbia County. Both of these details are essential to DEQ’s review of the refinery’s operation and its impacts to water quality. These substantive shortcomings also violate OAR 340-048-0042(5)(g), which requires that the Director articulate conditions necessary to assure compliance with the applicable water quality standards set forth in OAR 340-048-0042(2) (considerations DEQ should take into account when determining if the

²⁸ When DEQ was asked how much fuel and feedstock would be stored at the facility, DEQ provided a misleading answer that gives the impression that the volume is more than an order of magnitude too low. DEQ’s Q&A states, “How many fuel tanks? How many gallons of flammable, toxic fuel?” DEQ answers: “The proposed plan at full capacity is 50,000 barrels per day, or 1.58 million gallons.” The storage capacity far exceeds 1.58 million gallons. This misleading information undermines the public process for this permit.

²⁹ Industrial Tech Acquisitions II, Inc., Amendment No. 1 to Form S-4, as filed with the U.S. Securities and Exchange Commission (Oct. 17, 2023), p. 106 (showing 60% of feedstocks as “Soybean oil-Midwest,” which would arrive via rail).

project can comply with requisite CWA sections and the water quality standards set forth in OAR Chapter 340, Division 41).

Third, the draft 401 references an outdated post-construction stormwater management report, dated January 30, 2023. Records request documents demonstrate that the most recent stormwater management plan for the facility is from August 2023. When Columbia Riverkeeper raised this issue with DEQ at the start of the comment period, DEQ confirmed that it “received an updated technical memo,”³⁰ but the full report that the draft certification is based on is from January 30, 2023. However, records request documents show a memo and an entire revised stormwater management plan—a revised version of the January 2023 report—dated August 3, 2023. We understand that DEQ often receives updated information from applicants while evaluating applications. However, when dealing with a site this complex, it is extremely important that references to specific documents underlying the decision are accurate and up to date. The stormwater management plan is the core document upon which the draft 401 is based, and it is essential for DEQ and the public to know which version is relied upon for the certification.

Again, these flaws indicate both a procedural failure to provide the requisite information integrated into the Certification, as required by OAR 340-048-0027, as well as a substantive failure to consider the relevant information, as mandated by OAR 340-048-0042(2). These flaws in the public notice undermine the purpose and function of notice and comment on the draft 401, as well as DEQ’s conclusion that it is reasonably assured that the activity will comply with water quality standards.

B. DEQ’s Analysis Fails to Ensure Activity’s Construction and Operation Will Comply with Water Quality Standards

DEQ must deny the 401 Certification because it cannot comply with the obligations of 33 U.S.C. 1341 and the implementing regulations set forth in Part 41.³¹ Pursuant to Section 401 of the Clean Water Act, an agency may not issue a permit or license to an applicant that seeks to conduct an activity that may result in a discharge to navigable waters of the United States unless a state or authorized tribe provides a water quality certification.³²

The purpose of § 401 is to give states a measure of control over federally permitted projects within their jurisdiction that may harm water quality.³³ Because NEXT’s project involves

³⁰ Sept. 11, 2024 email from Haley Teach.

³¹ See 40 C.F.R. 121.1-121.11 (effective November 27, 2023).

³² 33 U.S.C. § 1341.

³³ S.D. Warren Co., 547 U.S. at 380 (citing S. Rep. No. 92-414, p. 69 (1971) (provision must have “a broad reach” if it is to realize the Senate’s goal: to give states the authority to “deny a

dredging and filling wetlands and waters, it requires a CWA Section 404 permit from the U.S. Army Corps of Engineers, and such permit cannot be issued without the required water quality certification from DEQ.

To facilitate this statutory mandate, EPA has promulgated rules to administer Section 401 of the Act, codified in Title 40, Part 121 of the Code of Federal Regulations. The rules remained largely in effect as they were originally written in 1971. Then, in 2020, the Trump Administration sought to severely limit the scope of the regulations that had been in effect for the better part of 50 years. The Trump Regulations (“2020 Rule”) substantially narrowed the scope of the Certification—requiring that certifications could now only cover a discharge *from* a point source and that discharge needed only to comply with “water quality requirements.”

As the 2020 Rule was challenged in federal court for about two years, the legal status of the Trump Rules and obligation of the 401 process was largely a mystery to even the most sophisticated regulators and Clean Water Act practitioners nationwide.³⁴ However, in recognition of the severely narrow scope of the 2020 Rule, the Biden Administration enacted the 2023 Clean Water Act Section 401 Rule, (“2023 Rule”) which largely restored the regulations to their pre-2020 language.³⁵ Most relevant to this Certification, the 2023 Rule restored the more expansive requirement that a Certification assure water quality standard compliance for the proposed activity’s construction *and* operations.³⁶

The more expansive 2023 Rule, along with settled case law which endorses the expansive call of the 401 Certification process, it is clear that DEQ must consider the Application’s direct and indirect water quality impacts which stem from both the construction of the facility—which in this case requires the removal of 105 acres of wetlands and addition of 76 acres of impervious surfaces—as well as future operations of the facility. These future operations include the continued use of a new main access road, a new rail yard, four new pipelines, 10 large feedstock

permit and thereby prevent a Federal license or permit from issuing to a discharge within such State.”).

³⁴ See e.g., *In re Clean Water Act Rulemaking*, 568 F. Supp. 3d 1013 (N.D. Cal. 2021), *rev’d and remanded*, 60 F.4th 583 (9th Cir. 2023).

³⁵ See 88 Fed. Reg. 66,558 (Sept. 27, 2023).

³⁶ 40 C.F.R. 121.3 (“When a certifying authority reviews a request for certification, the certifying authority shall evaluate whether the activity will comply with applicable water quality requirements. The certifying authority’s evaluation is limited to the water quality-related impacts from the activity subject to the Federal license or permit, *including the activity’s construction and operation.*”) (emphasis added); See also, *PUD. No. 1 of Jefferson County v. Washington Dep’t of Ecology*, 511 U.S. 700 (1994) (holding that “water quality limitations” need not be specifically tied to a discharge, but that a state may impose conditions necessary to enforce all aspects of a State’s water quality rules, including beneficial uses and water quality standards.).

tanks, 11 feedstock and process tanks, a pre-treatment plant, hydrogen facility, “Eco-fining” units, a storm and process water system, and administrative and lab buildings.³⁷

DEQ is required to account for the aforementioned facilities and their operations when issuing the certification, as the 2023 Rules went into effect before the Applicant requested, for the third time, a water quality certification. Given that this application was submitted in January of 2024 *and* EPA’s Federal Register notice emphasizes that other aspects of implementation of Part 121 start with the “receipt” of a “request for certification,” January of 2024 is the date for which DEQ must use to determine *which rule*—the 2020 or 2023—applies.³⁸ As such, DEQ must apply the new, more expansive, 2023 Rules to this project. DEQ’s draft permit unfortunately shows a willingness to leave major parts of this extensive authority on the table, issuing a draft permit with boilerplate language for a massive, novel refinery that presents a wealth of threats to water quality.

1. EPA’s Reasoning and Examples for the 2023 Rule

EPA’s analysis of the 2023 Rule in the Federal Register is instructive for how agencies should apply their 401 authority: “In order to assure—as it must under section 401(d)—that the ‘applicant’ will comply with all applicable water quality requirements, the certifying authority must be able to evaluate water quality-related impacts from the activity made possibly [sic] by the applicant’s license or permit beyond those related to its triggering discharge(s).”³⁹ This includes direct, indirect, short- and long-term impacts from the activity’s construction and operation.⁴⁰ Indeed, DEQ affirmed its support for this broad authority in its own comments on the 2023 Rule.⁴¹

EPA’s analysis of the 2023 Rule offers insight into the legislative history that supports the authority to consider impacts from an activity’s operation.

The legislative history reveals Congress’s intent to ensure federally licensed or permitted activities are not considered in a piecemeal fashion; rather, Congress recognized the importance of considering the effects of subsequent operations during site selection see S. Rep. No. 91–351, at 8 (August 7, 1969) (“Site location is integral to effective implementation of the Nation’s water quality program. There are sites where no facility should be constructed, because pollution control technology is not adequate to assure

³⁷ See Joint Permit Application No. 2020-393 at 4.

³⁸ See *e.g.*, 88 Fed. Reg. 66,581 (Sept. 27, 2023).

³⁹ *Id.* at 66,594.

⁴⁰ *Id.* at 66,599.

