

No. 47158-2

COURT OF APPEALS
OF THE STATE OF WASHINGTON
DIVISION 2

SPOKANE COUNTY; STATE OF WASHINGTON, DEPARTMENT OF
ECOLOGY,

Appellants,

v.

SIERRA CLUB, and CENTER FOR ENVIRONMENTAL LAW &
POLICY,

Respondents.

**BRIEF OF RESPONDENTS SIERRA CLUB and CENTER FOR
ENVIRONMENTAL LAW & POLICY**

Richard A. Smith, WSBA #21788
Smith & Lowney, P.L.L.C.
2317 East John St.
Seattle, WA 98112
(206) 860-2883
Email: rasmithwa@igc.org

TABLE OF CONTENTS

I.	INTRODUCTION	1
II.	ISSUES PRESENTED.....	4
III.	STATEMENT OF THE CASE.....	4
	A. PCBs and water quality standards.....	4
	B. PCBs in the Spokane River	7
	C. The SCRWRF	10
	D. The Permit.....	12
	E. The Board’s Order	15
IV.	ARGUMENT	17
	A. Standard of Review for this Court	17
	B. Standard of Review applied by the Board.....	18
	C. The Board’s proper determination that the SCRWRF discharge of PCBs presents “reasonable potential” to cause or contribute to violations of water quality standards has ample evidentiary support	21
	1. “Reasonable potential” analysis renders the binary Decision of whether an NPDES permit must have effluent limitations to ensure against a reasonable potential for violation of water quality standards	21
	2. Reasonable potential analysis can be performed with two different types of relevant information, not only through statistical analysis of ample effluent monitoring data	27
	3. Abundant evidence, including expert testimony, supports the Board’s determination of reasonable	

potential.....	29
D. The Board properly held that Ecology “should” have Conducted reasonable potential analysis	36
E. Given this reasonable potential, the Board’s remand order is appropriate	43
V. CONCLUSION.....	43

TABLE OF AUTHORITIES

Cases

<i>Ackels v. U.S. E.P.A.</i> , 7 F.3d 862 (9th Cir. 1993).....	25, 37
<i>American Paper Inst. v. EPA</i> , 996 F.2d 346 (D.C. Cir. 1993).....	26
<i>Arkansas v. Oklahoma</i> , 503 U.S. 91, 112 S.Ct. 1046, 117 L.Ed.2d 239 (1992).....	23, 37
<i>Clark County v. Rosemere Neighborhood Ass'n</i> , 170 Wn. App. 859, 290 P.3d 142 (2012).....	1, 2, 18, 20, 29, 40
<i>Cnty. Ass'n for Restoration of the Env't v. Dep't of Ecology</i> , 149 Wn.App. 830, 205 P.3d 950 (2009).....	1, 17-18, 21, 29, 41
<i>Communities for a Better Environment v. State Water Res. Control Board</i> , 109 Cal.App. 4th 1089 (2003).....	24, 26
<i>Conservation Law Found., Inc. v. United States EPA</i> , 964 F. Supp. 2d 175 (D. Mass. 2013).....	35
<i>Defenders of Wildlife v. Browner</i> , 191 F.3d 1159 (9th Cir. 1999)	25
<i>Divers' Envt'l Conservation Organization v. State Water Res. Control Board</i> , 145 Cal.App.4th 246 (2006)	26-27, 28, 40
<i>EPA v. Cal. ex rel. State Water Res. Control Bd.</i> , 426 U.S. 200, 96 S.Ct. 2022, 48 L.Ed.2d 578 (1976)	22, 24
<i>In the Matter of the Petition of Boeing Company</i> , Order No. WQ 2006- 0012, 2006 Cal. ENV LEXIS 121 (Cal. Water Res. Control Bd. 2006) ...	24
<i>National Mining Ass'n v. Jackson</i> , 880 F.Supp.2d 119 (D.D.C. 2012), reversed and remanded by <i>National Mining Ass'n v. McCarthy</i> , 2014 U.S. App. LEXIS 13156 (D.C. Cir. 2014)	26
<i>Natural Res. Def. Council v. United States EPA</i> , 915 F.2d 1314 (9th Cir. 1990)	23

<i>Port of Seattle v. Pollution Control Hearings Board</i> , 151 Wn.2d 568, 90 P.2d 659 (2004).....	20, 21
<i>Pronsolino v. Nastri</i> , 291 F.3d 1123 (9 th Cir. 2002).....	34, 35
<i>PUD No. 1 of Jefferson County v. Wash. Dep't of Ecology</i> , 511 U.S. 700, 114 S.Ct. 1900, 128 L.Ed.2d 716 (1994).....	25, 30
<i>State Water Control Bd. v. Captain's Cove Util. Co.</i> , 2008 Va. App. LEXIS 375 (Va. Ct. App. Aug. 5, 2008).....	30
<i>Trustees for Alaska v. E.P.A.</i> , 749 F.2d 549 (9th Cir. 1984)	23
<i>Waste Management of Seattle, Inc. v. The Utilities and Transportation Comm'n</i> , 123 Wn.2d 621, 869 P.2d 1034 (1994).....	41

Statutes

33 U.S.C. § 1251(a)	22
33 U.S.C. § 1311	
§ 1311(a)	22
§ 1311(b).....	23, 27, 37, 40, 41, 43
33 U.S.C. § 1313	
§ 1313(c)	24
§ 1313(d).....	8, 24, 35
33 U.S.C. § 1342	
§ 1342(a)	22
§ 1342(b).....	22
33 U.S.C. §1362	
§1362(11).....	16, 22, 43
§1362(14).....	22
33 U.S.C. § 1377.....	23, 37
§ 1377(e)	5

RCW 34.05	17
RCW 34.05.514(3).....	17, 18
RCW 34.05.570	
05.570(1).....	17
05.570(3).....	21, 36
RCW 43.21B.005.....	18
RCW 43.21B.010.....	18
RCW 43.21B.170.....	19, 21
RCW 43.21B.180.....	21
RCW 90.48.010	38, 42
RCW 90.48.520	6, 25, 37, 40, 41, 42

Rules and Regulations

40 C.F.R. § 122.4(d)	6, 23, 37, 40
40 C.F.R. § 122.44	22
§ 122.44(d).....	1, 15, 23, 25, 26, 27, 30, 34, 37, 43
§ 122.44(e).....	23
§ 122.44(k).....	24
40 C.F.R. § 123.25.....	22
40 C.F.R. § 131	6
40 C.F.R. § 131.3(i)	24, 30
40 C.F.R. § 131.6.....	24
40 C.F.R. § 131.8.....	23, 37
WAC 173-201A-010(1).....	25, 30

WAC 173-201A-240(1).....	6, 25, 30
WAC 173-201A-260(3).....	23, 30, 37, 40, 41
WAC 173-201A-510(1).....	27, 43
WAC 173-201A-602.....	7
WAC 173-204-400(7).....	24
WAC 173-220-130.....	27
220-130(1).....	23, 25, 40, 43
220-130(3).....	24
WAC 173-220-210.....	22
WAC 173-333-110.....	4
WAC 173-333-300.....	4
WAC 173-333-310(2).....	4
WAC 371-08-485.....	19
08-485(1).....	18, 19, 20, 33
WAC 371-08-540.....	19, 20, 21
08-540(2).....	19

Other Authorities

<i>Black's Law Dictionary</i> , Abridged Sixth Ed. (1991).....	20
Department of Ecology, <i>Spokane River PCB Source Assessment 2003 – 2007</i> , Ecology Pub. No. 11-03-013 (Apr. 2011).....	9, 10, 13, 31, 32, 35, 39-40, 41-42
Department of Ecology, <i>Water Quality Program Permit Writer's Manual</i> , Ecology Pub. No. 92-109 (Dec. 2011)	29, 34

Environmental Protection Agency, *Technical Support Document for Water Quality-based Toxics Control*, EPA/505/2-90-001 (Mar. 1991)..... 15-16, 27-28, 31, 34, 41

65 Fed. Reg. 67638 – 641. Final Rule to Amend the Final Water Quality Guidance for the Great Lakes System to Prohibit Mixing Zones for Bioaccumulative Chemicals of Concern, EPA, Nov. 13, 2000..... 5, 34

Spokane Tribe of Indians, *Surface Water Quality Standards Resolution 2003-259* (Mar. 7, 2003).....7, 30

I. INTRODUCTION

As did the Thurston County Superior Court, this Court should uphold the Pollution Control Hearing Board's conclusion in its July 19, 2013, Findings of Fact, Conclusions of Law, and Order ("Final Order"), that Spokane County Regional Water Reclamation Facility's ("SCRWRF") discharges of highly toxic PCBs present a "reasonable potential"¹ to contribute to violations of water quality standards in the Spokane River and the order derived therefrom. To rule otherwise would require the Court to "reweigh the evidence or assess the credibility of the witnesses," which the law forbids, and reverse the Board's factual determination on reasonable potential.²

The Board relied on expert opinion and directly relevant evidence ignored by Ecology, including Ecology's own report based on thirty years of scientific monitoring and study on Spokane River PCB contamination and necessary pollutant loading reductions, as well as the Washington Department of Health's conclusion that eating fish from the river constitutes a human health hazard because of PCB contamination. This

¹ As explained below, "reasonable potential" is a term of art under the Clean Water Act, derived from EPA regulation. 40 C.F.R. § 122.44(d).

