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May 15, 2007

Director, Office of Water and Watersheds
U.S. EPA Region 10
NPDES Permits Unit
1200 6th Ave M/S OWW-130
Seattle, Washington 98101

RE: Comments on Proposed Reissuance of National Pollutant Discharge Elimination System (NPDES) Permits # ID-002285-3, ID-002585-2, ID-002659-0

Dear Director,

These comments are submitted on behalf of our client, Sierra Club, Upper Columbia River Group, on EPA's proposed reissuance of NPDES permits to the three wastewater treatment facilities discharging pollutants into the Spokane River just upstream of the Washington/Idaho border. The Sierra Club Upper Columbia River Group is a membership organization dedicated to protection of natural resources. The Upper Columbia River Group works on multiple issues related to restoring water and quality and quantity in the Spokane River and aquifer. There are approximately 1600 Upper Columbia River members in the Spokane watershed many of whom fish, swim, boat, paddle, hike and otherwise enjoy the Spokane River and Lake Spokane.

The City of Coeur d'Alene Wastewater Treatment Facility, the City of Post Falls Wastewater Treatment Plant, and the HARSB Wastewater Treatment Plant all discharge pollutants that have a significant impact on water quality downstream. EPA has the opportunity and a legal duty to condition these permits so that these pollutants do not cause or contribute to water quality violations in the Spokane River as it flows over the border, past the City of Spokane, through Lake Spokane and into the waters of the Spokane Reservation. Unfortunately, as proposed, these permits are not protective and downstream waters will continue to degrade over the next ten years.

As set forth in detail in the attached comments, the draft permits fall short of meeting the legal requirements of the Clean Water Act in a number of ways. These shortcomings include:

- Discharges from these three plants of oxygen depleting pollutants such as phosphorus contribute to violations of Washington State's water quality standards for dissolved oxygen in Lake Spokane.

- The compliance schedules allow the three dischargers cumulatively to discharge phosphorus at levels that cause water quality violations in Lake Spokane during parts of the year for nearly a decade.

- EPA failed to take a watershed approach in its examination of the pollution sources on the Spokane River. There are four wastewater treatment plants in Washington in addition to the three in Idaho that contribute to low dissolved oxygen in Lake Spokane. The best science shows that all seven must work together on a watershed basis to restore health to the Spokane River system. Instead, in permitting these plants, EPA ignored the watershed and gave all the allowable anthropogenic loading to Idaho.

- The permitting strategy is contrary to EPA's policy for watershed-based approaches including permitting – it is bad science, bad policy and bad law.

- The mandatory Phosphorus Management Plans provide for no regulatory oversight in violation of federal law. EPA must retain authority to review and approve this plan and afford the public an opportunity to comment.

In addition, we have provided you with a copy of Sierra Club's comments on the Idaho DEQ Draft 401 Certification for your review and for inclusion in the record for all three facilities.

Sierra Club hopes that EPA will reexamine its approach in the issuance of these permits and work with the State of Washington and others to draft lawful permits that cumulatively address the recovery of the Spokane River.

Sincerely,

CENTER FOR JUSTICE

Bonne Beavers
Attorney for Sierra Club, Upper Columbia Group

cc: Elin Miller, Tom Eaton, Brian Nickel USEPA
Regional Administrator, Idaho Department of Environmental Quality
Jay Manning, Dave Peeler, Jim Bellaty, Drea Traeumer, Washington Department of Ecology

The following comments on the Environmental Protection Agency's (EPA) proposed NPDES permits for the City of Coeur d'Alene, Idaho (Permit # ID-002285-3), City of Post Falls, Idaho (Permit # ID-002582-2), and Hayden Area Regional Sewer Board, Idaho (Permit # ID-002659-0) are submitted on behalf of the Sierra Club, Upper Columbia River Group.

INTRODUCTION

EPA proposes to reissue permits to three Idaho wastewater treatment plants (WWTPs) – the City of Coeur d'Alene (CDA), the City of Post Falls, and the Hayden Area Regional Sewer Board (Hayden). All three plants discharge into the Spokane River which flows into Washington State 4.08 miles below the Post Falls plant. Their discharge is joined by four more wastewater treatment plants discharging into the river in Washington– two publicly owned municipal plants, Liberty Lake and the City of Spokane, and two industrial plants, Inland Empire Paper Company and Kaiser Trentwood. Around 38 miles downstream of the Idaho-Washington border, the Spokane River flows into Lake Spokane.

Combined, these seven Spokane River wastewater treatment plants discharge up to 75 million gallons of treated wastewater a day in the summer to the river. These discharges, in combination with non-point source pollution from urban and rural runoff, impair water quality and cause violations of state water quality standards for dissolved oxygen (DO) in several segments of the Spokane River and Lake Spokane.[1] As a result, these segments are listed on the Clean Water Act's (CWA) § 303(d) list as critically impaired water bodies for dissolved oxygen.

Designation of a waterbody pursuant to § 303(d) means that current wastewater technologies and other pollution control activities, such as Best Management Practices (BMPs) for non-point sources, are insufficient to protect the health of the river and that more stringent measures must be applied to meet water quality standards. 33 U.S.C. §§ 1313(d), 1329; 40 C.F.R. § 130.7. As a result, the Washington Department of Ecology (Ecology) must devise a clean-up plan or Total Maximum Daily Load (TMDL)

[1] Ex.1 at 8 (TMDL To Restore and Maintain Dissolved Oxygen In the Spokane River and Long Lake (Long Lake), Submittal Report, Public Comment Draft (Revised October 15, 2004) (hereinafter "Draft TMDL")).

that identifies the pollutants contributing to oxygen depletion, assign pollutant waste load allocations to point sources and load allocations to non-point sources, and incorporate strategies to control pollutant release from both point and non-point sources. *Id.*

To determine the pollutant sources causing and contributing to low dissolved oxygen levels in the Spokane River and Lake Spokane, Ecology conducted an assessment of the pollutant loading in the watershed.[2] In its assessment, Ecology utilized the 2-D dynamic CE-QUAL-W2 model developed by the Army Corp of Engineers, upgraded in 2000, to simulate river and lake conditions and assess pollutant loading by point and non-point sources and their impacts on the river system. EPA subsequently utilized this model in determining permit conditions and load allocations for the Idaho plants.[3]

Based on its technical assessment, Ecology identified three pollutants of concern associated with dissolved oxygen depletion - BOD, ammonia and phosphorus - with the latter having the most significant impact on algal production in Lake Spokane and the river.[4] In October 2004, Ecology issued a Draft Total Maximum Daily Load (Draft TMDL) to restore and maintain dissolved oxygen in the Spokane River and Lake Spokane (Long Lake).[5]

A TMDL by definition is a cumulative analysis of all loading contributing to water quality degradation.[6] In developing a TMDL, agencies are required to determine the loading capacity of the water body, i.e., the greatest amount of loading that a water body can receive without violating water

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[2] *See Spokane River and Lake Spokane (Long Lake) Pollutant Loading Assessment for Protecting Dissolved Oxygen* (Cusimano 2004), available at http://www.ecy.wa.gov/biblio/0403006.html.

[3] Ex. 2*(Assessment of the Water Quality Impact of Idaho Wastewater Treatment Plants on the Spokane River and Lake Spokane*, EPA Region 10 (Cope 2006)). *See also Upper Spokane River Model in Idaho: Boundary Conditions and Model Setup for 2001 and 2004, Technical Report* , EWR-02-05 (Annear Jr. , Wells and Berger 2005). *See also* Ex. 32 Technical Memorandum (Massman 2007).

[4] Ex.1 at 10 (Ecology used the CE-QUAL-W2 model in its technical assessment); Ex. 2.1 (On November 30, 2004, experts representing Ecology, EPA, the U.S. Corps of Engineers, the Idaho Department of Environmental Quality, the dischargers, and the Sierra Club concurred that the model was adequate to support Ecology's conclusion that non-point and point sources of BOD and nutrients would have to be reduced to near background levels to meet the existing DO standard of 0.2mg/l decrease (WAC 173-201A-200)).

[5] Ex. 1; CDA Fact Sheet at C-3.

[6] 40 C.F.R. § 130.2.

quality standards, and then to divide the loads to all point and non-point sources in an effort to achieve water quality standards. A total maximum daily load, then, is the *sum* of the individual waste load allocations for the point sources, the load allocations for non-point sources, and the background loading that will not exceed the loading capacity.[7] It is a watershed-based analysis.

According to the Draft TMDL, non-point sources and point sources of oxygen-depleting pollutants must be reduced to near background levels to meet the existing water quality standard for dissolved oxygen in Lake Spokane. The standard requires that human sources can not cause more than a 0.2 mg/l decrease in dissolved oxygen below natural conditions in the lake. Although the Idaho dischargers contribute only 5% of the pollutant loading in Lake Spokane, they are a significant source of phosphorus, ammonia, and $CBOD_5$ loading in Lake Spokane and alone have the potential to cause a 1.1 mg/l decrease below natural conditions in Lake Spokane.[8] To that end, the 2004 Draft TMDL included the Idaho dischargers in its calculations and proposed effluent limits that the assessments showed were necessary to meet downstream standards for these as well as the Washington dischargers.[9]

To help in developing an implementation plan for the TMDL, Ecology convened a wide group of stakeholders to serve on a DO TMDL Advisory Committee and later the TMDL Collaboration. These stakeholders, including all seven dischargers, EPA, Ecology, citizens, and environmental organizations, worked together to map out a watershed-based dissolved oxygen cleanup plan that would reduce nutrient loading from all sources in an equitable fashion.[10] The intent was that the agencies would incorporate this plan into the dischargers' NPDES permits.

Achieving low ammonia levels is not difficult – extended aeration in conventional treatment systems can achieve effluent concentrations of ammonia near 0.1 mg/l – however, achieving very low phosphorus levels in point sources is more difficult and requires the installation of additional

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[7] *Id.*
[8] CDA Fact Sheet p. C-3, 4).
[9] Cusimano at 65 (Boundary conditions at WA/ID border included Idaho dischargers).
[10] Ex. 4.

treatment.[11] Recognizing that all dischargers would need to explore options, secure funding and upgrade facilities consistent with the Draft TMDL, Ecology and EPA proposed conditioning the existing dischargers' NPDES permits with compliance schedules which would allow interim limits for phosphorus of 50 ug/l for the first five-year permit cycle with final limits of 10 ug/l (near background levels) within the second five-year permit cycle.[12] It was later agreed that reductions could be achieved by a combination of end-of-pipe technology and other strategies such as reuse, conservation, and non-point source reductions as allowed by law.[13]

Unfortunately, EPA abandoned the watershed approach in permitting the three Idaho plants. Instead of viewing the watershed as a whole, EPA considered only the impact of the Idaho dischargers on Lake Spokane and conditioned the permits such that the Idaho discharges alone will cause just under 0.2 mg/l decrease below natural conditions in Lake Spokane.[14] This is problematic in that Idaho's discharges, in combination with just a fraction of Washington loading, will violate the water quality standards in Lake Spokane. In fact, the Idaho discharges at the proposed final limits, together with the allowable non-point source loading as calculated by the revised modeling, will cause a 0.4 mg/l decrease.[15]

In adopting this permitting strategy, EPA not only abandoned its watershed-permitting strategy, a strategy endorsed by EPA nationally, it has also violated federal law.

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[11] Ex. 5, Advanced Wastewater Treatment to Achieve Low Concentration of Phosphorus, USEPA Region 10 (Ragsdale 2007) at http://www.epa.gov/region10/phosphorus-technologies.htm.
[12] Ex. 1 at 27).
[13] Ex. 6, Foundational Concepts. S*ee also* Ex. 7 (Sierra Club letter expressing concerns with Foundational Concepts).
[14] CDA Fact Sheet at C-5. *See also* Ex. 5, 4.14.06 EPA email.
[15] Ex. 32 at C.4.

SPECIFIC COMMENTS

Comment 1 – As conditioned, these permits will contribute to violations of Washington's water quality standards in violation of federal law.

The authority to issue NPDES permits was granted by Congress to EPA under the Clean Water Act (CWA).[16] All such permits must comply with the applicable requirements of the CWA and its implementing regulations.[17] Under the CWA, EPA may not issue NPDES permits "when the imposition of conditions cannot ensure compliance with the applicable water quality requirements of all affected states."[18] With regard to these permits, both Idaho, where the effluent discharges take place, and Washington, where the receiving waters flow and ultimately discharge into Lake Spokane, are affected states. Thus EPA must consider the water quality standards of both states in making permit decisions.