⁴¹ “DEQ strongly supports a definition of ‘activity’ that includes all activities that might affect water quality both directly and indirectly.” Oregon DEQ Comments on 2023 Rule (Aug. 8, 2022).

maintenance and enhancement of water quality. Those who make the decision on site location should be aware of this prior to making any investment in new facilities.”), and of early planning to avoid later adverse effects, see H.R. Rep. 91–127, at 6 (March 25, 1969) (“The purpose of subsection 11(b) is to provide reasonable assurance . . . that no license or permit will be issued by a Federal agency for an activity that through inadequate planning or otherwise could in fact become a source of pollution.”)⁴²

Because of NEXT’s choice to site its project in such a complex and sensitive area, DEQ must make sure it has as much information as possible before issuing a 401. NEXT’s inadequate planning and poor site choice is a burden that NEXT carries—DEQ does not have the requisite information to ensure the facility will not impact water quality. DEQ can and should require additional information about water quality impacts, including the draft Environmental Impact Statement for the facility to inform its analysis. For example, DEQ should, at minimum, require analysis on water quality impacts of vessel traffic (i.e. increased vessel traffic’s impacts on bank erosion, turbidity) to beneficial uses; water quality impacts of pesticide use at the mitigation site; and the potential for leaking infrastructure and/or spills to result in additions of toxic pollutants to receiving waters.

EPA goes on to give an instructive example of impacts beyond an activity’s dredging discharge that should be considered: A 401 for a section 404 permit

may consider both the construction associated with the dredging (*e.g.*, removing sediment from the waterbody to place dock pilings) as well as the subsequent operation associated with the completion of the dredging (*e.g.*, increased vessel pollution in the water associated with increased vessel traffic due to the construction of the dock).⁴³

DEQ’s draft Certification stops short of considering these same types of impacts, even though NEXT’s operation will directly increase vessel traffic. In order to be assured that NEXT’s operation will not affect water quality, DEQ must go a step further. But again, DEQ has full authority to determine that water quality impacts from operation are too great. In fact, “if the certifying authority determines that no conditions could assure that the activity, including post-expiration aspects of the activity, will comply with water quality requirements, denial of certification would be appropriate.”⁴⁴ The increased⁴⁵ vessel pollution from NEXT’s operation, in the sensitive Columbia River Estuary, and associated water quality violations, are too

⁴² 88 Fed. Reg. 66,599.

⁴³ *Id.* at 66,600.

⁴⁴ *Id.*

⁴⁵ EPA makes clear that this consideration includes water quality impacts *caused by* and *contributed to* by the activity, meaning DEQ can consider NEXT’s increased vessel pollution in the context of existing vessel pollution in this segment of the Columbia River. *Id.*

great⁴⁶—DEQ can determine that no conditions can assure that NEXT can comply with water quality requirements and deny the 401.

2. DEQ's Implementing Regulations

DEQ's 401 Certification implementing regulations are found in Chapter 340, Division 48.⁴⁷ A Certification is the written determination by the Director that the activity subject to Section 401 of the Clean Water Act will comply with several provisions of the Act, including water quality standards set forth in OAR 340, Division 41, and other state water quality requirements.⁴⁸

DEQ "must" evaluate whether the activity will comply with applicable CWA provisions, the water quality standards set forth in OAR 340 Division 41, and other appropriate requirements of state law.⁴⁹ In making this evaluation, DEQ may consider, *among other things*, potential alterations to water quality that would either contribute to or cause violations of water quality standards; existing and potential designated beneficial uses that might be affected by the activity; potential water quality impacts from the activity's use, generation, storage, or disposal of hazardous substances, waste chemicals, or sludges; potential water quality impacts from wastewater discharges; and potential water quality impacts from the construction of intake, outfall, or other structures associated with the activity.⁵⁰ Given the broad scope of considerations expressly articulated in OAR 340-048-0042, DEQ's own implementing regulations contemplate a broad scope of considerations, which allows DEQ to condition or deny a Certification based on the myriad of potential water quality impacts that stem from construction, operation, and even basic handling of potentially hazardous substances and waste chemicals.

When a Certification is approved, the conditions incorporated therein are the conditions which the Director deems necessary to *assure* compliance with applicable water quality standards.⁵¹ Given the wealth of concerns associated with the Facility's operations, DEQ cannot condition a project of this magnitude, in this location, with this proximity to such sensitive and compromised aquatic habitat, in a manner that would bring the facility within compliance with the Clean Water Act. Even if it were possible to condition this project to assure compliance with water quality standards, NEXT has not provided the requisite information and analysis to enable DEQ to meet its own obligations. As such, Commenters urge DEQ to deny this Application as the complexities of the project are not conducive to maintaining, much less *enhancing*, water quality.

⁴⁶ See discussion of vessel traffic impacts, *infra* Section VII.

⁴⁷ See generally OAR 340-048.

⁴⁸ OAR 340-048-0010(1).

⁴⁹ OAR 340-048-0042(2).

⁵⁰ OAR 340-048-0042(2).

⁵¹ OAR 340-048-0042(5).

IV. NEXT Has Not Met its Burden of Demonstrating Compliance With All Water Quality Standards

When issuing a 401 Certification, DEQ must support its decision with materials and analysis submitted by the applicant. The applicant carries the burden of proof to demonstrate that its discharge of pollutants will comply with all state water quality standards. This includes the burden of presenting sufficient evidence to satisfy Certification requirements, and persuading DEQ that Certification is justified.⁵²

Before DEQ can accept a 401 Certification as complete and begin to review it, an applicant must supply adequate information as required by OAR 340-048-0020(2). That Rule makes clear that an application “must contain, *at minimum*”:

g)...environmental information submitted to the federal licensing or permitting agency and other environmental information and evaluations as necessary to demonstrate that the activity will comply with applicable provisions of Sections 301, 302, 303, 306, and 307 of the Clean Water Act, including water quality standards set forth in OAR chapter 340, Division 041 and other appropriate requirements of state law; . . .

j) an exhibit that identifies and describes the other requirements of state law applicable to the activity that have any relationship to water quality⁵³

Failure to provide a complete application is grounds for denial of Certification.⁵⁴

DEQ must also evaluate the short-term *and long-term* compliance with applicable provisions of the CWA, state water quality standards, and appropriate requirements of law for the construction *and* operation.⁵⁵ For the purposes of Certifying a Section 404 permit to be issued by the Corps, DEQ’s 401 Certification operates as verification of compliance for both proposed construction discharges, post-construction discharges, and for the operations of the facility.⁵⁶

NEXT has submitted a JPA to the U.S. Army Corps of Engineers (“Corps”) and the Oregon Department of State Lands (“DSL”).⁵⁷ This application describes the proposed project

⁵² See OAR 340-041-0020(2) and OAR 340-041-0032(1).

⁵³ OAR 340-048-0020(2) (emphasis added).

⁵⁴ OAR 340-048-0020(3).

⁵⁵ See OAR 340-048-0042(2).

⁵⁶ See 1341(a)(3) (“[t]he certification obtained...with respect to the construction of any facility shall fulfill the . . . certification for the operation of such facility”).

⁵⁷ Joint Permit Application, NEXT Renewable Fuels Oregon, LLC (Aug. 29, 2023) (hereinafter “JPA” or “Application”).

and requests approval to engage in removal-fill activities in the waters of the United States. NEXT submitted its Request for Certification to DEQ in January 2024.⁵⁸ The present 401 Certification comment opportunity made available, by request, the JPA and appears to serve as the main document submitted by NEXT to support a 401 Certification. Additionally, NEXT provided a letter and memo answering questions from DEQ in May 2024.⁵⁹

The May 2024 document contains NEXT's "analysis" of water quality impacts, but merely provides conclusory statements that the facility will treat wastewater and stormwater in a manner that will not pose any threats to water quality. However, this memo does not offer the kind of technical specifications necessary to ensure that these methods will be sufficient, nor do these documents refute the literature⁶⁰ that illustrates that even the most sophisticated treatment does not prevent the inevitable pollutant loading that comes from a facility of this kind and scale. Moreover, the benefit of hindsight allows DEQ and the public to understand that these facilities spill, their infrastructure leaks, and even the most stringent of management plans habitually fail to completely eradicate pollutant loading to waterways.⁶¹ While not all pollution is necessarily a violation of water quality standards, Applicant's materials demonstrate a potential to add pollutants which further degrade water quality of an already-impaired waterbody, and hinder compliance with protection of beneficial uses. As such, DEQ must provide the requisite analysis to demonstrate that it has reasonable assurance that such pollution will not violate water quality standards.

In short, NEXT invites DEQ to accept its assertion that it will not further degrade water quality, simply because it says it will not.⁶² DEQ cannot accept this premise and cannot facilitate the risk of water quality degradation that is virtually inevitable for a facility of this kind, size, and proximity. That is especially so given NEXT's fraught history in the region. Bolstering DEQ's outright authority to deny the Certification is the authority set forth in ORS 468.070, which gives DEQ clear authority to deny a request for Certification based on prior behavior.⁶³ Thus, DEQ is not required to issue a Certification when it receives an application. Rather, the statutory language above sensibly authorizes DEQ to consider the history of past noncompliance with environmental statutes, rules or standards. While Commenters acknowledge that this would

⁵⁸ Oregon DEQ Request for Certification, NEXT Clean Fuels, Inc (Jan. 13, 2024).

⁵⁹ Stewardship Solutions, Response to DEQ 401 Water Quality Certification Review Questions for NEXT Renewable Fuels Oregon Application (2020-383) (May 22, 2024) (hereinafter "May 2024 Response").

⁶⁰ See e.g., NEXT BA at 42.

