September 13, 2016

Ms. Shara Joy
Permit Coordinator
Department of Ecology
4601 N Monroe St
Spokane WA 992015
Sent via email to stra461@ecy.wa.gov

Subject: Comments on draft NPDES permit and fact sheet, Liberty Lake Sewer and Water District, permit WA0045144

Dear Ms. Joy:

Thank you for the opportunity to review and comment on the subject draft Liberty Lake Sewer and Water District NPDES permit and fact sheet (dated June 30, 2016). Please find below several comments from Spokane County Environmental Services Department.

PCB-related comments

1. **PCB numeric effluent limits, either interim or final, are not appropriate for Spokane River NPDES permits at this time.**

The draft Fact Sheets stated for PCBs:

> *"The RPA did not show an exceedance of the water quality standard at the edge of the chronic mixing zone. However, because PCBs are present in the effluent, and because the Spokane River exceeds applicable water quality standards for PCBs, Ecology* ***assumes*** *the discharge has a reasonable potential to contribute to excursions above water quality standards for PCBs."* (Emphasis added)

Ecology's assumption of contribution to excursions is not reasonable, nor is it valid because according to EPA:

> *"…the fact that the Spokane River is currently impaired in Washington due to high concentrations of PCBs does not by itself justify a finding that the subject discharges have the reasonable potential to cause or contribute to excursions above water quality standards for PCBs…The mere fact that the waterbody is currently impaired does not necessarily require the conclusion that all dischargers to the waterbody are contributing to the impairment."* (US EPA, response to comments on 2013 renewal of NPDES

permits for the Cities of Coeur d'Alene and Post Falls and the Hayden Area Regional Sewer Board, Idaho.)

Additionally, in the July 14, 2015 response to US District Court direction (Sierra Club, et. al. v. McLerran), EPA said:

> *"…the EPA is currently recommending a best management practices (BMP) approach to controlling and abating discharges of PCBs from point sources in the Spokane watershed. As explained below, the EPA believes this approach will be more effective in reducing discharges of PCBs than numeric effluent limits. The authority to establish BMP conditions in NPDES permits is provided in 40 CFR 122.44(k)."*

The RPA did not show an exceedance of water column PCB criteria, and it is not appropriate to assume a contribution to the existing river PCB impairment. Limits, either interim or final, are not appropriate and the EPA-endorsed BMP approach for point source discharges should be pursued.

2. **Assuming that final effluent limits for PCBs based on the Human Health Water Quality Standard were appropriate (they are not), then limits should be calculated based on use of a mixing zone.**

In the draft fact sheet, Ecology authorizes the use of mixing zones as allowed under WAC 173-201A-400. The fact sheet clearly describes the eight requirements for allowance of mixing zones, and concludes that the requirements are met and that mixing zones are authorized. The fact sheet then uses mixing zones for a variety of parameters for RPAs, and in most cases, including PCBs, the RPAs result in determination of no limits needed.

Yet when describing the process used to set PCB limits, the fact sheet states:

> *"A water quality based effluent limit for total PCBs is require with the point of compliance at the end of pipe (**e.g. no mixing zone allowed**)."* (Emphasis added)

It is not appropriate to disregard the authorized use of mixing zones when setting limits. If final PCBs limits were required (they are not), then they should be calculated using the appropriate chronic mixing zone based on the river harmonic mean flow.

3. **Assuming that final numeric effluent limits for PCBs at the end-of-pipe based on the Human Health Water Quality Standard were appropriate (they are not), then any effluent limits should be based upon the long-term risk nature of PCBs.**

Recognizing the risk of PCBs is from long-term exposure over a 70 year period, any effluent limit determined to be necessary for PCBs should be based on a long term averaging period such as an annual average. Shorter term averaging periods should not be used because they are not consistent with the basis for the human health based criteria, sampling for PCBs is infrequent, and the high degree of variability in laboratory analysis makes compliance with shorter timeframe effluent limits impracticable.

4. **The work of the SRRTTF has been productive and is superior to imposing numeric effluent limits in the permit.**

The SRRTTF was established to determine causes of PCB impairment in the Spokane River. It is a well-conceived, collaborative approach to define and characterize PCB loading from both NPDES permit holders and non-point sources. The SRRTTF has not yet completed its comprehensive plan to bring the river into compliance with applicable water quality standards. Therefore, establishing numeric NPDES permit effluent limits for PCBs is premature.

5. **Toxics reduction strategy – BMP effectiveness monitoring**

The Toxics Reduction Strategy for LLSWD require the quantification of toxic reductions in the collection system and treatment plant effluent to the maximum extent practicable. The fact sheet should include a discussion of the impracticality of demonstrating quantitative reductions, both in the collection system (influent) and effluent.

In reality, it is unlikely that influent sampling will be sufficient to demonstrate BMP effectiveness. The effectiveness of any BMP will be masked by the inherent variability of the influent and effluent data.

The County supports the use of a BMP approach to toxics reductions. We anticipate that indirect measurements and analytical approaches will be required to assess BMP effectiveness, and this should be recognized in all Spokane River NPDES permits and fact sheets.