In addition, federal regulations clearly and unambiguously require EPA to include in these permits any conditions necessary to achieve Washington's water quality standards, including limitations on all pollutants which EPA determines will cause or have the reasonable potential to cause or contribute to an excursion above Washington's water quality standards.[19] When determining whether a discharge causes or has a reasonable potential to cause or contribute to water quality standard violations, EPA must use procedures that account for existing controls on point and non-point sources of pollution.[20] When EPA determines that the discharge has the reasonable potential to cause water quality violations, EPA must place effluent limits in the permit that are sufficient to attain and maintain applicable water quality standards.[21] Finally, these effluent limits must be derived from and comply with all applicable water quality standards.[22]

[16] 33 U.S.C. § 1342.
[17] 33 U.S.C. §1311(b)(1)(c); 40 C.F.R. § 122.4 (a).
[18] 40 C.F.R.§ 122.4 (d).
[19] 40 C.F.R. § 122.44(d).
[20] *Id.*
[21] *Id.*
[22] *Id.*

As noted above, EPA states in the permit fact sheets for all three plants that the discharge of total ammonia, total phosphorus, and $CBOD_5$ from CDA, Hayden and Post Falls wastewater treatment plants have the reasonable potential to cause or contribute to water quality standards nonattainment for dissolved oxygen in the State of Washington.[23] Consequently EPA must place effluent limits in these permits that are sufficient to attain and maintain applicable water quality standards for dissolved oxygen in Washington.

In setting the permit limits, EPA states numerous times in all three fact sheets that the limits will not *cause* nonattainment of the standards in Lake Spokane:

> In compliance with 40 CFR 122.4(d), the proposed effluent limits will ensure that the Idaho dischargers will not cause nonattainment of Washington's dissolved oxygen water quality standards in Lake Spokane, which is the point of maximum impact for the permitted dischargers. Dissolved oxygen concentrations in Lake Spokane will not be measurably decreased from natural conditions (i.e. < 0.2 mg/L) due to Idaho point sources.[24]

However, nowhere does EPA claim the permits will not *contribute* to water quality violations, which is itself an express requirement of federal law. In doing so, EPA is effectively reading the word "contribute" out of the regulation.

EPA's own modeling demonstrates that the Idaho discharges at the proposed final effluent limits will alone cause just a shade under a 0.2 mg/l sag below natural conditions in Lake Spokane.[25] This is "just a shade under" the entire allowable loading. Clearly, this loading, added to just a fraction of Washington loading, whether non-point or point, will cause nonattainment of the standard.[26] Thus, by

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[23] CDA Fact Sheet p. 13 ¶ 2.
[24] *See* CDA, Post Falls, Hayden Fact Sheets C-10 ¶ 2, 3. *See also* CDA, Post Falls, Hayden Fact Sheets, C-4, C-11.
[25] Ex. 7 (EPA email from Brian Nickel, EPA permit writer, stating "It appears that Ben (Cope) and I have found limits for the Idaho dischargers which limit them to just a shade less than 0.2 mg/L impact in Lake Spokane on the worst day...."); Ex. 7.1 (The "modeling team" for the EPA runs and the revised TMDL runs included Bob Cusimano (Ecology), Karol Erickson (Ecology) and Ben Cope (EPA)). *See also* Ex. 32 at C.2 ("The expected impact from these point sources is approximately equal to the allowable limit of 0.2 mg/L decrease in dissolved oxygen concentrations in Long Lake....").
[26] *See* Ex. 8 at 95 (Dissolved oxygen depletion predicted by the model due to human causes is far in excess of the allowable 0.2 mg/l for the current and permitted loads (both point and non-point loading in Lake Spokane and parts of the Spokane River)). *See also* Ex. 32 at B.9. (Cumulative impact of the Idaho and Washington sources will exceed the water quality criteria of 0.2 mg/L reduction in dissolved oxygen).

any definition of the word "contribute," the Idaho dischargers will contribute to violations in Lake Spokane if allowed to discharge at the proposed levels.[27]

The use of the word "contribute" in the federal regulation clearly requires EPA to consider impacts on a water body cumulatively. Indeed, EPA itself considered the Idaho dischargers cumulatively. It just stopped at the state line and, in doing so, violated federal regulations.

Comment 2: The effluent limits for $CBOD_5$, ammonia and phosphorus are not derived from nor do they comply with Washington's water quality standards for dissolved oxygen in violation of 40 C.F.R. 122.44(d).

Federal law requires that the effluent limits in these three permits be derived from and comply with all applicable water quality standards in the affected states.[28] Washington's water quality standard for dissolved oxygen in lakes is an applicable water quality standard. Washington's current standard provides: For lakes, human actions considered cumulatively may not decrease the dissolved oxygen concentration more than 0.2 mg/L below natural conditions.[29] Although EPA indicated its intent to approve this standard as early as September 1, 2005, EPA has yet to finalize its approval of all standards.[30] Consequently, EPA here is utilizing the 1997 water quality standard for dissolved oxygen in lakes which provides for no measurable decrease from natural conditions.[31] (Nevertheless, Ecology is applying the new standards for new permits and other activities as it believes "these represent the most current science and are therefore the most appropriate to apply.").[32]

A facial reading of the 1997 standard shows that this standard does not have a 0.2 mg/l allowance for human sources in lakes. However, as explained by EPA in the Fact Sheets, Ecology has

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[27] *See In the Matter of Cities of Annandale*, 702 N.W.2d 768, 775 (Minn. App. 2005) ("A plain reading of the phrase "cause or contribute to the violation of water quality standards" in 40 C.F.R. § 122.44(d)(ii) indicates that, so long as some level of discharge may be causally attributed to the water quality violations, the permit shall not be issued.").
[28] 40 C.F.R. § 122.44(d).
[29] WAC 173-201A-200(1)(d)(ii).
[30] Ex. 3, Ecology 3.7.07 email.
[31] WAC 173-201A-030(5)(c)(ii).
[32] Ex. 3.

allowed a 0.2 mg/l sag in some TMDLs. Specifically the Fact Sheets state, "Ecology has generally allowed a 0.2 mg/l decrease in dissolved oxygen concentrations in TMDLs for oxygen-demanding substances, pursuant to its dissolved oxygen criterion of 'no measurable decrease from natural conditions.' … In other words, Ecology has interpreted its narrative criterion of 'no measurable decrease from natural conditions to mean 'less than a .2 mg/l decrease from natural conditions.'"[33] EPA thus interprets this standard as it applies here to mean that any decrease in dissolved oxygen attributable to the Idaho dischargers that is less than 0.2 mg/l is "less than measurable," and therefore does not violate Washington's lake class standard.

EPA attributes Ecology's "interpretation" of Washington's lake class water quality standard for dissolved oxygen to Bob Cusimano's 2004 *Loading Assessment for the Spokane River and Lake Spokane*.[34] In applying the standard to the Spokane River and Lake Spokane DO TMDL, Mr. Cusimano explained:

> The dissolved oxygen criterion for Lake Spokane is "no measurable change from natural conditions…." However, in other TMDLs for oxygen-consuming substances, Ecology has allowed a 0.2mg/L degradation in dissolved oxygen concentration due to human impacts when the dissolved oxygen concentration is below (or near) the criteria. We are proposing to apply this allowable change in dissolved oxygen for the Spokane River and Lake Spokane TMDL study as discussed in the following paragraphs. Any additional decrease in dissolved oxygen would require formally changing the water quality criteria for the river and lake (i.e. developing site-specific criteria) or conducting a Use Attainability Analysis (UAA) to reduce the level of beneficial use protection….
>
> We are proposing to apply the Lake Class dissolved oxygen criteria to Lake Spokane as follows: Under critical year conditions, allow no more than a 0.2 mg/L deficit in dissolved oxygen from "natural conditions" (i.e. reference conditions) at any point in the water column due to identified point and non-point pollutants. Reference conditions for Lake Spokane will be defined as the water quality conditions estimated by the calibrated CE-QUAL-W2 model that would occur with no point source discharges and tributary pollutant (non-point source) concentrations set to estimated background conditions.

Cusimano at 61, 62 [35]

[33] CDA Fact Sheet at C-4,5.
[34] CDA Fact Sheet at C-2, fn 3.
[35] Ex. 8.

As is clear from this excerpt, Ecology's intent in applying the lake criteria to Lake Spokane was to allow no more than a cumulative 0.2 mg/l decrease considering identified sources cumulatively. Ecology's former water quality standards senior analyst, Mark Hicks, concurs:

> The 1997 criteria do not have a 0.2 mg/l allowance for freshwaters. However, based on discussion with our TMDL modelers it is my understanding that we have been applying a 0.2 mg/l cumulative allowance in fresh waters as part of our dissolved oxygen TMDL targets. This has been argued as appropriate because of reasons such as: marine waters have a 0.2 allowance, lakes have a measurable degradation allowance, the 0.2 is within measurement error, the 0.2 would avoid setting an unreasonable zero allocation, and because Ecology wanted to include a 0.2 freshwater allowance during the ongoing rulemaking.[36]

Thus, as applied by Ecology, under the old standard, so long as the cumulative impact of all identified sources did not cause more than a 0.2mg/l decrease in dissolved oxygen in Lake Spokane, the water quality standards were deemed to be met.

EPA calculated the loading allocations for each plant by determining how much pollutant loading from all three Idaho plants would cause less than a .02 mg/l sag. Hence, EPA does acknowledge that the standard requires a cumulative analysis. And it agrees that Lake Spokane is a "reasonable point of compliance" for the Idaho dischargers.[37] Yet it arbitrarily limits its analysis for purposes of these permits to the impacts of the Idaho dischargers and ignores all other sources between the border and the lake. There is no basis in law for this distinction. EPA is charged by federal law to consider Idaho's *contribution* to Washington water quality violations. EPA is charged by federal law to apply Washington's water quality standards. The Idaho dischargers are identified sources of loading to Lake Spokane which both EPA and Ecology have shown contribute to violations of its water quality standard for dissolved oxygen.[38]

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[36] Ex. 9 at 11 ¶ 1.
[37] Ex. 2 at ¶ 5.
[38] This situation varies from that in *Arkansas v. Oklahoma* where the U.S. Supreme Court found no violation by an Arkansas discharge of Oklahoma's antidegradation policy where there was no evidence in the record of any detectable change in the water quality in the downstream state. *Arkansas v. Oklahoma,* 503 U.S. 91 (1992). There, the Court determined that the evidence supported a finding that, with regard to dissolved oxygen, "in the 39 miles between discharge and the border the effluent would experience "complete oxygen recovery." *Id.* at 112. By contrast, here extensive modeling provides ample

EPA has misinterpreted this standard. As applied by Ecology, the standard requires a consideration of all identified sources. Thus, EPA's application of this standard in all three permits is neither derived from nor consistent with Washington's lake standards, is arbitrary and capricious and is thus in violation of 40 CFR 122.44(d).

Additionally, the Spokane Tribe is an "affected state" for purposes of 40 C.F.R. § 122.44(d). The Tribe's dissolved oxygen water quality standards mirror Washington's and are violated below Long Lake dam, yet none of the permits analyze whether the Idaho discharges have the potential to cause or contribute to these water quality violations.

Comment 3: EPA's permitting approach fails to account for all existing controls on point and non-point sources of pollution as required by 40 C.F.R. § 122.44(d)(1)(ii).

Federal law requires EPA to account for all existing controls on point and non-point sources of pollution when determining whether a discharge causes or has the potential to cause or contribute to water quality violations. The modeling shows that existing controls on point and non-point sources in Idaho and Washington are inadequate to control pollution in Lake Spokane. EPA must consider these sources in conditioning the Idaho permits.

Despite the clear imperative under the CWA, EPA refuses to consider the cumulative impacts of all sources on Lake Spokane because the "TMDL is not yet complete."[39] Washington's failure to complete the TMDL cannot be used as an excuse to defer the inclusion of water quality based effluent limits in these permits as required by Clean Water Act section 301(b)(1)(C). There is simply nothing in

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evidence that after traveling the distance from the state line to the lake, the effluent has adverse impacts on dissolved oxygen in Lake Spokane. Moreover, in *Arkansas*, the point of impact was at the state line itself. Thus, the Court was not asked to consider questions of contribution. Indeed, the Court could not have been asked to consider contribution under 40 C.F.R. 122.44. Section 122.44, as it existed at the time the permit was drafted, did not contain the requirement for NPDES permits to specifically assess whether a discharge will "cause or contribute" to a water quality standard violation. *See* 48 Fed. Reg. 14,146 (April 1, 1983). After the permit for the City of Fayetteville was issued and after review by an EPA Administrative Law Judge, Section 122.44 was amended in 1989 to include the "cause or contribute" language. 54 Fed. Reg. 23,868 (June 2, 1989); *see also Oklahoma. v. E.P.A.*, 908 F.2d 595 (10th Cir, 1990)(for procedural history of the case). Accordingly, the interpretation of this regulation was an issue that was neither considered by nor properly before the Supreme Court. Further, the permits at issue in Arkansas were proposed in 1983. Clearly, advances have been made in qualitative and quantitative measuring methodologies in the past twenty-four years. According to Ben Cope, the CE-QUAL-W2 model can assess discharge impacts less than 0.2 mg/l with some degree of confidence. Ex. 2 at 4 ¶ 5.