⁶¹ *Id.*

⁶² See also, NEXT Renewable Fuels, Inc., *50,000 BPD Renewable Diesel Project, Project Design Basis, May 2021 Rev B.* at 25 (May 2021).

⁶³ ORS 468.070 grants DEQ the authority to refuse to issue a permit issued pursuant to ORS 468.065, if it finds the facility to have violated ORS Chapters 468, 468A and 468B, or has violated any applicable rule, standard, or order of the Environmental Quality Commission.

be NEXT's first operation in Oregon, it is not without concern that NEXT's backers have a troubled history of environmental compliance in the region. Given this fraught history, DEQ can and should use its authority under ORS 468.070 to deny this request for Certification, based on NEXT's historic disregard for environmental regulations.

V. NEXT's Refinery Operations Will Negatively Impact Water Quality.

The construction and operation of NEXT's refinery will negatively impact the water quality of the Columbia River, McLean Slough, and Clatskanie River. Additionally, the project will affect waterways inside and outside of the levee system, which NEXT's materials do not contemplate.⁶⁴

A. Water Quality Standards for Individual Criteria

Per DEQ's latest Integrated Report,⁶⁵ this segment of the Columbia River is designated as Category 5 (water quality limited and in need of a total maximum daily load) impaired for DDE 4,4, and PCBs, both human health toxics, *and* Category 4 limited (meaning that at least one designated use is not being supported) for Dioxin, a human health toxic, temperature, and dissolved gas. These impairments hinder attainment of beneficial uses for the drinking water, aquatic life, and fish and shellfish consumption. Concentrations of these listed criteria could be impacted by Applicant's proposed project through stormwater exposure, infrastructure leaks, insufficient treatment of wastewater streams, spills, and pollutant-bearing sediment mobilization from the site. Applicant has neither analyzed potential conflicts, nor refuted assumptions of non-compliance, to allow DEQ to be assured that discharges from this site will not lead to further impairment of these criteria. A complete application from NEXT must address these parameters and how discharges—stemming both from the construction *and* the operation of the facility—will impact the requisite impairment criteria and beneficial uses. NEXT's application materials contain no information or even *acknowledgement* of these impairment pollutants (or any pollutants for that matter), by which DEQ could possibly assess compliance with water quality standards.

In light of the fact that NEXT has provided no information about how the proposed project will impact concentrations of DDE, PCBs, dioxin, temperature, or dissolved gas, DEQ cannot be reasonably assured that the Applicant's activity will not cause further impairment. Additionally, for the reasons articulated below, Commenters believe that the construction and activity—because of both the nature of the proposed operations *and* the loss of the wetland

⁶⁴ See discussion *infra*, Section VI.A.1.

⁶⁵ Available here:

<https://geo.maps.arcgis.com/apps/instant/sidebar/index.html?appid=7d13b19e01a44f1dbfd12903576e6d29>.

benefits of 105 acres—will ultimately result in further degradation of impairment pollutants. In short, DEQ accepts NEXT’s premises and conclusions as true, simply because NEXT says they are. However, evidence prepared by EPA and other scholars on refining suggests otherwise. DEQ has an obligation not only to respond to these concerns, but to substantiate that the facility can and will comply with all applicable standards, beyond merely accepting NEXT’s promises as true. Absent such, DEQ cannot be reasonably assured that the facility’s construction and operation, for the duration of its lifetime, will comply with all water quality standards.

Toxics

OAR 340-041-0033(1) provides that toxic substances may not be introduced above natural background levels in waters of the state in amounts, concentrations, or combinations that may be harmful, may chemically change to harmful forms in the environment, or may accumulate in sediments or bioaccumulate in aquatic life to levels that affect public health, safety, aquatic life or other designated beneficial uses.⁶⁶ The Applicant and DEQ have not presented information sufficient to assess if the proposed activity will result in discharges which add pollutants beyond the requisite threshold of acceptability set forth in OAR 340-041-0033.

Table 30 sets forth the applicable water quality criteria for toxic pollutants, as it pertains to protecting aquatic life.⁶⁷ These criteria apply to water bodies, like this segment of the Columbia and its tributaries, where the protection of fish and aquatic life are a designated use. Commenters acknowledge that establishing a site-specific criteria for these pollutants involves a complex analysis of the receiving waterways background, the hydrology and potential for dilution of the area and pollutant, as well as a rather complex determination that the pollutant will indeed raise pollutant concentrations by more than 3 percent.⁶⁸ However, there are toxics of concern that warrant DEQ’s attention. For example, Table 30 sets forth limitations on ammonia, noting that both the acute and chronic criterion are pH and temperature dependent.⁶⁹ Noting that the relevant segment of the Columbia is impaired for temperature and high pH readings are typically associated with biofuels refining wastewater streams,⁷⁰ DEQ must assess the potential for addition of ammonia beyond the 3 percent background threshold. Similarly, NEXT’s own BA, discussed *infra* Section V.B.1., acknowledges that copper—which is “highly toxic to aquatic biota”⁷¹—will enter salmonid-bearing waterways, exposing salmon and steelhead to heavy metals, including copper.⁷² Given that copper is an identified toxic substance and will be

⁶⁶ OAR 340-041-0033(1).

⁶⁷ Table 30, OAR 340-041-0833.

⁶⁸ See OAR 340-041-0033(5).

⁶⁹ See Table 30 OAR 340-041-0033, No. 3.

⁷⁰ See I.M. Atadashi, et. al., *The effects of water on biodiesel production and refining technologies: A review*, Renewable and Sustainable Energy Reviews, 3466 (Mar. 2012).

⁷¹ NEXT BA at 51

⁷² *Id.*

discharged into waterways from the facility's operations, DEQ must provide substantive analysis that NEXT's activities will comply with the standards set forth in OAR 340-041-0033. Moreover, DEQ cannot punt this analysis to the less-protective 1200-Z permit or coverage under Port Westward's NPDES permit, because NEXT's own documents illustrate that there will be pollutant loading of toxic substances that will further degrade aquatic life uses.

Aerial Deposition of Refinery Pollution

The facility's ACDP, granted in 2022, allows for significant Plant Site Emissions Limits ("PSEL") of various air pollutants.⁷³ Similarly, the Biofuels Triennial Report also reiterates that significant amounts of nitrogen oxides, sulfur dioxides, carbon monoxide, ammonia and particulate matter are emitted during each stage of biofuel production and distribution, as well as usage.⁷⁴ Indeed, atmospheric deposition is noted as the "primary process" through which atmospheric gases and PM enter aquatic ecosystems, posing a "major threat" to these ecosystems and aquatic life.⁷⁵ Researchers even note that air emissions, regulated separately from water quality and monitoring of aquatic ecosystems, causes a "gap[] in our understanding" of air pollutants impacts on water quality and aquatic life.⁷⁶

Given the facility's significant air pollution load and proximity to the Columbia River and other waters of the United States, atmospheric deposition of the facility's air pollution is reasonably certain to occur as part of the facility's activities. NEXT's air pollutants are likely to reach Oregon's waterways by direct air deposition into the water and via air deposition onto land near the refinery where precipitation runoff, irrigation, or seasonal flooding in the Port Westward area will convey them into nearby waterways. Potential water quality standards violations resulting from this kind of non-point source pollution caused by a facility's operations are clearly within DEQ's authority, and duty, to consider in the 401 certification process. Accordingly, this source of pollution and its impacts on water quality must be—but are not—addressed and analyzed in the Application and draft Certification.

Given the substantial emissions profile afforded to the facility in their ACDP, DEQ must consider the Facility's propensity to emit, and how these air contaminants will enter waterways that are inhabited by sensitive aquatic species. For example, the facility has a PSEL allotment of nine tons per year of hydrogen sulfide, as well as 27 tons per year *each* for PM, PM10, and PM2.5. The Application does not explain how the facility's operations—given the ACDP's massive emissions allowances—will both ensure that these emissions (1) do not result in

⁷³ See Permit No.: 05-0030-ST-01, Condition 14 at Page 10.

⁷⁴ Biofuels Triennial Report at IS-3.

⁷⁵ Vignesh Thiagarajan et. al., *Impacts of atmospheric particulate matter on phytoplankton: a review*, Science of the Total Environment, Volume 950 (Nov. 10, 2024).

⁷⁶ *Id.*

atmospheric deposition into a water of the United States, or (2) how these odors will not cause objectionable odors, will not be deleterious to fish or other aquatic life, or will not hinder other reasonable uses of such water. As such, the 401 cannot assure compliance with OAR 340-041-0031(1) or the aquatic life or toxics criteria.

pH

NEXT also provides that it will treat its wastewater, as well as its stormwater, to fall within the requisite pH criteria. However, NEXT does not contemplate the processes which cause high pH waste streams, nor does it contemplate *how* it will treat its wastewater and stormwater in a manner that will be sufficient to comply with pH criteria. As articulated *supra* Section III, refining facilities have wastewater streams that are notoriously acidic, and pH is a contributing factor to the Columbia's aquatic use impairment. As such, it is unclear how DEQ is reasonably assured that the facility will not cause or contribute to further impairment as it pertains to pH criteria.