6. **Because there are no PCB design loadings associated with advanced wastewater treatment systems, the technical memo to assess PCB loading when influent exceeds design criteria is not appropriate.**

The requirement to develop design influent criteria for PCBs is unreasonable. Although selected treatment technology will likely remove PCBs, there is insufficient documented evidence of the effectiveness of the treatment process in the removal of PCBs. Because of inherent inaccuracies of testing methods, it should not be the responsibility of Permittee to establish design criteria for pollutants and treatment processes for which there is no documented research of treatment effectiveness in the low concentration ranges required for permit compliance. It is worth noting that the EPA did not recommend requiring the Permittees to determine a "design influent loading value" in the discharger permits (EPA, Permitting Recommendations for the Spokane River Watershed, July 13, 2015). The EPA only recommended that "An estimate of the reduction in PCB loading or concentration achieved through TMP or BMP plan activities…" be included in the required annual report of PCB monitoring results and activities.

Comments other than PCB-related

7. **Ecology recently re-categorized the Spokane River as Category 1 for cadmium, making effluent limits far below water quality standards excessive and unnecessary.**

Ecology's 2015 state Water Quality Assessment, approved by EPA in July 2016, lists the Spokane River as Category 1 for cadmium. In previous assessments as recent as 2012, the river was Category 4A as impaired for cadmium. This improvement in river water quality should be recognized, and in fact, celebrated as a success. Yet, instead of congratulating the effort to improve water quality, the cadmium effluent limits for the permit are greatly reduced (tightened). This reduction is the result of the wasteload allocation set by the 1999 Spokane River Dissolved Metals TMDL, whereby limits are set as performance-based (plus 10%). The impact is that effluent limits are set irrespective of water quality criteria, when in fact effluent discharges are several orders of magnitude below water quality standards and have no reasonable potential to cause an exceedance of water quality standards. Additionally, improved treatment performance in one 5-year permit cycle often results in excessive and unnecessary reductions in effluent limits in the following cycle, again irrespective of receiving water quality.

The Metals TMDL appears to have never anticipated a river that met water quality standards. Ecology now has an opportunity to recognize the success in improving river water quality and eliminate the unnecessary effluent cadmium limits. To keep the TMDL defined limits in place is to continue to apply an ever-tightening limit that does nothing to further protect the environment.

8. **Similar to cadmium, effluent limits for lead and zinc are inappropriately restrictive and should be revised.**

Lead and cadmium limits in the draft permit are defined by the wasteload allocations set in the 1999 Spokane River Dissolved Metals TMDL. The limits from the TMDL are defined as performance-based (plus 10%). While the Spokane River continues to be Category 4A for zinc and lead, the cause is largely due to historic mining activities upstream. NPDES-permitted effluents are well below water quality standards for lead and zinc and have no reasonable potential to cause an exceedance of water quality standards.

As a result of the Metals TMDL wasteload allocation, effluent limits for lead and zinc are set irrespective of water quality standards and continually ratchet lower as treatment plant performance improves. It seems necessary that the Metals TMDL be re-calculated in order to set appropriate discharge limits (if limits are necessary at all). In the meantime, an alternative application of the wasteload allocation from the Metals TMDL could be to set limits based on:

"…maintaining existing concentration of metals in effluent…"

This would mean retaining lead and zinc limits from the previously-issued permit until a more appropriate basis for limits can be determined.

9. pH limits should be set at technology-based limits of 6 to 9.

Because Ecology has determined that effluent will not violate the pH water quality standards, technology-based limits of 6 to 9 should be imposed. Applying more restrictive limits is inappropriate and should be revised to technology-based limits.

In closing, Spokane County is committed to working with Ecology and others to improve water quality in the Spokane River and our region. We appreciate the opportunity to comment on this draft permit and fact sheet and to work collaboratively with you on these important topics. Please direct any questions on this letter to Dave Moss, P.E., Water Reclamation Manager, dmoss@spokanecounty.org or 509-477-7268.

Sincerely,

Kevin R. Cooke, P.E.
Environmental Services Director

Comments on the Draft NPDES Permit for the Liberty Lake Sewer and Water District

Permit No. WA0045144
August 29, 2016

Comments on the Draft Permit

Section S1.B: Final Effluent Limits for Compliance with the Spokane River DO TMDL

In order to grant a compliance schedule for a water quality-based effluent limit (WQBEL), the permitting authority must require compliance as soon as possible (40 CFR 122.47(a)(1)). As a practical matter, this means that that the permittee cannot immediately comply with the new effluent limitation on the effective date of the permit, because, if compliance can be achieved, then a compliance schedule is not available. See the May 10, 2007 memo from James A. Hanlon to the water division director of EPA Region 9[1] and the *U.S. Environmental Protection Agency NPDES Permit Writers' Manual*[2] at Section 9.1.3.

It appears that the permittee could comply with the final WQBEL for $CBOD_5$. According to Table 4 of the Fact Sheet, the average effluent loading of BOD_5 is 13.8 lb/day. The final $CBOD_5$ WQBEL is 45.1 lb/day, which is expressed as a seasonal average. Since the current average discharge of BOD_5 is less than the final seasonal average WQBEL for $CBOD_5$, the permit should require compliance with the final WQBEL for $CBOD_5$ based on the TMDL WLA immediately on the effective date of the final permit.