² *Clark County v. Rosemere Neighborhood Ass'n*, 170 Wn.App. 859, 871-872, 290 P.3d 142 (2012); *Cnty. Ass'n for Restoration of the Env't v. Dep't of Ecology*, 149 Wn.App. 830, 840, 205 P.3d 950 (2009).

Court should not hold the Board's factual findings to be "clearly erroneous."³

The Final Order holding the SCRWRF discharge of PCBs presents a reasonable potential to contribute to severe and well-studied violations of water quality standards – both those of the State and of the downstream Spokane Tribe of Indians – is amply supported by documentary and testimonial evidence contained in the Board's hearing record and broadly cited in the Final Order. The Board heard expert testimony and reviewed other evidence about the severity and extent of PCB contamination in the Spokane River, including the status of the river as the most PCB-contaminated in the state, carrying massive loads of PCBs that violate standards at the SCRWRF outfall and increase as the river flows to and through the Spokane Indian Reservation, findings by the Washington Department of Health that eating fish from the river constitutes a human health hazard, and the Spokane Tribe's position that the PCB problem interferes with its fishing rights. The Board reasonably considered an official and current Ecology assessment of PCB sources to the river – the best available science, which concludes that PCB discharges to the river must be reduced by 99% or more to allow the river to meet water quality

³ *Clark County*, 170 Wn.App. at 876 – 877.

standards. And the Board heard evidence and evaluated monitoring results about the PCB loads added to the Spokane River, which it concluded have the reasonable potential to contribute to the existing PCB overload in the river system and the related violations of water quality standards.

There can be no real dispute that the low regulatory threshold of “reasonable potential” to cause or contribute to violation of water quality is crossed here; the evidence shows that the Spokane River has no remaining assimilative capacity for PCBs and that any additions of PCBs to the river present the reasonable potential to contribute to existing, well documented violations of water quality standards. This was not a difficult factual condition for the Board (or the superior court) to see, and this Court will find it amply supported by record evidence. Indeed, although it sought to avoid making a formal reasonable potential determination at permit issuance, Ecology’s permit writer essentially conceded reasonable potential when he considered the effects of the discharge “on the river as a whole,” rather than the effects on the small area of the river in the immediate vicinity of the outfall.⁴ The resulting permit even includes provisions explicitly based on this finding, arguably amounting to an

⁴ Report of proceedings (“RP”) 173:21 – 174:11, see also, 82:21 – 83:19.

agency admission.

II. ISSUES PRESENTED

1. Did the Board properly conclude that the SCRWRF discharge of PCBs presents a reasonable potential to cause or contribute to a violation of water quality standards in the Spokane River? (Yes.)
2. May a reasonable potential determination be based on factors other than statistical analysis performed with effluent monitoring data? (Yes.)
3. If the SCRWRF's discharge presents reasonable potential for PCBs in the Spokane River, is the Board's order to modify Condition S12 appropriate? (Yes.)

III. STATEMENT OF THE CASE

A. PCBs and water quality standards

Polychlorinated biphenyls ("PCBs") are a group of industrial chemicals, production of which was largely banned in 1979 due to environmental and human health concerns.⁵ PCBs are "persistent bioaccumulative toxins" ("PBTs") and treated specially under Washington law because they are so slow to degrade in the environment, accumulate in animal and human tissue, and are highly toxic.⁶ EPA's term for PBTs is

⁵ AR 2345 (Spokane River PCB Source Assessment 2003 – 2007, Ecology Pub. No. 11-03-013, Apr. 2011, Ex. A12 at 27).

⁶ WAC 173-333-110, -300, -310(2); RP 201:8 – 202:10, 231:12 – 25; 234:25 – 235:8; AR 2347 (Ex. A12 at 29).

“bioaccumulative chemicals of concern” (“BCCs”) and, for the Great Lakes, which suffer high-level PCB pollution like the Spokane River, EPA has banned the consideration of dilution in reasonable potential determinations because of these characteristics:

By definition, BCCs are chemicals that do not degrade over time. These chemicals accumulate in organisms living in the water and become more concentrated as they move up the food chain – from biota to fish and wildlife to humans. Because the effects of these chemicals are not mitigated by dilution, using a mixing zone to ‘dilute’ BCC discharges is not appropriate. ... it is the mass of BCCs that poses a problem, not just the concentration. Because ... [PCBs] and other BCCs degrade over long periods of time or do not degrade at all, their buildup in pockets of sediments creates ‘hot spots’ in the environment in which bioaccumulation of toxics in fish and other aquatic organisms can occur at levels that significantly exceed safe levels for consumption by wildlife and humans.⁷

Washington and the Spokane Tribe have each adopted human health-based numeric water quality standards for PCBs that are relevant to this case.⁸ The state’s PCB criteria of 170 picograms per liter (pg/l) for the water column and 5.3 nanograms per gram (ng/g) for fish tissue derive from EPA’s National Toxics Rule and are based on carcinogenic and non-cancer risks arising from human consumption of fish, the predominant

⁷ 65 Fed. Reg. 67638, 67640 – 641, Final Rule to Amend the Final Water Quality Guidance for the Great Lakes System to Prohibit Mixing Zones for Bioaccumulative Chemicals of Concern, EPA, Nov. 13, 2000.

⁸ The Spokane Tribe was qualified by EPA for “treatment as a state” status under the CWA, 33 U.S.C. § 1377(e), in 2002, and EPA approved its water quality standards soon thereafter. .

exposure pathway.⁹ The Spokane Tribe’s human health-based PCB water quality criteria are 3.37 pg/l for the water column and 0.1 ng/g for fish tissue.¹⁰ The Tribal criteria are substantially lower (i.e., more protective) because Tribal members eat more fish and their derivation uses a more accurate (and higher) fish tissue consumption rate than did the National Toxics Rule.¹¹ The Spokane Tribe’s standards are approved by EPA, and are binding on Ecology when it issues NPDES permits to dischargers to the Spokane River located upstream of tribal waters, as is the SCRWF.¹²

Relevant state water quality standards also include an enforceable narrative criterion:

Toxic substances shall not be introduced above natural background levels in waters of the state *which have the potential* either singularly or cumulatively to adversely affect characteristic water uses, cause acute or chronic conditions to the most sensitive biota dependent on those waters, or adversely affect public health as determined by [Ecology].¹³

Spokane Tribal standards include a nearly identical narrative

⁹ AR 2337 – 2338 (Ex. A12 at 19 – 20); 40 C.F.R. § 131.

¹⁰ AR 2337, 2339 (Ex. A12 at 19 and 21); RP 32:10 – 24.

¹¹ AR 2337 (Ex. A12 at 21).

¹² 40 C.F.R. § 122.4(d); WAC 173-201A-260(3)(b); RP 49:15 – 50:8.

¹³ WAC 173-201A-240(1)(italics added). This standard reflects a statutory prohibition on toxic discharges: “*In no event* shall the discharge of toxicants be allowed that would violate any water quality standard, including toxicant standards, sediment criteria, and dilution zone criteria.” RCW 90.48.520 (italics added).

criterion.¹⁴

Finally, both the state and the Tribal standards designate fish harvesting as characteristic uses of the Spokane River.¹⁵

B. PCBs in the Spokane River

The Spokane River flows west across the Idaho border, through Spokane, and then generally northwestward, forming the southern boundary of the Spokane Indian Reservation until its confluence with the Columbia River at Lake Roosevelt.¹⁶ It has the worst PCB contamination problem of any monitored waterbody in Washington.¹⁷

Ecology and others have extensively studied Spokane River's PCB contamination for over thirty years, producing numerous reports.¹⁸ For PCBs, segments of the river have been on Ecology's formal list of waters not meeting water quality standards since 1996. There are currently 15 segments so listed, all for violations of the state human health-based fish

¹⁴ Spokane Tribe of Indians, Surface Water Quality Standards ("STI WQS") 6(1).

¹⁵ WAC 173-201A-602; STI WQS 9(2)(b) and 11. As discussed below, WDOH warnings against eating fish from the Spokane River due to PCB contamination show violation of these narrative water quality standards.

¹⁶ AR 2330 (Ex. A12 at 12).

¹⁷ AR 3052, 3067, 3076 (Ex. A27 at 31, 46, 55).

¹⁸ AR 2348 (Ex. A12 at 30).

tissue criterion.¹⁹ At the Board hearing, Sierra Club’s expert Dr. Peter deFur testified that the entire Washington section of the Spokane River does not meet PCB fish tissue criteria – both state and Tribal criteria, as applicable – or support the designated use of fish harvest.²⁰ He similarly explained that the River does not meet the state PCB water column criterion from Spokane city limits to downstream points.²¹

Indeed, fish in the Spokane River are so contaminated with PCBs that the Washington Department of Health issued fish consumption advisories for them, first in 2003, and then confirmed its analysis in a 2011 health consultation prepared “in accordance with methodologies and guidelines developed by the Agency for Toxic Substances and Disease Registry.”²² WDOH’s 2011 consultation concluded that PCB contamination in Spokane River fish constitutes a “public health hazard.”²³ The current WDOH advisories suggest strictly limited

¹⁹ AR 2334 (Ex. A12 at 16). Ecology’s list of impaired waters is known as the “303(d) list” after CWA Section 303(d), 33 U.S.C. § 1313(d), which requires compilation of the list for EPA approval.

²⁰ RP 230:6 – 232:9, 241:8 – 242:5.

²¹ RP 232:10 – 21.

