1 The Honorable Marsha J. Pechman 2 3 4 5 6 IN THE UNITED STATES DISTRICT COURT 7 FOR THE WESTERN DISTRICT OF WASHINGTON AT SEATTLE 8 9 NORTHWEST ENVIRONMENTAL ADVOCATES, an Oregon non-profit No. 2:20-CV-01362 MJP 10 corporation, 11 Plaintiff, 12 **DECLARATION OF NINA BELL** IN SUPPORT OF PLAINTIFF'S v. 13 RESPONSE TO MOTION FOR A UNITED STATES STAY PENDING APPEAL 14 **ENVIRONMENTAL PROTECTION** AGENCY, 15 Defendant. 16 17 I, Nina Bell, declare as follows: 18 1. I am the Executive Director of Northwest Environmental Advocates ("NWEA"), 19 20 Plaintiff in the above-captioned matter. I make this declaration based on personal knowledge and 21 I am competent to testify to the matters declared herein if necessary. 22 2. NWEA was founded in 1969 and incorporated in 1981. NWEA began working on 23 water quality issues in 1988 and, over the course of the last three decades, has worked tirelessly 24 to protect and restore water quality and fish and wildlife habitat in the Pacific Northwest. Often, 25 this is with a focus on protecting salmon, steelhead, and aquatic dependent wildlife in Oregon, 26 Washington, and Idaho, which are critically imperiled and need cold, clean water to survive.

Needless to say, this mission has also consumed decades of my own life. I began working with NWEA in 1977 and have been Executive Director since 1985.

- 3. A core component of NWEA's mission is to ensure that Washington's water quality standards—which must, by law, protect these salmonid species and the species that depend upon them, such as the Southern Resident killer whales—are both legally and scientifically supported. Often this has required litigation. And often that litigation has proved successful, which I view as a failing comment on Washington's progress toward protecting these species as the law requires.
- 4. The impetus for this particular lawsuit was two-fold. First, Washington's fish and aquatic-dependent wildlife suffer the ill effects of many toxic pollutants; yet, the various programs of the Clean Water Act ("CWA")—designed and intended to control toxic pollution from permitted point sources and unpermitted nonpoint source runoff—have proven wholly ineffectual at ensuring water quality that is not toxic to salmonids, orcas, and other species. I know this firsthand and through decades of interaction with the Washington Department of Ecology ("Ecology") and the U.S. Environmental Protection Agency ("EPA").
- 5. Second, all of these required CWA programs—including the Section 303(d) list of impaired waters deemed to not meet water quality standards, the total maximum daily load ("TMDL") program to establish pollution limits for these impaired waters in order to meet water quality standards, the Section 402 program to issue discharge permits to point sources (often referred to as the National Pollution Discharge Elimination System or "NPDES"), and the Section 319 program to control polluted runoff from nonpoint sources—all build on the foundation of water quality standards established under Section 303(c) of the CWA. As we have discussed in our briefing before this Court, the numeric criteria for toxic pollutants in Washington's water

quality standards are woefully outdated. As a consequence, these regulatory programs often fail, precisely because they are aimed at achieving inadequate water quality standards and therefore fail to protect the designated uses for which they are intended. In my opinion, the establishment of protective water quality standards is the very heart of the CWA. Achieving this core requirement is fundamental to protecting salmonids, orcas, and other aquatic species that the CWA was designed to protect.

6. In its motion for an indefinite stay (ECF 71) and declaration from Ms. Deborah Nagle (ECF 72), EPA talks about how onerous it is to determine whether Washington's outdated toxic standards are protective, and appears skeptical that engaging in this effort will provide benefits to the environment. But EPA's evidence of this is questionable, at best. In the sections below, I rebut several arguments advanced by EPA to support its desire to avoid making determinations on the sufficiency of Washington's toxic criteria for the protection of aquatic life.

Contrary to EPA's Assertions, Identifying the Presence of Toxic Pollutants in Washington Waters Is Not Difficult

7. EPA asserts that the first step in making a necessity determination is a "pollutant-by-pollutant inquiry assessing . . . [whether] the pollutant is likely to be present in Washington's water at levels that interfere with applicable uses." ECF 71 at 8, lines 7-13; ECF 72 at 4, ¶ 8. Ms. Nagle then goes on to state that that the first step in such an inquiry is "look[ing] to current discharge limits in existing [NPDES] permits as evidence that such pollutants are present in Washington's waters." ECF 72 at 4, ¶ 8. In other words, Ms. Nagle acts as though EPA would have no information whatsoever as to whether toxic pollutants are present in Washington's waters, except that some of them might be subject to specific discharge limits in NPDES permits issued to point sources under Section 402 of the CWA.

- 8. Yet, the most obvious first step to determine whether—and to what degree—toxic pollutants are present in Washington's waters is to look at the Ecology-submitted and EPA-approved 303(d)(1)(A) assessments, in which the state identifies those waters that violate water quality standards by (a) collecting data and information on the presence of toxic pollutants, and then (b) comparing existing pollution levels to the state's adopted water quality criteria. This list is established on a pollutant-by-pollutant basis pursuant to Section 303(d) of the CWA, 33 U.S.C. § 1313(d). EPA approved Washington's most recent 303(d) list of impaired waters (dating to 2018) just days ago, on June 8, 2022.
- 9. In order to evaluate whether certain toxic pollutants are likely to be present in Washington's waters at levels that are known to interfere with applicable uses, I conducted several queries on Ecology's database for the Washington State Water Quality Assessment.² I used the "candidate list" portion of this database because this list was just approved by EPA and the website has not yet been updated to reflect this approval. I set three "categories," including:
 - Category 5, which represents those waters that are known to violate water quality standards and are in need of a Section 303(d) TMDL clean-up plan;
 - Category 4a, which represents those waters that violate water quality standards and already have an EPA-approved TMDL clean-up plan; and
 - Category 4b, which represents those waters that violate water quality standards and have another type of clean-up action underway.