The aforementioned pollutants of concern are relevant, especially in light of NEXT's offered, conclusory analysis that the activity will not result in any addition of pollutants to requisite waterways. For example, NEXT's own technical memo recognizes that Renewable Diesel facilities "provide[] unique waste treatment challenges"⁷⁷ but simply assures that the "flow scheme has been designed to 'segregate and optimize'" treating stream contaminants.⁷⁸ However, the only discussion provided to this point is a series of seven bullet points that name the "WWT system" pieces, *e.g.* anaerobic digestors and post equalization tanks.⁷⁹ However, this section does not provide any sort of analysis on the quantity or quality of wastewater that is to be treated, and *how* these processes will be sufficient to treat the wastewater in a manner that assures compliance with water quality standards. This is par for the NEXT course and cannot be accepted as sufficient to demonstrate that this massive industrial operation will not result in additional pollution that violates water quality standards.

B. Oregon's Antidegradation Standard

Oregon's Antidegradation standard is set forth in OAR 340-041-0004. The stated purpose of this standard is to "guide decisions that affect water quality such that unnecessary further degradation from new or increased point and nonpoint sources of pollution is prevented, and to protect, maintain, and enhance existing surface water quality to ensure the full protection of all

⁷⁷ NEXT Renewable Fuels, Inc., *50,000 BPD Renewable Diesel Project, Project Design Basis, May 2021 Rev B.* at 25 (May 2021).

⁷⁸ *Id.*

⁷⁹ *Id.*

existing beneficial uses.”⁸⁰ Federal regulations require a State to ensure that instream water uses protect a level of water quality necessary to protect existing uses.⁸¹ To effectuate this policy, regulations require that:

Where the quality of water exceeds levels necessary to support the protection and propagation of fish, shellfish, and wildlife and recreation in and on the water, that quality *shall* be maintained and protected unless the state finds, after full satisfaction of the intergovernmental coordination and public participation provisions of the State’s continuing planning process, that *allowing lower water quality* is necessary to accommodate important economic or social development in the area... In allowing such degradation or lower water quality, the State *shall* assure water quality adequate to protect existing uses fully. Further, the State *shall* assure that there shall be achieved the highest statutory and regulatory requirements for all new and existing point sources and all cost effective and reasonable best management practices for nonpoint source control.⁸²

For water quality limited waters, such as the Columbia River and the Bradbury and McLean slough, the standard actually prohibits *any* further degradation, unless explicitly authorized in certain limited circumstances and after detailed findings have been made.⁸³ This means, for those pollutants for which the receiving body of water is listed as water quality limited, and for the designated uses that are impaired based on the presence of relevant impairment pollutants, DEQ must assure that any additional pollution does not cause further degradation of those waters.⁸⁴ A critical question to be answered in the Antidegradation review process is whether “the proposed activity would likely result in any measurable change in water quality away from conditions unimpacted by anthropogenic sources.”⁸⁵ If it would, “then the proposed activity will be considered to likely result in a lowering of water quality.”⁸⁶ Thus, to obtain a 401 Certification for its proposed project, Applicant must demonstrate to DEQ that there will be no “measurable change” in the requisite affected water bodies as a result of this project. To do so, DEQ and the Applicant must address, head on, *how* the facility will not cause further degradation, through addition of thermal loads, toxic pollutants per Table 30 and OAR 340-041-0033, and the

⁸⁰ OAR 340-041-0004(1).

⁸¹ 40 C.F.R. § 131.12(a).

⁸² *Id.* § 131.12(a)(2) (emphasis added).

⁸³ *See* OAR 340-041-0004(7), (9).

⁸⁴ *See* 40 C.F.R. § 131.12; *See also*, *PUD No. 1*, 511 U.S. at 705; *N. Plains Res. Council v. Fid. Expl. & Dev. Co.*, 325 F.3d 1155, 1162 (9th Cir. 2003) (Recognizing that discharging “salty, industrial waste water” from coal bed methane activities “alters” the water quality of the receiving river, creating a conflict with the antidegradation policy and ultimately “undermin[ing] the integrity of the CWA’s prohibitions”).

⁸⁵ DEQ, *Antidegradation Policy Implementation: Internal Management Directive for NPDES Permits and Section 401 Water Quality Certifications*, at 17 (Mar. 2001).

⁸⁶ *Id.*

potential addition of particulate matter and ammonia to waterways—all parameters for which the Columbia is water quality limited—in order to comply with the State’s antidegradation policy.

Ultimately, it is NEXT’s burden to demonstrate that its entire operation will not cause further degradation of water quality that harms beneficial uses. DEQ has the authority to consider a wide array of impacts that stem from the construction and operation of this proposed refinery. Indeed, EPA emphasizes that the definition of “water quality requirements” is also broad, including “any limitation, standard, or other requirement” of State law.⁸⁷ A certifying authority can ensure compliance with “*any and all* components of applicable water quality standards,” including designated uses, consistent with *PUD No. 1*.⁸⁸ To avoid considering NEXT’s impacts on designated uses and antidegradation requirements would be leaving a vital piece of DEQ’s authority to protect water quality on the table.

Here, NEXT has not met that burden of demonstrating compliance with water quality standards for two reasons. First, as articulated above, NEXT does not even provide the requisite information or discussion, much less analysis, as to how the Antidegradation standard will be met. Again, NEXT simply provides conclusory statements that the project will not pose any threat to water quality, without offering any substantive analysis. For example, NEXT’s supplemental materials provide two paragraphs in regards to the Antidegradation Policy, which concludes, without any analysis, that the facility will not violate the state’s antidegradation policy:

The Facility and its Access Stormwater are not considered a point-source discharge and no activities associated with the Facility or Access Stormwater will further degrade existing surface water quality or beneficial uses of waters of the state. The Facility will operate in compliance with the 1200-C permit during construction and the 1200-Z permit during operation. Its process water will be pre-treated to ensure its effluent meets and/or is less than the Port Westward NPDES effluent limitations.⁸⁹ Access stormwater will be

⁸⁷ *Id.* at 66602.

⁸⁸ *Id.* at 66606 (citing *PUD No. 1*, 511 U.S. at 714-15 (emphasis in original) (“We think the language of [section] 303 is most naturally read to require that a project be consistent with *both* components, namely the designated use *and* the water quality criteria. Accordingly, under the literal terms of the statute, a project that does not comply with the designated use of the water does not comply with the applicable water quality standards.”)).

⁸⁹ Commenters also note that the further “analysis” that NEXT provides in the way of “demonstrating compliance” with the Port’s NPDES permit merely includes a chart that identifies the Port’s effluent limitations and conveniently includes a column stating that NEXT’s wastewater will have pollutant loads that are “<” than the requisite pollutant. For example, the Port’s NPDES permit allows for 0.15 mg/L of Total Residual Chlorine, so NEXT states—without any sort of justification—that its wastewater design basis will result in a wastewater stream with “<0.15 mg/L of Total Residual Chlorine”. *See* May 2024 Response at 11.

collected and treated in detention ponds constructed per DEQ’s Section 401 Water Quality Certification Post-Construction Stormwater Management Plan Guidelines and designed to meet the SLOPES V standards.⁹⁰

This is the extent of NEXT’s offerings to demonstrate compliance with the State’s Antidegradation Policy. DEQ cannot accept these unsupported conclusions as true. It is highly unlikely that the proposed development will protect, enhance, or even maintain water quality in the requisite water bodies: Applicant proposes to destroy over 100 acres of wetland, add over 70 acres of impervious surfaces, build multiple roads and pipelines, and operate a refinery.⁹¹ While Applicant does suggest that the additional wetlands that will be created will enhance water quality, it is important to note that the mitigation ratios used—which are required by law, not due to NEXT’s commitment to environmental stewardship—are mitigation ratios determined to achieve “no net loss.” The no net loss standard is a reflection of the fact that there are palpable harms that occur when natural wetlands are filled.

Second, the ecological changes discussed above, as well as the future operation of the facility, have the high potential to impair several beneficial uses and impact aquatic life, yet NEXT’S JPA neither acknowledges nor addresses the Antidegradation standard, let alone provide any sort of persuasive documentation that the project will result in “no measurable change” to the water quality of the Columbia River or the applicable sloughs. Without such information that both supports NEXT’s presumed assertions of water quality compliance, and certainly absent information that can refute the wealth of literature suggesting degradation will occur, DEQ cannot issue a § 401 Certification for the project.

1. The NEXT Biological Assessment

Pursuant to the Endangered Species Act, Ecological Land Services, Inc. (“ELS”) completed a Biological Assessment (“BA”) on behalf of NEXT and its proposed project. The BA noted that there is designated critical habitat for all 13 ESUs/DPSs in the Columbia River and that this project will result in exposure of contaminants to the McLean Slough and ultimately, the Columbia River. Ultimately, the BA concluded that, due the contaminant exposure, that the project is likely to adversely affect 13 ESUs/DPSs of salmon and steelhead.⁹² However, despite this analysis, the Application does not contemplate the impacts of the pollutant exposure, which is relevant both in terms of increased loading of specific pollutants, and to further impairment of beneficial uses.