²² AR 2351 (Ex. A12 at 33); AR 2975-2976 (Ex. A26). The Agency for Toxic Substances and Disease Registry “is a part of the U.S. Department of Health and Human Services and is the principal federal public health agency responsible for health issues related to hazardous waste sites and releases.” AR 2976.

²³ AR 2980 – 2981, 2996 – 2997 (Ex. A26 at 5 – 6, 21 – 22); *see also* RP 234:25 – 235:8, 236:9 – 237:24.

consumption of Spokane River fish, including a “do not eat fish” advisory for a substantial portion of the river, to avoid human health effects from PCB ingestion.²⁴ The threat to human health from consumption of PCBs in Spokane River fish impairs the Spokane Tribe’s fishing rights.²⁵

Also in 2011, Ecology issued the *Spokane River PCB Source Assessment 2003 – 2007* (“*Source Assessment*”) “to quantify PCB contamination and identify necessary reductions in sources and the receiving waters to meet applicable PCB water quality criteria for the Spokane River.”²⁶ In this report, Ecology synthesized available information from thirty years of study about PCB contamination in the river, including concentrations found in the water column, sediments, and fish tissue, and about the sources of PCBs to the river to model the mass of PCBs present (i.e., the PCB “load” or “loading”).²⁷ Ecology used two methods to estimate the reductions in the river’s PCB loads that are needed to return the river to compliance with standards, particularly with the demanding Tribal criteria, which must be met in the river’s lower reaches.²⁸

²⁴ AR 3190 (Ex. A32).

²⁵ AR 2290 – 2291 (Ex. A4 at 2 – 3).

²⁶ AR 2357 (Ex. A12 at 39).

²⁷ AR 2317 (Ex. A12); RP 216:9 – 18.

²⁸ AR 2409 – 2423 (Ex. A12 at 91 – 105).

One *Source Assessment* conclusion is that the river's PCB load increases substantially as one goes downriver, culminating in the greatest contamination of the river where it travels through the Spokane Indian Reservation.²⁹ Another conclusion is that, to achieve compliance with Tribal numeric PBC criteria, PCB loads must be reduced by 95% or more, and that “[i]ndustrial and municipal discharges between the Idaho border and Lake Spokane *require PCB load reductions greater than 99%*.”³⁰ “Results [of the modeling for the *Source Assessment*] show that PCB concentrations in water and sediment one to four orders of magnitude lower than present would be required to achieve the Spokane Tribe fish tissue criterion.”³¹

C. The SCRWRF

The SCRWRF “is a new, previously unpermitted facility,” for which Ecology first issued NPDES Permit No. WA-0093317 (“the Permit”) on November 29, 2011.³² With its first discharges authorized on December 1, 2011, the SCRWRF provides “advanced wastewater treatment to an initial 8 MGD³³ of wastewater with an ability to expand

²⁹ AR 2417 (Ex. A12 at 99).

³⁰ AR 2425 – 2426 (Ex. A12 at 107 – 108) (italics added).

³¹ AR 2420 (Ex. A12 at 102).

³² AR 3781 (Ex. R2 at 10).

³³ Million gallons per day.

capacity in phases up to 24 MGD.”³⁴ Expansions will accommodate new connections in the County as residents switch from septic systems to sewer service, and the population of the service area grows.³⁵

A portion of the influent now treated and discharged at the SCRWRF had previously been treated and discharged at the City of Spokane’s Riverside Park Reclaimed Water Facility (“City Sewage Plant”).³⁶ The outfall for the City Sewage Plant is several river miles *downstream* (northwest) of the new SCRWRF outfall.³⁷ Sections of the river between the two plants were included on the state’s list of waters not meeting standards for PCBs even before the SCRWRF began to add pollution at the new upstream discharge location.³⁸

In the fifteen months between start-up in December 2011 and the March 2013 Board hearing, the County reported PCB monitoring results from two SCRWRF effluent samples.³⁹ The measured concentrations of total PCBs in the SCRWRF effluent on those two occasions were 248 and 243 pg/L, which after lab corrections, supported Sierra Club’s expert

³⁴ AR 3777 (Ex. R2 at 6).

³⁵ AR 3774 – 3775 (Ex. R2 at 3 – 4).

³⁶ AR 3781 (Ex. R2 at 10).

³⁷ AR 4018 (Ex. R7).

³⁸ AR 2361 (Ex. A12 at 43).

³⁹ AR 3835 (Ex. R4); AR 3339 (Ex. A35); RP 261:7 – 14.

testimony that SCRWRF adds in the range of 2 to 5 milligrams per day of PCBs to the Spokane River.⁴⁰

D. The Permit

During the permit-writing process for the SCRWRF, Ecology knew that its effluent would contain PCBs in some concentration, but did not know how much.⁴¹ Ecology permit writer Richard Koch testified that he did not perform formal reasonable potential analysis for PCBs because of the lack of effluent data.⁴² It is Koch's position, and apparently Ecology's, that reasonable potential analysis can only be done through a statistical method that requires an undefined body of actual effluent data.⁴³

Nonetheless, Koch did run a couple of estimated PCB numbers through the reasonable potential analysis statistical model to satisfy his curiosity and confirm (for him alone) his hunch that there would be no reasonable potential, although these are only "in [his] head, on [his] computer," and nowhere in the record.⁴⁴ In doing this, Koch considered

⁴⁰ RP 273:16 – 275:19, 277:15 – 278:12.

⁴¹ RP 70:7 – 15; AR 3802 (Ex. R2 at 31).

⁴² RP 175:3 – 10.

⁴³ RP 70:16 – 71:21, 152:4 – 19; Ecy Brief at 12.

⁴⁴ RP 85:15 – 19, 87:18 – 88:6, 95:24 – 96:11. Koch's testimony was so confusing and contradictory on the simple question of whether he had performed reasonable potential analysis that a Board member had to ask him for clarification after extensive direct testimony. Final Order at 11 and 21; RP 175:3 – 12.

only the effects on receiving waters *in the vicinity of the outfall* because of his cramped view of what constitutes allowable reasonable potential analysis.⁴⁵ *Excluded* from this furtive analysis of PCB reasonable potential were several important pieces of information because, according to Koch, reasonable potential analysis allowed him “to consider the discharges going into a segment of the Spokane River and do not require [him] to consider the river as a system.”⁴⁶ Thus, Ecology arbitrarily omitted consideration of the WDOH fish consumption advisories, information about fish tissue PCB concentrations in the river, the *Source Assessment* estimates of needed PCB loading reductions, and the effects of the discharge on attainment of the Spokane Tribe’s PCB criteria downstream.⁴⁷

But, as he testified, when Koch considered the effects of the PCB discharge “for the river as a whole,” he answered the reasonable potential question in the affirmative – “yes, there is pollutants there causing water quality violations.”⁴⁸ Without conceding that this constitutes an actual

⁴⁵ RP 86:6 – 11, 154:2 – 155

⁴⁶ RP 83:16 – 23.

⁴⁷ RP 72:15 – 73:19, 73:25 – 74:24, 81:2 – 20; 85:20 – 86:11, 94:2 – 95:19.

⁴⁸ RP 173:21 – 174:11, see also, 82:21 – 83:19 (deposition testimony read into record):

Q: On page 17 of the fact sheet in the last paragraph there in the middle of the paragraph, there is a statement sentence that says, ‘By itself

reasonable potential conclusion, Ecology nonetheless included nonnumeric provisions in the Permit to address the SCRWRf PCB discharges “in the river as a system.”⁴⁹ These are permit conditions S12 and S13⁵⁰ that require participation in a task force process with other dischargers, and proposal by the County of a source control action plan with – as the Permit itself explains – a goal to:

Reduce PCBs in the effluent to the maximum extent practicable *so that in time the effluent does not contribute to PCBs in the Spokane River exceeding applicable water quality standards.*⁵¹

no currently available treatment technology is likely to provide adequate removal sufficient to comply with either state water quality standards for PCBs or the more stringent tribal water standards.’ Do you see that?

A: (Koch, in deposition): Yes.

Q: So based on that statement, is it fair to say that the treatment technology implemented at the county plant is not likely to provide adequate removal sufficient to comply with either state water quality standards for PCBs or the tribal water quality standard?

A: If you consider the river as a system, correct. There is no – there is no way any treatment plant singly or collectively could remove enough PCBs from the Spokane River to result in compliance with the water quality standards.

Q: So in that case, how could you issue this NPDES permit?

A: Because the permit rules allow me to consider the discharges going into a segment of the Spokane River and do not require me to consider the river as a system.

⁴⁹ RP 86:12 – 87:10, 112:11 – 112:13, 154:2 – 155:5, 174:13 – 18.

⁵⁰ AR 3681 – 3683 (Ex.Ecy1 at 46 – 48).

⁵¹ AR 3682 (Ex. R1 at 47) (italics added). As discussed *infra*, this statement amounts to an admission of the reasonable potential for the SCRWRf’s PCB discharges to contribute to violations of water quality standards.