Section S2.A: Monitoring Schedule

The draft permit does not currently require sampling of the Spokane River for PCB congeners. Congener analysis is possible using EPA Method 1668C. The reason for recommending congener analysis is explained in the permitting recommendations submitted by the EPA to Ecology on July 13, 2015.[3] The EPA notes that the Fact Sheet for the draft permit for Kaiser Aluminum Washington, LLC (Permit #WA0000892) states on Page 37 that the Spokane River Regional Toxics Task Force plans to characterize PCB concentrations in the Spokane River.

Characterizing PCB data is relevant for determining whether the Spokane River has met the water column concentration targets in the PCB on Pages 11 and 12 of the EPA's Plan for Addressing PCBs in the Spokane River (dated July 14, 2015). In the event that the Task Force does not continue to characterize PCB concentrations (which it is not required to do), and if Ecology does not require point source dischargers to the Spokane River to conduct monitoring for PCB congeners in the Spokane River (through a permit condition or other means), then EPA recommends that Ecology itself commit to

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[1] "Compliance Schedules for Water Quality-Based Effluent Limitations in NPDES Permits" https://www3.epa.gov/npdes/pubs/memo_complianceschedules_may07.pdf
[2] https://www.epa.gov/npdes/npdes-permit-writers-manual
[3] Permitting Recommendations for the Spokane River Watershed. Included as Appendix B to EPA's Plan for Addressing PCBs in the Spokane River. July 14, 2015. http://srrttf.org/wp-content/uploads/2015/07/Spokane-TMDLNotice_of_Filing_EPA-Response_to_Remand_filed_7.14.15.pdf

monitoring PCB congeners in the Spokane River at a frequency adequate to assess both high and low river flow conditions.

Section S6: Pretreatment

The draft permit does not implement the EPA's permitting recommendation to prohibit the POTW from authorizing discharges of PCBs to the treatment works from any person, including industrial users, unless the PCB concentration is < 3 µg/L or unless the discharge is in accordance with a PCB discharge limit included in a pretreatment permit issued under §307(b) of the Clean Water Act. Such discharges to POTWs are prohibited under Toxic Substances Control Act (TSCA) regulations (40 CFR 761.50(a)(3)).

Comments on the Fact Sheet

Page 12, Table 4

Table 4 does not list effluent data for ammonia. However, the reasonable potential calculations on Pages 76 and 78 of the Fact Sheet state that there are a total of 55 effluent samples for ammonia. The Fact Sheet should provide a summary of ammonia discharges measured over the previous permit cycle.

Page 21

The Fact Sheet states that "water quality-based limits are calculated so that the effluent will comply with the Surface Water Quality Standards (chapter 173-201A WAC), Ground Water Standards (chapter 173-200 WAC), Sediment Quality Standards (chapter 173-204 WAC), or the National Toxics Rule (40 CFR 131.36)."

This facility discharges upstream from waters of the Spokane Tribe of Indians. The Spokane Tribe of Indians has treatment as a State under the Clean Water Act, and has established water quality standards that have been approved by the EPA and which are applicable to the Spokane River downstream from this facility.[4] In some cases, the Spokane Tribe's water quality standards are more stringent than Washington's water quality standards, or the National Toxics Rule.

Federal regulations state that no permit may be issued when the imposition of conditions cannot ensure compliance with the applicable water quality requirements of all affected States (40 CFR 122.4(d)). Ecology should analyze the discharge's effect upon downstream waters of the Spokane Tribe of Indians, and, if necessary, should establish WQBELs that do not cause, have the reasonable potential to cause, or contribute to non-attainment of the EPA-approved water quality standards of the Spokane Tribe of Indians, in addition to the Washington water and sediment quality standards and the National Toxics Rule.

Page 34

The Fact Sheet describes the physical size of the acute and chronic mixing zones. The EPA also notes that the mixing zone dilution factors were determined using Ecology's permit calculation tool (see also Pages 75 and 77), which uses a water balance calculation, but which cannot predict the spatial extent of a mixing zone. The Fact Sheet should describe how the physical sizes of the acute and chronic mixing zones were determined. If there are seasonal differences in the sizes of the mixing zones (e.g., due to differences in critical river flow rates or effluent and ambient temperatures), the Fact Sheet should explain this as well.

[4] Tribes in Idaho, Washington and Oregon with EPA approved Water Quality Standards (WQS) https://yosemite.epa.gov/R10/WATER.NSF/Water+Quality+Standards/tribalWQStext

Page 35

The Fact Sheet states that the proposed change to the pH limits "does not trigger Clean Water Act Anti-Backsliding provisions," but this statement is not explained. The anti-backsliding analysis for pH should be repeated following the guidance provided in Section 7.2 of the *U.S. Environmental Protection Agency NPDES Permit Writers' Manual*.

Page 38

The Fact Sheet states that the cadmium limits are performance-based, however, the average monthly limit of 0.074 µg/L is much lower than the average concentration reported in Table 4 (1.22 µg/L). The performance-based limits match the calculation shown on Page 79. However, it is not logical for a performance-based effluent limit for a given pollutant to be lower than the average effluent concentration for that pollutant. Ecology should verify that the performance-based effluent limit for cadmium was correctly calculated and that Table 4 lists the correct average concentration of cadmium and correct as needed.