[39] CDA Fact Sheet at C-4.

the CWA that allows EPA to defer promulgating protective and legal effluent limits until another state completes its TMDL.

The fact that the TMDL may be revised and issued at a later date, or that standards may be revised in the future, or that new technologies may emerge, or that new data could be produced, does not excuse issuing protective effluent limits now. The modeling that supports both the TMDL and EPA's permitting for Idaho is complete and cannot be ignored by EPA. This modeling shows that at the effluent limits proposed, Idaho will contribute to water quality violations downstream.[40] In fact, the modeling shows that the discharges at the proposed final limits (which will not become effective for nine years), combined with the allowable non-point source loading, will cause a 0.4 mg/l decrease below background. This gives rise to a duty to EPA to condition these permits in recognition that loading will be added in Washington. EPA can reasonably ascertain that Washington must condition its discharges to achieve and maintain the DO standard in Lake Spokane and that, under state law, Washington cannot ignore Idaho's contribution. Washington's current standards require consideration of all existing sources, e.g. a cumulative analysis, as does 40 C.F.R. 122.44(d).

Moreover, EPA's proposed interpretation of Washington's lake criteria is difficult to sustain on its face. If each Washington NPDES permit holder could individually discharge oxygen consuming pollutants such that its discharge alone caused just under a 0.2 mg/l decrease, the standard could never be met.[41] The same could be said for considering the Washington dischargers cumulatively but ignoring Idaho. EPA must consider all existing sources of loading to Lake Spokane in calculating protective effluent limits.

[40] Ex. 32 at B.8 (EPA's estimated allowable loading at the state line are expected to cause a decrease in dissolved oxygen in Long Lake equal to 0.2 mg/L. This impact does not include Washington sources.)
[41] Ex. 10 (Ecology email discussing result if each discharger were allowed to degrade Lake Spokane by 0.2 mg/l).

Comment 4: Utilizing the best science available, the Idaho discharges have a significant and measurable impact on Lake Spokane.

While water quality criteria are developed solely on science, water quality standards are developed taking into consideration technology, i.e., the ability to detect and measure specific levels of pollutants, and the economic and social impacts of imposing a regulatory level at a criteria recommendation. According to Ecology water quality staff, modeling is the accepted method for determining cumulative impacts to water segments:

> Historically, Ecology has not required ambient monitoring of dischargers, and since the criteria are based on compliance during critical conditions the monitoring necessary to statistically demonstrate compliance would be logistically and financially prohibitive. We always, or almost always, use simulations or models of some kind, whether static or dynamic to determine what effluent limits and controls on non-point sources will be needed to achieve compliance with the state standards.[42]

For the past several years, Ecology has been working with EPA for approval of its new standards. Apparently, EPA was unhappy about Ecology's allowing even a 0.2 mg/l decline below natural conditions in lakes in part because EPA considered 0.1 mg/l measurable.[43] Although EPA's Kathleen Collins indicated that "it is EPA's intention to approve the allowance for a 0.2 mg/L D.O. depression in the WA WQS package," she also asked Ecology to provide justification for this allowance.[44]

In response, Ecology water quality staff Melissa Guildersleeve replied that Ecology allowed a 0.2 mg/l reduction below natural conditions for the cumulative impact of all human sources of degradation to dissolved oxygen throughout the watershed for the following reasons:

1) the increment represents the measurement quality objective (MQO)1 for dissolved oxygen for our agency (See http://www.ecy.wa.gov/pubs0303200.pdf);

[42] Ex. 9 at 11, Email from Mark Hicks, former Water Quality Standards Senior Analyst, Washington Department of Ecology.
[43] Ex. 11 (Email from Mark Hicks discussing EPA's decision to grant 0.2 mg/L allowance to Idaho dischargers.).
[44] Ex. 9 at 2.

2) the increment is the reported accuracy range for hydrolab sensors (See http://www.hachennvironmental.com/products/d_oxygen.asp);

3) It is nearly no-change from natural conditions criteria, yet in rivers where there is reasonable dilution and active flows it also allows for permit limits to be set that can be achieved by permittees. (It would be meaningless to give an allowance for human effects so small that it typically results in zero discharge requirement);

4) The biological research studies used to establish water quality criteria are characterized by having oxygen concentrations which commonly fluctuated by more than 1.0 mg/l and thus cannot be used to infer precision greater than 0.2 mg/l is necessary or appropriate for applying the criteria; and

5) this cumulative impact criteria is not applied using field monitoring.[45]

In sum, then, Ecology's position was that a cumulative 0.2 mg/l decline was measurable and necessary as economic mitigation to avoid requiring zero discharge. It was a reasoned trade-off that would still prevent undue impacts. The standard did not, however, allow for individual point sources or groups of point sources to individually cause the sag. It was applied to all identified sources discharging into the water body of concern.

In November of 2005, EPA permit writer Brian Nickel and EPA modeler Ben Cope presented a power point on the "Permit Limits for Idaho Dischargers to the Spokane River."[46] In the presentation, EPA stated that the Idaho discharges were a "small, but significant, part of the problem" for dissolved oxygen in Lake Spokane.[47] The presentation included several slides showing the impact of the Idaho dischargers on dissolved oxygen in Lake Spokane under varying scenarios. In these, the model calculated D.O impacts from the Idaho dischargers at 0.81 mg/l, 0.24 mg/l , 0.28 mg/l, 0.15 mg/l, and 0.16 mg/l, two of which were under 0.2 mg/l.[48]

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[45] Ex. 9 at 5,6.
[46] Ex. 12.
[47] *Id.*
[48] Ex. 12.1 at 3 (EPA email discussing approved testing methodology and analytical procedures from EPA laboratory staff that can achieve quantification levels of less than 0.0005 mg/l).

EPA's modeling undisputedly shows that at the proposed final limits, the Idaho discharges alone will cause just a shade under the allowable limit. This modeling demonstrates more than theoretical impacts downstream and both EPA and Ecology rightly relied on this modeling, and not instream measurement, as the best available science to determine waste load and load allocations for the Spokane River sources.[49] EPA should, then, condition the Idaho permits consistent with the best science and Ecology's interpretation of its own standards.

Comment 5: EPA's unlawful permitting strategy leaves Washington sources no allowable loading.

EPA admits that its permitting approach is not based on science but on policy considerations.[50] A chart distributed by EPA to the modeling team[51] explains the differences in technical approaches between the modeling done by EPA for determining Idaho discharger permit limits and that done previously by Ecology for determining the TMDL daily load wasteload allocations.[52] The fifth item on the chart deals with the differences in how EPA and Ecology approached the "allowance of 0.2 mg/L DO degradation in Long Lake."[53] Specifically, the document states, "The TMDL assumed that the cumulative effect of all human-related loading (from both Washington and Idaho) could not degrade DO

[49] *Id.* at 3 (describing peer review process model development); Ex. 2 (EPA believes model reasonably incorporates the known features and available information for the Spokane River system; available data sufficient to develop a useful and reasonably accurate water quality model of the system; level of uncertainty is acceptable; runs sufficient to determine limitations of achieving water quality goals; model is well-suited to long, narrow reservoirs such as Long Lake); Ex. 2.1; Ex. 13 (EPA letter stating "Ecology's technical evaluation of the river from the Idaho border to the Long Lake Dam (Cusimano 2003) represents the best available information about Spokane River water quality conditions. The evaluation determined that during the critical period there is no loading capacity for pollutants that exert an effect on dissolved oxygen concentrations without degrading water quality."). *See also American Trucking Ass'n v. Atchison, T & S.F. Ry. Co.*, 387 U.S. 397, 416 (1967) (administrative agencies are not required to, nor should they, regulate the present and future within the inflexible limits of yesterday); *Postema v. PCHB*, 11 P.3d 726, 740 (2000) (citing to numerous PCHB decisions upholding conceptual modeling).

[50] Ex. 14 (EPA email attachment "Differences in technical approaches between the modeling done by EPA Region X for determining Idaho discharger permit limits and that done previously by the Washington State Department of Ecology for Determining Total Maximum Daily Load wasteload allocations).

[51] *Id.* The modeling team included Ben Cope, (EPA), Karol Erikson, Environmental Engineer , Environmental Assessment Program (Ecology), and Bob Cusimano (Section Manager, Environmental Assessment Program (Ecology). Other Ecology staff involved in the DO TMDL included Ken Merrill, DO TMDL lead through 2006.

[52] *Id.*

[53] *Id.*

more than 0.2 mg/L."[54] The EPA approach "assumes that Idaho dischargers could not degrade the DO more than 0.2mg/L. This is a 'legal/policy question.'"[55]

How the available loading is allocated amongst the sources and the states may in fact be a policy decision, but it must be based on good science and the law. Here, EPA has stepped away from the best available science and its own regulatory framework by giving all the allowable loading to Idaho. Not only is this bad science and bad law, it is bad policy. Were Washington to adopt EPA's approach by considering the Idaho discharges as boundary or background conditions at the state line, revising the TMDL and permitting the Washington dischargers in conformity therewith, it too would violate state and federal law. It would violate its own standard for dissolved oxygen in lakes by failing to consider all human sources cumulatively and it would violate federal law by failing to require water quality based effluent limits necessary to achieve water quality standards. Washington simply cannot allow another 0.2 mg/l sag in addition to Idaho's without violating the federal and state law. Similarly, EPA may not legally approve a TMDL or NPDES permit that relies on a degraded baseline river condition at the ID/WA border from which further impairment will be allowed by Washington sources.[56]

Unfortunately, it appears, based upon Ecology's latest modeling report, that Washington may revise its TMDL in conformity with EPA's approach.[57] Under the 2004 Draft TMDL, the boundary conditions at the state line did not include the Idaho point source discharges.[58] Consistent with the law, these discharges, in addition to Washington sources, were considered in determining how much more loading could be added beyond background to avoid causing more than a 0.2 mg/l decrease below natural conditions in Lake Spokane. Now, EPA has directed Washington to unlawfully include the

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[54] *Id.*
[55] Ex. 15 (Ecology emails, one discussing policy issue of giving entire allowable loading to Idaho, second, exchange between modelers asking whether legal counsel for Ecology and EPA should decide how Washington should run its TMDL given the Idaho changes).
[56] Ex. 32 at C.2 ("The 'natural conditions' that are used in the recent simulations in fact represent a degraded system relative to the natural conditions used in the 2006 EPA study.").
[57] Ex. 16. *See also* Ex. 16.2 (Ben Cope email to Spokane Modeler Group, "Our water quality program has decided to re-work the analysis using a natural condition baseline on the WA side of the border).
[58] Ex. 1 at 14; Ex. 32 at A.6.

Idaho dischargers as "background" from which Washington may cause another 0.2 mg/l decline.[59] In doing so, Washington ignores the impacts of the Idaho dischargers and allocates the "new" loading to the tributaries, Latah Creek and the Little Spokane.[60] The cumulative loadings provided under this approach will cause a 0.4 mg/l decrease below background, twice the allowable decline.[61] Moreover, even this is an optimistic forecast given that the contribution of Washington point sources may not even reach 50 ug/l for more than 10 years.[62] In fact, the revised model runs for the TMDL included a simulation in which the tributaries or non-point sources were set at natural background and the Washington discharges at 50 ug/l. This resulted in exceedences of the standard on several occasions.[63]

The combined effect of the EPA proposed permit limitations for the Idaho dischargers as incorporated into the Washington TMDL is to authorize degrading dissolved oxygen by 0.2 mg/l and supporting an additional 0.2 mg/l degradation. This approach sets a *de facto* criteria as the new target that is not consistent with Washington water quality standards. EPA's approach cannot be seen as a mere policy decision where it is based on faulty legal reasoning, bad science and violations of federal law. [64]

Because EPA established permit limits with the assumption that no other local sources of pollution are present, it is likely that the agency also assumed there was more dilution than is truly available which would make the limits even less protective. EPA should recalculate the proposed effluent limits considering the presence of Washington loading and should require Washington's DO TMDL to do the same.

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[59] Ex. 17.
[60] Ex. 16.
[61] The final limits, of course, are not required for nine years. According to the Fundamental Concepts, it is not at all clear when the Washington dischargers must meet final limits.
[62] The Washington dischargers apparently read the Fundamental Concepts as allowing them 20 years to reach the final limits, during which time they too plan expansions. The Draft TMDL required final limits near background, or 10 ug/l, within ten years, or two permit cycles.
[63] *Id.*
[64] Ex. 18 (Ecology email challenging EPA interpretation of Washington's lake criteria.).

Comment 6: EPA's permitting approach is being used to support a pollution trading strategy that is not scientifically defensible.