E. The Board's Order

Respondent environmental protection advocacy groups appealed the Permit to the Board, arguing that it is invalid because it unlawfully authorizes PCB discharges that *will* cause or contribute to violations of water quality standards (not merely present the reasonable potential to do so).⁵²

Following a four-day hearing, the Board on July 19, 2013, issued its Final Order. The Board explained the questions before it:

The test applied to the NPDES Permit issued to Spokane County is whether, under its terms and conditions, it authorizes a discharge that causes or contributes to a violation of PCB water quality standards in the Spokane River. *See* 40 CFR § 122.4(i) (permit may not issue to new discharger if discharge will 'cause or contribute to the violation of water quality standards'); 40 CFR § 122.44(d)(1)(i) (all NPDES permits shall include conditions necessary to achieve water quality standards and must control all pollutants that 'are or may be discharged at a level which will cause, have the reasonable potential to cause, or contribute to an excursion above any State water quality standard...')⁵³

While the Board ultimately did not find that Sierra Club had proved that the discharge "will" cause or contribute to such a violation, it did, based on consideration of various factors in accordance with the EPA's *Technical Support Document for Water Quality-based Toxics*

⁵² Final Order at 1.

⁵³ Final Order at 20.

Control (“*TSD for Toxics Control*”)⁵⁴ guidance, as well as PCB monitoring data not available when Ecology issued the Permit and other evidence, conclude that the SCRWRF discharge presented a “reasonable potential” for violation of the PCB standards.⁵⁵ Then, after analyzing the adequacy of conditions S12 and S13 as narrative water quality-based effluent limitations (“WQBELs”) for PCBs, it concluded that these provisions do not constitute effluent limits of sufficient stringency to ensure against violation of the standards by the SCRWRF’s PCB discharges.⁵⁶ The Board found that S12 “fails as a narrative effluent limitation in several respects”; it is confusing, vague, lacks definitions of key terms, lacks deadlines, and lacks mandatory language to require the County to actually implement any measures to control PCBs.⁵⁷ S13 “is not a narrative effluent limit as it does not impose any restrictions on quantities, rates, and concentrations of PCBs being discharged from point sources into the Spokane River.”⁵⁸ The Board remanded the Permit and

⁵⁴ The *TSD for Toxics Control* is fully described in section IV.C.2, *supra*.

⁵⁵ Final Order at 21 – 22 (citing hearing exhibits Ecy-2, A-12, A-26, A-31, A-32, and testimony of Koch, Rawls, DeFur, and Abusaba).

⁵⁶ Final Order at 23 – 26.

⁵⁷ Final Order at 23.

⁵⁸ Final Order at 26. *See* 33 U.S.C. §1362(11) (defining “effluent limitation” as “any restriction ... on quantities, rates, and concentrations of chemical, physical, biological, and other constituents which are discharged from point sources into navigable waters ... including schedules of compliance”).

ordered Ecology to fix the narrative WQBELs and to develop a numeric PCB WQBEL “at the earliest possible time.”⁵⁹ “[T]he Permit must require compliance with water quality standards, not set an amorphous goal of some future date of compliance.”⁶⁰

IV. ARGUMENT

A. Standard of Review for this Court

The Court’s review of a Board order is under the Administrative Procedure Act, RCW Ch. 34.05.⁶¹ Under the APA, the burden of demonstrating the invalidity of a Board order lies with the parties asserting its invalidity.⁶²

Under the appropriate standard of review, the Court may grant relief in three circumstances: (1) if the Board’s order is contrary to the law; (2) if the order is “not supported by evidence that is substantial when viewed in light of the whole record before the court”; and (3) where the Board’s order is arbitrary or capricious.⁶³

Respondents’ arguments rely primarily on the second of these – the

⁵⁹ Final Order at 27 – 28.

⁶⁰ Final Order at 25.

⁶¹ *Cnty. Ass’n for Restoration of the Env’t*, 149 Wn.App. at 839; RCW 34.05.514(3).

⁶² RCW 34.05.570(1)(a).

⁶³ *Id.*, *Cnty. Ass’n for Restoration of the Env’t*, 149 Wn.App. at 840 – 841 (citations omitted).

substantial evidence test. That test is “whether the record contains a sufficient quantity of evidence to persuade a fair-minded person of the truth or correctness of the order.”⁶⁴ The Court may overturn the Board’s findings of fact “only if they are clearly erroneous and [the Court] is definitely and firmly convinced that a mistake has been made.”⁶⁵ The Court is not permitted to weigh the credibility of witnesses or to substitute its judgment for the Board’s with regard to factual findings.⁶⁶

B. Standard of Review applied by the Board

As an initial matter, appellants have misstated the standard of review utilized by the Pollution Control Hearings Board. The Board is created by statute as part of the “environmental hearings office of the state of Washington.”⁶⁷ It is not a court or other part of the judicial branch of state government established by Article IV of the Washington State Constitution. Its “quasi-judicial”⁶⁸ proceedings are akin to adjudicative proceedings conducted by a state agency under RCW Ch. 34.05 Part IV, not to a court’s judicial review under RCW Ch. 34.05 Part V.

⁶⁴ *Cnty. Ass’n for Restoration of the Env’t*, 149 Wn.App. at 841 (citations and internal quotation marks omitted).

⁶⁵ *Id.* (citations and internal quotation marks omitted).

⁶⁶ *Id.*; *see also, Clark County*, 170 Wn.App. at 876 (discussing review of the Board’s weighing of expert testimony).

⁶⁷ RCW 43.21B.005 and .010.

⁶⁸ WAC 371-08-485(1).

The Board's evaluation, contrary to appellants' argument, was not about whether Ecology's action was an abuse of discretion or arbitrary and capricious.⁶⁹ As authorized by RCW 43.21B.170, Board rules WAC 371-08-485 and -540 govern Board review of an NPDES permit.⁷⁰ The proper standard for the Board's *de novo* review was whether the permit is "invalid in any respect," which includes an evaluation of whether it comports with all applicable laws and regulations:⁷¹

(1) The provisions of this section shall apply only to review proceedings before the board pertaining to permits issued by the department under the provisions of the National Pollutant Discharge Elimination System.

(2) In those cases where the board determines that the department issued a permit that is *invalid in any respect*, the board shall order the department to reissue the permit as directed by the board and *consistent with all applicable statutes and guidelines of the state and federal governments*.⁷²

The Board thus has the duty to remand a permit that is "invalid in any respect."⁷³ A legal definition of "invalid" is "[v]ain; inadequate to its

⁶⁹ Brief of Appellant Spokane County at 22; Brief of Appellant Ecology at 13.

⁷⁰ *Puget Soundkeeper Alliance v. Ecology*, PCHB No. 02-162, Order Granting Partial Summary Judgment (June 6, 2003) ¶ VIII ("The Board is guided by its own regulations, as to the standard of review regarding NPDES permits."). See also, Ecology's Brief at 13 (citing same standard).

⁷¹ *Puget Soundkeeper Alliance*, PCHB No. 02-162 (June 6, 2003) ¶ VIII; WAC 371-08-485(1) and -540(2).

⁷² WAC 371-08-540 (emphasis added).

⁷³ *Id.*

purpose; not of binding force or legal efficacy; lacking in authority or obligation.”⁷⁴ Given the meaning of “invalid,” the grounds upon which the Board should order a permit reissuance are quite broad.

This rigorous standard of review flows from the structure of our strict water pollution control laws:

The very premise of both the Clean Water Act and this state’s Water Pollution Control Act is no pollution is allowed, unless it is permitted by the regulating agency. The agency’s authority to permit pollution is constrained both by the express purposes of the acts, and the water quality standards under those acts.⁷⁵

Under the WAC 371-08-485(1) and -540 standard, the Board affords a degree of deference to Ecology’s interpretations of the laws and regulations it implements, and to its expertise on technical matters.⁷⁶ The Board’s deference to Ecology’s technical expertise is significantly tempered by the Board’s duty to engage in *de novo* review of Ecology’s decisions, and to weigh the evidence presented in its proceedings.⁷⁷ The Board’s findings of fact, in turn, will be upheld in subsequent review by

⁷⁴ Black’s Law Dictionary, Abridged Sixth Ed. (1991).

⁷⁵ *Puget Soundkeeper Alliance v. Ecology*, PCHB No. 02-162 (June 6, 2003) ¶ VIII.

⁷⁶ *Port of Seattle v. Pollution Control Hearings Board*, 151 Wn.2d 568, 591 – 595, 90 P.2d 659 (2004); *Clark County*, 170 Wn.App. 859, 876 – 877 (explaining *Port of Seattle’s* direction to the Board).

⁷⁷ WAC 371-08-485(1); *Clark County*, 170 Wn.App. at 876 – 877 (2012).

the courts unless “clearly erroneous.”⁷⁸

Respondents’ repeated assertion that the APA standards for judicial review of agency action, RCW 34.05.570(3), govern the Board’s decision-making should be disregarded.⁷⁹ The RCW 34.05.570(3) standards of review apply to review by the judicial branch of administrative action - such as appeals of Board decisions to this court.⁸⁰ They do not apply to the Board’s review of an NPDES permit issued by Ecology. Instead, the Board uses the specific WAC 371-08-540 standard of review it adopted by rule for appeals of this precise type, as authorized by statute.⁸¹

C. The Board’s proper determination that the SCRWRF discharge of PCBs presents “reasonable potential” to cause or contribute to violations of water quality standards has ample evidentiary support.

1. “Reasonable potential” analysis renders the binary decision of whether an NPDES permit must have effluent limitations to ensure against the reasonable potential for violation of water quality standards.

Congress enacted the Clean Water Act (“CWA”) in 1972 “to restore and maintain the chemical, physical, and biological integrity of the

⁷⁸ *Cnty. Ass’n for Restoration of the Env’t*, 149 Wn.App. 830, 841 (2009).

⁷⁹ Brief of Appellant Spokane County at 17 – 19, 22, 24, 25; Ecology Brief at 13.