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September 9, 2016

Washington State Dept. of Ecology
4601 N Monroe
Spokane, WA 99205

Attention: Shara Joy

RE: NPDES and Fact Sheet Comments - Permit No. WA0045144

Dear Shara:

The Liberty Lake Sewer and Water District and our consultants have reviewed the Draft Fact Sheet and NPDES Permit for Permit No. WA0045144. Enclosed are the District's comments.

Sincerely,

Liberty Lake Sewer and Water District

BiJay Adams, District Manager

cc: Eleanor Key, P.E.
Dennis D. Fuller, P.E., CWEC
Allison Esvelt, P.E., EEE
LLSWD Board of Commissioners
Dan Grogg, LLSWD

Encl. Liberty Lake Sewer and Water District NPDES & Fact Sheet Comments

Liberty Lake Sewer & Water District
NPDES & FACT SHEET COMMENTS

FACT SHEET

Page 13 of 91:

E. Summary of compliance with previous permit issued
Second paragraph; we do not agree with "The District has not consistently complied with the effluent limits…". Most of the compliance issues have been a result of inappropriate monitoring frequencies in the permit that were resolved after they were tagged as violations.

Table 5: Violations/Permit Triggers
The sample frequency violations shown for Dissolved Oxygen are very misleading and should not be included or footnoted with an explanation. Most result from WRF closures for Holidays.

Page 27 of 91:

The District is providing a river cross section with these comments at the end of the mixing zone at river flow of 500 cfs for the Districts effluent discharge. This should be used for RPA analysis in the permit.

Page 36 of 91:

Total PCBs
The Reasonable Potential Analysis conducted by Ecology for PCBs "did not show an exceedance of the water quality standard at the edge of the chronic mixing zone." Ecology is "assuming" that because the "Spokane River exceeds applicable water quality standards for PCBs" and that the discharge has a potential to contribute to excursions above water quality standards for PCBs. This "assumption" does not appear to be based on any modeling or other scientific evidence that would support the assumption and appears to contradict the outcome of the RPA findings that are used by Ecology to determine the potential for the discharge to exceed water quality standards. Furthermore due to the nature of PCB toxicity (long term bioaccumulation) a mixing zone should be used to establish effluent limits opposed to end of pipe limits at the water quality standard.

It appears that Ecology assumes that because they believe the Spokane River does not meet Water Quality Standards (recent testing would indicate otherwise) that the District's discharge is contributing to exceedances to WQS in the river. This is inaccurate, the EPA stated in their response to comments on the Idaho NPDES permits; "However,

the fact that the Spokane River is currently impaired in Washington due to high concentrations of PCBs does not by itself justify a finding that the subject discharges have the reasonable potential to cause or contribute to excursions above water quality standards for PCBs." This is also true for the District's discharge especially in light of the RPA showing no reasonable potential. The EPA further stated with respect to Cadmium and Temperature "The mere fact that the waterbody is currently impaired does not necessarily require the conclusion that all dischargers to the waterbody are contributing to the impairment." which appears to be the conclusion that Ecology is making with regards to PCBs.

Page 37 of 91:

The fact sheet states that "Even if the facility meets the 170 pg/L at the end of pipe after treatment, the facility will be required to maintain their toxics reduction efforts." Firstly; we do not believe Ecology has the regulatory authority to require participation in the SRRTTF, secondly we do not believe Ecology has the regulatory authority to require the District to continue reduction efforts after they have met the effluent limits for PCBs in the permit. These requirements for continued efforts would effectively require the District to reduce PCB levels in the river that are not directly attributable to the District's discharge. The District as a public entity has a fiduciary and legal obligation to their rate payers to participate in costs that are directly related to their obligation under the NPDES permit.

Contribution to PCB levels in fish tissue

The District has reviewed the PCB test results for the plant's effluent and compared them to data of PCBs found in fish tissue sampled by Ecology in October 2012. PCBs found in fish tissue appear to be primarily Aroclor 1254 and Aroclor 1260. When comparing congener distribution by percentage weight of the District's effluent and congener distribution by percentage weight of these two Aroclors it appears that little if any Aroclor 1254 and 1260 is present in the District's effluent discharge. We believe that this evidence suggest that there is no reasonable potential for the District's effluent discharge to contribute to fish tissue toxic levels. We have attached comparison charts for these comments.

BMPs

We believe that Ecology has no regulatory authority to require the District to operate the Phase II membrane filtration upgrades year round. There may be periods of time when the District may comply with its effluent limitations without membrane filtration, and the system may need to be brought offline for maintenance during the Spokane River DO TMDL non-critical season. If the District complies with the effluent conditions of the NPDES permit, there should be no obligation to operate the membranes year around.

It appears that the required BMPs and monitoring requirements do not necessarily result in the District testing or monitoring PCBs within the collection system. If testing and/or monitoring in the collection system, or sampling beyond the testing frequency specified in the permit is not part of the approved BMPs, then the "sampling and quality assurance plan" should not be required. This should be clarified in the permit language.

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Metals
If there is no reasonable potential for exceed water quality criteria for: copper, nickel, and tri-valent chromium why is monitoring required?