Under the 2004 Draft TMDL, Washington dischargers must achieve phosphorus reductions to concentrations of 10 ug/l through a combination of end-of-the-pipe technologies and offsets from phosphorus reductions through other strategies such as non-point source reductions. Washington law limits credits or offsets to the proportion of the non-point source reductions which occur beyond existing requirements.[65] Similarly, EPA's Water Quality Trading Policy provides credits only for pollutant reductions greater than those required by regulatory requirement or established under a TMDL.[66]

The 2004 Draft TMDL calculated that reductions of point sources to background with reductions of around 65 to 76% in total phosphorus from Latah Creek and Coulee, and 24 to 32% in the Little Spokane, would be necessary to meet water quality standards in Lake Spokane.[67] Brian Nickel, Office of Water NPDES Permit Unit (EPA), determined that up to 96% reductions in human-caused non-point source loading would be required.[68] Under the new EPA-sanctioned approach (which considers the Idaho point source loading "background" at the border), the "new loading" has been allocated to the tributaries. "The allowable loads for Hangman and Coulee Creeks have been increased by more than 1200% (i.e. 12 times larger than the original values) and the allowable load for the Little Spokane River has been increased by more than 350% (i.e. 3.5 times larger than the original values)."[69] Nevertheless, under this scenario, only 15% reductions from these tributaries will be required.

One of the non-point phosphorous reduction "success stories" from the Inland Northwest is the Cascade Reservoir near McCall, Idaho. The Cascade Reservoir captures runoff from a 357,000 acre watershed in the Payette River basin (a slightly smaller watershed than the Hangman watershed). As illustrated below, EPA reports the phosphorous loadings to the reservoir declined by 21% (57% of the

[65] WAC 173-201A-450.
[66] Final Water Quality Trading Policy, III D. (EPA 2003) at http://www.epa.gov/owow/watershed/trading/finalpolicy2003.html .
[67] Ex. 1 at 23.
[68] Ex. 19.
[69] Ex. 32 at C.3.

reduction goal) after 8 years and the investment of $20 million. Non-point source load was reduced only 12% (41% of the total goal of 31% reduction sought). Agricultural non-point source (like that in the Hangman watershed) achieved a 6% reduction (21% of the goal) -- well short of what had been originally projected.

Summary of Estimated Phosphorus Loads and Reductions for Point and Nonpoint Sources in the Cascade Reservoir Watershed, 1994 through 2002

	Total Load (kg/yr)	Projected Reduction (kg/yr)[a]	Reduction Achieved to Date (kg)	Percent of Reduction Achieved to Date
Point Sources				
McCall Wastewater Treatment Plant[b]	3,947	3,947	3,947	100%
Idaho Fish and Game fish hatchery	726	508	508	100%
Point source totals	4,673	4,455	4,455	100%
Nonpoint Sources				
Forestry	8,840	2,652	2,675	101%
Agriculture	11,740	3,485	745	21%
Urban and suburban	4,423	1,359	255	19%
Septic systems	2,205	1,544	838[c]	38%
Unidentified and natural sources	8,508	2,134	80	4%
Nonpoint source totals	35,716	11,174	4,593	41%
Grand Total	**39,881**	**15,121**	**8,540**	**57%**

[a] Contains management, natural, and background loading.

[b] Construction of winter storage pond is not yet complete. Storage and delivery systems will be completed and tested. Additional options for effluent use are being investigated to ensure that the system will operate with no discharge to North Fork Payette River in extreme water years.

[c] The 838 kg figure used assumes that all septic-to-sewer hookups completed included proper decommissioning of the septic tanks. This assumption has yet to be validated. Septic decommissioning is being evaluated.

Source: EPA, Section 319: Non-point Source Success Story: Idaho, available at http://www.epa.gov/nps/success/state/pdf/id_cascade.pdf.

Given the difficulties of reducing non-point source pollutant loading, a viable trading program posited on the reductions under the Draft TMDL would be highly unlikely.[70] However, as stated by Ecology modeler Karol Erickson during an April review of the new modeling results, a trading program starts to become a reality at 15%. A viable trading program based on manipulated numbers is illusory. If dischargers are given credits based on such a scheme, the lake will remain impaired.[71]

[70] Ex. 20.1 (2004 email between Ecology staff discussing fact that trading is unlikely because "currently all sources need to be reduced far beyond current loadings with no room for a safety factor).

[71] Likewise, unless the NPDES permits for both states include more stringent effluent limits as identified in the Draft TMDL, the lake will continue to degrade.

Comment 7: The permitting strategy is contrary to EPA's policy for watershed-based approaches including permitting.

In December 2002, EPA issued a Watershed Approach Policy Memorandum and Watershed-Based NPDES Permitting Statement. On January 7, 2003, EPA's Assistant Administrator, G. Tracy Mehan, III, signed the Watershed-Based National Pollutant Discharges Elimination System Permitting (NPDES) Policy.[72] The Policy describes the benefits of watershed-based permitting, the implementing mechanisms for this component of the watershed approach, and how EPA will be encouraging an increase in the use of watershed-based NPDES permits.[73] Soon thereafter, EPA issued a guidance document for Watershed-Based NPDES permitting.[74] This guidance states, "Watershed-based NPDES permitting is an approach to developing NPDES permits for multiple point sources located within a defined geographic area (watershed boundaries) to meet water quality standards."[75] A watershed is a geographic area in which water, sediments, and dissolved materials drain to a common outlet such as a larger stream, lake, an underlying aquifer, an estuary or an ocean. These can transcend local, state and national political boundaries.[76]

According to EPA's guidance document, EPA strongly supports watershed-based permitting and sees it as a key element in watershed restoration: "A truly comprehensive watershed management approach should bring together key programs under the Clean Water Act," such as the NPDES Program...." [77]

Given the hydrologic connectivity between the Spokane River and the Spokane Valley-Rathdrum Prairie Aquifer and the ongoing and historic pollution flowing downstream from Idaho, this watershed is tailor-made for a comprehensive watershed approach. To that end, EPA is a participant in numerous watershed activities created to solve interstate water issues including the Bistate Aquifer

[72] Ex. 20.
[73] http://cfpub1.epa.gov/npdes/whatsnew.cfm?program_id=0.
[74] http://www.epa.gov/npdes/pubs/watershedpermitting_finalguidance.pdf.
[75] *Id.* at 1-1 (EPA 2003).
[76] *Id.* at 2-1.
[77] *Id.* at 1-4.

Study, the CDA Basin Superfund cleanup actions, the Avista 401 Certification for relicensing, and the former Spokane River Phosphorus Management Plan. In that same vein, EPA's early and strong leadership in the DO TMDL development, and its support of Idaho stakeholder participation, indicated that EPA was committed to successfully addressing the dissolved oxygen problems in the Spokane River on a watershed basis.[78] Indeed, no other approach will succeed, whether the issue is dissolved oxygen, heavy metals, bioaccumulative toxins or flow issues, all of which ignore state boundaries.[79]

During the development of the DO TMDL implementation strategies through the Advisory Committee and the Collaboration, EPA supported Ecology's watershed-based approach that included all Spokane River sources. Unfortunately, EPA abandoned that approach by conditioning the Idaho dischargers as if they were the only point sources impacting the system. This abandonment was discouraging and perplexing to many participants, including Ecology water quality staff. Upon learning that EPA intended to grant the entire allowable loading to Idaho, Ecology's former Senior Water Quality Standards Analyst, Mark Hicks, sent an email to Ecology and EPA stating:

> I am a little bewildered about how EPA is dealing with dissolved oxygen issues right now. For the Spokane River, EPA appears poised to grant a 0.2 mg/l depression from naturally low dissolved oxygen levels to the point source dischargers in Idaho, and then grant another 0.2 mg/l depression for the Washington dischargers. However, our standards allow only a cumulative 0.2 mg/l depression below naturally low oxygen levels for all human sources combined (point and non-point), not 0.4 mg/l. Further the 0.2 is for our state's dischargers, not Idaho's.

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[78] Ex. 4 (Communications between Ecology and EPA staff, including Dave Ragsdale and Don Martin, on Spokane River issues, e.g. "The three primary environmental regulatory agencies for the Spokane River are the Washington State Department of Ecology, the Idaho State Department of Environmental Quality, and the United States Environmental Protection Agency. These agencies have formed a Spokane River Policy Group to help coordinate their water quality management programs in the watershed;" EPA provides guidance to Ecology on County's proposed WWTP; EPA proposed draft Spokane River strategy; EPA agenda for Spokane River meeting includes "Delivering the Watershed Approach message together; EPA Agenda for Spokane River Policy Group "continue efforts on interstate coordination."; EPA email from EPA staff, Dave Ragsdale, assigned to work on development of the TMDL for the Spokane River and to help other EPA staff develop NPDES permits for Idaho dischargers, including CDA; 2003 EPA emails between Ecology staff, Cusimano, Merrill, Erickson, and EPA staff Ragsdale discussing impact of Idaho dischargers on Lake Spokane and fact that EPA "can be counted on to say…'we will address in the next permit issuances any reliable information that the Idaho dischargers are contributing to downstream water quality problems.'"; Ecology email to EPA asking for EPA to consider involvement in the FERC process as a good way "to build upon EPA's contribution to the dissolved oxygen TMDL….

[79] Ex. 21(EPA email noting that Ecology, IDEQ and EPA "have worked hard together over the past year to coordinate the TMDL and the reissuance of the NPDES permits for the Idaho dischargers in the context of watershed management" and expressing dismay about the shift in strategy).

- How can EPA interpret our standards as permitting the 0.2 mg/l human allowance to go to Idaho's dischargers?
- Shouldn't EPA be accounting for non-point source contributions?
- How can EPA ignore that our standards set a cumulative 0.2 depression by granting a cumulative 0.4 mg/l.?
- What is the mechanism for overriding our state standards in writing permits?
- EPA standard's staff involved in the ongoing review of our standards have formally questioned whether or not we should even be giving 0.2 mg/l?
- Why did EPA, who has told us they believe 0.1 is measurable and more appropriate, not divide the 0.2 mg/l allowance between the two state's dischargers?
- Won't this result in other dischargers in our state questioning why they are being held to 0.2 since EPA finds 0.4 sufficient to meet our standards and the CWA?
- EPA has told us that the existing oxygen criteria are probably not protective enough to pass ESA, yet they appear ok with allowing a 0.4 further depression from natural levels that are below those questionable criteria. How can they be knowingly allowing an even greater depression from levels below what they question as protective?

The current EPA dialogue on dissolved oxygen does not appear defensible or logical. The current approach of treating each issue (CWA review, ESA review, NPDES permitting, TMDL) independently and inconsistently is almost certainly going to lead to greater problems for the state in the long run.

We should be encouraging EPA Region 10 to develop a more coherent policy surrounding the review and application of our state's dissolved oxygen criteria.[80]

While it is true that Washington may not impose waste load allocations on Idaho dischargers pursuant to its DO TMDL, EPA has a duty under the CWA to consider all sources contributing to water quality violations in Lake Spokane in setting waste load allocations in the Idaho permits. Indeed, EPA approved the bi-state Spokane River Phosphorus Management Plan in 1989 that included the Idaho and

[80] Ex. 11. *See also* Ex. 11.3 (Email from Gwen Franson of Idaho DEQ to Don Martin, EAP, stating that EPA's role is to integrate the permitting and TMDL processes and to ensure that both state's permits comply with Washington water quality standards).

Washington dischargers.[81] This plan was established in lieu of a TMDL for phosphorus and was intended to "equitably distribute responsibility for point source phosphorus control and any benefits resulting from its removal to all point source dischargers to the Spokane River upstream from Long Lake."[82] Although that plan proved insufficient, the need for a watershed-based solution remains. EPA must examine the long term consequences of its actions here and, pursuant to agency policy, reintegrate the Washington and Idaho permitting processes.

Comment 8: EPA's duty under the CWA is to protect the integrity of the nation's waters.

As stated by the Supreme Court, "The Clean Water Act anticipates a partnership between the States and the Federal Government animated by a shared objective: 'to restore and maintain the chemical, physical, and biological integrity of the nation's waters.'" [83] Effluent standards restrict the "quantities, rates and concentrations" of pollutants from point sources. Water quality standards supplement 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."[84] The primary means for enforcing these limitations and standards are NPDES permits. Where, as here, a state line separates a discharge from its impacts, it is EPA's duty to act as an arbiter to resolve interstate water quality issues. In conformity with that duty, EPA must protect the water quality of both states.