⁸⁰ E.g., *Port of Seattle*, 151 Wn.2d at 587 – 588. See, RCW 43.21B.180 (providing for judicial review of Board decisions under the APA).

⁸¹ RCW 43.21B.170.

Nation's waters.”⁸² Express goals to this end include the eventual elimination of pollutant discharges and the prohibition of discharges “of toxic pollutants in toxic amounts.”⁸³ Accordingly, the CWA prohibits discharges of pollutants unless authorized by CWA permit.⁸⁴ For “point source discharges,” which include any pollutant discharge to navigable waters from a pipe or any “discrete conveyance,” the CWA established the National Pollutant Discharge Elimination System (“NPDES”) permit scheme, authority for which EPA has transferred to Washington, which must abide by federal standards and applicable state law.⁸⁵

NPDES permits contain effluent limitations, i.e., restrictions “on quantities, rates, and concentrations of chemical, physical, biological, and other constituents which are discharged from point sources into navigable waters.”⁸⁶ Two types of effluent limitations may be imposed. Effluent limits requiring the use of the best available pollution prevention or

⁸² 33 U.S.C. § 1251(a); *see also*, *EPA v. California ex. rel. State Water Res. Control Bd.*, 426 U.S. 200, 203 – 208 (1976).

⁸³ 33 U.S.C. § 1251(a)(1) and (3).

⁸⁴ 33 U.S.C. § 1311(a).

⁸⁵ 33 U.S.C. § 1362(14) (defining “point source”); 33 U.S.C. § 1342(a) and (b); *see also* 40 C.F.R. § 123.25 (identifying federal regulatory standards mandatory for state permitting programs). Ecology has been delegated NPDES permitting authority by EPA.

⁸⁶ 33 U.S.C. § 1362(11). Other standard features of NPDES permits include monitoring, reporting, and recordkeeping requirements, as well as narrative operational standards. 40 C.F.R. § 122.44; WAC 173-220-210.

control technology form the baseline, with more stringent water quality-based effluent limitations (“WQBELs”) mandated if necessary to meet “water quality standards.”⁸⁷ Specifically, WQBELs must be imposed to “control all pollutants or pollutant parameters ... which the [permitting authority] determines are or may be discharged at a level which will cause, have the reasonable potential to cause, or contribute to an excursion above any State water quality standard, including State narrative criteria for water quality.”⁸⁸ As the Ninth Circuit put it, “[e]ffluent limitations are a means of *achieving* water quality standards.”⁸⁹ This extends to meeting the water quality standards of “all affected” (i.e., downstream) states, including Indian Tribes that have been certified by EPA for “treatment as a state,”⁹⁰ in this case the standards of the Spokane Tribe of Indians.⁹¹ WQBELs must generally be expressed in NPDES permits as numeric limits, unless numeric limits are “not feasible,” in which case they may be

⁸⁷ *Natural Resources Defense Council v. U.S. E.P.A.*, 915 F.2d 1314, 1317 (9th Cir. 1990); 33 U.S.C. § 1311(b)(1)(A) and (b)(1)(C); 40 C.F.R. § 122.44(d) and (e); *see also*, WAC 173-220-130(1)(a) and (1)(b).

⁸⁸ 40 C.F.R. § 122.44(d)(1)(i).

⁸⁹ *Trustees for Alaska v. E.P.A.*, 749 F.2d 549, 557 (9th Cir. 1984) (italics in original).

⁹⁰ 40 C.F.R. § 122.4(d); 33 U.S.C. § 1377; 40 C.F.R. § 131.8; *Arkansas v. Oklahoma*, 503 U.S. 91, 105 (1992); *see also*, WAC 173-201A-260(3)(b) (“Upstream actions must be conducted in manners that meet downstream water body criteria.”).

⁹¹ RP 31:16 – 32:2.

narrative.⁹²

While the CWA focuses control of pollution at the pipe, it also sets the broader goal of attaining acceptable receiving-water quality.⁹³ States must define “water quality standards” that establish, and then protect, the desired conditions of each state’s waterbodies.⁹⁴ “Water quality standards are retained as a supplementary basis for effluent limitations [] so that numerous point sources, despite individual compliance with effluent limitations, may be further regulated to prevent water quality from falling below acceptable levels,”⁹⁵ the exact condition which obtains in the Spokane River. Water quality standards comprise three parts: designated uses, numeric and narrative water quality criteria, and an antidegradation policy.⁹⁶ Every applicable component of each of the three parts is

⁹² *Communities for a Better Environment v. State Water Res. Control Board*, 109 Cal.App. 4th 1089, 1104 – 1105 (2003); 40 C.F.R. § 122.44(k)(3). *See also, In the Matter of the Petition of Boeing Company*, Order No. WQ 2006-0012, 2006 Cal. ENV LEXIS 121, 34 – 37 (Cal. Water Res. Control Bd. 2006) (§122.44(k)(3) authorizes use of non-numeric WQBELs only where numeric limitations are infeasible; “feasibility” refers to ability or propriety of establishing numeric limitation, not ability of discharger to comply); *see also* WAC 173-220-130(3)(a) and WAC 173-204-400(7).

⁹³ *Pronsolino v. Nastri*, 291 F.3d 1123, 1126 (9th Cir. 2002) (citations omitted).

⁹⁴ 33 U.S.C. § 1313(c)(2)(A).

⁹⁵ *EPA v. California ex. rel. State Water Res. Control Bd.*, 426 U.S. at 205 n.12 (1976).

⁹⁶ 33 U.S.C. § 1313(c)(2)(A) and (d)(4)(B); 40 C.F.R. §§ 131.3(i) and 131.6.

independently effective and their protection is cumulative.⁹⁷

The mandate that NPDES permits include WQBELs adequate to ensure against violations of state water quality standards is virtually absolute; “economic and technological restraints are not a valid consideration” in this regard.⁹⁸ In Washington, a parallel mandate is found in state law: “*In no event shall the discharge of toxicants be allowed that would violate any water quality standard, including toxicant standards, sediment criteria, and dilution zone criteria.*”⁹⁹

To implement this mandate, Ecology, as the NPDES permitting authority, must include WQBELs in permits “to control all pollutants ... which [Ecology] determines are or may be discharged at a level which will cause, have the reasonable potential to cause, or contribute to an excursion above” any water quality standard.¹⁰⁰ In making this determination, EPA

⁹⁷ *PUD No. 1 of Jefferson County v. Washington Dep’t of Ecology*, 511 U.S. 700, 714 – 719 (1994); WAC 173-201A-010(1)(c) (most stringent criteria apply).

⁹⁸ *Defenders of Wildlife v. Browner*, 191 F.3d. 1159, 1163 (9th Cir. 1999) (citations omitted); *Ackels v. U.S. E.P.A.*, 7 F.3d 862, 865 – 866 (9th Cir. 1993). As discussed in *Defenders of Wildlife*, NPDES permits for municipal stormwater discharges (distinct from municipal sewage treatment plant discharges like those from the SCRWRF at issue) are the sole exception to the mandate for “strict compliance with water quality standards.” 191 F.3d. at 1164 – 1165. In certain circumstances, however, some latitude is provided, for example compliance schedules, water quality offsets, and variances may be available for incorporation into permit terms regarding WQBELs. None of these are applicable here.

⁹⁹ RCW 90.48.520 (italics added); *see also*, WAC 173-201A-240(1) (narrative toxics criterion); WAC 173-220-130(1)(b).

¹⁰⁰ 40 C.F.R. § 122.44(d)(1)(i).

regulations call for procedures accounting for existing controls on the pollutant, the variability of the pollutant in the effluent, and, “where appropriate,” dilution in the receiving water.¹⁰¹

This threshold inquiry to evaluate the need for WQBELs in an NPDES permit is known as “reasonable potential analysis.”¹⁰² If the permitting authority answers the binary reasonable potential question in the affirmative for a particular pollutant, a WQBEL for that pollutant must be included in the NPDES permit to achieve a “level of water quality” that “is derived from and complies with all applicable water quality standards.”¹⁰³ Determinations (1) of reasonable potential and (2) of appropriate WQBELs (i.e., whether they be numeric or narrative, and, if numeric, what numbers) are distinct and sequential steps in the required process.¹⁰⁴ Even if it may not be appropriate or possible to set numeric WQBELs in the absence of effluent data, this does not obviate the

¹⁰¹ 40 C.F.R. § 122.44(d)(1)(ii).

¹⁰² *National Mining Ass'n v. Jackson*, 880 F.Supp.2d 119, 126 (D.D.C. 2012), reversed and remanded by *National Mining Ass'n v. McCarthy*, 2014 U.S. App. LEXIS 13156 (D.C. Cir. 2014) (citing *American Paper Inst. v. EPA*, 996 F.2d 346, 349 (D.C. Cir. 1993)) (discussing rule).

¹⁰³ 40 C.F.R. § 122.44(d)(1)(iii), (d)(1)(vii)(A). Here, the Board held that the SCRWRF does have potential to violate water quality standards and Ecology should have employed this analysis.

¹⁰⁴ 40 C.F.R. § 122.44(d); AR 2654 (Ex. A20 at 40); see, e.g., *Divers' Envt'l Conservation Organization v. State Water Res. Control Board*, 145 Cal.App.4th 246, 257 – 258 (2006); *Communities for a Better Environment*, 109 Cal.App.4th at 1104 – 1105.

mandate to include effective narrative WQBELs whenever a discharge has “reasonable potential” to cause or contribute to violations of water quality standards.¹⁰⁵

2. Reasonable potential analysis can be performed with different types of relevant information, not only through statistical analysis of ample effluent monitoring data.