Page 42 of 74:

H. Human health
This section states: "The evaluation showed that the discharge has a reasonable potential to cause a violation of water quality standards for PCBs." However the reasonable potential analysis discussed on Page 36 indicated the RPA did not show an exceedance in water quality standards and that Ecology "assumes" the discharge has a reasonable potential to contribute to excursions above water quality standards. Can Ecology demonstrate how an assumption constitutes an "evaluation"? Ecology needs to use the approved reasonable potential analysis methodology to establish permit limits or in this case not establishing permit limits for PCBs.

With regards to PCB levels in fish tissue; evidence suggests that the District's discharge has no reasonable potential to contribute to PCB concentrations found in fish tissue please refer to comments on Pages 37 of the Fact Sheet.

If there is no reasonable potential to violate water quality standards for 1,4 Dichlorobenzene, why is monitoring required?

Page 49 of 74:

G. Compliance schedule
See permit comment for special conditions S1.A.

Page 50 of 74:

Ecology appears to rely on the US District Court Order, March 16, 2015 and the resulting EPA plan, July 14, 2015 as a basis for requiring continued participation in the SRRTTF and BMP Implementation Plans. Ecology has elected to go beyond this plan by establishing PCB effluent limits in the District's NPDES permit. Those limits were based on current Water Quality Standards for PCBs with required monitoring to determine compliance with those limits. In the reasonable potential analysis completed by Ecology for PCBs it

was determined that the discharge did NOT have a reasonable potential to exceed WQBLs. It is our belief that if the District meets the effluent requirements in the NPDES permit, Ecology has no regulatory authority to require continued participation in the SRRTTF or require implementation of BMP Plans or measures. We also question the authority to put these requirements in the permit even if the District does not meet the permit limits, without an agreed order. It's important to note that the EPA in a March, 2012 letter to the Spokane River Stewardship Partners stated: "Although we encourage Task Force participation by the Idaho permittees, the EPA does not believe the Clean Water Act or its implementing regulations provide us with the authority necessary to require their participation in the Task Force, as a condition of their NPDES permits" the EPA also made the statement in their response to comments on the Idaho permits: "It is correct that the EPA has stated that it does not have the authority to require the subject permittees to participate in the SRRTTF. The draft permits contain a requirement to participate in the task force because the permittees mutually agreed with Spokane Riverkeeper, the Lands Council, and Kootenai Environmental Alliance that the permits should include language requiring such participation." We believe that this lack of authority also applies to Ecology. The basis of developing the SRRTTF was to go directly to implementation and not establish unachievable and unrealistic PCB limits in the NPDES permits. The District supports the SRRTTF and the straight to implementation and narrative approach. By introducing limits in the NPDES permits, Ecology is taking a different approach that aligns more with a TMDL and contradicts the SRRTTF and the straight to implementation approach.

If the requirements are based on the discharge contributing to PCB levels in fish tissue, we believe that evidence suggests that this is not true and Ecology should provide any evidence that supports a conclusion that such a contribution does exist.

If PCB limits are justified to be included in the permit, then State, Federal regulations, or a legal basis that gives Ecology this authority should be cited in the Fact Sheet under Section V. If there are regulations please explain what authority does exist. If there is no authority this requirement should be removed or reworded to make the participation in the SRRTTF voluntary.

Page 55 of 74:

Ecology apparently "analyzed the data using a 10x blank correction which helps to eliminate false positives when summing individual PCB congeners." This method and a clear description on how it is to be used needs to be included in the permit for compliance and BMP measurable progress monitoring.

We do not believe that Ecology has the authority to require participation in the SRRTTF. However, if that authority exists and if testing shows that the District is meeting the final effluent limits for total PCBs, and Ecology cannot show evidence that the District's discharge is contributing to high levels of PCBs in fish tissue, then the BMP

implementation and participation in the Toxic Task Force should be eliminated or made a voluntary effort.

NPDES Permit

Page 7 of 57:

S1.A Effluent Limits: Outfall 001 Effluent Limits Table
BOD and TSS Loading limits are incorrect should be based on 2 MGD; 166.8 lbs./d Monthly and 250.2 lbs./d Weekly

Page 10 of 57

S1.B Final Effluent limits for Compliance with the Spokane River DO TMDL
Effluent Limits: Outfall 001 (Nov.1st -End of February)

- BOD and TSS Loading limits are incorrect should be based on 2 MGD; 166.8 lbs./d Monthly and 250.2 lbs./d Weekly
- PCB limits are toxic through long term bioaccumulation. Limits should not be based on maximum day because PCBs do not have immediate toxic effects in the traditional since, but rather through bio-accumulation and therefore limits should be set on an average basis, similar to limits set for the DO TMDL. If PCB limits are justified to be included in the permit, we request that the PCB limit be changed from a maximum day limit to an annual average or monthly average limit for the following reasons:
    1. PCB effluent limits are for the protection of human health due to long-term (70 years) human consumption of water and aquatic organisms per WAC 173-201A-240.
    2. PCB effluent limits in the District's draft permit are based on the more restrictive human health criteria and not on the acute and chronic criteria for protection of freshwater aquatic organisms.
    3. The District's existing monitoring data shows that the effluent concentrations of PCBs are well below the acute and chronic freshwater aquatic life water quality standards and therefore these standards are not limiting.
    4. The maximum day permit limitation may apply to acute and chronic standards, but it does not apply to human health criteria where average exposure is a concern.
    5. There is no statutory requirement that the effluent limitations in NPDES permits be expressed in maximum daily terms, just that they are in compliance with the applicable regulations.