⁹⁰ May 2024 Response at 13.

⁹¹ See *infra* Section V.B.2.

⁹² NEXT BA at 76.

The BA notes that contaminants of concern are present at all phases of the refining process. Contaminants from feedstocks include metals like calcium, sodium, magnesium, potassium iron, and aluminum, as well as high levels of phosphorus, solids, free fatty acids, color bodies, and phospholipids that are of similar nature to surfactants and soaps that consist of saturated and unsaturated carbon atom chains with a hydrophilic head.⁹³ The refining process creates contaminant loading of sodium hydroxide, soaps, metals, phosphorus, solids, gums, and phospholipids.⁹⁴ The mitigation associated with the project will also include heavy loads of glyphosate, as the herbicide will be used to control invasive plants at the mitigation site.⁹⁵ Indeed, these contaminants present exposure to pollutant loading to waterways both due to the inevitable reality of infrastructure leaks and failures, as well as through exposure to stormwater.

The BA determined that the following pollutants will be present in aquatic habitats *as a result of this project*: Copper, Zinc, PAHs, renewable fuels, sustainable aviation fuel, microplastics, and glyphosate. These contaminants are not contemplated in the Application materials and will have detrimental impacts to aquatic habitat, water quality, and will impact listed species. For example, the BA notes that copper from automobiles on site will be present in stormwater, and that zinc, which is highly mobile in aquatic environments and can be transported even miles downstream, will also be present in stormwater runoff.⁹⁶ These contaminants, as well as their impacts to beneficial uses, aquatic life, and overall water quality are not contemplated in the Application materials.

Similarly, the BA notes that polycyclic aromatic hydrocarbons (PAHs) will be present in stormwater runoff.⁹⁷ PAHs are harmful to water quality and pose significant threats to aquatic life. PAHs are hydrophobic and bind to sediments and organic matter, allowing them to persist for long periods of time, creating long-term accumulation and contamination to aquatic ecosystems. Moreover, PAHs bioaccumulate in the tissues of aquatic species. These toxic compounds are then passed up through the food chain, creating impacts not only for smaller aquatic organisms, but also larger species, including fish and bird species. Moreover, PAHs disrupt oxygen exchange and nutrient cycling processes, ultimately contributing to lower dissolved oxygen levels, posing further stress to aquatic systems. Overall, PAHs pose serious threats to aquatic species as well as water quality as a whole.

Finally, the BA recognizes that the use of the herbicide glyphosate will result in further pollutant loading.⁹⁸ Ironically enough, the project's mitigation plan cannot comply with water quality standards because it will result in further pollutant loading of the pesticide glyphosate. In

⁹³ *Id.* at 35.

⁹⁴ *Id.*

⁹⁵ *Id.*

⁹⁶ *Id.*

⁹⁷ *Id.*

⁹⁸ *Id.*

order to mitigate the loss of 105 acres of wetland habitat, the Applicant proposes to build 476 acres of wetland habitat.⁹⁹ The Applicant also plans to treat the mitigation site with glyphosate in order to control invasive plants at the mitigation site. Glyphosate, however, has known risks to water quality and aquatic ecosystems, none of which are contemplated in the Certification or the Application itself. For example, glyphosate, which can persist in aquatic ecosystems, often breaks down to phosphate, further exacerbating issues of eutrophication in a water body. Moreover, glyphosate in surface and groundwater poses threats to drinking water and is notoriously difficult to remove through standard, accessible filtration methods. Glyphosate is also known to impair reproduction cycles in fish and amphibians, and disrupts microbial communities that are necessary to aquatic nutrient cycling and organic matter decomposition. These disruptions impair functions that are necessary to maintain water quality, thereby creating further threats to overall aquatic ecosystem health. The use of glyphosate is a key component of the overall project and the Application does not contemplate the myriad of effects to water quality and aquatic life that the herbicide will pose to the McLean slough or Columbia River. It is not enough to institute buffer zones for glyphosate, when used to this extent, in an area with such a high water table.

The “primary concern” for ESA-listed receptors is exposure of contaminants through stormwater.¹⁰⁰ However, the BA also notes that pollutant exposure will occur through contaminated soils, including soils near pipelines and rail yards, as well as groundwater and direct exposure from waterways.¹⁰¹ There are numerous ways that the BA is emphasizing additional pollutant loading that will harm ESA listed fish. This BA even contemplates the use—and indeed, the limitations—of Best Management Practices included in other applicable permitting schemes—and still concludes that measures will not be sufficient to protect ESA-listed species from contaminant exposure. Not only is this ESA harm a concern in and of itself, but it speaks to the fact that this project has reasonably certain, documented analysis that the project's operation will cause further harm to aquatic ecosystems and aquatic habitat beneficial uses.

Given that the receiving water bodies are impaired specifically for pesticides and toxic inorganic chemicals, parameters which hinder attainment of beneficial uses for drinking water, aquatic life, and fish and shellfish consumption uses, DEQ can neither accept this application as complete as it fails to consider the further impacts to relevant pollutants and beneficial uses, nor can DEQ allow for the Applicant to engage in activity that causes further degradation to water

⁹⁹ Draft Certification at 1.

¹⁰⁰ NEXT BA at 39.

¹⁰¹ *Id.* at 38.

quality.¹⁰² As such the Application must be denied for its failure to comply with the State’s Antidegradation Policy, which prohibits further degradation of the Columbia River.¹⁰³

2. Loss of Wetlands and Riparian Buffer Services will Exacerbate Existing, Future Water Quality Impacts

The authorization to fill 105 acres of wetlands and add 76 acres of impervious surfaces raises significant concerns about the short-term and long-term impacts to water quality and ecosystem health in the Columbia estuary and associated tributaries and wetlands. Given the critical role that wetlands play in protecting and maintaining the already compromised water quality of this segment of the Columbia, it is imperative that DEQ ensures that functioning riparian systems remain intact in order to continue to provide the necessary ecosystem services—known in Clean Water Act parlance as beneficial uses—in this industrialized area. Even the Corps acknowledges that this is a major potential impact, writing in a December 2021 memo, “The loss of waters of the United States proposed for the NEXT Renewable Fuels Oregon, LLC project is 3 times greater than the largest loss authorized in Oregon in the last ten years and is 81 times greater than the median loss for development projects authorized in Oregon The degree of effects on wetlands from the proposed project far exceeds that of typical development projects in Oregon.”¹⁰⁴ Indeed, the loss of wetland function will only exacerbate the aforementioned water quality concerns, demonstrating that this project cannot comply with water quality standards due to the nature of the environmentally-intensive operations itself *as well as* the need to degrade 105 acres of wetlands in order to facilitate the building of the operation.

Wetlands play a critical role in filtering pollutants, managing stormwater, and supporting biodiversity. Allowing the destruction, through the filling and addition of impervious surfaces, of such a large expanse of wetlands will not only reduce the watershed’s capacity to mitigate pollutant loading and bolster floodplain resilience, but will also exacerbate existing and future water quality concerns. The refinery itself will continue to contribute to increased runoff and, as

¹⁰² Commenters also note that the BA recognizes the relatively new, yet conclusive, data suggesting that 6PPD-quinone (“6PPD-q”) is the “chemical culprit causing acute coho salmon death in small streams after rain events.” BA at 37. While there is no applicable water quality standard to regulate 6PPD-q at this time, the BA concludes that, due to the impacts of 6PPD-q’s impacts on water quality, the project is “likely to adversely affect designated critical habitat for salmon and steelhead.” BA at 59. This conclusion further suggests that inherent to the project, is degradation of water quality to a degree that it harms ESA-listed salmonid species, and in turn, is expressly in conflict with the aquatic life beneficial use of the Columbia and its tributaries.

¹⁰³ OAR 340-041-0004(1).

¹⁰⁴ U.S. Army Corps of Engineers, Memorandum for the Record, Environmental Impact Statement Determination for the Above-Referenced Standard Individual Permit Application (Dec. 2021) at 10.

illustrated by the facility's BA, levels of hazardous pollutant loading sufficient to harm salmon and steelhead, a designated beneficial use of the Columbia River.¹⁰⁵ With these wetlands gone, the Columbia and nearby tributaries will bear the brunt of increased pollutant loading, harming both human and non-human communities that depend on this waterway for drinking water, aquatic resources, fishing access, and recreation.

Indeed, effective floodplain and wetland management protects the myriad ecosystem services that wetlands provide to communities and the environment. Under natural conditions, these aquatic ecosystems serve as biodiversity hotspots, as these waterways, banks and floodplains create highly complex, functional habitat systems.¹⁰⁶ As floodplains are filled, they become disconnected from rivers, thereby reducing the complexity of the ecosystems as a whole, and reducing the critical roles they play in flood and drought mitigation, habitat function, and water quality protection.¹⁰⁷ This area plays a critical role for a variety of wildlife and this industrial development results in both the outright loss of the physical habitat and the consequential loss of ecosystem function. Moreover, and most relevant to this decision, is the development's detrimental impact on water quality. Removal of wetland habitat prompts soil erosion, removal of vegetation, and most importantly, discharges of pollutants and increases the quantity of impervious surfaces, which thereby exacerbates the impacts of increased industrial pollutant loading.