For toxic pollutants like PCBs, EPA issued guidance on performance of reasonable potential analysis as required by 40 C.F.R. § 122.44(d)(1)(ii) in the *TSD for Toxics Control*.¹⁰⁶ Most relevant to this case is EPA’s guidance on reasonable potential analysis for individual toxic pollutants in two circumstances: with and without toxic pollutant effluent data.¹⁰⁷

When there is no effluent data, as was the case before start-up of the SCRWRF, the *TSD for Toxics Control* explains that a reasonable potential analysis can be adequately conducted by evaluation of other information, including available dilution in the receiving waters,¹⁰⁸ the type of discharging facility and existing data for that facility type, and

¹⁰⁵ *Divers’ Emt’l Conservation Organization*, 145 Cal.App. 4th 257 – 258; 33 U.S.C. § 1311(b)(1)(C); 40 C.F.R. § 122.44(d); WAC 173-201A-510(1); WAC 173-220-130(b)(1).

¹⁰⁶ AR 2606 (Ex. A20 at xxiii)

¹⁰⁷ AR 2653, 2656-2660 (Id. at 47 and 50 – 54).

¹⁰⁸ The impropriety of considering dilution for bioaccumulating pollutants (PBTs) is more fully discussed below at FN ___ and associated text.

characteristics of the receiving waters.¹⁰⁹ Examples of the receiving water characteristics that EPA suggests for consideration include fish consumption advisories and a host of other indicators of water quality standards violations.¹¹⁰ Reasonable potential analysis conducted without effluent data can certainly be valid.¹¹¹

When effluent data is available, as it was by the time the Board conducted its *de novo* review, the *TSD for Toxics Control* directs that it should be considered along with these same factors to determine reasonable potential.¹¹² To “characterize the effects of effluent variability and reduce uncertainty” in reasonable potential analysis, the *TSD for Toxics Control* describes a statistical approach that involves adjusting the effluent data values based on the number of data points and other statistical considerations, and comparing the resulting value to the

¹⁰⁹ AR 2656 (Id. At 50).

¹¹⁰ AR 2656 – 2657 (Id. At 50 – 51). As discussed below, there is ample evidence of this type available for PCB pollution in the Spokane River.

¹¹¹ *Divers' Env't'l Conservation Organization*, 145 Cal.App.4th at 257 – 258. (“The fact the studies the Regional Board performed did not produce numeric analysis of all the potential pollutants in the Navy's stormwater discharges did not prevent the Regional Board from nonetheless concluding, on the basis of the studies it did perform, that the stormwater discharges had a reasonable potential to cause or contribute to pollution in the bay above state water quality standards.”)

¹¹² AR 2657 (Ex. A20 at 51).

appropriate numeric criterion for the toxic pollutant under evaluation.¹¹³ As expressly stated in its own *Water Quality Program Permit Writer's Manual*, Ecology has adopted this statistical process for reasonable potential analysis with limited effluent data.¹¹⁴

3. Abundant evidence, including expert testimony, supports the Board's determination of reasonable potential.

The Court should uphold the Final Order's finding that the SCRWWF discharge of PCBs presents a reasonable potential to cause violations of water quality standards because the record contains far more than "a sufficient quantity of evidence to persuade a fair-minded person of the truth or correctness of the order."¹¹⁵ There is simply no way for the Court to reach any other conclusion without impermissibly weighing the credibility of witnesses or substituting its judgment for the Board's.¹¹⁶

The Board correctly identified five PCB-related water quality criteria implicated in reasonable potential analysis for the SCRWWF discharge: (1) state human health-based ambient criterion (170 pg/L); (2) state fish tissue criterion (5.3 ng/g); (3) Spokane Tribal human health-

¹¹³ See AR 2658 – 2660 (Id. at 52 – 54).

¹¹⁴ AR 2500 (Ex. A17 at VI-30); RP 80:3 – 21.

¹¹⁵ *Cnty. Ass'n for Restoration of the Env't*, 149 Wn.App.at 841.

¹¹⁶ *Id.*; see also, *Clark County*, 170 Wn.App. at 872 (Court should defer to Board's factual findings unless "clearly erroneous," even where opposing party disputes the evidence "with evidence of equal dignity").

based ambient criterion (3.37 pg/L); (4) Tribal fish tissue criterion (0.1 ng/g); and (5) designated use of harvest in both state and Tribal standards.¹¹⁷ Reasonable potential analysis must also consider compliance with state and Tribal narrative toxic criteria, which prohibit discharges with *potential* to cumulatively adversely affect characteristic uses or human health.¹¹⁸ Each of these water quality standards is independently effective, with the *most stringent* situation-specific criteria deemed applicable,¹¹⁹ and possible violation of any of them can lead to an affirmative reasonable potential determination.¹²⁰

Ecology insists that it could not perform reasonable potential analysis because it lacked effluent data prior to start up, but this is not what the law requires.

¹¹⁷ Final Order at 3. Each of these standards is independent and separately enforceable. *PUD No. 1*, 511 U.S. at 714 - 715. See also, 40 C.F.R. § 122.44(d)(1)(ii) (determine reasonable potential to contribute “to an in-stream excursion above a *narrative or numeric* criteria ...”) (italics added).

¹¹⁸ 40 C.F.R. § 131.3(i) (“water quality standards” include designated uses and criteria); WAC 173-201A-240(1), -260(3)(b); STI WQS 6(1). Thus required is a binary determination whether the discharge presents a “reasonable potential” to “have the potential either singularly or cumulatively to adversely affect characteristic water uses” WAC 173-201A-240(1). This is a low threshold.

¹¹⁹ WAC 173-201A-010(1)(c).

¹²⁰ *PUD No. 1*, 511 U.S. at 714 – 715; *State Water Control Board v. Captain’s Cove Util. Co.*, 2008 Va. App. LEXIS 375, 23 – 25 (2008). See also, 40 C.F.R. § 122.44(d)(1) (repeatedly referencing numeric and narrative criteria); and WAC 173-201A-010(1)(a) (“All surface waters are protected by numeric and narrative criteria, designated uses, and an antidegradation policy.”)

Consistent with EPA's *TSD for Toxics Control* guidance, the Board identified qualitative factors, including the expectation that the discharge would contain PCBs, the lack of available dilution, the several listings of Spokane River segments not meeting state PCB standards, the WDOH fish consumption advisories, and the information on PCBs in the river provided by Ecology's comprehensive *Source Assessment*, which the permit writer considered to contain valid information and conclusions.¹²¹

Indeed, given the Spokane River's current conditions, including that humans cannot safely consume its fish, it is sound to conclude that the SCRWRP discharge, if it contains any PCBs whatsoever, has reasonable potential to cause violation of all the water quality criteria at issue.¹²²

¹²¹ Final Order at 21; RP 68:5 – 7. The *Source Assessment* was prepared by the Toxic Studies Unit of Ecology's Environmental Assessment Program upon evaluation of thirty years' worth of studies, with contributions from science staff of numerous sister agencies. AR 2319, 2328, 2347 – 2351, 2357 -2371 (Ex. A12 at 1, 10, 29 - 33, and 39 – 53).

¹²² RP 252:4 -19:

Q: Do you have an opinion about whether the discharge from the [SCRWRP] contributes to violations of water quality standards in the Spokane River including state and tribal human health criteria and designated uses?

A (deFur): Yes, I do. I believe it does.

Q: Okay. What is the basis for that opinion?

A: There are two fundamental parts to that. One of them is that the wastewater plant will discharge PCBs and is discharging PCBs under the current conditions that are experienced in the Spokane River with fish tissue concentrations in excess of health standards and water quality standards pretty much at the point of discharge and further south (sic) are

Sierra Club's expert testified that all of these criteria are likely already violated throughout either the entire Washington State stretch of the Spokane River or substantial portions of it.¹²³ Ecology's *Source Assessment* documents extensive overload of PCBs throughout the river and a resulting lack of assimilative capacity and available dilution. These factors, along with the persistent bioaccumulative nature of PCBs, and the inadequacy of current controls on PCB sources, demonstrate that loading to the river must decrease by 95% or more to meet the stringent Tribal PCB criteria.¹²⁴ The *Source Assessment* concludes that existing NPDES dischargers to the river (not including SCRWRF) downstream of the Idaho state line must reduce PCB discharges by at least 99% to reach this goal.¹²⁵ As deFur testified, these facts and analysis support the conclusion that *any* contribution of PCBs to the river is likely to contribute to already serious violations of PCB-related standards.¹²⁶ EPA guidance confirms that when numerous dischargers collectively present reasonable potential,

at or above 170 picograms per liter, additional contributions of PCBs will continue to keep those concentrations and loadings elevated.

¹²³ RP 230:6 – 232:21, 239:21 – 242:5.

¹²⁴ RP 245:12 – 249:14; AR 2327, 2409 – 2426 (Ex. A12 at 9 and 91 – 108).

¹²⁵ AR 2327 and 2409 – 2426 (Ex. A12 at 9 and 91 – 108).