Here, EPA should craft an equitable solution through the NPDES process that does not disadvantage either state. EPA could have divided the allowable loading between the states by conditioning the permits to cause no more than 0.1 mg/l decrease below natural conditions in Lake

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[81] *See* Ex. 11.1 (Memorandum of Agreement for the Spokane River Phosphorus Management Plan). *See also* Spokane County Wastewater Facilities Planning, Ch. 4 (This management plan served as an alternative to the immediate allocation of maximum allowable daily loadings to the individual dischargers. Municipalities participating in the plan include Spokane, Liberty Lake, Post Falls/Rathdrum, Coeur d'Alene and the Hayden Area Regional Sewer Board (HARSB). Industries include Inland Empire Paper Co., Kaiser Aluminum and the Spokane Industrial Park).
[82] Ex. 11.1 at 1, III.B.2.
[83] *Arkansas v. Oklahoma*, 503 U.S. 91, 101 (1992).
[84] Id. citing *EPA v. California ex rel. State Water Resources Control Bd.*, 426 U.S. 200, 205, n.12 (1976).

Spokane. Or it could have apportioned loading according to flow. Ecology could then revise its TMDL in a scientifically and legally defensible way and EPA could reasonably assert that the Idaho permits were in conformity with Washington's TMDL.

This is hardly the only cross-boundary water body in the region struggling to meet water quality standards. Moreover, these problems are not unique to this region.[85] By adopting this permitting strategy, EPA is abandoning its duty to protect the nation's waters.

Comment 9: Section 301(b)(1)(C) establishes a firm deadline for complying with water quality-based effluent limitations beyond which no extensions can be granted by the State.

The goal of the CWA is to restore and maintain the integrity of the nation's waters by eliminating the discharge of pollutants therein by 1985.[86] To that end, the Act provided for the development of comprehensive pollution control strategies which included the National Pollution Discharge Elimination System.[87] Under Section 1342, all municipal sewage plants were to achieve effluent limitations based on "secondary treatment" or any more stringent limitations, including water quality based effluent limitations, no later than July 1, 1977.[88] Additionally, for municipal plants in which construction was necessary to meet the effluent limitations based on secondary treatment or any more stringent limitation, compliance schedules were authorized if construction could not be completed by the deadline in Section 1311(b)(1)(C) or if the United States had failed to make financial assistance available by that time.[89] In no event, however could these compliance schedules extend beyond July 1, 1988.[90] An exception of two years was, however, granted to plants installing innovative technology with the possibility for industry-wide application.[91]

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[85] *Id.*
[86] 33 U.S.C. § 1251.
[87] 33 U.S.C. §§ 1252; 1342.
[88] 33 U.S.C. § 1311(b)(1)(C).
[89] 33 U.S.C. § 1311(i).
[90] *Id.*
[91] 33 U.S.C. § 1311(k).

The federal implementing regulations mirror these deadlines. "Any schedules of compliance under this section shall require compliance as soon as possible, but not later than the applicable statutory deadline under the CWA."[92]

There is simply nothing in the federal regulations allowing compliance with water quality standards past the CWA's statutory deadlines. The fact that agencies routinely allow these is immaterial. The statutory language is clear and any attempt by Idaho or EPA to extend compliance with such limitations after July 1, 1977 violates Congress' clear statutory compliance deadline. The duty to achieve "any more stringent limitation . . . required to implement any water quality standards established" under the Act does not distinguish, even implicitly, between standards enacted prior to July 1, 1977, and those established after that date. Once a water quality standard is established, Congress has decreed that achievement of the subsequently resulting water quality based effluent limitations (WQBEL) cannot be postponed now that the deadlines have passed.

As stated by the D.C. Circuit in *Friends of the Earth v. EPA*, "The most reliable guide to congressional intent is the legislation Congress enacted."[93] The court stated, "EPA may not avoid the Congressional intent clearly expressed in the text simply by asserting that its preferred approach would be better policy." [94]

Section 1342 requires that all permits comply with the applicable requirements of Section 1311. Section 1311 requires compliance with water quality-based effluent limits by a deadline certain. If EPA wishes to condition these permits with nine year compliance schedules to achieve water quality-based effluent limits established in 1997, it must petition Congress first.

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[92] 40 CFR 122.47.(a)(1).
[93] *Friends of the Earth v. EPA*, 446 F.3d 140, 146 (2006) citing *Sierra Club v. EPA*, 294 F.3d 155 (D.C. Cir. 2002).
[94] *Id.* at 145 citing *Engine Mfrs. Ass'n v. EPA*, 88 F.3d 1075, 1089 (D.C. Cir. 1996). *See also Bethlehem Steel Corporation*, 544 F.2d 657 (3rd Cir. 1976) cert. denied *Bethlehem Steel Corp. v. Quarles*, 430 U.S. 975, 97 S.Ct. 1666, 52 L.Ed.2d 369, 10 ERC 1285 (U.S. Apr 18, 1977) (NO. 76-1035) ([O]n the basis of legislative history, we hold that the EPA is without authority to grant an extension, in NPDES permits, of the July 1, 1977 date); *Save Our Beaches and Bays v. City and County of Honolulu*, 904 F.Supp. 1098 (D. Hawai'i 1994) (citing to numerous cases holding that EPA had no authority to ignore clear statutory deadlines in CWA).

Comment 10: The compliance schedules violate the CWA's mandate that NPDES permits be established for a fixed term not to exceed five years.

The nine year compliance schedules also must be rejected because they exceed five years and are not for a fixed term. The CWA and EPA's regulations mandate that NPDES permits must be for fixed terms not exceeding five years.[95] In *CBE v. Unocal*, the Ninth Circuit warned against extending the terms of permits beyond their five-year life span. The Court of Appeals upheld a district court decision finding that a cease and desist order ("CDO") that provided for a compliance schedule longer than the five year life of the applicable NPDES permit could not be included in the permit because it purported to extend a compliance schedule beyond the term of the permit.[96] The Court held that, "there is a five year duration on the life of an NPDES permit that the 'effective modification' asserted here would violate."[97]

Likewise, a nine year compliance schedule extends the substantive requirements of a permit beyond the five-year limit established by the Act.[98]

Comment 11: A compliance schedule beyond the term of a permit is unenforceable and inconsistent with EPA's definition of a compliance schedule

A compliance schedule longer than a five-year permit term is inconsistent with the compliance schedules defined by the CWA. "Schedule of compliance" is defined by the Act as "a schedule of remedial measures including an enforceable sequence of actions or operations leading to compliance with an effluent limitation, other limitation, prohibition or standard."[99] The Permits' attempt to "issue" schedules that extend compliance for nine years are unenforceable schedules. Statements in a permit's findings regarding future permits' implementation of a currently open-ended compliance schedule are

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[95] 33 U.S.C. § 1342(b)(1)(B); 40 C.F.R. § 122.46(a); *Citizens For A Better Environment v. Union Oil Co. of Cal.*, 83 F.3d 1111, 1120 (9th Cir. 1996); *NRDC v. EPA*, 915 F.2d 1314, 1319 (9th Cir. 1990).

[96] The effluent limitation at issue was a water quality-based effluent limitation for selenium. The original NPDES permit was issued on February 20, 1991, and its five-year term ended in February, 1996. *See* 83 F.3d at 1114. The CDO which Unocal argued extended the compliance date for selenium included in the NPDES permit ordered Unocal to comply with he selenium limitation over seven years after the NPDES permit was issued, i.e., by July 31, 1998.

[97] 83 F.3d at 1120.

[98] *See also In re: City of Moscow*, 2001 WL 988721 (E.P.A. 2001) (EPA argues that extending compliance beyond permit limits is illogical as there is no guarantee that permits will be extended or renewed).

[99] 33 U.S.C. § 1362(17) (emphasis added); 40 C.F.R. § 122.2 ("Schedule of compliance means a schedule of remedial measures included in a 'permit'. . .).

not effluent limitations and are not enforceable by the agencies. At best, such statements amount to mere speculation as to the intent and possible decisions of future EPA or IDEQ actions. Likewise, a schedule of compliance that extends beyond the five-year term of a permit does not lead to compliance with an effluent limitation that actually exists. At best, such a schedule leads to a draft permit, the terms of which cannot be determined five years in advance.

Comment 12: A compliance schedule longer than five years undermines the public's right to comment on future NPDES permits

A compliance schedule extending beyond the life of a permit also frustrates public participation and is inconsistent with the CWA's permit issuance process. Applications for the reissuance of existing permits must be received within 180 days of the expiration of the existing permit (*see* 40 C.F.R. § 122.21(d)), and the public is guaranteed by law notice of each application for a permit and an opportunity for public hearing before a ruling on each such application.[100] If a five-year permit includes a longer compliance schedule, the public's opportunity to comment on that schedule when EPA or a state agency attempts to carry it forward in subsequent five-year permits will have been eviscerated because, to have any meaning at all, the compliance schedule issue already would have been decided in the preceding permit.

Comment 13: The compliance schedules for all three permits do not comply with the federal regulation which requires that compliance with final limits should be achieved "as soon as possible."

EPA's authority to provide for compliance schedules in EPA-issued permits is limited to those circumstances in which the State's water quality standards or its implementing regulations provide for a compliance schedule.[101] Idaho water quality standards provide, "Discharge permits for point sources may incorporate compliance schedules which allow a discharger to phase in, over time, compliance with water quality-based effluent limitations when new limitations are in the permit for the first time."

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[100] 33 U.S.C. § 1342(b)(3).
[101] *In re Star-Kist Caribe, Inc.*, 3 E.A.D. 172, 175 (Adm'r 1990), modification denied, 4 E.A.D. 33,34 (EAB 1992).

Idaho's regulation does not provide any guidance as to the appropriate timeframes for compliance schedules. Hence, we look to the CWA with which all state water quality regulations must adhere.

40 C.F.R. § 131 describes the requirements and procedures for developing state water quality standards. Under this chapter, states are responsible for developing water quality standards at least as stringent as the federal regulations.[102] They may not, however, weaken these standards.[103] The federal regulation governing compliance schedules provides, "Any schedules of compliance under this section shall require compliance as soon as possible, but not later than the applicable statutory deadline under the CWA."[104]

Here, IDEQ has issued Draft Certifications for all three permits which include nine year compliance schedules for all three plants to achieve the final effluent limits for phosphorus, $CBOD_5$, and ammonia, all pollutants which contribute to low dissolved oxygen in Lake Spokane. [105] It is not clear from the Draft Permits or the Draft Certifications why these dischargers require nine years to upgrade their plants to comply with water quality standards that have been in place since 1997 or with the necessary reductions identified by the loading assessments conducted by EPA and Ecology. In all three Draft Certifications, the stated reasons justifying such a long compliance schedule were: 1) the plants cannot consistently achieve the phosphorus, ammonia and $CBOD_5$ limits proposed in the draft permits; 2) IDEQ consulted with plant staff to examine what would be a reasonable schedule to plan, design and construct advanced wastewater treatment facilities to meet the proposed draft NPDES permit limits; 3) Idaho Water Quality Standards, IDAPA 58.01.02.400.03, authorize DEQ to establish compliance schedules; 4) current technologies to meet very low phosphorus levels are not fully proven; 5) expensive new technologies are emerging and, in five years, there may be more available choices; 6) the Washington TMDL DO is not finalized, "which is the basis for the final phosphorus limits."

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[102] 40 C.F.R. § 131.4.
[103] 33 U.S.C. § 1370
[104] 40 CFR 122.47.(a)(1). This has been referred to as the "as soon as possible" test.
[105] Post Falls is already meeting its final effluent limit for ammonia. Accordingly, IDEQ does not request a compliance schedule for this parameter.

Neither EPA nor IDEQ has made an adequate showing that the nine year compliance schedule satisfies the "as soon as possible" test. This test requires more than simple assertions that technologies are emerging and that something better might come along in five years. Yet, there is no reference or meaningful discussion of the considerations listed above or of the current technologies in place around the nation that are already achieving 50 ug/l and lower.[106] In addition, there is no discussion of the recent pilot testing of exemplary phosphorus removing technologies already completed in the region by Hayden, CDA, the City of Spokane, and Inland Empire, testing which indicated that these low levels are achievable.[107]

During the public question and answer period on April 4, 2007, conducted prior to the Public Hearing on the reissuance of these permits, EPA's Brian Nickel stated that EPA believes these technologies are achievable and affordable, a conclusion shared by EPA Engineer Dave Ragsdale in his recent review of plants nationwide achieving low phosphorus levels.[108] Additionally, a recent review of

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[106] Ex. 5, *Advanced Wastewater Treatment to Achieve Low Concentration of* Phosphorus (U.S. EPA 2007) http://yosemite.epa.gov/r10/water.nsf/Water+Quality+Standards/AWT-Phosphorus/$FILE/AWT+Report.pdf. This report lists several WWTPs achieving phosphorus concentrations near or below 10 ug/l and others achieving near 50 ug/l.