These shifts in land use increase sedimentation and pollutant loads in waterways, reducing water quality and viability of habitat. In addition, the increase in impervious surfaces, coupled with the loss of wetland function, drastically alters the natural hydrology of the ecosystem, thereby increasing the risk and severity of flooding. Loss of ecosystem resiliency associated with filling of the wetlands subjects communities and ecosystems to more harm and loss, and intensifies the degree of losses associated with flood events, as the environment is no longer equipped to handle such rapid inundation of floodwaters. Given the precarious nature of the levees, discussed *infra* Section VI.A.1., DEQ must come to terms with the reality that this project has very high flood exposure. When this facility floods, the pollutants from NEXT's industrial activities will flood directly into the Columbia River, causing immense threats to the potability of the water and viability of the aquatic ecosystem as a whole.

Moreover, DEQ cannot simply rely on mitigation efforts as a catch all to offset the impacts of wetland function loss. While mitigation efforts such as the creation or restoration of wetlands at high mitigation ratios are often proposed as a way to compensate for

¹⁰⁵ See *supra* Section V.B.1.

¹⁰⁶ JV Ward et. al., *Biodiversity of Floodplain River Ecosystems: ecotones and connectivity* (1999), available at <https://onlinelibrary.wiley.com/doi/abs/10.1002/%28SICI%291099-1646%28199901/06%2915%3A1/3%3C125%3A%3AAID-RRR523%3E3.0.CO%3B2-E>

¹⁰⁷ *Id.*

development-induced wetland loss, they frequently fall short of replicating the full range of ecological functions that natural wetlands provide. Even when mitigation ratios are high, this approach cannot fully account for the complex and irreplaceable ecosystem services provided by naturally occurring wetlands.

Constructed wetlands are often unable to replicate the biological, hydrological, and chemical processes that develop over decades in natural wetlands. Indeed, the loss of the spatial proximity to the main stem of the river undercuts the mitigation project's ability to sufficiently account for the additional pollutant loading and impervious surface concentration that will occur directly on the Columbia's tributaries. Natural wetlands are highly dynamic systems that provide a wide range of support to plant and animal species, help regulate local water cycles, and provide critical ecosystem services like flood control, riparian buffer benefits, and carbon sequestration. Constructed wetlands, no matter how well-designed, often fail to establish the same level of biodiversity, soil structure, and long-term hydrological function. And here, NEXT proposes the addition of 400+ acres of Glyphosate-treated soils, thereby adding additional pollutant load and undermining the overall efficacy of the mitigation strategy. Ultimately, mitigation strategies such as this one are insufficient to account for the loss of habitat quality and require long-term management to maintain even basic function goals.

Moreover, the timing and success rate of mitigation projects is often problematic. Constructed wetlands take years, or even decades, to return to an ecologically meaningful function, if they succeed at all.¹⁰⁸ In contrast, the impacts of wetland destruction are borne immediately, leaving a substantial gap in ecosystem services for the watershed. It is well documented that mitigation projects often fail to meet their performance goals, with some even experiencing abject failure due to improper site selection, inadequate hydrology or inability to maintain invasive species.¹⁰⁹ Consequently, the loss of wetland function—namely as it pertains to flood control, providing a riparian buffer, and providing and enhancing aquatic habitat—is not truly mitigated by offset projects elsewhere, even when conducted at high ratios. Given the irreplaceable need for wetland function in this watershed to even maintain current water quality, coupled with the additional water quality threats this facility poses, it is unlikely that this mitigation strategy will be sufficient to account for aforementioned water quality impacts.

C. Statewide Narrative Criteria

OAR 340-041-0007 sets forth Oregon's statewide narrative water quality criteria. This standard mandates use of the "highest and best practicable treatment and/or control of wastes,

¹⁰⁸ Todd Bendor, *A dynamic analysis of wetland mitigation process and its effects on no net loss policy*, Landscape and Urban Planning, Volume 89 Issues 1-2 (January 30, 2009).

¹⁰⁹ Marla Setlk, et. al., *Wetland Restoration: Contemporary Issues & Lessons Learned*, Association of State Wetland Managers, Windham, Maine (2017).

activities and flows... to maintain dissolved oxygen and other water quality criteria to the highest levels,” and that temperature, toxics, and other “deleterious factors” are kept at the “lowest possible levels.”¹¹⁰ Further, the rule specifically provides that “for any new waste sources, alternatives that utilize reuse or disposal with *no discharge* to public waters must be given *highest priority* for use whenever practicable.”¹¹¹

NEXT’s compliance with multiple statewide narrative criteria standards is premised on a completely unrealistic and unsupported conclusory idea that oil spills or leaks from the various tanks, pipelines and other conduits will not happen. Indeed, the Applicant and DEQ continue to find assurance that if (or when) something spills or leaks, NEXT will simply implement some sort of spill response. However, Oregon’s statewide narrative criteria, in multiple instances, articulates that creation of toxic conditions, or creation of sludge deposits that are deleterious to aquatic life, for example, may not be allowed.¹¹² It is beyond well established that refinery operations—including transit, refining, or loading—create conditions that result in both the deposition of sludge, and the creation of odors or toxic conditions which are deleterious to aquatic life. NEXT does not confront how it will ensure that its operations will avoid this outcome. However, statewide narrative criteria condemns the result that is beyond likely. DEQ cannot certify that the Application complies with these standards, nor can it rest assured that any sort of reactive spill response will be sufficient to negate the fact that this operation is squarely at odds with the calls of the statewide narrative criterium set forth in OAR 340-041-0007(10)-(12).

VI. NEXT’s Materials and Conclusions of Compliance are Premised on Faulty Assumptions, Undermining DEQ’s Assurances of Compliance with Water Quality Standards

A. NEXT’s Application Materials are Inadequate for DEQ to Make an Informed Certification Decision

NEXT’s materials provide insufficient information for DEQ to evaluate project compliance with state water quality standards, or to support a decision to grant 401 Certification for the proposed project. Indeed, the materials contain nothing of substance—beyond conclusory statements that water will be “sufficiently” treated—that could be interpreted as information “necessary to demonstrate that the activity will comply with applicable provisions of...the Clean Water Act, including water quality standards set forth in OAR Chapter 340, Division 041, and other applicable requirements of state law.”¹¹³ Below, this comment highlights several specific

¹¹⁰ OAR 340-041-0007(1).

¹¹¹ OAR 340-041-0007(3) (emphasis added).

¹¹² See OAR 340-041-0007(10)-(11).

¹¹³ OAR 340-048-0020(2). Commenters also point out that NEXT’s Technical Memo conveniently states, with no technical justification, that wastewater will be pre-treated to comply

standards and other issues that NEXT and DEQ must address for the project before Certification may be granted.

NEXT's materials provide no information about how discharges from the project will comply with relevant water quality standards in the Columbia River, the Bradbury Slough,¹¹⁴ or the McLean slough. Nor does the JPA contemplate the water quality implications of the simultaneous loss of 105 acres of wetlands, and the converse addition of 72.6 acres of impervious surfaces. The proposed development will clearly fill several wetlands with a discernable nexus to already impaired waters. Moreover, the stormwater from this construction and operation will have an impairing effect that is *exacerbated* due to the loss of wetland function at the site. These water bodies, which are already listed as water quality limited for several parameters, and which are used by listed salmonids during much of the year, are not suitable for such increased levels of pollutant loading. Moreover, the JPA contains no information pertaining to water quality, relevant impairments, or potential pollutant loads reasonably likely to occur from the construction and operation of a refinery that will occur on the banks of the Columbia River and its tributaries. As such, there is no information on how this activity will, or even can, comply with those standards. Rather, NEXT submits a conclusory application that promises not to pollute, which DEQ purports to accept. However, this does not comply with federal law, nor does it comply with the obligations set forth in OAR Chapter 340, Division 041. NEXT's proffered analysis is insufficient for two reasons: first, it is incomplete in that it neither sufficiently identifies the requisite water quality standards and/or water bodies at issue relevant to assessing Certification; second, literature pertaining to the construction and operation of a fuel refining facility indicates that there will be pollutant loading to waters of the United States. As such, DEQ cannot simply accept NEXT's conclusory statements, which fail to provide any analysis of potential water quality impacts, in order to grant a 401 Certification.

1. NEXT Incorrectly Concludes that the Drainage District Confines Water Movement

NEXT's analysis of water quality impacts rests on the incorrect assumption that "water within the drainage district is confined by a network of levees, which prevents the free exchange of water into or out of the district."¹¹⁵ This implies that pollution from project operations will not

with effluent limitations of the Port's NPDES Permit and/or the standards of the forthcoming and anticipated 1200-Z Permit. *See generally*, May 2024 Response.