EPA recognizes in the "Technical Support Document for Water Quality-Based Toxics Control" document, 1991, Section 5.4.4 recognizes; "Developing permit limits for pollutants affecting human health is somewhat different from setting limits for other pollutants because the exposure period is generally longer than 1 month, and can be up to 70 years, and the average exposure rather than the maximum exposure is usually of concern." Although the methodology established in this document is not available for the District's permit without a TMDL it does suggest that the method Ecology used to establish PCB limits is not appropriate.

Pages 12 through 15 of 57:

S2 Monitoring Requirements

- Why is Copper and Silver testing required on influent? No removal rate is required and there are no industrial users on the District's system.
- Effluent testing: Please note that BOD & CBOD frequency is seasonal.
- Toxics Monitoring:
    - 1,4 Dichlorobenzene: 2011, 2013 pollutant scans show NDs for 1-4 Dichlorobenzene, 2016 at .99 µg/L. This monitoring should be eliminated based on previous test results showing non-detect or very low concentrations in the effluent.
    - 2,3,7,8 TCDDs: Letter from Ecology 1-15-15 exempting District from testing dioxins in accordance with note "n" of the NPDES permit monitoring should not be added back in to this permit.

Page 32 of 57:

S9: Compliance schedule

- We do not believe that Ecology has the authority to require participation in the SRRTTF, however, if that authority exists and if testing shows that the District is meeting the final effluent limits for total PCBs, and Ecology cannot show evidence that the District's discharge is contributing to high levels of PCBs in fish tissue then, the BMP implementation and participation in the Toxic Task Force should be eliminated or made a voluntary effort.

Pages 37 & 38 of 57:

S13 Toxics Reduction Strategy

- The requirement to develop a design influent criteria for PCBs is unreasonable. Although the plant will likely remove PCBs through the treatment process, there is insufficient documented evidence of the effectiveness of the District's treatment process in the consistent removal of PCBs. Given the inherent inaccuracies of the testing methods, it should not be the District's responsibility to establish design criteria for pollutants and

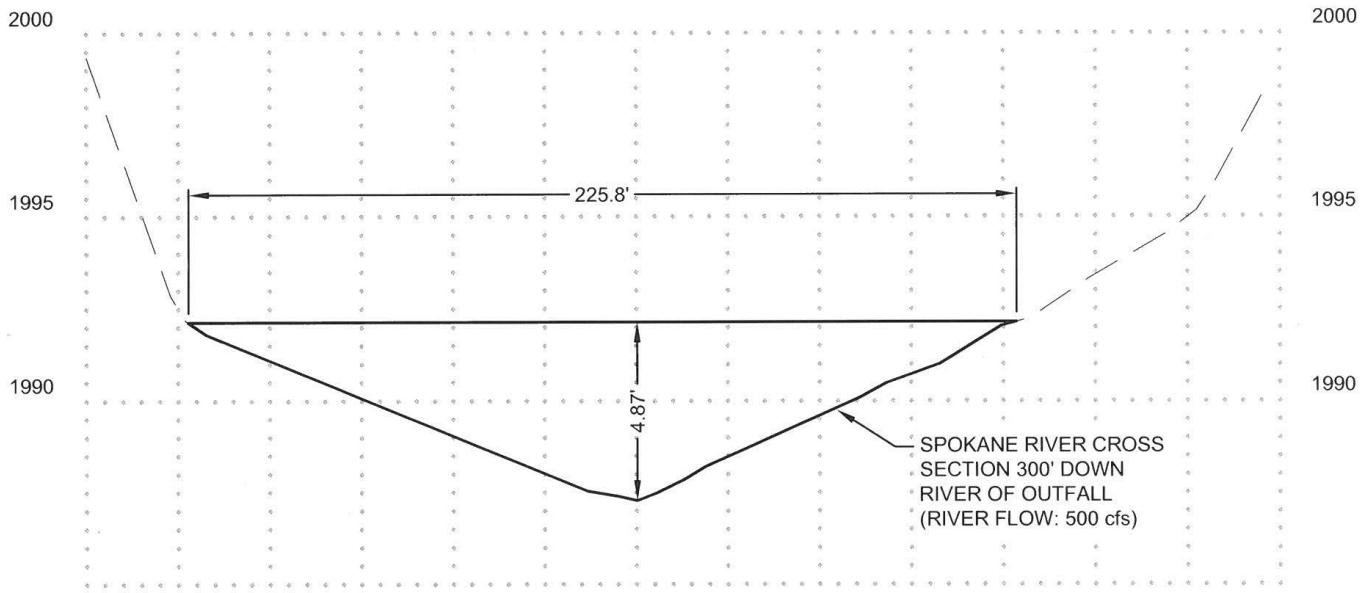
treatment processes that have for which there is no wide spread acceptance or documented research of treatment effectiveness in the low concentration ranges required for permit compliance. In addition, there may be environmental, influent PCB characteristics, and/or seasonal influences that impact the effectiveness of the plant in removing PCBs. These effects may require much longer monitoring and testing to develop reliable design criteria. It is worth noting that the EPA did not recommend requiring the dischargers to determine a "design influent loading value" in the discharger permits (EPA, Permitting Recommendations for the Spokane River Watershed, July 13, 2015). The EPA only recommended that "An estimate of the reduction in PCB loading or concentration achieved through TMP or BMP plan activities…" be included in the required annual report of PCB monitoring results and activities.