[107] Ex. 22 (EPA email to TMDL Collaboration Technology Workgroup on plants achieving low phosphorus concentrations). *See also* Ex. 5 at 62-65 (describing Blue Water Technologies' full scale wastewater treatment research facility at the Hayden plant. "Based on the results of long term testing, Blue Water representatives state their phosphorus removal system can consistently achieve an effluent quality of less than 0.030 mg/l total phosphorus."); Ex. 22.1 (EPA email citing independent study certifying that Blue Water's Blue Pro process can achieve total phosphorus concentrations of less than 10 ug/l); Ex. 22.2 (Ecology email discussing two stage filtration system capabilities and costs); Ex. 22.3 (EPA email discussing feasibility of achieving low levels of phosphorus through current technologies). Ex. 22.4 (Ecology emails discussing local alternatives to river discharge such as Hayden's land application, Chehalis, WA DO TMDL requiring zero discharge during critical conditions; Post Falls intent to land apply); Ex. 22.5 (Ecology email recommending short term compliance schedule for tertiary treatment upgrades (2-3 years), long-term (10 years) for implementation of seasonal reuse or upgrades to 10 ug/l, no new or expanded discharges to impaired water bodies); Ex. 22.6 (Ecology emails discussing lack of technical support for interim limits over 50 ug/l where technologies exist today achieving under 50 ug/l); Ex. 22.7 (Modeler Erickson states that at phosphorus loading of 50 to 60 ug/l, it is reasonable to expect a more than 0.2 mg/l decline in DO as the model predicts); Ex. 22.8 at 3, 5 (EPA email stating that there is no reason that the technology could not be designed, constructed and fully operational in the fourth year from initiation; no need for six year compliance schedule for City of Spokane – one year for design and two for construction of filters); Ex. 22.9 (Ecology transmitting information about Blue Water stating that the process "is apparently achieving a mean phosphorus concentration of 9 ug/L); Ex. 22.91(Ecology email relaying information about the DualSand system from Delaware Engineering showing full-scale operation in 4 WWTPs in NY); Ex. 22.92 (Email from EPA, Dave Ragsdale, to CDA's Sid Frederickson dated April 2005 expressing disappointment that Mr. Fredrickson failed to attend a presentation on D2 filtration technology); Ex. 22.93 (Ecology email of 2004 discussing Blue Water capabilities); Ex. 22.94 (Response to Ecology from Colorado agency that lowest phosphorus limit in Colorado is 50 ug/l).

[108] Ex. 5.

similar expansions and upgrades in plants from 1 mgd to 100 mgd, concludes that 56 to 58 months is reasonable for plants such these to pilot test, design, construct and optimize treatment.[109]

As to costs, local vendor Blue Water Technologies, Inc., of Hayden, Idaho, estimates the total installation costs, including capital equipment, installation, engineering, and management costs for its Blue PRO™ system that would be able to meet a permit of < 50 ug/l for a 6 MGD plant would be around $5.3 million. Costs per household would close to $3.12/month. Costs for a 3.6 mgd plant would be $ 3.3 million with costs per household of $3.23. These costs were calculated according to EPA's Detailed Costing Document for he Centralized Waste Treatment Industry.[110] It should be noted that these cost estimates are for upgrades necessary to achieve low levels of phosphorus and not full facility construction.[111]

EPA's duty here is to condition these permits so as to achieve compliance with the appropriate water quality effluent-based limits for phosphorus as soon as possible. The upgrades necessary for these limits are simply that, upgrades for tertiary treatment, not plant expansions. There is no evidence nine years is a reasonable timeframe in which to select, design, and build these upgrades. In fact, there is no evidence that expansions would take nine years. Further, there is no explanation why these small plants require five years of additional pilot testing given the number of plants nationwide already achieving 50 ug/l and given the ongoing work at Hayden. There is no discussion of alternatives that might allow compliance sooner, such as reconstructed wetlands or reuse.[112] Without more, it is simply not

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[109] Ex. 5.1. Carpenter Environmental Associates, Inc., Report detailing findings and recommendations pertaining to schedules for Wastewater Treatment Upgrades and Pilot Testing (Pape, 2007). *See also* Ex. 5.2, Phosphorus Removal in a Membrane Reactor System: A Full Scale Wastewater Demonstration Study (Lorenz) (Testing conducted over three to four months).

[110] Ex. 23 (Generic cost analysis using EPA costing methodology).

[111] *Id. See also* Ex. 24 (Ecology/EPA exchange discussing 2005 cost estimate for Parkson D-2 Phosphorus Removal Technology for a 30 mgd plant. This technology has been used in the Walton and Stamford WWTPs for several years and achieves under 10 ug/l monthly average concentrations of phosphorus; Ex. 12; Ex. 12.1. *Cf. United States v. Boldt,* 929 F.2d 35, 41 (1st Cir.1991) (Clean Water Act does not recognize defense of economic or business necessity to achieve effluent limitations).

[112] Ex. 23.1 (EPA states that incorporation of biological nutrient removal (BNR) into secondary treatment processes significantly reduces the amount of phosphorus in the effluent, as well as trace concentrations of household chemicals in pharmaceuticals and personal care products).

reasonable to assume that these Idaho plants, which are relatively small, cannot design and build upgrades within the first permit cycle. Indeed, the CWA envisioned that it would require only four years after approval for construction of a complete wastewater treatment plant.[113]

Before granting a compliance schedule to these dischargers, EPA and DEQ should require each permittee to document the need and justification for the duration of any compliance schedule by submitting information including the following:

1) documentation of source control efforts currently underway or completed, including compliance with any pollution prevention programs that have been established, such as the Spokane River Phosphorus Management Plan;[114]

2) a proposed schedule for additional source control measures or waste treatment;

3) the results of pilot testing conducted by the regional dischargers, an explanation of why more pilot testing is necessary and the costs of such testing;

4) information regarding similar plants achieving exemplary phosphorus removal;

5) documentation supporting the highest discharge quality that can be reasonably achieved until final compliance is achieved;

6) reasonable alternatives to river discharge; and

7) a demonstration that the proposed compliance schedule is as short as possible, taking into account economic, technical and other relevant factors.

Comment 14: EPA cannot abdicate its independent duty under the CWA to incorporate more stringent permit conditions than those recommended by Idaho's Draft Certification if necessary to achieve water quality standards.

Section 401(a)(1) of the CWA requires all NPDES permit applicants to obtain a certificate from the appropriate state agency validating the permit's compliance with the pertinent federal and state water

[113] 33 U.S.C. 1311(b)(1)(B). *See also* Ex. 23.3 (EPA email stating that, "[w]ith very few exceptions the [compliance] schedules specified a year for planning and design, a couple years to build and 6 months or so to attain operational level. In other words, the compliance schedules for building an entire WWTP was less than five years. Simply addition tertiary filtration should not take more than two years to build and begin operation."

[114] Ex. 11.1 at 3 IV.C.2 (It would appear that neither CDA nor Post Falls have been in compliance with the former Spokane Management Phosphorus Plan which required at least 85% removal of phosphorus); Ex. 11.2 at 2 (Ben Cope Powerpoint presentation in which he reports these plants current requirements at 70-85% during the summer).

pollution control standards.[115] The regulations pertaining to state certification provide that EPA may not issue a permit until a certification is granted or waived by the state in which the discharge originates.[116] The regulations further state, "When certification is required…no final permit shall be issued…[u]nless the final permit incorporates the requirements specified in the certification." [117]

"[EPA's] duty under section 401 of the CWA to defer to considerations of state law is intended to prevent it from relaxing any requirements, limitations or conditions imposed by state law."[118] "When [EPA] reasonably believes that a state water quality standard requires a more stringent permit limitation than that specified by the state, [EPA] has an independent duty under section 301(b)(1)(C) of the CWA to include more stringent permit limitations."[119] The law is clear that "the State's certification authority cannot limit the inclusion by [EPA] of any more stringent condition required by section 301(b)(1)(C) of the CWA…." [120]

Here, Idaho DEQ has issued Draft Certifications for all three permits which include nine year compliance schedules for all three plants to achieve compliance with the final effluent limits for phosphorus, $CBOD_5$, and ammonia, the pollutants of concern in the Washington Dissolved Oxygen TMDL.[121] As stated above, these compliance schedules are not protective of water quality standards downstream, illegally defer compliance with final effluent limits, do not meet the "as soon as possible test," and hence are in violation of the CWA and its implementing regulations. EPA should revise the

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[115] 33 U.S.C. § 1341(a)(1).
[116] 40 C.F.R. § 124.53(a).
[117] 40 C.F.R. § 124.55(a).
[118] *In Re: City of Moscow* 2001 WL 988721, 11,12 (EAP 2001) citing e.g., *In re City of Jacksonville, Dist. II Wastewater Treatment Plant*, 4 E.A.D. 150, 157 (EAB 1992). *See also In re Ina Rd. Water Pollution Control Facility*, 2 E.A.D. 99, 100 (CJO 1985).
[119] *Id.* citing *City of Jacksonville*, 4 E.A.D. at 158; *see also* 40 C.F.R. § 122.44 (d)(1), (5).
[120] *In Re: City of Moscow* at 12. *See also* 40 C.F.R. 124.55(f) (Nothing in this section shall affect EPA's obligation to comply with §122.47. See CWA section 301(b)(1)(C)). Section 301(b)(1)(C) requires any more stringent limitations necessary to implement any applicable WQS by a certain deadline and Subpart 122.47 requires compliance in the shortest time possible.
[121] Post Falls, however, is currently meeting final effluent limits for ammonia and so has no compliance schedule for this pollutant.

effluent limitations in compliance with federal law and require compliance with the appropriate final effluent limits "as soon as possible," and in no event to exceed five years.

Comment 15: By not limiting the effluent limits for phosphorus, $CBOD_5$ and ammonia to prior performance, EPA is violating federal and state antidegradation standards.

The CWA requires states to adopt water quality standards for all water bodies within the state.[122] As recognized by the Supreme Court, " '[W]ater quality standards' are, in general, promulgated by the States and establish the desired condition of a waterway. See § 1313. These standards supplement 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.'" [123] These water quality standards must include an antidegradation provision which prohibits the degradation of water quality below that necessary to maintain existing uses. Each state's antidegradation policy must comply with the federal antidegradation regulations codified at 40 C.F.R. § 131.12 and identify the methods to implement such policy.

Until 1987, there was no express antidegradation policy in the CWA itself. Rather, the first national antidegradation policy statement was released by the Secretary of the Department of the Interior in 1968. The policy reappeared seven years later in EPA's first water quality standards regulation and was further refined and repromulgated on November 8, 1983.[124] Lacking an express provision of the CWA as guidance, EPA derived the policy largely from Section 101(a) and Section 303 of the CWA. According to EPA guidance, the antidegradation policy was consistent with the spirit, intent and goal of the Act which is "to restore and maintain the chemical, physical, and biological integrity of the Nation's waters" and with section 303(a) which set existing water quality standards as the "starting point" for water quality requirements under the CWA.[125]

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[122] 33 U.S.C. § 1313.
[123] *Arkansas v. Oklahoma* 503 U.S. 91, 101, 112 S.Ct. 1046, 1054 (U.S.,1992) citing *EPA v. California ex rel. State Water Resources Control Bd.*, 426 U.S. 200, 205, n. 12, 96 S.Ct. 2022, 2025, n. 12, 48 L.Ed.2d 578 (1976).
[124] 40 C.F.R. § 13.12; .17; 40 F.R. 44340-41 (November 28, 1975). See also 48 F.R. 51400.
[125] 33 U.S.C.. §§ 1251(a); 1313(a).

Federal regulation requires that all States develop and adopt a statewide antidegradation policy and implementation plan consistent with federal law.[126] Subsection (a)(1) provides that "existing instream water uses and the level of water quality necessary to protect the existing uses shall be maintained and protected." [127] This section sets the floor for water quality.

In 1987, Congress "codified" or adopted EPA's antidegradation policy through amendments to Section 303 of the CWA.[128] Public Law 100-4 amended Sections 402 and 303 of the CWA by adding antibacksliding provisions to the former and the antidegradation policy to the latter.[129] Section 402 sets forth the NPDES permit system and permit requirements. 33 USCA § 1342. The 1987 amendments added subsection (o) to this section which prohibits renewing, reissuing or modifying NPDES permits with effluent guidelines less stringent than those in the previous permit except under certain specified conditions, none of which apply here.

In addition, with respect to water quality based permits, the amendments also provided that permits developed on the basis of water quality based effluent limitations under section 301(b)(1)(c) or section 303(d) or (e), may be renewed only in conformity with the new section 303(d)(4). Section 303(d)(4) details limitations on revision of effluent limitations for discharges to degraded waters and requires that effluent limitations based on TMDLs or other waste load allocations may only be revised if the cumulative effect of all such revised effluent limitations based thereon will assure the attainment of such water quality standard, or if the designated use which is not being attained is removed in accordance with law.