¹¹⁴ Commenters point out that the application does not even contemplate the Bradbury Slough as an affected waterway, which should render the application incomplete. *See* OAR 340-048-0020(2)(f) ("An application filed with the department must contain, at minimum, the following information... the names of affected waterways, lakes, or other water bodies.").

¹¹⁵ May 2024 Response at 1 ("The proposed NEXT Renewable Fuels facility is strategically located within the Beaver Drainage District (BDD), which is comprehensively protected by a levee system. This system isolates the BDD from neighboring waterways, including the

reach the Columbia or other waters outside the levee, and therefore that DEQ does not need to analyze the effect of refinery operation pollution (spills, sedimentation, failed stormwater treatment) on surrounding waterways. This assumption ignores three vital aspects of the area: (1) the status of the levee infrastructure purportedly preventing water exchange; (2) the propensity for regular and extreme flooding; and (3) the drainage district practice of pumping water out of Port Westward and into the Beaver Slough and Lower Clatskanie River in the winter when seepage and rainwater flood Port Westward. These aspects mean that pollution will move more freely away from the site, resulting in water quality violations. NEXT's reliance on drainage district infrastructure for containment is inappropriate, and undermines the legality of DEQ's review and conclusion that no water quality standards will be violated.

First, DEQ should consider the degraded status of the levee infrastructure in the area before accepting NEXT's assumption that water and pollutants are contained. The levee system protecting the area has not been sufficient to support accreditation under the National Flood Insurance Program ("NFIP") for well over a decade.¹¹⁶ In 2012, inspections determined that the BDIC levee system is height deficient and required so much work to protect from a 100-year flood that further analysis for certification and accreditation¹¹⁷ was not possible: "USACE cannot complete levee system evaluations for NFIP accreditation on levee systems that have less than 2 feet of freeboard."¹¹⁸ And, "the Phase 1 evaluation identified additional items of significant concern requiring correction by BDD prior to moving to Phase 2, including unwanted vegetation, encroachments, slope stability, depressions, and animal control."¹¹⁹ Since then, the levee infrastructure has further degraded. Subsequent construction of a wetland mitigation site near the Port Westward docks in 2016 introduced "over 800 ft of clear, active seepage" and has been noted as active several times in recent Corps inspections.¹²⁰

Columbia River to the northwest, the Clatskanie River to the west and southwest, the Beaver Dredge cut to the south and Bradbury Slough to the east. Notably, there are no direct or open connections from the facility or the BDD to these water bodies, which plays a crucial role in preventing any potential contamination from reaching them.").

¹¹⁶ Beaver Drainage Improvement Company, Comment in NEXT County Land Use Proceeding (Jan. 2024) at 4, <https://www.columbiacountyor.gov/media/Board/BOC/BOC%20Hearings/DR%20MOD%20and%20CUP%20Sept%2019%202023/Beaver%20Drainage%201.10.24.pdf>.

¹¹⁷ Federal Emergency Management Agency (FEMA), Levee Certification vs. Accreditation, <https://www.mvk.usace.army.mil/Portals/58/docs/LSAC/LeveeCertification.pdf>.

¹¹⁸ FEMA, BDIC Phase I Levee System Evaluation for National Flood Insurance Program Accreditation, Beaver Drainage District (Mar. 2014) at 1. Enclosed.

¹¹⁹ *Id.* at 10.

¹²⁰ Beaver Drainage Improvement Company, Comment in NEXT County Land Use Proceeding (Jan. 2024) at 4, <https://www.columbiacountyor.gov/media/Board/BOC/BOC%20Hearings/DR%20MOD%20and%20CUP%20Sept%2019%202023/Beaver%20Drainage%201.10.24.pdf>. We urge DEQ to

As explained by local farmers, the proposed site for the NEXT Refinery is in the middle of active farm land. Wendy Schmidt within the Beaver Drainage District spoke to DEQ and highlighted that the “area is between 3-15 feet above sea level and the groundwater becomes surface water seasonally. The crop irrigation and livestock depend on the waters within the sloughs and drainage systems. The levees are fragile and any tampering is felt throughout the system. Building a facility of this magnitude alone would be catastrophic to farms. The nature of this project, in its entirety, would destroy the area.” Commenters urge DEQ to carefully consider comments from farmers in the area with deep familiarity with the local hydrology.

Recent LIDAR data demonstrates the levee’s elevation, showing areas susceptible to overtopping.¹²¹ And, there is significant concern that construction and traffic will cause subsidence on the levees.¹²² Kallunki Road sits atop the levee, and will be used by heavy construction vehicles and experience increased traffic as a result of refinery operation. The status of the levee infrastructure is crucial to understanding impacts to drainage, stormwater flow, and the fate of pollution inside and outside of the drainage district. NEXT’s conclusory assumption that pollution will be contained within the levee system is incorrect, given known information about the levee infrastructure.

Second, this site and surrounding area are extremely flood prone—a factor that NEXT’s materials and justifications do not properly consider. NEXT’s entire site, including the proposed driveway, pipe rack, and rail yard is at risk of a major flood event because the levees are not certified. FEMA’s 2014 report concluded that the levee could not proceed into Phase 2 and is only provisionally certified, there is no analysis or conclusion that the levee crest elevation provides assurance of protection from overtopping by 1% annual chance exceedance flood event.¹²³ Not only is the area at risk of a major, 100-year flood event, it also experiences regular flooding and has an extremely high water table due to significant annual precipitation. Locals describe the area as a “bathtub” and the entire watershed is interconnected upon any significant rain event.¹²⁴ NEXT’s reliance on the levee system for pollution containment underestimates the movement of pollution during regular and extreme flooding. DEQ does not have sufficient

review BDIC’s comments to the Army Corps, County, and Department of State Lands closely. They raise issues important to the safety of area residents.

¹²¹ BDIC LIDAR Data, collected Aug. 2023 (showing low elevation of levee infrastructure).

¹²² There is ongoing litigation over the Army Corps’ determination that a Section 408 permit is not required to protect levee infrastructure from construction activities. *Columbia Riverkeeper and 1000 Friends of Oregon v. U.S. Army Corps of Engineers* (D. Or.) No. 3:24-cv-00868-AN.

¹²³ FEMA, Phase I Levee System Evaluation for National Flood Insurance Program Accreditation, Beaver Drainage District (Mar. 2014) at 10. A 1% annual chance exceedance flood event is also known as a 100-year flood, meaning there is 1% probability of the flood occurring in any given year.

¹²⁴ Jim Hoffman, Comment in NEXT County Land Use Proceeding (Jan. 5, 2024).

information to determine that flooding at the site will not cause violations of water quality standards, and therefore must deny the Certification.

Third, BDIC regularly pumps water out of Port Westward and into the Beaver Slough and Lower Clatskanie River in the winter when seepage and rainwater flood Port Westward. All of Port Westward, including the area around the refinery, is uphill of the pump station and could be contributing pollutants to the pumped water. BDIC often has to pump that water out in the winter to avoid flooding inside the levee. BDIC, not NEXT, is in charge of if and when pumping happens, meaning contamination from the site could be pumped off-site and contribute to water quality violations. NEXT's assumptions about water movement in and around the site ignore yet another important aspect of the hydrology, undermining DEQ's conclusion that refinery operations will not violate water quality standards of the Columbia River and its tributaries, as well as the requisite drainage ditches, including the McLean Slough, the Bradbury Slough, and the Beaver Slough, all of which will receive pollutants from NEXT's refinery activities.

2. NEXT Does Not Address Impacts from Refining Processes

Literature on the water quality impacts from biofuel production emphasizes that biofuel storage—similar to crude oil storage—often results in the release of products into groundwater and surface water, due to leaking from infrastructure.¹²⁵ These releases can threaten human health and the environment, as they contaminate soil and groundwater. From 1988 to 2019, the underground storage tank system (“UST”) has confirmed that there have been 555,384 UST releases, 64,670 of which have not reached cleanup completed status.¹²⁶ While Commenters recognize that NEXT will not use USTs, the sentiment remains true: fuel infrastructure leaks and that poses threats to environmental quality. EPA recognizes that leaks from storage tanks and pipelines, “continue to occur regularly” and are “likely to continue.”¹²⁷ Moreover, corrosion of USTs from biofuel blends “have become common” and should, accordingly, be contemplated as a significant part of this facility's operation.¹²⁸ As EPA notes, there are significant uncertainties regarding future effects on water quality, especially as it pertains to water quality impacts from refining, but it is fairly certain that this facility will experience leaks from various forms of infrastructure, and DEQ must contemplate those impacts in this Certification, as they will affect various beneficial uses, conflict with statewide narrative criteria, and cause further degradation of the already-impaired waterway. This, coupled with the site's location in an area with a shallow water table means that leaks are reasonably certain to reach the surface water and migrate away from the site.

¹²⁵ See e.g., United States Environmental Protection Agency, *Biofuels and the Environment Third Triennial Report to Congress*, (“Biofuels Triennial Report”) at 10-24.

¹²⁶ *Id.*

¹²⁷ *Id.* at 10-41.