- We would suggest that this requirement be changed to read: "Based on influent and effluent test result for PCBs, the District will provide a technical memorandum that summarizes the test results and estimates the PCB removal effectiveness of the treatment process."
- BMPs - We believe that Ecology has no regulatory authority to require the District to operate the Phase II membrane filtration upgrades year round. If the District is meeting the effluent conditions of the NPDES permit there is no obligation to operate the plant in any specific fashion. Taking a process element out of the treatment string is not considered a bypass and should be left to the District to decide as long as all permit conditions are met.
- QAPP - It is assumed that the current QAPP is still valid for effluent and influent testing and that a new QAPP would only be required for additional testing as part of the BMP Implementation Plan, is that correct?

Pages 38 & 39 of 57:

S14 Measurable Progress Determination

- We do not believe that Ecology has the authority to require participation in the SRRTTF, however, if that authority exists and if testing shows that the District is meeting the final effluent limits for total PCBs, and Ecology cannot show evidence that the District's discharge is contributing to high levels of PCBs in fish tissue then, the BMP implementation and participation in the Toxic Task Force should be eliminated or made a voluntary effort. The District as a public entity has a fiduciary and legal obligation to their rate payers to participate in costs that are directly related to their obligation under the NPDES permit.



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DSGND BY: MDM	CHCKD BY: MDM	LIBERTY LAKE SEWER AND WATER DISTRICT MIXING ZONE ANALYSIS
DRWN BY: JJB	SCALE: H: 1" 40'	
PROJECT NO: 30221.041.01		

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509.838.3810
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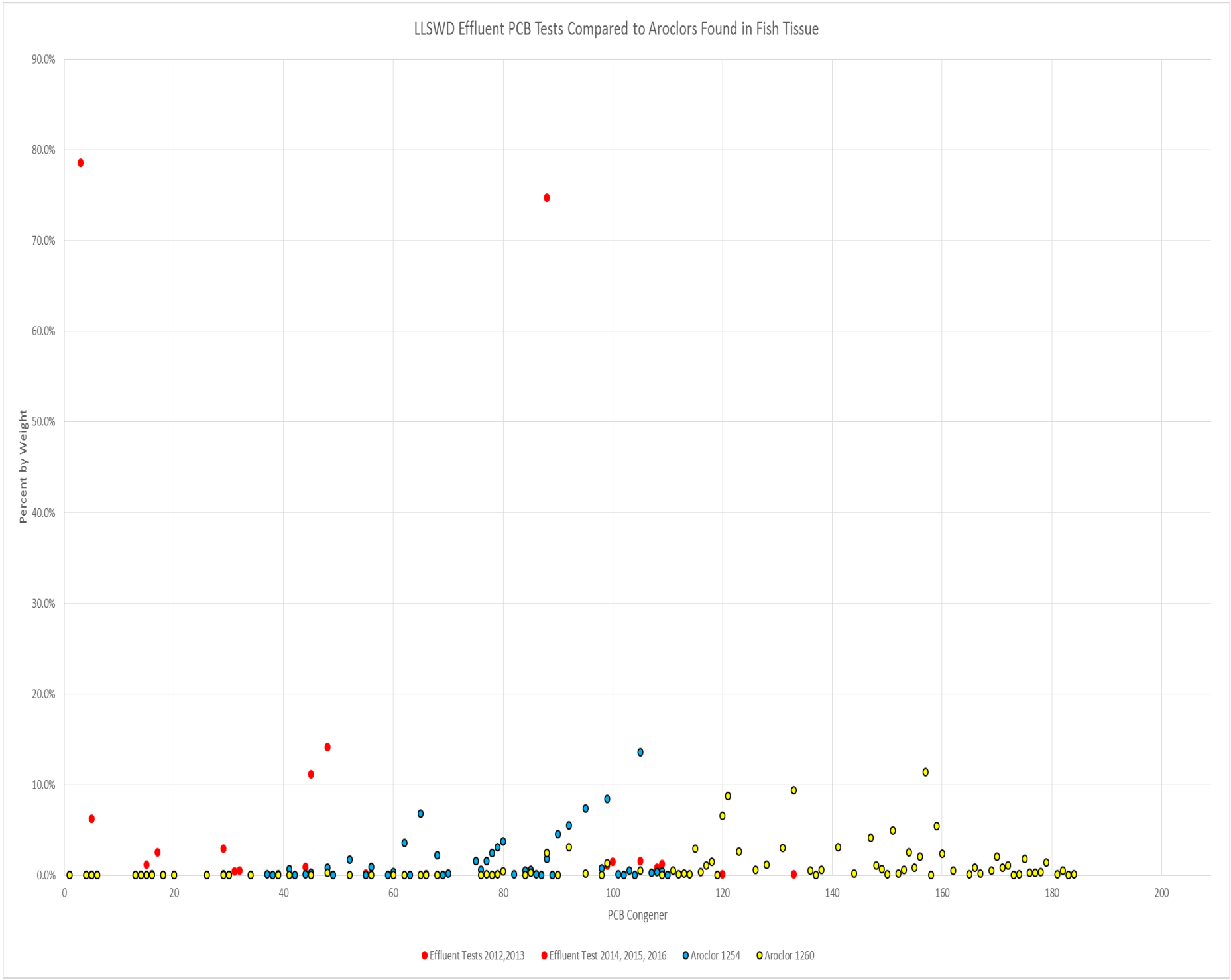
DATE: 08/31/2016 | FIGURE: 1