¹ Available at https://ecology.wa.gov/Water-Shorelines/Water-quality/Water-improvement/Assessment-of-state-waters-303d ("On June 8, 2022, EPA issued a partial approval of our 2018 Water Quality Assessment.").

² Available at https://apps.ecology.wa.gov/ApprovedWQA/CandidatePages/CandidateSearch.aspx

I set the "medium" to include only tissue and water samples as those are directly related to the aquatic life criteria for toxics. I then went pollutant-by-pollutant by choosing the "parameter" on which to search.

10. I also performed this same search for Category 3 listings, where Ecology has determined that there are not sufficient data on which to draw a firm conclusion as to whether the water meets or violates water quality standards. These Category 3 listings are relevant because, although there may be insufficient evidence to determine if existing—but outdated and in some cases unprotective—water quality criteria are being violated, they still show that toxic pollutants are present.

11. The results of my pollutant-by-pollutant search for Washington waters that currently are known by Ecology and EPA to violate current water quality standards for toxic pollutants—Categories 5, 4a, and 4b—as well as those in Category 3 are set out in Table 1 below. Each listing is for an "assessment unit," which can be an entire stream or a portion of a stream. For Categories 5, 4a, and 4b these are known as Water Quality Limited Segments ("WQLS").

Table 1: Washington Department of Ecology 303(d) Water Quality Assessment (2018)

Toxic pollutant	Categories 5, 4a, 4b Violates current criteria	Category 3 Insufficient data
Acrolein	0	2
Aldrin	8	402
Aluminum	0	0
Ammonia	22	599
Arsenic	16	303
Cadmium	3	288
Carbaryl	0	0
Chlordane	15	473

1	Chlorine	4	4
2	Chlorpyrifos	15	132
3	Chromium	0	250
3	Copper	29	323
4	Cyanide	0	0
5	DDT and metabolites	173	1,076
6	Demeton	NA	NA
	Diazinon	2	0
7	Dieldrin	55	386
8	Endosulfan	0	285
9	Endrin	0	249
10	Guthion	NA	NA
10	Heptachlor and Heptachlor Epoxide	10	963
12	Hexachlorocyclohexane (Lindane)	0	71
13	Iron	NA	NA
14	Lead	17	311
	Malathion	0	0
15	Mercury/Methylmercury	148	371
16	Methoxychlor	NA	NA
17	Mirex	NA	NA
10	Nickel	3	456
18	Nonylphenol	NA	NA
19	Parathion	0	13
20	Pentachlorophenol	0	120
21	PCBs	220	139
	Selenium	0	230
22	Silver	1	250
23	Toxaphene	20	261
24	Tributyltin	NA	NA
25	Zinc	20	878

[&]quot;NA" indicates that the Ecology database does not allow searches for these pollutants.

12. In my review of Washington's impaired waters database, I did not distinguish between violations of aquatic life criteria and those for human health. Some of the toxic criteria violations in the table above most likely pertain to the human health criteria, such as for PCBs where the state has adopted human health criteria and those criteria are more stringent than the existing criteria for aquatic life. Others pertain exclusively to aquatic life criteria because there are no human health criteria for them or the human health criteria are much less stringent than the aquatic life criteria, such as copper. Regardless, the entries in the table above demonstrate that that there are robust public data documenting the presence of toxic pollutants in Washington's waters—high enough in many instances to violate the state's existing, woefully outdated water quality standards.

obvious and expeditious way of evaluating whether an individual pollutant is present in Washington's waters at levels that harm designated uses. Instead, in describing how it could make the evaluation of this first step of its inquiry, EPA asserts that information about pollutants in Washington waters—particularly those that have been banned and are therefore not "reflected in permit discharge limits"—are "challenging to obtain or non-existent." ECF 72 at 4, \$\\$8. Yet the table above demonstrates that it is quite easy to obtain such data for some banned pollutants, such as DDT, even without looking to NPDES permit limits. Moreover, EPA claims to have already looked at information on the presence of pollutants in "Washington's water quality assessment that have led to impairments of certain Washington waters." *Id.* at 6, \$14. If true, EPA would have seen that there is much readily available information about the presence of toxic pollutants (including banned chemicals) in Washington's waters.

14. Even where the 303(d) list of impaired waters does not indicate that a toxic pollutant is present in Washington's waters, there are other readily available sources to ascertain this fact. For example, using EPA's suggested first step of looking at "discharge limits in existing [NPDES] permits as evidence that such pollutants are present in Washington's waters," ECF 72 at 4, ¶8, it is easily verified that the toxic pollutant acrolein, for which Washington has no criteria, is discharged by permitted sources. Both Ecology and EPA have NPDES permits that specifically authorize the discharge of acrolein. *See* NWEA Opening Brief, Doc. 52 at 35; EPA, *NPDES Pesticide General Permit*, 81 Fed. Reg. 75,816 (Oct. 31, 2016) (notice of permit issuance that authorizes discharge of acrolein); Ecology, *Irrigation System Aquatic Weed Control General Permit* (May 16, 2012) at 6 (establishing permit limits for acrolein and copper).³

- 15. It also is easy to find information on the presence of toxic metals in Washington's waters, which are a known component of stormwater runoff from different types of lands, including industrial and municipal areas, which are subject to NPDES stormwater permits. These metals make up many of EPA's recommended aquatic life criteria that are more stringent than any applicable human health criteria. For this reason, I looked at some of Washington's stormwater general permits to see what pollutants are assumed to be in stormwater discharges to Washington waters. These are readily available from Ecology's website.⁴
- 16. Ecology's Industrial Stormwater Permit requires sources to obtain coverage under this permit if they are, among other things, "reasonably . . . expected to cause a violation of any water quality standard." Ecology, *Industrial Stormwater General Permit* (Nov. 20, 2019) at 3.5