¹²⁶ RP 252:4 – 253:12, 284:22 – 285:11.

then each itself has reasonable potential.¹²⁷

For its *de novo* review, the Board also had the benefit of PCB effluent data provided by the County's two post-start up monitoring events.¹²⁸ The total PCB effluent concentrations exceeded the state's 170 pg/L ambient water PCB criterion.¹²⁹ In using this data to support a reasonable potential finding, it is inappropriate to consider dilution because the primary concern in the river – the mass of PCBs found in fish tissue – concerns the PCB load contributed to the river over time, which accumulates in sediments and the trophic system – not the water column concentration.¹³⁰

¹²⁷ AR 2653 (Ex. A20 at 47).

¹²⁸ AR 3835 (Ex. R4) and AR 3339 (A35). Because PCHB review is *de novo*, it was appropriate for the Board to consider post-permit-issuance evidence. WAC 371-08-485(1).

¹²⁹ RP 273:21 and 277:23; AR 3852 (Ex. R4 at 18); AR 3359 (Ex. A35 at 21).

¹³⁰ RP 284:4 – 285:11:

Q: Okay. You're not considering a mixing zone or corresponding dilution factor analysis in your analysis. In your deposition you said you don't challenge the mixing zone. Why aren't you considering it in your answers?

A (deFur): Well, there are two reasons. The mixing zone is largely a legal issue rather than so much a matter of PCB loadings into the system. And the second one is what I was talking about a couple of times, and in this particular occasion the question has to do with the total amount of PCBs that are loaded into the system over a period of time. So it's an accumulation, it's a buildup, rather than a mixing zone phenomenon in which at one concentration there is going to be an immediate impact and at another concentration there's not, because PCB concentrations – they

Dr. deFur walked the Board through the exercise of conservatively correcting the PCB lab results by subtracting PCB concentrations found in control samples (“blanks”).¹³¹ He then roughed the statistical analysis suggested in the *TSD for Toxics Control* in the event of limited effluent data, in accordance with the policy statement and tables in Ecology’s own *Water Quality Program Permit Writer’s Manual*.¹³² One purpose of this approach is to consider effluent variability.¹³³ As described by the Ecology manual, to perform statistical reasonable potential analysis with two effluent sample results, one takes the higher result and multiplies it by

have to sore (sic) beyond the solubility of the chemical in the water to have an impact.

Q: Okay. You touched on this earlier, but it’s an important point and as we get to the end of this, I just want to make sure that it’s clear. Why when you’re considering PCB loading and whether the discharge contributes to violation of water quality standards might the persistent bioaccumulative toxic characteristics of PCBs be relevant?

A: Because they are going to accumulate and persist in the fish to make the designated use unmeetable because it will keep sediment concentrations of PCBs elevated to the point where they will also continue to add PCBs into the trophic system and fish and it will basically accumulate in the sediments behind the dams and in other areas and they’ll be retained there for many, many years.

See also, 65 Fed. Reg. 67640 – 641 (reasons for banning mixing zones for PCBs in Great Lakes).

¹³¹ RP 274:3 – 17, 277:22 – 278:10.

¹³² RP 283:4 – 284:3.

¹³³ AR 2658 (Ex. A20 at 52); 40 C.F.R. § 122.44(d)(1)(ii)

1.5 and compares the product with the ambient water quality criterion.¹³⁴ Here, the numbers are 258 pg/L (blank corrected result of 172 times 1.5) against the 170 pg/L state criterion, demonstrating reasonable potential.

Following deFur's conservative adjustment of the PCB lab results, he estimated that the SCRWRF discharges in the range of 2 to 5 milligrams per day (mg/d) of PCBs to the river.¹³⁵ These estimates can be compared to Ecology's proposed wasteload allocations for the existing dischargers to achieve PCB load reductions as determined in the *Source Assessment*.¹³⁶ These proposed allocations would limit the existing NPDES dischargers to daily PCB loading in the range of 0.1 to 0.76

¹³⁴ AR 2526 (Ex. A17 at VII-15); RP 283:4 – 284:3. *See also*, RP 158:22 – 160:2.

¹³⁵ RP 278:13 – 280:9

¹³⁶ The 2006 draft total maximum daily load ("TMDL") (AR 3193 (Ex. A34)) was converted by Ecology into the *Source Assessment*. RP 249:17 – 250:4. For waters listed by a state as not meeting water quality standards, the CWA requires that a TMDL "shall be established at a level necessary to implement the applicable water quality standards" 33 U.S.C. § 1313(d)(1)(C). "A TMDL defines the specified maximum amount of a pollutant which can be discharged or 'loaded' into the waters at issue from all combined sources." *Pronsolino*, 291 F.3d at 1127 – 1128 (citation omitted); *see also*, *Conservation Law Found., Inc. v. United States EPA*, 964 F. Supp. 2d 175, 178 - 179 (D. Mass. 2013) (characterizing a TMDL as a "pollution budget," representing a calculation of the maximum amount of a pollutant that a water body can receive and still meet water quality standards). In a pending case, respondents have challenged EPA's failure to act on Ecology's constructive submission of the Spokane PCB TMDL and the federal district court has granted relief. *Sierra Club v. McLerran*, W.D. Wash. No. 11-1759, Memorandum Order Remanding Matter for Further Consideration, March 16, 2015 (Dkt. 120).

mg/d.¹³⁷ The loading estimate for the SCRWRF of 2 to 5 mg/d, based on SCRWRF effluent data, far exceeds these, again demonstrating reasonable potential.¹³⁸

All of these lines of evidence and ways of considering the contribution of the SCRWRF PCB discharges to the severe water quality standards violations in the Spokane River constitute far more than the substantial evidence needed to uphold the Board's ruling.¹³⁹

D. The Board properly held that Ecology "should" have conducted reasonable potential analysis.

The Court should uphold the Board's ruling that Ecology should have conducted a reasonable potential analysis for SCRWRF PCBs because the evidence indicates that Ecology in fact knew that the PCB discharge would likely contribute to violations of water quality standards when considering "the river as a whole."¹⁴⁰ The Board did *not* hold that reasonable potential analysis is always required in any circumstance, and the issue of whether reasonable potential analysis is always mandatory is

¹³⁷ AR 3288 (Ex. A34 at 93). EPA guidance confirms that when numerous dischargers collectively present a reasonable potential, then each itself has reasonable potential. AR 2653 (Ex. A20 at 47).

¹³⁸ RP 280:10 – 281:11.

¹³⁹ RCW 34.05.570(3)(e).

¹⁴⁰ Final Order at 21; RP 173:21 – 174:11.

not before the Court.¹⁴¹

Reasonable potential analysis is a tool to implement the CWA mandate that NPDES permits contain effluent limitations adequate to prevent discharges that violate water quality standards.¹⁴² Under both state and federal law, this mandate extends to protection of water quality standards “of all affected states,” including downstream tribes (like the Spokane Tribe) that have obtained “treatment as a state” status.¹⁴³ Ecology’s omission of effective WQBELs from the SCRWRF permit, based on its assertion that it could not perform reasonable potential analysis because of inadequate information – when it actually knew or suspected that a toxic discharge is likely to cause or contribute to violations of water quality standards – represents a serious abrogation of this fundamental CWA mandate. It also violates state statutory mandates that “[i]n no event shall the discharge of toxicants be allowed that would violate *any* water quality standard . . .,”¹⁴⁴ and to maintain “the highest possible standards to ensure the purity of all waters of the state . . .”

¹⁴¹ Final Order.

¹⁴² 33 U.S.C. § 1311(b)(1)(C); 40 C.F.R. § 122.44(d)(1); *Ackels*, 7 F.3d at 865 – 866.

¹⁴³ 40 C.F.R. § 122.4(d); 33 U.S.C. § 1377; 40 C.F.R. § 131.8; *Arkansas*, 503 U.S. at 105; WAC 173-201A-260(3)(b) (“Upstream actions must be conducted in manners that meet downstream water body criteria.”).

¹⁴⁴ RCW 90.48.520 (italics added).

through full and effective exercise of state powers.¹⁴⁵

In its evaluation of reasonable potential, the Board first noted that although Ecology permit writer Koch claimed that he did not conduct reasonable potential analysis, the Permit's fact sheet explicitly states otherwise, at one point concluding that "[k]nown wastewater treatment technologies can not reduce influent PCBs adequately to meet current water quality standards for PCBs."¹⁴⁶ The fact sheet describes the Spokane Tribe's very low criteria as "problematic," and asserts that "no currently available treatment technology is likely to provide adequate removal sufficient to comply with either state water quality standards for PCBs or the more stringent tribal water quality standard."¹⁴⁷ After considering dilution of the SCRWRF discharge, Ecology concluded, "[t]he resulting PCB concentration in the water column could be less than the PCB concentration coming across the state line but still above the tribal standard."¹⁴⁸ Essentially, Ecology here acknowledged that the discharge would contribute to the PCB standards violations.

¹⁴⁵ RCW 90.48.010.

¹⁴⁶ Final Order at 21. AR 3792 and 3811 (Ex. R2 at 21 and 40); RP 98:20 – 99:5 (discussing statement).

¹⁴⁷ AR 3788 and 3811 (Ex.R2 at 17 and 40) (similar). *See also*, RP 69:17 – 70:1 and 154:8 – 155:3 (discussing statement).

¹⁴⁸ AR 3789 (Ex. R2 at 18).