LLSWD Effluent PCB Tests Compared to Aroclors Found in Fish Tissue
90.0%
80.0%
70.0%
60.0%
50.0%
40.0%
30.0%
20.0%
10.0%
0.0%
Percent by Weight
0
20
40
60
80
100
120
140
160
180
200
PCB Congener
Effluent Tests 2012,2013
Effluent Test 2014, 2015, 2016
Aroclor 1254
Aroclor 1260

Protecting the Aquifer Since '88

HAYDEN AREA REGIONAL SEWER BOARD

10789 N. Atlas Road • Hayden, Idaho 83835 • Fax (208) 772-3863

Ken Windram, Administrator
Phone (208) 772-0672

September 12, 2016

Washington State Department of Ecology (WSDOE)
4601 N Monroe
Spokane, WA 99205

Attention: Shara Joy

Subject: Liberty Lake Draft NPDES Permit Comments

Dear Sirs:

The Hayden Area Regional Sewer Board's (HARSB) goal has been environmental protection since its creation in 1984. Over this time, HARSB has operated a treatment plant and a water reuse farm to improve water quality and protect the Spokane River and Rathdrum Prairie – Spokane Valley Aquifer. Below are HARSB's comments to the Spokane River draft NPDES permits in the spirt of environmental protection.

PCB Interim and Final Limits:

WSDOE has not provided an adequate basis to include PCB limits in the NPDES permits. The WSDOE Reasonable Potential Analysis (RPA) for PCBs "did not show an exceedance of the water quality standard at the edge of the chronic mixing zone." This analysis presumably considered all relevant data, including background in-stream concentrations and effluent concentrations of PCBs. See EPA NPDES Permit Writers' Manual at 6-24. The WSDOE then "assumes" that because the Spokane River exceeds water quality standards for PCBs, the discharge has a potential to contribute to excursions above water quality standards. The fact sheet does not provide any data or modeling in support of this "assumption", or any explanation why the assumption should override the express conclusions of the RPA, which already considers background concentrations. Without a reasonable explanation, WSDOE lacks any basis to include PCB limits in the permits. Any permit limits or conditions need to be based on sound scientific data / analysis and subject to stakeholders review and comment. This analysis applies equally to interim and final limits.

Rather than impose limits in this permit cycle, the permits should continue effluent monitoring and reporting requirements. The treatment plants are installing tertiary treatment which will further reduce effluent PCB levels. Having another permit cycle or two to gather scientific data and better understand the connection between treatment plant effluent PCBs and river PCB levels will provide the scientific data needed to establish specific NPDES effluent PCB limits to protect the receiving waters.

Contribution To PCB Levels In Fish Tissue

The Fact Sheet states that the Spokane River is water quality limited for PCBs in fish tissue. While the NPDES permits do not expressly contain any limits based on this

impairment, we comment that no adequate basis has been provided for the fish tissue impairment to result in effluent limitations for municipal dischargers. As part of the activities of the Spokane River Toxics Task Force, the PCB test results for the treatment plants' effluent were reviewed and compared to data of PCBs found in fish tissue from 2012. PCBs found in fish tissue appear to be primarily Aroclor 1254 and Aroclor 1260. When comparing congener distribution by percentage weight of the treatment plants' effluent, the effluent appears to contains little or no Aroclor 1254 or 1260. This evidence suggests that there is NO correlation between the treatment plants' effluent and fish tissue PCB levels. No permit limits may be imposed unless such a link is established.

Mandatory Task Force Participation

The treatment facilities draft permits state that "Even if the treatment facility meets the 170 pg/L at the end of pipe after treatment, the facility will be required to maintain their Best Management Practices (BMP) toxics reduction efforts." WSDOE has not provided an adequate basis for this condition. WSDOE lacks regulatory authority to require participation in the SRRTTF, or to require the treatment facilities to continue BMP reduction efforts after they have met the effluent limits for PCBs in the permit. The treatment facilities, as public entities, have a fiduciary and legal obligation to their rate payers to fund only those expenditures that are required to comply with water quality standards.

Exceeding EPA BMP Implementation Plans

WSDOE appears to rely on the US District Court Order dated March 16, 2015 and the resulting EPA plan dated July 14, 2015 as the basis for requiring continued participation in the SRRTTF and BMP Implementation Plans. However, WSDOE has elected to go beyond the EPA plan by establishing PCB effluent limits in the NPDES permits.

A better approach is simply to follow the EPA plan in this permit cycle, which will provide the scientific data to establish any necessary limits.

I appreciate the opportunity to comment on the Spokane River draft NPDES permits. These comments are offered with the hope WSDOE will consider them in developing the final Spokane River wastewater treatment plant NPDES permits.

Regards

Ken Windram
Administrator