³ Available at https://ecology.wa.gov/DOE/files/6b/6b9e466a-139b-4fdb-834c-2b1262cf25c0.pdf

⁴ See https://ecology.wa.gov/Regulations-Permits/Permits-certifications/Stormwater-general-permits

⁵ Available at https://apps.ecology.wa.gov/paris/DownloadDocument.aspx?Id=293972

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Generally, the permit requires that permittees have and carry out pollution prevention plans that "[e]nsure the discharge does not cause or contribute to a violation of the Water Quality Standards." Id. at 9; see also id. at 12 (management practices must be selected to prevent violations of water quality standards). The permit includes "benchmarks and sampling requirements" that apply to facilities of all industrial sectors that include copper and zinc, both of which have EPA-recommended aquatic life criteria. Id. at 21, Table 2. Additional benchmarks and sampling requirements are based on specific industrial sectors and include ammonia, arsenic, cadmium, cyanide, lead, mercury, selenium, and silver, all of which have EPA-recommended aquatic life criteria. Id. at 22–23, Table 3; 25, Table 4; 26, Table 5. Further sampling and effluent limits apply to discharges of industrial stormwater to waters that have been determined to violate water quality standards and have been placed on Washington's EPA-approved 303(d) list. Id. at 29, Table 6. Toxic pollutants covered under this provision include ammonia, copper, lead, mercury, zinc, and pentachlorophenol. Id.6 I was not able to identify how many sources are covered under Ecology's Industrial Stormwater General Permit but I assume that it is at least in the hundreds of facilities across the state.

17. I also looked at the Western Washington Phase II Municipal Stormwater Permit that covers over 80 cities, five counties, and numerous ports and colleges. Similar to the industrial stormwater permit, this permit includes provisions that prohibit "the discharge of toxicants to waters of the State of Washington which would violate any water quality standard[.]" Ecology, Western Washington Phase II Municipal Stormwater Permit (July 1, 2019) at 77; see also

⁶ It stands to reason that if the existing aquatic life criteria are not protective of designated uses, Ecology will not place waters on its 303(d) list and those waters will not be protected from additional pollution under this provision of the industrial stormwater permit.

⁷Available at https://apps.ecology.wa.gov/paris/DownloadDocument.aspx?id=279628

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1	Ecology, Phase I Municipal Stormwater Permit (July 1, 2019) (applies to Seattle, Tacoma, and
2	King, Clark, Pierce, and Snohomish counties) at 4 (identical language).8 Additional provisions
3	apply to discharges of municipal stormwater to waters of the state that are known to be (or likely)
4	violating water quality standards. Western Washington Phase II Municipal Stormwater Permit at
5	7–9; see also id. at 37–38 (provisions relating to discharges where there is a TMDL clean-up plan
7	in place). Unlike the industrial stormwater permit (discussed above in paragraph 16), the
8	municipal stormwater permit does not include reference to any specific pollutants. For this
9	reason, I looked at the required Fact Sheet that Ecology wrote to support issuance of both Phase
10	II and the Phase I municipal permits combined. It contains the following references to toxic
11	pollutants in municipal stormwater: "Ecology identified the following chemical stressors that
12	were capable of causing adverse effects that were detected on the native trout embryos and pre-
13 14	swim-up fry: copper, lead, nickel, zinc, polycyclic aromatic hydrocarbons, and the agricultural
15	fungicide Captan." Ecology, Fact Sheet for the Phase I, Western Washington Phase II, and
16	Eastern Washington Phase II Municipal Stormwater Permits (Aug. 15, 2018) at 15.9
17	18. The Fact Sheet for the municipal stormwater permits also cited Ecology's "Phase
18	3" toxics study, which it summarized as follows with regard to specific toxic parameters:
19	Surface water runoff, particularly from commercial and industrial
20	areas, did not meet water quality or human health criteria for the following parameters: dissolved copper, lead, and zinc; total
21	mercury; total polychlorinated biphenyls (PCBs); several carcinogenic polycyclicaromatic hydrocarbons (PAHs); and DDT-
22 23	related compounds Commercial land areas produced runoff with relatively greater concentrations of total lead, zinc, PBDEs,
24	and PCBs"

⁸ Available at https://fortress.wa.gov/ecy/ezshare/wq/permits/MuniPh1Mod2021FinalModPermit

⁹ Available at https://fortress.wa.gov/ecy/ezshare/wq/permits/MunicipalPermitsFactSheet2018.pdf