Washington's antidegradation policy was likewise implemented to restore and maintain the quality of the state's surface waters and requires that all designated and existing uses are protected.[130]

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[126] 40 C.F.R. § 131.12(a).
[127] 40 C.F.R. § 131.12(a)(1).
[128] *See* P.L. 133 Cong. Rec. H 131, p. 37 (Jan. 7, 1987) (CWA's antidegradation policy established by Section 303 of the Act).
[129] Water Quality Act of 1987, Pub. L. No.100-4, 100th Congressional Congress, Section 404 (Feb. 4, 1987).
[130] WAC 173-201A-300 et seq.

Under this policy, no degradation is allowed that would interfere with or injure existing or designated uses. For impaired waters, Ecology must take steps to bring the water back into compliance.

Although in general, permit effluent limitations are to be calculated based on design flow (40 C.F.R. § 122.45(b)(1)), where a waterway is impaired, the antidegradation policy requires no additional loading of the pollutants of concern.[131] Therefore, locking in current treatment performance of impairing pollutants is the minimum permit restriction required by the antidegradation policy.[132]

The only way to do this is by first identifying the previous mass loading of all three pollutants of concern for all three plants by multiplying the previous year's annual mean effluent concentration by the four previous year's annual average flow. These limits should then be compared to the proposed interim and final mass loading limits.

Here, there is no evidence that EPA conducted an appropriate antidegradation analysis. The Fact Sheets merely state that the respective effluent limits will be reduced by certain percentages at nine years.[133] And, during the public question and answer period in Coeur d'Alene on April 4, 2007, EPA was asked whether or not it had calculated the previous mass loadings of these pollutants for all three plants. Both Brian Nickel, the permit writer, and Ben Cope, EPA's modeler, answered, "No." In a follow-up email, the Sierra Club asked DEQ if it had conducted an antidegradation analysis. On May 10, DEQ responded that it had not because the final limits require significant pollutant reductions.[134]

Although the permits do not express effluent limits by flow, it is possible to calculate these by the following formula: Lbs/day = Concentration (mg/l) x Flow (MGD) x 8.34. Applying this formula to the CDA plant, it would appear that the interim and final loadings are based on the design flow of 5.9 or 6 mgd for all but the final limit for $CBOD_5$ (Nov – Feb) which was calculated at 3.9 mgd and

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[131] *See Washington State Department of Ecology, Permit Writer's Manual*, Ch. VI-33 (2006).
[132] *See* Ex. 13 at 2 ¶ 1(EPA letter stating "Given the identified need for dramatic reductions in phosphorus loading to the [Spokane]River from point sources (during the critical period), Ecology may not authorize new discharges or additional loading from existing discharges that have the potential to further degrade water quality. This is true regardless of how well the wastewater is treated.").
[133] CDA Fact Sheet C-6, 7.
[134] Ex. 25.

ammonia, March – October, under 4.2 mgd, which was calculated at 4.19 mgd. According to the Fact Sheet, CDA's average flow rate over the past five years has been 3.2 mgd with the maximum effluent flow rate of 4.62 mgd. Clearly, as the plant did not report discharges at design flow during the past permit cycle, the proposed mass limits will exceed the loadings discharged during the last five years, loading that contributes to water quality violations to impaired water segments in Washington and will cause further degradation for another nine years. The same is true for all three permits. This is especially concerning as all three facilities plan to expand.

These permits must also comply with Section 303(d)(4)(a) of the CWA which governs backsliding into impaired waterways for which there is a TMDL or *other wasteload allocation.* Although Washington's TMDL has yet to be finalized, EPA calculated waste load allocations for the three Idaho dischargers such that they cumulatively would not cause water quality violations in Lake Spokane. As argued above, we believe EPA must also include the Washington dischargers in its cumulative analysis. Nevertheless, as there is a wasteload allocation for each discharger, EPA must comply with the antidegradation policy of Section 303(d) and may not allow increased loading into Lake Spokane, a degraded water for which there are wasteload allocations and no assimilative capacity.[135]

The CWA mandates the restoration of our nation's waters. Here, without knowing the past loading, it is impossible for EPA to prevent backsliding and to promote restoration. EPA must conduct an antidegradation analysis to calculate permissible loading limits in compliance with federal and state antidegradation policies to restrict loading to prior performance and to ensure that any expansion does not further degrade the waters. Any facility planning will also need to include provisions which ensure that new or expanded flows do not contribute to water quality violations upon commencement.[136]

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[135] Ex. 26 (Ecology email attaching annual TP report summaries from the Spokane River dischargers' DMRs during the growing season). *See also Water Quality Standards Handbook, Second Edition,* Appendix G p. 8 (August 1994) (EPA-823-B-94-005) (No wasteload allocation can be developed or NPDES permit issued that would result in a standards violation).

[136] Ex. 27 (Ecology email discussing prohibition of new loading to degraded waters). *See also* Ecology's Water Quality Program Permit Writer's Manual, Ch. VI, Fig. VI-5.

Comment 18: EPA has incorrectly calculated the reasonable potential for metals to exceed the acute and chronic criteria established for Pb, Cu, and ZN by inappropriately utilizing a dilution factor for acute and chronic criteria.

The CDA Fact Sheet, p.12, states

> The numeric values of the acute and chronic water quality criteria for cadmium, lead, zinc, and certain other metals are dependent upon the hardness of the water. For the criteria end-of-pipe reasonable potential and effluent limit calculations for cadmium, lead and zinc, the effluent hardness was used to calculate the water quality criteria. As long as the concentrations of cadmium, lead, and zinc in the effluent are below the water quality criteria (calculated at the effluent hardness) the effluent will not cause or contribute to an in-stream excursion above water quality standards.

EPA's fact sheet states that hardness of the effluent was used for determining reasonable potential for metals to exceed the acute and chronic criteria established for Pb, Cu, and Zn. Hardness-dependent criteria should be applied using the hardness of the receiving waters that exists at the point of the receiving water where these criteria are applied. Typically, acute and chronic water quality criteria are applied at the edge of the respective effluent mixing zone. Ecology has guidance in their permit writer's manual specifying that permit limitations for these criteria are to be developed using ambient criteria. EPA's Toxicity support document (TSD) also guides permit writers to use the hardness of the receiving waters that are found at the edge of the acute and chronic mixing zones, for these respective criteria.

The EPA approach is appropriate if no dilution factor (mixing zone) is included in the reasonable potential calculations (applying criteria end-of-pipe). However, discussion and Table E-1 in the Appendix E indicates a dilution factor for acute and chronic criteria was utilized in EPA's calculations. EPA subsequently states that the Idaho discharges improve water quality because they increase the hardness of the River! This makes no sense. If EPA is going to base metals limits on hardness that allows more metals, it must put a limit on hardness.

Comment 19: EPA failed to consider the cumulative impact of the discharges from these plants in determining whether they have the reasonable potential to cause or contribute to violations of Washington's water quality criteria for temperature.

The Fact Sheets for all three permits state: "Temperature is generally not a pollutant of concern for municipal wastewater treatment plants. The Idaho Department of Environmental Quality has determined that the elevated temperatures in the Spokane River are due to natural conditions (IDEQ 2000)."[137] The applicable Washington water quality criteria for temperature provides:

> When a water body's temperature is warmer than the criteria in Table 200 (1)(c) (or within 0.3°C (0.54°F) of the criteria) and that condition is due to natural conditions, then human actions considered cumulatively may not cause the 7-DADMax temperature of that water body to increase more than 0.3°C (0.54°F).[138]

There are temperature issues downstream of the Idaho dischargers. These temperature problems are the combined result of natural conditions, operation of the Avista Dam on the outlet of Lake Coeur d'Alene and the effects of discharges. The Fact Sheets incorrectly state that municipal discharges are not generally a source of temperature problems when, in fact, there are numerous examples of municipal discharge affecting temperature.

EPA's duty under the CWA is to determine the cumulative impact of these discharges on Washington waters.[139] Here, there is no evidence that EPA considered Ecology or the Washington Department of Fish and Wildlife studies on temperature in the Spokane River. Similarly, there is no evidence EPA considered the cumulative effect of the Idaho discharges downstream. Since these permits are being issued at the same time, EPA should consider whether the total cumulative impact is greater than 0.3 C downstream of the border (assuming non-point sources are not an issue during the critical period) as specified in the regulations.

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[137] CDA at 13; Post Falls at 12; Hayden Lake at 13.
[138] WAC 173-201A-200(1)(c)(ii).
[139] 40 C.F.R. 122.44(d).

Comment 20: The proposed interim effluent limits for phosphorus for Post Falls and Hayden are not consistent with the Phosphorus Management Plan that was developed to implement the existing phosphorus plan which required 85% removal seasonally from the plant influent.

Under the 1989 Phosphorus Management Plan, the signatories to the plan agreed to operate with discharge permits that required at least 85% removal.[140] Post Falls, CDA and Hayden all signed the agreement. This plan was inadequate to attain health in the Spokane River. Unfortunately, the interim permit limits for Post Falls allow for 70% minimum removal from March through October until four years after the final permit.[141] Similarly, Hayden's interim limits require less than 85% removal. EPA should require more stringent interim limits to at least the level recognized as necessary in 1989. Similarly, Hayden should be required to meet at least 85% removal.[142]

Comment 21: There is no evidence that monitoring is adequate to populate the Spokane CEQUALW2 model to determine and/or verify water quality trends as restoration activities are implemented or to provide statistically significant information on PCBs.

The Fact Sheets require surface water monitoring to re-evaluate the impact of the Idaho point sources to the Spokane River on dissolved oxygen concentrations in the State of Washington when the permits are reissued. While this is positive, ambient monitoring must be adequate to verify modeling predictions, trends and results. It is unlikely that four times a year is enough to provide statistically significant data.

The Fact Sheets also state "the draft permits for the Cities of Post Falls and Coeur d'Alene and the Hayden Area Regional Sewer Board propose quarterly effluent monitoring, and annual water column monitoring near the outlet from Lake Coeur d'Alene for total PCBs" which will result in a total of 15

[140] Ex. 11.1 at 2.
[141] Post Falls Permit, I.D. Table 3 at 10.
[142] Hayden Permit, I.D. Table 3 at 10,11.

samples from the two sites over one permit period.[143] The Spokane River is currently §303(d) listed for PCBs and a TMDL is underway.[144] According to the Draft PCB TMDL, the average 2003-2004 PCB loading at Stateline was 477 mg/d.[145] The target loading under the Draft PCB TMDL is 23.96 mg/d, a 95% reduction.[146] The loading at Stateline represents about 25% of the total loading to the system.[147] Consequently, a plan or strategy needs to be developed to reduce this load.[148] Sampling also shows that the concentrations vary seasonally with concentrations highest during October and lowest during February. [149]

Given the significant contribution to PCBs downstream by Idaho, EPA should consult with agency staff working on the PCB TMDL to ensure that the sampling is adequate in frequency, duration and timing to provide statistically significant information not only for the PCB TMDL but for future permitting decisions.[150] At a minimum, EPA should require total PCB's every month with quarterly do congener specific analysis, in which they measure all 209 congeners possible. Detection levels should be set low under EPA approved methods. In addition, EPA should require quarterly measuring of dissolved and particulate PCBs attached to sediment in the water.

Comment 22: No increases in pollutant loading through growth should be allowed during the interim period while treatment facilities are being upgraded.

In Appendix C for all three plants, EPA should clarify that the total human loading considered in its reasonable potential analyses represented existing point source loading in the critical seasons. To avoid backsliding, EPA should ensure no increases in pollutant loading while these facilities are being upgraded.

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[143] CDA Fact Sheet at 15.
[144] Spokane River PCBs Total Maximum Daily Load Study (Draft Report) at http://www.ecy.wa.gov/pubs/0603024.pdf.
[145] Id at 78.
[146] *Id.* at 81.
[147] *Id.* at 99. *See also* Ex. 28 at 5 (EPA Daily Environmental Report states, "About one-fourth of the PCB load in the Spokane River is from Idaho, the department said.").
[148] Draft PCB TMDL at 99.
[149] *Id* at 57.
[150] Ex. 29 (Ecology emails indicating EPA did not consult with Ecology about PCB sampling requirements).

Comment 23: The effluent limits for the dissolved oxygen impacting pollutants should be expressed in concentration and mass.

Federal regulations allow for effluent limitations to be expressed in either mass or other appropriate measurement. 40 C.F.R. § 122.45(f). Washington's aquatic life dissolved oxygen criteria for fresh water is expressed as a one-day minimum concentration. Concentration drives the system and concentration limits are necessary to avoid hot spots during the day, especially during the critical period. For example, the final limits from April-May are expressed solely in mass. If the flow decreases but the same number of pounds are discharged, the concentration will rise. That can be problematic. Additionally, one generally samples dissolved oxygen in concentration. In order to monitor compliance, samples and limits should be in the same measurement.