The evaluation described in the fact sheet “showed that the discharge has no reasonable potential *other than PCBs* to cause a violation of water quality standards.”¹⁴⁹ For this reason, Ecology declared that the Permit must have a PCB WQBEL, albeit only a narrative one requiring a “plan for source control.”¹⁵⁰ Accordingly, in “consider[ation] of the river as a whole,” Ecology included narrative conditions S12 and S13.¹⁵¹ The language of S12 itself explicitly assumes that the SCRWRF discharge has reasonable potential; the goals of the required toxics management plan include reducing effluent PCBs “*so that in time the effluent does not contribute to PCBs in the Spokane River exceeding applicable water quality standards.*”¹⁵²

Permit writer Koch testified that he (incorrectly) believed reasonable potential analysis to be possible only with an ample body of effluent data using statistical analysis,¹⁵³ which effectively excluded much of the relevant information about the severe state of the river’s PCB overload, e.g., WDOH fish consumption advisories and the *Source*

¹⁴⁹ AR 3805 (Ex. R2 at 34).

¹⁵⁰ *Id.*

¹⁵¹ RP 174:15 – 18, 114:21 – 115:10, 148:14 – 149:12, 154:8 – 155:3.

¹⁵² AR 3682 (Ex. Ecy1 at 47) (italics added).

¹⁵³ RP 72:2 – 11, 152:14 – 19.

Assessment conclusions.¹⁵⁴ While it may be necessary, as the Board concluded, to perform this type of statistical analysis to set numeric WQBELs, reasonable potential analysis can be qualitative and is not limited to a strictly-quantitative exercise.¹⁵⁵ But, in Koch’s erroneous view, PCB reasonable potential analysis excludes the effects of the SCRWRF discharge on meeting the downstream Spokane Tribal standards, regardless of the regulatory requirement to consider these.¹⁵⁶ When considering “the river as a whole,” or “as a system,” however, he conceded that the discharge has reasonable potential for PCBs.¹⁵⁷

The Board’s holding that Ecology “should” have performed reasonable potential analysis is supported by substantial evidence and consistent with applicable law.¹⁵⁸ The Board is entitled to reject Ecology’s expert’s opinions when, in the Board’s view, they are outweighed by contradictory expert testimony.¹⁵⁹ It would be improper

¹⁵⁴ RP 73:1 – 19, 81:10 – 20, 93:17 – 96:11

¹⁵⁵ Final Order at 22. Contrary to Ecology’s assertion, there is thus no inconsistency between the Board’s finding of reasonable potential and its agreement with Ecology that data needs made calculation of a numeric PCB WQBEL infeasible. *See also, Divers’ Env’tl Conservation Organization*, 145 Cal.App.4th at 257 – 258.

¹⁵⁶ RP 84:1 – 86:11; WAC 173-201A-260(3)(b); 40 C.F.R. § 122.4(d).

¹⁵⁷ RP 82:21 – 83:23, 154:8 – 155:3, 173:21 – 174:11.

¹⁵⁸ 33 U.S.C. § 1311(b)(1)(C); 40 C.F.R. § 122.4(d); RCW 90.48.520; WAC 173-201A-260(3)(b); WAC 173-220-130(1)(b)(i).

¹⁵⁹ *Clark County*, 170 Wn.App. at 876.

for this Court to substitute its judgment for that of the Board regarding the credibility of the expert testimony.¹⁶⁰ Further, Ecology’s refusal to take into account existing, relevant data to determine whether SCRWRf’s PCB discharges must be subject to appropriate WQBELs warrants no deference since it is contrary to law.¹⁶¹

That EPA appears (regardless of the contrary guidance in the *TSD for Toxics Control*) to have similarly forgone “reasonable potential” analysis for upriver PCB dischargers in Idaho does not support Respondents’ case, for reasons beyond this obvious one: EPA’s actions considered other discharges from other facilities at other locations in another state.

First, EPA based its non-determination on the purported absolute “lack of data” about PCBs contained in the other facilities’ discharges. Ecology, in contrast, had its own *Source Assessment*, which compiled and evaluated thirty years of Spokane River PCB data generated by and for the agency, and it also knew that the SCRWRf “effluent will include some quantity of PCBs.”¹⁶² For instance, the *Source Assessment* concludes that

¹⁶⁰ *Cnty. Ass’n for Restoration of the Env’t*, 149 Wn.App. at 841

¹⁶¹ *Waste Management of Seattle, Inc. v. The Utilities and Transportation Comm’n*, 123 Wn.2d 621, 628, 869 P.2d 1034 (1994); 33 U.S.C. § 1311(b)(1)(C); RCW 90.48.520; WAC 173-201A-260(3)(b).

¹⁶² Final Order at 21; RP 70:7 – 15, 273:16 – 275:19, 277:15 – 278:12; AR 2348 (Ex. A12 at 30); AR 3802 (Ex. R2 at 31).

attaining compliance with the Spokane Tribe of Indians' numeric PCB criteria “[i]ndustrial and municipal discharges *between the Idaho border and Lake Spokane* require PCB load reductions greater than 99%,” while making no conclusion about necessary load reductions for the upriver discharges in Idaho that EPA is regulating.¹⁶³ Further, the Board had specific effluent data confirming the presence of PCBs in the SCRWRF effluent to consider in its *de novo* review.¹⁶⁴

Second, these purported EPA decisions were made in the context of other particular facilities, not as generally applicable guidance, and were not challenged.

Third, EPA's implementation of the NPDES permit regime in Idaho is not subject to the additional directives of Washington State law that allow toxic discharges “in no event.” Ecology is required not only to meet federal standards but to “preserv[e] and vigorously exercise[e] state powers to insure that present and future standards of water quality within the state shall be determined by the citizenry, through and by the efforts of state government, of the state of Washington.”¹⁶⁵

¹⁶³ AR 2425-2426 (emphasis added).

¹⁶⁴ AR at 3753; Final Order at 9.

¹⁶⁵ RCW 90.48.010 and .520.

E. Given this reasonable potential, the Board’s remand order is appropriate.

Once reasonable potential for PCBs discharged from the SCRWRF to cause or contribute to water quality standards violations in the Spokane River is found, the Permit must include WQBELs (i.e., restrictions on pollutant discharges) “necessary to meet water quality standards.”¹⁶⁶ The Board found that Permit conditions S12 and S13 are not valid narrative WQBELs because they impose no “restrictions” on pollutant discharges.¹⁶⁷ Appellants’ arguments are limited to the Board’s finding of reasonable potential – they assert only that because it is wrong, the order requiring Ecology to fix S12 and S13 is wrong as a PCB WQBEL is (assertedly) unnecessary.¹⁶⁸ They do not complain about the second step of the Board’s analysis concerning the adequacy of the conditions as WQBELs independent of the error they perceive in the reasonable potential determination.

VI. CONCLUSION

For the foregoing reasons, the Court should uphold the holdings of the Final Order regarding the reasonable potential of its PCB contributions

¹⁶⁶ 33 U.S.C. §§ 1311(b)(1)(C) and 1362(11); 40 C.F.R. § 122.44(d)(1); WAC 173-201A-510(1); WAC 173-220-130(1)(b).

¹⁶⁷ Final Order at 22 – 26.

¹⁶⁸ Spokane County Brief at 26 – 29; Ecology Brief at 26 – 27.

to the Spokane River to cause or contribute to violations of water quality standards, as well as the Board's direction to Ecology to reissue the Permit with modification to Conditions S12 and S13 to correct the deficiency resulting from Ecology's failure to so find.

RESPECTFULLY SUBMITTED this 29th day of June, 2015

SMITH & LOWNEY, P.L.L.C.

By: 

Richard A. Smith, WSBA #21788
Attorneys for Respondents Sierra Club and
Center for Environmental Law & Policy

DECLARATION OF SERVICE

The undersigned declares under penalty of perjury, under the laws of the State of Washington, that the following is true and correct:

That on June 27, 2015 I served the foregoing to the following by

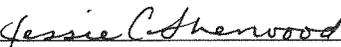
U.S. Mail and e-mail:

Ronald Lavigne
State of Washington
Department of Ecology
P.O. Box 40117
Olympia, WA 98504-0117
E-mail: RonaldL@atg.wa.gov

Lori Terry
Foster Pepper
1111 Third Avenue, Suite 3400
Seattle, WA 98101
E-mail: terrl@foster.com

John R. Nelson
Foster Pepper
422 W Riverside Ave Ste 1310
Spokane, WA 99201-0302
E-mail: nelsj@foster.com

Dated this 29th June 2015, at Seattle Washington.



Jessie C. Sherwood

SMITH & LOWNEY PLLC

June 29, 2015 - 4:25 PM

Transmittal Letter

Document Uploaded: 3-471582-Respondents' Brief.pdf

Case Name: Sierra Club and Center for Environmental Law & Policy v. Spokane, et al.

Court of Appeals Case Number: 47158-2

Is this a Personal Restraint Petition? Yes No

The document being Filed is:

Designation of Clerk's Papers Supplemental Designation of Clerk's Papers

Statement of Arrangements

Motion: _____

Answer/Reply to Motion: _____

Brief: Respondents'

Statement of Additional Authorities

Cost Bill

Objection to Cost Bill

Affidavit

Letter

Copy of Verbatim Report of Proceedings - No. of Volumes: _____

Hearing Date(s): _____

Personal Restraint Petition (PRP)

Response to Personal Restraint Petition

Reply to Response to Personal Restraint Petition

Petition for Review (PRV)

Other: _____

Comments:

No Comments were entered.

Sender Name: Jessie Sherwood - Email: jessie.c.sherwood@gmail.com

A copy of this document has been emailed to the following addresses:

ronaldl@atg.wa.gov

terrl@foster.com

nelsj@foster.com

rasmithwa@igc.org