1	Id. at 21. "Copper, zinc, and lead most frequently exceeded (did not meet) the water quality
2	criteria for protection of aquatic life." <i>Id.</i> at 23.
3	19. Reviewing Ecology's municipal stormwater general permit, I was also interested
4	in its references to DDT-related compounds in municipal stormwater, given that Ms. Nagle cites
56	banned pesticides as "less of an Agency priority." ECF 72 at 4,¶10. DDT is of particular concern
7	to the endangered Southern Resident killer whales. As EPA states on its website:
8	High levels of persistent organic pollutants (e.g. PCBs and DDT,
9	which were banned from use in Canada and the U.S. long ago) and newer pollutants like those found in flame retardants (PBDEs), may
10	be preventing the population of Southern Resident Killer Whales from increasing at a rate required for recovery. Individuals have
1	been found to carry some of the highest PCB concentrations reported in animals, with levels in blubber exceeding those known
12	to affect the health of other marine mammals. Other contaminant levels, such as the levels of DDT and PBDEs, are also found in
13	high levels, especially in juvenile killer whales."
14	EPA, Southern Resident Killer Whales, Why is it Happening?, Current Threats to Killer Whale
16	Recovery, Pollution and Contaminants (updated June 2021). ¹⁰ For this reason, I looked at
7	Ecology's "Phase 3" study, cited in the municipal stormwater permit Fact Sheet and readily
18	available on Ecology's website. See Herrera Environmental Consultants, Inc. 2011. Toxics in
9	Surface Runoff to Puget Sound, Phase 3 Data and Load Estimates, Washington State Department
20	of Ecology, Olympia, WA.11
21	20. This study evaluated DDT because it was highlighted as being a "key
22	contaminant" in the report for the Phase 2 study of toxics in surface runoff (EnviroVision et al.
23 24	2008; Herrera 2010)." Id. at 41. The report concluded:
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26	¹⁰ Available at https://www.epa.gov/salish-sea/southern-resident-killer-whales#why-happening (last accessed June 20, 2022).
	11 Available at https://apps.ecology.wa.gov/publications/documents/1103010.pdf

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Total DDT was detected in 8.3 percent of the storm-event samples and 6.7 percent of the baseflow samples for all land-use types. Total DDT was detected almost solely in commercial/industrial subbasin samples. Lastly, DDT was detected more frequently in the Puyallup watershed than the Snohomish watershed.

Id. (internal citations omitted). This means that, although banned for decades, DDT is still present in discharges authorized by NPDES permits.

21. Recalling that Washington's aquatic life criteria for cyanide for Puget Sound and portions of the Straits of Georgia—which are considerably higher (i.e., less protective) than EPA's Section 304(a) recommended criteria—were established at the behest of the oil refinery industry, I looked at two NPDES fact sheets and one permit application for two oil refineries in Anacortes, Washington, obtaining these documents from Ecology's online Water Quality Permitting and Reporting Information System ("PARIS").¹² Neither of these facilities has a permit limit for cyanide discharges so they would not pass EPA's first inquiry, see ECF 72 at 4, ¶ 8, but the absence of an effluent limit could be the result of the Ecology permit writer's using a regulatory mixing zone that relieves a permittee of meeting water quality standards in the vicinity of the discharge and/or Washington's high criteria for cyanide in Puget Sound. Nevertheless, the fact sheet for the Tesoro Refining & Marketing Company LLC, Permit No. WA0000761, issued February 12, 2015, states that "the following toxic pollutants are present in the discharge: cyanide, sulfide, copper, zinc, lead, silver, chloroform, dichlorobromomethane, antimony, arsenic, mercury, nickel, thallium, nitrate, phosphorus, chromium, phenol, selenium, chlorine and ammonia." Ecology, Fact Sheet for NPDES Permit WA0000761 (May 2013) at 33.13 According to the fact sheet, cyanide was measured in the effluent at 15.0 μ g/L. *Id*. Appendix H at 2. Ecology

¹² https://apps.ecology.wa.gov/paris/PermitLookup.aspx

¹³ Available at https://apps.ecology.wa.gov/paris/DownloadDocument.aspx?id=138747

included a calculation in two columns labeled "Max concentration at edge of..." pertaining to the acute mixing zone and the chronic mixing zone. *Id.* The values in these are 2.15 and 0.43 μ g/L respectively as compared to the water quality criteria of 9.10 and 2.80 μ g/L for acute and chronic levels of cyanide respectively. *Id.* For comparison, EPA's recommended acute and chronic criteria for cyanide in marine waters are both 1.0 μ g/L.¹⁴

- 22. Likewise, I looked at the fact sheet for the Shell Puget Sound Refinery, NPDES Permit No. WA0002941, issued Nov. 15, 2015. Here Ecology reported cyanide in the wastewater at an average level of 0.0298 mg/L and a maximum value of 0.086 mg/L—which translated to the same units as the Tesoro facility result in a 29.8 μ g/L average value and a 86 μ g/L maximum value.¹⁵
- 23. EPA is well aware that the Puget Sound-specific cyanide criteria used by these permits are likely not protective of designated uses in Puget Sound. I have seen various documents pertaining to Endangered Species Act ("ESA") consultations on cyanide criteria that I obtained through EPA staff directly and by submitting a Freedom of Information Act ("FOIA") request. These documents include an assessment in which EPA determined that the Puget Sound criteria "may be likely to adversely affect" the humpback whale, Steller sea lion, and leatherback sea turtle. See EPA Region 10, Biological Assessment of the Washington Water Quality Standards for the U.S. Fish and Wildlife Service and the National Marine Fisheries Service (July 2002) at 74–75. Subsequently, EPA wrote a memorandum to the file in which it memorialized its decision to rely on the first ever ESA consultation on EPA's significantly lower and less

 $^{^{14}\,}Available\,at\,$ https://www.epa.gov/wqc/national-recommended-water-quality-criteria-aquatic-life-criteria-table

¹⁵ Available at https://apps.ecology.wa.gov/paris/DownloadDocument.aspx?id=183927

protective 304(a) criteria for cyanide at the national level. See Memorandum from Mike Gearheard, EPA Director of Region 10 Office of Water and Watersheds, to The Record, Re: Endangered Species Act Section 7(d) Determination for EPA's Approval of the State of Washington's Numeric Chronic Criteria for Marine Cyanide for Waters Outside of Puget Sound Referenced in Washington Administrative Code 173-201A-040 Table 240(3) Toxic Substances Criteria (May 23, 2007). This consultation eventually resulted in draft biological opinions from the National Marine Fisheries Service ("NMFS") and U.S. Fish and Wildlife Service ("FWS") (together "the Services"), in which they found that the 304(a) recommended criteria pose jeopardy to large numbers of threatened and endangered species across the country, including numerous salmonids and the Southern Resident killer whale in the Pacific Northwest. See NMFS, DRAFT Endangered Species Act Section 7 Consultation Biological Opinion & Conference Opinion On the U.S. Environmental Protection Agency's Approval of State or Tribal, or Federal Numeric Water Quality Standards for Cyanide Based on EPA's Recommended 304(a) Aquatic Life Criteria (undated, transmitted to EPA on April 27, 2010) at 272.