Comment 24: $CBOD_5$, TSS and Phosphorus effluent limits should include maximum daily limits.

While the federal regulations do not explicitly require daily maximum limits, they are needed for the purposes of tracking compliance with Washington's water quality criteria for dissolved oxygen which are expressed as daily minimums and with Washington's TMDL which, by definition, requires a calculation of the total maximum daily load.[151]

Comment 25: It is unclear whether EPA considered the impacts of Washington sources in calculating ammonia, phosphorus and $CBOD_5$ limits.

According to the 2004 Draft TMDL, "[d]ischarges of treated effluent to the river that meet the target river concentrations at end-of-pipe for phosphorus, $CBOD_5$ and ammonia, in each of the applicable river reaches will not cause or contribute to violations of applicable water quality standard [sic]. Therefore, a concentration-based wasteload allocation is allowable as long as these target instream concentrations are met. The target concentrations for several reaches of the river constitute the WLA for

[151] *See Friends of the Earth, Inc., v. E.P.A.*, 446. F.3d 140 (D.C. Cir. 2006) (EPA may not fulfill its obligation to establish daily loads by approving non-daily loads.)

each reach and were calculated by the model with the Natural Condition + NPS scenario when the DO criteria is met in Lake Spokane."[152]

Although the TMDL has not yet been approved, the modeling shows that target concentrations for ammonia would range from 0.014 to 0.017; for phosphorus, 0.0082 to 0.0092, and for $CBOD_5$ from 1.18 to 1.99.[153] Therefore the "WLA for these (Washington) permittees (during the critical period) is the concentration-based WLA identified above." The critical period was identified as June-October. However, later monitoring supports extending the season to March – October.

As noted above, it is unclear whether EPA considered the Washington sources in its dilution analysis. Nevertheless, the final effluent limits for all three pollutants are much higher than these limits. The limits for ammonia are particularly concerning. Raw sewage usually has about 20 to 25 mg/l of ammonia. The maximum daily limits for all three plants approach or exceed these numbers.[154] Even with conventional treatment and extended aeration, one should be able to achieve 0.1 mg/l. EPA should explain more fully why these limits are so high. EPA should also consider the far-field effect of these pollutants with Washington sources included in the calculations.

Comment 26: The Phosphorus Management Plans for all three dischargers provide no regulatory mechanism to track performance.

Although the permits require the permittees to develop Phosphorus Management Plans with certain express elements and to provide EPA written notice of such plans, there is no requirement for agency oversight. Such self-regulation fails to provide the assurance necessary to determine whether the plans are effective. EPA must exercise regulatory oversight by requiring measures such as regular reporting on phosphorus reductions achieved through the Phosphorus Management Plans and upgrades to ensure that these programs

[152] Ex. 1 at 24.
[153] *Id.*
[154] CDA Fact Sheet C-10.

reduce the discharge of phosphorus to the maximum extent practicable. [155] Additionally, there must be an opportunity for review and comment on these plans.

Comment 27: EPA cannot assume that the effluent limits for metals – cadmium, lead and zinc – will not contribute to water quality violations in Washington simply because Idaho's limits are either more stringent or as stringent as Washington's.

The federal regulations require that EPA condition these permits such that they do not cause or contribute to water quality violations downstream/state. The Spokane River immediately downstream from the State line is impaired for cadmium, lead and zinc. Here, there is no evidence EPA actually calculated the cumulative impact of all existing and identified sources downstream nor is there evidence that EPA included a margin of safety for these metals in calculating the effluent limitations for metals. Allowing the maximum amount of pollution to be discharged at the end-of-pipe is by definition zero margin of safety.

Comment 28: The Draft Certifications for all three plants authorize mixing zones "per the calculations for water quality-based effluent limitations presented in the draft permit[s]," but the fact sheets do not appear to explain which parameters were given mixing zones, where these were allowed and how big they are.

The Fact Sheets must be amended to include all information necessary to identify and support the granting of the mixing zones.[156]

Comment 28.1: The Fact Sheets fail to discuss the planned capacity expansions and how these were taken into consideration in calculating the final effluent limitations.

Under 40 C.F.R. 122.56(a), all NPDES Fact Sheets must include the calculations and explanations for the derivation of all effluent limitations. In addition to upgrading for tertiary treatment, all three permits provide for capacity expansions. There is no discussion of these expansions or whether

[155] *See Environmental Defense Center, Inc. v. U.S. E.P.A.*, 344 F.3d 832, 856 (9th Cir. 2003) (Stormwater management programs that are designed by regulated parties must, in every instance, be subject to meaningful review by an appropriate regulating entity to ensure that each such program reduces the discharge of pollutants to the maximum extent practicable). *Cf. Natural Res. Def. Council v. U.S. E.P.A.*, 966 F.2d 1292, 1305 (rejecting as arbitrary and capricious a permitting system that allowed regulated industrial stormwater dischargers to "self-report" whether they needed permit coverage).

[156] 40 C.F.R. § 124.8(b)(4).

and how the final effluent limitations were derived from the expanded flow as required by 40 C.F.R. 124.56.

Comment 29: The final limits for ammonia at CDA from March through October appear inconsistent.

CDA's final effluent limits for ammonia from March through October are 10 mg/l (350 lbs/day) when flows are below or equal to 4.2 mgd and 7.4 mg/l (370 lbs/day) above 4.2 mgd. According to the Fact Sheet, the plant's design flow is 6 mgd; average flow over the past five years has been 3.2 mgd, and the maximum effluent flow was 4.62 mgd. What is the basis for setting these effluent limits at 4.2 mgd?

Second, one would expect higher concentrations at higher flows and lower concentrations allowed at lower flows. And one would expect higher mass loading at 10 mg/l and lower mass loading at 7.4 mg/l. EPA should explain the apparent discrepancy here.

Comment 30: The Draft Certifications for all three permits do not comply with federal law.

Section 401(a)(1) of the CWA requires Idaho to certify that the permit conditions in all three permits conform to the requirements of the Act's Sections 1311, 1312, 1313, 1316, and 1317. Section 1311 itself requires compliance with 1312, 1316, 1317, 1328, 1342, and 1344. Section 1311(b)(1)(C) of the CWA requires "the inclusion of any more stringent limitation, including those necessary to meet water quality standards, treatment standards, or schedules of compliance, established pursuant to State law or regulations....or any other Federal law or regulation, or required to implement any applicable water quality standard established pursuant to this chapter."[157] Subpart 40 S.F.R. 124.53(e) provides: "State certification shall be in writing and shall include: conditions which are necessary to assure compliance with the applicable provision of CWA sections 208(e), 301, 302, 303, 306 and 037 and with appropriate requirements of State law."[158] No final permit shall be issued "[u]nless the final permit incorporates the requirements specified in the certification under §124.53(e)." [159]

[157] 33 U.S.C. § 1313(b)(1)(C).
[158] 40 C.F.R. 124.53(e)(1).
[159] 40 C.F.R. 124.55(a)(2).

As argued above, neither the interim nor the final limits are protective of Washington's water quality standards in Lake Spokane in violation of Section 1311 of the CWA. Moreover, the permits are not in compliance with Section 1311's effluent limitations and timelines; Section 1312's requirement that effluent limitations be established that will assure attainment or maintenance of water quality; Section 1318's requirement to monitor at such intervals and in such a manner as to track river restoration and PCB pollution, and Section 1342's requirements that all permits be conditioned to protect the water quality of all affected states, that permits be limited to five years, and that the permits not allow backsliding. For these reasons, unless EPA places more stringent limitations in the permits as required to comply with federal and state law, final permits should not be issued to these three plants and certification under Section 401 should not issue.

Comment 31: Washington has a duty to object to the issuance of these permits under Section 401(a) of the CWA.

Section 1341 of the CWA prohibits the issuance of a federal NPDES permit over the objection of an affected state unless compliance with the affected State's water quality requirements can be insured. For the reasons argued above, these permits do not assure compliance with Washington's water quality requirements and will adversely impact the State's ability to craft a DO TMDL that provides reasonable assurance of restoring Lake Spokane. It is incumbent upon the State of Washington to object to reissuance of these permits unless EPA conditions them to protect dissolved oxygen in Lake Spokane.[160] However, the absence of Washington's objection does not relieve EPA of its duty under the CWA to condition these permits such that they do not cause or contribute to nonattainment of Washington's water quality standards.

[160] Ex. 31 (Email from Dave Ragsdale, EPA to Ken Merrill, DO TMDL lead, stating that, because EPA was giving all the anthropogenic loading to Idaho, it was up to Washington to express Ecology's concerns).

CONDITIONS CHALLENGED

Based on the concerns detailed above, the Sierra Club challenges the following conditions in these permits:

City of Coeur d'Alene – Permit # ID-002285-3

1. $CBOD_5$ limits from (Mar. – Oct.), I.B. Table 1 at 5.
2. Total Ammonia as N (Mar – Oct. ≤ 4.2 mgd) I.B. Table 1 at 5.
3. Total Ammonia as N (Mar. – Oct.) > 4.2 mgd, I.B. Table 1at 5,6
4. Total Phosphorus as P (Mar.) I.B. Table 1 at 7.
5. Total Phosphorus as P (April – May), I.B. Table 1 at 6.
6. Total Phosphorus as P(June – Sept.), I.B. Table 1 at 6.
7. Total Phosphorus as P (Oct.), I.B. Table 1 at 6.
8. Hardness, I.B. Table 1 at 6.
9. Total Polychlorinated Biphenyls, I.B. Table 1 at 6.
10. Dissolved Oxygen, Orthophosphate as P, and Dissolved Oxygen, I.B. Table 1 at 6.
11. Schedules of Compliance, I.C.1.at 8,9.
12. Interim Requirements for Schedules of Compliance, I. D. at 9,10.
13. Interim Effluent Limits and Monitoring Requirements, I. D. Table 3 at 10.
14. Surface Water Monitoring Requirements, Total Phosphorus as P, Orthophosphate as P, Dissolved Oxygen, Total Polychlorinated Biphenyls I.F. Table 4 at 13.
15. Phosphorus Management Plan, II.C at 20, 21.

City of Post Falls ID-002585-2

1. $CBOD_5$ limits from (Mar. – Oct.), I.B. Table 1 at 5.
2. Total Ammonia as N (Mar – Oct.), I.B. Table 1 at 5.
3. Total Ammonia as N (Nov – Feb.), I.B. Table 1 at 5.
4. Total Phosphorus as P (Mar.) I.B. Table 1 at 5.
5. Total Phosphorus as P (Apr. – May), I.B. Table 1 at 6.
6. Total Phosphorus as P (June – Sept.), I.B. Table 1 at 6.
7. Total Phosphorus as P (Oct.), I.B. Table 1 at 6.
8. Hardness, I.B. Table 1 at 6.
9. Total Polychlorinated Biphenyls, I.B. Table 1 at 6.
10. Dissolved Oxygen, Orthophosphate as P, Dissolved Oxygen, I.B. Table 1 at 6.
11. Schedules of Compliance I.C. at 8,9.
12. Interim Requirements for Schedules of Compliance, I. D. at 9,10.
13. Interim Effluent Limits and Monitoring Requirements, I. D. Table 3 at 10.
14. Surface Water Monitoring Requirements, Total Phosphorus as P, Orthophosphate as P, Dissolved Oxygen, Total Polychlorinated Biphenyls, I.F. Table 4 at 13.
15. Phosphorus Management Plan, II.C at 21,22.

Hayden Lake ID-002659-0

1. $CBOD_5$ limits from (Mar. – Oct.), I.B. Table 1 at 5.
2. Total Ammonia as N (Mar – Oct.), I.B. Table 1 at 6.
3. Total Ammonia as N (Nov – Feb.), I.B. Table 1 at 6.

4. Total Phosphorus as P (Mar.) I.B. Table 1 at 6.
5. Total Phosphorus as P (Apr. – May), I.B. Table 1 at 6.
6. Total Phosphorus as P (June – Sept.), I.B. Table 1 at 6.
7. Total Phosphorus as P (Oct.), I.B. Table 1 at 6.
8. Hardness, I.B. Table 1 at 6.
9. Total Polychlorinated Biphenyls, I.B. Table 1 at 6.
10. Dissolved Oxygen, Orthophosphate as P, Dissolved Oxygen, I.B. Table 1 at 6.
11. Schedules of Compliance I.C. at 8,9.
12. Interim Requirements for Schedules of Compliance, I. D. at 9,10.
13. Interim Effluent Limits and Monitoring Requirements, I. D. Table 3 at 10,11.
14. Surface Water Monitoring Requirements, Total Phosphorus as P, Orthophosphate as P, Dissolved Oxygen, Total Polychlorinated Biphenyls, I.F. Table 4 at 14.
15. Phosphorus Management Plan, II.B. at 15,16.