¹²⁸ *Id.*

3. NEXT Cannot Rely on the Forthcoming 1200-Z Permit as Sufficient to Assure Compliance with Water Quality Standards

NEXT's posits that it will comply with water quality standards because it will comply with the 1200-Z permit, which covers industrial stormwater discharges.¹²⁹ This is insufficient for two reasons. First, the 1200-Z permit is a general permit that does not impose numeric effluent limitations that are sufficiently responsive to both the on-site activity and the impairments and uses of the receiving waterway. Rather, the permit relies on an adaptive management approach that uses benchmarks and monitoring protocols to "assist the permit registrant in determining whether site controls are effectively reducing pollutant concentrations."¹³⁰ This is not sufficiently protective for a facility of this magnitude and proximity to salmon-bearing waterways.

Second, and of most concern, is the fact that DEQ's Draft Certification Condition, which is supposed to respond to the likely situation of groundwater contamination, expressly contradicts NEXT's own stormwater management plan. In the likely situation that groundwater is encountered during construction, the draft 401 requires NEXT to install a liner "to prevent the facilities from intercepting sub-surface flow."¹³¹ This is inconsistent with NEXT's own stormwater management plan: "Proposed ponds were designed with a shallow depth to avoid the need for a liner. . . . Liners can negatively impact the pond vegetation, make maintenance more difficult and expensive and are subject to buoyancy; therefore, a liner is not recommended at this time."¹³² The plan goes on to note that there will be further studies of groundwater elevations, and that pond designs may need adjustment to minimize groundwater intrusion. This contradiction undermines DEQ's assumption that the 1200-Z permit will be sufficient to protect water quality *because* DEQ's condition of installing a liner expressly contradicts NEXT's stormwater management plan.

VII. Other Considerations

- **DEQ should not proceed without a draft EIS from the Corps.**

For a project this complex, in a sensitive area, with such varied and significant environmental impacts, it is appropriate for DEQ to require a draft EIS (and review public comments on the draft EIS) before proceeding with Certification. While the Corps' timeline is out of DEQ's control, DEQ still has authority to require additional information to inform its analysis of the overall project's water quality impacts—including from construction and future operations. In

¹²⁹ See Joint Permit Application No. 2020-393 at 5.

¹³⁰ DEQ, *Permit Evaluation Report 1200-Z - March 2021*, at 9.

¹³¹ Draft Certification at 12.

¹³² Post Construction Stormwater Management Plan at 7 (Aug. 2023).

other projects of this magnitude, DEQ has required a draft EIS before completing Certification, and DEQ should follow its own practice here.

- **If the Land Use Board of Appeals overturns NEXT’s land use permit(s), DEQ must deny the certification.**

The underlying land use permits for this facility are currently being appealed at Oregon’s Land Use Board of Appeals (“LUBA”), for a second time.¹³³ A decision is expected on November 12, 2024. A complete application for certification must include a valid Land Use Compatibility Statement.¹³⁴ Without valid land use permits for the entire facility, DEQ may not issue the 401. Additionally, DEQ cannot make a determination regarding water quality impacts without a final site design, which underlies the project’s stormwater management plan—the document that purports to mitigate water quality impacts from the facility.

- **DEQ must consider impacts to water quality from increased vessel traffic as part of the facility’s direct operational impacts.**

NEXT’s application materials do not address impacts to water quality as a result of increased vessel traffic, despite this being a direct operational impact of the facility. The fact that NEXT’s vessel traffic will be managed by a different entity does not absolve DEQ from its responsibility to evaluate those impacts. Commenters encourage DEQ to read EPA’s preamble to the 2023 Rule, which explains in detail the extent of DEQ’s authority to consider any water quality impacts from the permitted activity’s construction and operation.¹³⁵

Vessel impacts to water quality will be significant. A 2024 study on large river vessel traffic found that a pause of large vessel traffic on a busy river shipping corridor resulted in decreased water turbidity, and increased the presence of sound-sensitive, rheophilic, and abundant forage fish: “The implications of turbidity reduction are wide-ranging, as sediment concentrations in the water column can have cascading effects on river ecology locally and downstream.”¹³⁶

Vessel wakes from ships calling at NEXT’s proposed facility would kill and injure juvenile salmon and steelhead as they migrate through in the Columbia River, a designated beneficial use of this waterway. Wake stranding occurs when a wave caused by a vessel wake lifts an aquatic organism onto the shoreline. NMFS’ SLOPES BiOPs identify ship wake stranding as a limiting

¹³³ Columbia Riverkeeper et al v. NEXT, LUBA Nos. 2024-045/046.

¹³⁴ OAR 340-048-0020(2)(i).

¹³⁵ 88 Fed Reg. 66,588 (Sept. 27, 2023). Particularly, section IV.E.2.b of EPA’s preamble goes into great detail about this authority.

¹³⁶ Spear et al., Reduction of Large Vessel Traffic Improves Water Quality and Alters Fish Habitat-Use Throughout a Large River, 946 *Science of the Total Environment* 172705 (2024) at 10, available at <https://www.sciencedirect.com/science/article/pii/S0048969724028523>.

factor for recovery of Lower Columbia River (“LCR”) Chinook salmon, Columbia River chum, LCR coho salmon, and LCR steelhead, with juvenile ocean-type Chinook originating from LCR tributaries and CR chum being particularly vulnerable. NEXT’s BA also acknowledges that wake stranding will occur, but provides no concrete details about the extent of the problem other than comparing the vessel traffic proposed by NEXT to previous proposals at the Beaver Dock.¹³⁷ However, a verified model¹³⁸ exists that could help DEQ estimate—even roughly—the impacts of wake stranding from NEXT’s proposal. DEQ should use that model to determine whether vessel wake stranding from NEXT’s proposal will cause or contribute to violations of the beneficial use of salmon migration in the Columbia River.

- **Irrigation is a beneficial use of waterways within the levee system.**

When considering water quality impacts, DEQ should recognize irrigation as a beneficial use of waterways within the levee system. This beneficial use could be impaired by the likely contamination of groundwater from on-site spills, failed stormwater infiltration, or by disruptions to the physical irrigation and drainage system from refinery and rail yard construction.

- **DEQ should consider water quality impacts resulting from the seismically hazardous site location.**

In addition to refinery infrastructure’s propensity to leak via normal operations, DEQ should consider impacts to water quality in the event of a major earthquake, given NEXT’s choice to site the refinery in a liquefaction zone. Scientists predict a 37% chance of a megathrust earthquake of 7.1 magnitude in western Oregon within the next 50 years.¹³⁹ That NEXT’s facility will be built according to general seismic standards is not sufficient. Assuming NEXT’s tanks will not survive the earthquake intact, and will therefore spill at least into the groundwater which is hydrologically connected to the surface water and drainage systems, this will cause a violation of the toxics standard and the ability to use water for irrigation. The likelihood of a major seismic event, coupled with the foreseeable consequences to water quality conflict with DEQ’s duty to provide reasonable assurances that approving this project in a seismically hazardous area will not violate water quality standards.

¹³⁷ NEXT BA at 46.

¹³⁸ See, e.g., Pearson and Skalski, *Factors affecting stranding of juvenile salmonids by wakes from ship passage in the Lower Columbia River*, 27 River Research and Applications 926–936 (2011); see also Exhibit J, Kock et al., *Review of a model to assess stranding of juvenile salmon by ship wakes along the Lower Columbia River, Oregon and Washington* (2013).

¹³⁹ Oregon Department of Emergency Management, *Cascadia Subduction Zone*, <https://www.oregon.gov/oem/hazardsprep/pages/cascadia-subduction-zone.aspx#:~:text=Currently%2C%20scientists%20are%20predicting%20that,in%20the%20next%2050%20years.>

VIII. Conclusion

As articulated above, there are a wealth of unknowns regarding the water quality, as well as the broader environmental quality, implications to the false climate solution that is “renewable fuels.” NEXT has been able to capitalize on taking a piecemeal approach to the permitting of the facility, where they provide conclusory statements of compliance, with little critical review. Moreover, NEXT promises to subvert obligations by, for example, transferring wastewater to the Port of Columbia County and deferring critical analysis to a stormwater permit that is focused on BPMs rather than compliance with water quality standards. In doing so, NEXT is able to subvert critical and holistic analysis of the true environmental impacts of the construction and operation of this facility, all while making unrealistic promises of compliance that are premised on future permits and the aspiration that this facility—unlike any other in the country—will not leak, will not spill, and against all odds, will somehow not degrade the environmental quality of the sensitive, yet already compromised, surrounding environment. NEXT has subverted permitting obligations by splicing review to deliberately avoid any substantive critical, cumulative analysis of the threats this operation poses to environmental and public health. However, in doing so, they have failed to offer the bare minimum information necessary to allow DEQ to ensure compliance with federal and state law. As such, DEQ must deny this permit.

Respectfully submitted,

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Enclosures

FEMA, BDIC Phase I Levee System Evaluation for National Flood Insurance Program Accreditation, Beaver Drainage District (Mar. 2014)

BDIC LIDAR Data, collected Aug. 2023 (large file, sent separately)