24. The national consultation on cyanide was not completed because after NWEA sued the Services in 2016 for failing to complete the biological opinions six years after the drafts were completed, EPA withdrew the request for consultation. *See* Letter from Elizabeth Behl, Director, Health and Ecological Criteria Division, EPA, to Gina Shultz, Deputy Assistant Director, Ecological Services, FWS (May 4, 2016). For this reason, EPA has never completed ESA consultation on cyanide criteria for Washington, either the Puget Sound criteria or those that mirror the 304(a) recommended criteria. However, EPA is well aware of the Services draft jeopardy conclusions.

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25. For some pollutants, Washington's not having numeric criteria results in no available data from the state on levels that may be in Washington's waters. Nonylphenol is one example. The database described in paragraph 9 above does not include "nonylphenol" as a parameter to choose. However, the absence of any recorded information by Ecology does not mean that there are no data on nonylphenol in Washington's waters. In fact, nonylphenol is present in Puget Sound at levels of concern. *See* James P. Meador, *et al.*, *Contaminants of emerging concern in a large temperate estuary*, 213 Environ Pollut. 254-267 (June 2016). Dr. Meador and his team found the following:

Nonylphenol (NP) was one of the more ubiquitous compounds in our study and was observed in every sample (except Sinclair Inlet estuary water) at relatively high concentrations in water (14-41 ng/L) and tissue (8-76 ng/g). The ethoxylates of nonylphenol (NP1EO and NP2EO) were also detected in most effluent and tissue samples. The U.S. Environmental Protection Agency (2005) chronic water quality criterion (WQC) for nonylphenol in marine systems is 1.7 ng/mL, a value that approximates the observed effluent concentration for the Tacoma WWTP reported here. Also, the U.S. Environmental Protection Agency (2010) provides toxic equivalency factors (TEFs) for aquatic species exposed to nonylphenol ethoxalates and these are considered to be about 50% as potent as NP (NP = 1; NP1EO and NP2EO = 0.5). When these TEFs are applied to the observed effluent concentrations, the combined concentrations of NP and these 2 ethoxylates exceed the WQC approximately 2-fold."

Id., § 4.4.3.

26. Finally, point source dischargers with NPDES permits are not the only sources of toxic pollutants. Nonpoint sources (exempt from the CWA's permit requirements) also are a significant source, particularly of pesticides including those EPA describes as "the dozen banned chemicals that are covered by the petition which are no longer in commerce and thus may not be

¹⁶ Available at https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5509463/

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readily reflected in permit discharge limits." As Table 1 above demonstrates, Washington's 303(d) list of impaired waters provides some information on the presence of pesticides in its waters. As these pesticides are most likely running off into waters of the state via nonpoint sources, just looking at NPDES permit discharge limits would not be likely to identify them as a problem.

27. Elsewhere, however, EPA Region 10 has focused on the need to control polluted runoff of banned toxic pesticides from land activities—such as farming—that are not covered by NPDES permits. For example, in its 2009 report on toxics in the Columbia River Basin, EPA highlighted four toxic pollutants including the long-banned DDT, explaining that "[d]ata collected in the 1980s showed that fish in the Yakima River Basin had some of the highest concentrations of DDT in the nation." EPA, Columbia River Basin: State of the River Report for *Toxics* (Jan. 2009) at 20.¹⁷ EPA also wrote that DDT is "still regularly detected in the fish, plants, and sediments of the River and many of its tributaries, indicating that DDT continues to cycle through the food web," and that "[t]he primary source of DDT to the Columbia River Basin is the considerable acreage of agricultural soils in which DDT accumulated over three decades of intensive use (1940s to early 1970s)." Id. at 19. In its conclusion that DDT levels in the Columbia River can be reduced, EPA cited to the CWA provisions of Section 303(d) to identify and prepare "water quality improvement plans for those impaired waters so they will meet water quality standards." *Id.* at 30. These water quality improvement plans are known as Total Maximum Daily Loads ("TMDLs"), and are required under Section 303(d) of the CWA for all waters exceeding water quality standards, where NPDES permit limits are not likely to bring them into compliance.

¹⁷Available at https://www.epa.gov/sites/default/files/documents/columbia_state_of_the_river report_jan2009.pdf

Such TMDL clean-up plans will be aiming at an incorrect target, and assigning inadequate pollutant load reductions to pollution sources, however, if the state's current criteria are not protective of the designated uses.

28. The upshot of all this is that: (a) it is very easy to identify the presence in Washington waters of many toxic pollutants, and (b) there are robust data on these pollutants beyond what is reported in NPDES permit limits. In my opinion, EPA paints a decidedly false picture when it claims that, aside from NPDES permit limits, data on these pollutants is "challenging to obtain or non-existent." ECF 72 at 4, ¶ 8.

EPA May Already Be Assessing the Best Available Science to Determine the Adequacy of EPA's Section 304(a) Recommended Criteria for Washington Aquatic Species

- 29. In addition to giving a false impression regarding the availability of data on toxic pollution in Washington's waters, EPA also fails to discuss ongoing work where it is already in the process of evaluating what kind of toxic pollutant criteria are needed to protect aquatic species in Washington waters.
- 30. EPA cites to "prior jeopardy determinations issued by the U.S. Fish and Wildlife Service and the National Marine Fisheries Service" as sources that EPA staff have analyzed for the purpose of settlement discussions with NWEA. ECF 72, at 7, ¶14. I agree that these are among appropriate sources for information with which EPA could inform its response to NWEA's petition. This omits, however, another source of information.
- 31. I have been aware for some time that EPA has been preparing to engage in ESA consultation with the Services over water quality standards adopted by the Swinomish Indian Tribal Community in 2019. In a letter sent to the Swinomish Tribe and posted on EPA's website, EPA notes that the "aquatic life criteria and other provisions related to the protection of aquatic

life" are the subject of such an ESA consultation. Letter from Daniel D. Opalski, EPA, to Brian Bricklin & Newman, LLP

Cladoosby, Chairman, Swinomish Tribe, Re: *The EPA's Action on Certain Provisions of the Swinomish Indian Tribal Community's 2019 Surface Water Quality Standards* (May 20, 2019).¹⁸ Notably, these criteria are the *same* as EPA's recommended 304(a) criteria, which are more protective than many of Washington's more broadly-applicable criteria.

- 32. It is now slightly over three years since EPA began preparing its analysis to carry out the ESA consultation process with the Services. And unless EPA has been sitting on its hands the entire time, it is likely that EPA has already conducted significant analysis of the protectiveness of its recommended 304(a) criteria in Washington. Given that Washington's more broadly-applicable criteria are often less protective than those EPA recommended criteria adopted by the Swinomish Tribe, it is surprising that EPA does not discuss this ongoing work in Ms. Nagle's declaration.
- 33. Indeed, it is unclear why the three-year effort to evaluate the sufficiency of EPA recommended criteria adopted by the Swinomish Tribe would not largely overlap with the second part of the inquiry needed to make a necessity determination, described by EPA to include a "literature search for any new publicly available toxicity data for aquatic species, completing a rigorous systematic review of the studies identified for data quality and scientific relevance, documenting any new studies that pass the systematic review process, and developing an analysis of the data relative to information available at the time the original criteria were developed." ECF 72 at 4, ¶ 9. By failing to discuss this ongoing work, the credibility and completeness of Ms. Nagle's declaration is seriously lacking. This ongoing ESA consultation is yet another instance of a major source of data and analysis that Ms. Nagle fails to discuss.

¹⁸ Available at https://www.epa.gov/sites/default/files/2019-07/documents/swinomish-letter-5202019.pdf

EPA's Focus on "Jeopardy" Determinations in Previous Endangered Species Consultations is Misleading

- 34. I am also troubled by EPA's narrow focus on the outcomes of the completed ESA consultations as "prior jeopardy determinations." The biological opinions issued by the Services relating to EPA's approval of aquatic life toxic criteria for Oregon and Idaho represent a body of analysis that is more than the sum of their jeopardy determinations, much of which would be pertinent to EPA's second inquiry as to the sufficiency of Washington's existing criteria. I am familiar with these biological opinions because their completion by the Services is a result of NWEA's lawsuits against the Services in 2010 and 2013 respectively.
- 35. While the hundreds of pages of analysis in the biological opinions provide a road map to toxic pollutants that the Services have concluded are likely to jeopardize species that are similar to—and in some cases identical to—those in Washington, these same analyses point to problems with meeting CWA requirements for some pollutants for which the Services did not make a jeopardy determination.
- 36. For example, NMFS concluded that for DDT in Idaho "[t]he proposed chronic criterion may allow substantial bioaccumulation to occur because DDTs are taken up not only from the water column but also from sediments and prey organisms" but did not make a jeopardy finding for the salmonid species listed in Idaho waters. NMFS, *Final Endangered Species Act Section 7 Formal Consultation and Magnuson-Stevens Fishery Conservation and Management Act Essential Fish Habitat Consultation for Water Quality Toxics Standards for Idaho* (May 7, 2014) (hereinafter "NMFS Idaho BiOp") at 232. However, this biological opinion did not evaluate the impacts of DDT criteria on Southern Resident killer whales because EPA had not provided such an analysis to NMFS. *See id.* at 2.

1	37. In another example, the NMFS biological opinion for Oregon toxic criteria
2	observed that "Southern Residents are a highly contaminated whale population" and that
3	some of these pollutants do not need to be in high concentration in
4	a species to be toxic and have long been recognized as problematic
5	for the Southern Resident killer whales. The organochlorines (e.g.,
	PCBs and DDTs) are thought to pose the greatest risk to killer whales (Ross et al. 2000, Center for Biological Diversity 2001,
6	Krahn et al. 2002). Organochlorines are [d]esigned for their
7	stability, most are highly persistent in the environment and can resist metabolic degradation. These persistent pollutants can
8	accumulate in the food webs and are at relatively high
9	concentrations in upper trophic-level species such as killer whales.
10	NMFS, Jeopardy and Adverse Modification of Critical Habitat Biological Opinion for the
11	Environmental Protection Agency's Proposed Approval of Certain Oregon Administrative Rules
12	Related to Revised Water Quality Criteria for Toxic Pollutants (Aug. 14, 2012) (hereinafter
13	NMFS Oregon BiOp") at 80. No jeopardy opinion was issued for organochlorines and because
14	DDT was not one of the pollutants that was the subject of the ESA consultation, NMFS did not
15	determine whether the DDT criteria posed jeopardy to any species.
16 17	38. Similarly, while NMFS concluded in its evaluation of Oregon toxic criteria that
18	"[t]he available evidence for saltwater zinc indicates that listed species exposed to waters equal to
19	the acute and chronic criteria concentrations will suffer acute or chronic toxic effects including
20	mortality (low intensity) and reproductive failure (low intensity)," that agency did not make a
21	jeopardy finding. NMFS Oregon BiOp at 394. Similarly, for other toxic pollutants, NMFS
22	identified hazards to threatened and endangered species but stopped short of issuing a jeopardy
23	and a few shares NIMES are also be de-
24	opinion for them. NMFS concluded:
25	Based on the direct mortality population modeling results, juvenile
26	salmon and steelhead exposed to aluminum, ammonia, arsenic, lindane, cadmium, chromium (III), chromium (VI), copper,
ا ۵۷	dieldrin, endosulfan-alpha, endosulfan-beta, endrin, heptachlor epoxide, lead, nickel, pentachlorophenol, selenium, silver,

1 tributyltin, and zinc is predicted to result in mortality at the population level—relative to the baseline population model." 2 NMFS Oregon BiOp at 486. NMFS also observed in a separate analysis in the biological opinion 3 that 4 5 using formula-based criteria for aquatic life criteria derived following the [EPA] Guidelines are likely to be underprotective of 6 listed species considered in this opinion. . . . The present formulabased metal method does not consider the environmental fate. 7 transport, and transformations of metals in natural environments (specifically for arsenic, cadmium, chromium (III), chromium (VI), 8 copper, lead, nickel, silver, and zinc), nor the influence of other 9 water quality constituents on toxicity, and therefore affords incomplete protection for listed species and is likely to result in 10 sublethal effects, such as central nervous system disruption, altered liver and kidney function, impaired reproduction, decreased 11 olfactory response, delayed smoltification, impaired ability to avoid predation and capture prey, growth inhibition, growth stimulation, 12 changes in prey species community composition (which will 13 increase foraging budgets), and death of listed species considered in this opinion. 14 NMFS Oregon BiOp at 694. 15 39. In short, these biological opinions summarize and evaluate a substantial body of 16 17 scientific study that post-dates many if not most of the EPA recommended criteria and the 18 adoption of Washington's aquatic life criteria. The opinions also contain the independent analysis 19 of the Service's scientists themselves. It simply cannot be possible for such a substantial effort by 20 scientists to not be related to what EPA terms the second inquiry that is needed to conduct a 21 necessity determination under the CWA. Nor is it accurate to say that the *only* relevant 22 information in these biological opinions is the jeopardy conclusions, as stated in Ms. Nagle's 23 24 declaration. 25 /// 26 ///

Washington's Belated Triennial Review Process Does Not Support EPA's Failure to Comply With This Court's Order on Summary Judgment

Washington's process in its triennial review, "the outcome of which may well redress Plaintiff's injuries." ECF 71 at 9. As the author of the October 28, 2013 petition to EPA requesting that it take action to update Washington's toxic criteria for the protection of aquatic life, I am frankly upset that EPA points to the nascent effort by Ecology to meet its CWA obligations as an excuse for taking no action in response to the Court's summary judgment order. In the almost nine years that have passed since I submitted the petition to EPA on behalf of NWEA, Ecology has taken no action to update its aquatic life criteria and I have not seen any effort by EPA to press the issue as a priority for the state, for example in my review of such documents as the contractual Performance Partnership Agreements that EPA and states sign to establish mutual expectations for the biennium.

41. In April of this year, Ecology issued a report on its plans to address water quality standards during its triennial review process, specifically its intent to conduct "a review of aquatic life toxics criteria to determine which criteria should be updated in Washington's standards"; however, the timeframe for completing this review and adopting new criteria is not at all clear. Ecology, *Triennial Review of Water Quality Standards for Surface Waters of the State of Washington Report to EPA on Updates to the Water Quality Standards Anticipated for 2022-2024* (April 2022) at 12 (herein, "Triennial Review"). ¹⁹ Ecology states that it is still in the process of determining whether it will conduct "staggered rulemakings based on chemical groups [or] . . .

¹⁹ Available at https://apps.ecology.wa.gov/publications/documents/2210002.pdf

one rulemaking to address all criteria." *Id*. This process could take very many years to complete (assuming it ever is completed), especially if a "staggered rulemaking" process is selected.

- 42. Confirming this suspicion, on June 16, 2022, I attended a stakeholder group put together by Ecology, at which Ecology staff presented the timeline for completion of various water quality standards that are part of its 2022–2024 triennial review. The presentation slide showed that the timeline for the aquatic life criteria extended past 2024. I asked Ecology what the date was for completion of these criteria updates, and I wrote in my near-verbatim notes from that meeting: "Timeline is meant to be variable. Not touched for 2 decades. Late 2024 is goal subject to public feedback."
- 43. In addition, Ecology has already announced that it will *not* be reviewing the following toxic criteria for the protection of aquatic life: aldrin, ammonia, atrazine, chlordane, chlorine, chlorpyrifos, chromium VI, cyanide, heptachlor, heptachlor epoxide, lead, MTBE, parathion, PCBs, selenium (marine), silver, toxaphene, and DDT. Triennial Review at 19–21. Yet, several of these criteria were specifically raised in NWEA's rulemaking petition at issue in this case.
- 44. Ecology has set out a rationale for its very long delays to date. This rationale is both misleading and casts serious doubt on whether Ecology will start and finish its review of the aquatic life toxic criteria that it *does* plan on reviewing, actions that EPA now says may redress NWEA's injuries. Ecology claims that its delays were the result of needing to "wait for the outcomes of ESA consultation and subsequent EPA approval of adjacent state aquatic life criteria before starting to invest resources in updates to our aquatic life toxics criteria." *Id.* at 12. Ecology goes on to cite the long delays in EPA's approval of state-adopted criteria in Oregon and Idaho based on ESA consultations:

EPA Region 10 states have submitted updates to their aquatic life toxics criteria over the past few decades, but ESA consultations have been significantly delayed for several states (e.g., Oregon and Idaho). For example, EPA approval of Oregon's aquatic life toxics criteria adopted in 2004 was significantly delayed as the federal agencies worked through ESA Section 7 consultation. In 2013, EPA disapproved a number of aquatic life criteria that the Oregon Environmental Quality Commission (ODEQ) adopted in 2004. The pollutants included pesticides, cadmium (acute only), copper, ammonia and aluminum. Since 2013, ODEQ adopted and EPA approved revisions to several of the disapproved criteria. EPA's approvals of Idaho's aquatic life criteria likewise have been stalled, leaving the state-adopted criteria unusable for Clean Water Act actions.

Id. at 13.

45. There are several things wrong with Ecology's rationale for delay. First, the biological opinions issued for Oregon were completed many years ago. The NMFS biological opinion for Oregon's aquatic life toxic criteria, as cited above, was completed 10 years ago on August 14, 2012; the parallel FWS Oregon biological opinion was completed eight years ago on July 30, 2012. The NMFS biological opinion for Idaho's aquatic life criteria was completed seven years ago on June 25, 2015 and the parallel FWS opinion was completed eight years ago on May 7, 2014. To the extent that Ecology was waiting to see the outcomes of the Services' evaluation of those states' toxic criteria, it had that information between seven and ten years ago and yet it took no action. Moreover, if Ecology has been studying the content of these biological opinions over the last decade it would certainly come as a surprise to me because, on April 21, 2022, I sent by electronic mail copies of the Idaho and Oregon biological opinions to the Ecology staff person who has been assigned to work on the triennial review, after having been told that he did not have them, a fact he acknowledged in reply.

46. Second, the jeopardy conclusions of the four ESA consultations from Oregon and Idaho are not the same, so Ecology's relying on the reviews of the effects of toxic criteria on Bricklin & Newman, LLP

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individual species in the waters of an individual state by any individual office of NMFS or FWS is clearly no guarantee of what the Washington offices of the two Services will ultimately conclude about the effects on Washington species in Washington waters well over a decade later. It only takes a few minutes of reviewing these four biological opinions—by looking at the sections entitled "reasonable and prudent alternatives"—to ascertain this fact.

47. Third, Ecology's reference to "stalled" EPA approvals in Idaho as part of its rationale for not reviewing its toxic criteria to date suggests that it was not just the completion of the biological opinions that Ecology was waiting for; Washington did not want to move forward until all of the delays in revising certain criteria to respond to the jeopardy opinions were resolved. These delays were substantial even without any failure to act on EPA's part. The timeline negotiated between the federal agencies for EPA (or Idaho) to respond to these jeopardy opinions for individual toxic criteria extends as many as eight years from the completion of the opinions, to May 7, 2023. FWS, Biological Opinion for the Idaho Water Quality Standards for Numeric Water Quality Criteria for Toxic Pollutants (June 25, 2015) (hereinafter "FWS Idaho BiOp") at 270 ("These RPAs therefore provide a longer implementation period of up to 8 years[.]"). But in addition to the planned delay, EPA has also failed to meet many of the deadlines in the biological opinions. Specifically, the reasonable and prudent alternatives in the Idaho biological opinions called for EPA to have adopted or approved toxic criteria in Idaho as follows: acute and chronic cyanide by May 7, 2021, see FWS Idaho BiOp at 277; chronic mercury and chronic arsenic by May 7, 2021, see FWS Idaho BiOp at 272, NMFS Idaho BiOp at 282, 284; acute and chronic zinc, acute and chronic nickel by May 7, 2022, see FWS Idaho BiOp at 282, 283; chronic lead by May 7, 2023, *see* FWS Idaho BiOp at 278.²⁰ To my knowledge, EPA has not taken any action to update these toxic criteria.

- 48. In other words, the rationale that Ecology provides for its past delays could just as easily be used by the state to rationalize further future delays in updating its toxic criteria. EPA still has not met the deadlines set out in the Idaho biological opinions for revising criteria for the following toxic pollutants that Ecology says that it plans to review: arsenic, lead, mercury, nickel, and zinc.
- 49. Finally, Ecology asserts that reviewing and updating its aquatic life criteria "is a high priority for Ecology and was included in the Five-Year Work Plan developed as part of the last triennial review in 2010." Triennial Review at 12. After over 12 years of delay, it is difficult for me to see that these criteria were in the past a "high priority" for Ecology; rather, the postponement of an update identified as needed in 2010 strongly suggests that it was the opposite. Therefore, it is frankly impossible to rely on Ecology's assertion that its continued designation of aquatic life criteria for toxics as a "high priority" means that the updating of the criteria will be completed any time in the near future.
- 50. I am upset that in its motion, EPA asserts that the state's process "may well redress Plaintiff's injuries." ECF 71 at 9. In suggesting that NWEA will not be harmed by further delays in this action, EPA suggests NWEA should rely on Ecology, which has justified its delays by pointing to EPA's own delays. Put another way, EPA points to its own egregious delays in Oregon, and Idaho—where in every instance in which aquatic life criteria actions have been

²⁰ In addition to the deadlines for having final criteria in place, the biological opinions called for EPA to initiate consultation at least 135 days prior to each of these deadlines. *See, e.g.,* FWS BiOp at 278 ("If ESA consultation is required for the new criterion, EPA shall provide an adequate biological evaluation to the Service and initiate consultation at least 135 days in advance of May 7, 2022[.]").

taken, they have been as a result of NWEA's having repeatedly sued EPA and the Services-to justify yet further delay in Washington. It is a bitter pill to have EPA cite Ecology's citation of these very same delays to rationalize its own failure to protect Washington waters. I declare under penalty of perjury that the foregoing is true and correct. Dated this 21 day of June, 2022 at Portland, Oregon.