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February 6, 2015

Mr. Lance Holloway  
Watershed Manager  
Idaho Department of Environmental Quality  
1445 North Orchard Street  
Boise, ID 83706

Subject: City of Nampa Comments on Draft Lower Boise River TMDL

Dear Mr. Holloway:

Thank you for the opportunity to provide comments on the Draft Lower Boise River Total Phosphorus Total Maximum Daily Load (TMDL). The City of Nampa (City) appreciates the Idaho Department of Environmental Quality's (IDEQ) diligent work on this important document for the Lower Boise River watershed. As you know, the City has been an active participant throughout this process as the outcomes of this document have a significant impact on the City and its rate payers.

As a key stakeholder with rate payers who live and work in the Treasure Valley, the City represents government, residential, agricultural, and business interests concerned with the water quality of the Lower Boise River watershed. The City understands how water quality is linked to the quality of life - and economy - in the Treasure Valley.

To this end, the City is providing the attached comments on the Lower Boise River Total Phosphorus TMDL. These comments were developed based on the *Draft Lower Boise River Subbasin Assessment and Total Maximum Daily Load – 2015 Total Phosphorus TMDL Addendum for the Lower Boise River, Mason Creek, and Sand Hollow Creek* distributed by the IDEQ on January 14, 2015.

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Again, the City appreciates the opportunity to provide input into this important process. Should you have any questions regarding our comments, please do not hesitate to contact me at (208) 468-5420 or by email at [fussm@cityofnampa.us](mailto:fussm@cityofnampa.us).

Sincerely,

A handwritten signature in blue ink, appearing to read "Michael J. Fuss".

Michael J. Fuss, P.E.  
Public Works Director

cc: Troy Smith, IPDES Rules/Guidance Coordinator, IDEQ  
Cheryl Jenkins, Environmental Compliance Division Superintendent, City of Nampa  
Andy Zimmerman, Wastewater Division Superintendent, City of Nampa  
Matthew Gregg, Brown and Caldwell  
file

Attachments (1)

1. City of Nampa Comments on the Draft Lower Boise River Total Phosphorus TMDL

**Attachment A – City of Nampa Comments on Draft Lower Boise River Total Phosphorus TMDL**

Comment No.	Section (Page)	Comment
1	General	The City appreciates the DEQ's diligence and hard work in completing this important document. The City supports the DEQ's goal of improving water quality in the Lower Boise River watershed.
2	General	The City supports the use of an adaptive management approach throughout the Lower Boise River TMDL development. Given the limited data set for many key inputs, variability of stormwater data, and calibration of the AQUATOX model, the results of the AQUATOX model should be used in a multiple lines of evidence approach in the TMDL. The AQUATOX model is an important tool that can help us understand the sensitivity of periphyton to specific inputs but should not necessarily be used for the direct calculation of wasteload allocations. The results of this modeling effort and resulting wasteload and load allocations should continue to be compared to changes in the Lower Boise River, and the allocations should be adjusted when needed to meet water quality goals.
3	General	The City strongly supports the concept of water quality trading as a viable method for meeting water quality goals. While the TMDL is not the correct vehicle for detailing the exact implementation of this approach, which should be discussed in a Trading Framework, the City appreciates the DEQ's inclusion of water quality trading as a potential implementation approach for reducing point and non-point source discharges. Furthermore, the City would encourage the DEQ to continue to support and investigate both water quality trading and integrated water management approaches as viable options for meeting water quality goals.
4	Table 16 (38) and Table 18 (40)	The area of the City's MS4 system is inconsistently presented among these tables. The City suggests that all tables be updated to include an area of 30.3 square miles, which is consistent with the City's most recent MS4 Permit.
5	Table 19 (44)	Table 19 should be amended to include the active MSGP facilities located within Canyon County. This information can be found using the EPA's NOI Search Engine.
6	5.1.2 (64)	It is recommended that the DEQ clarify the temporal averaging or hydrologic condition of the 0.07 mg/L target derived from the Snake River Hells Canyon TMDL and how the Lower Boise River TMDL matches those components. It is unclear from the report whether the 0.07 mg/L target at Parma has a temporal averaging component or whether it is effectively an "instantaneous maximum" value to be met at all times.
7	5.1.2 (66)	The allowable exceedance frequency (i.e., 1 in 10 years) for nuisance algae seems overly restrictive. This is more stringent than with toxics criteria, for which a 1 in 3 year frequency is used. Considering that the periphyton target is aesthetics-based, it would not be recommended to have an allowable frequency that is more stringent than toxics-based criteria. The City believes that an exceedance frequency of 1 in 3 would support beneficial uses while not overly burdening dischargers.

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8	5.1.2 (66)	It is recommended that the DEQ include a section on critical conditions as they relate to the target for nuisance algae. This section should explain how the modeled period is representative of a critical condition for the Lower Boise River.
9	5.3.2 (86)	The City agrees with the DEQ's approach for separating wet weather and dry weather (i.e., agricultural return and groundwater) allocations. It is the City's view that the dry weather stormwater flows are allowable as non-contaminated flows under its current NPDES permit. However, the City does not have and does not intend to implement any method for <u>controlling these flows outside of routine maintenance and replacement.</u>
10	5.4.1 (98)	It should be noted that the stormwater load estimates were not developed through the use of the AQUATOX or mass balance models. Rather, these loads were estimated as described in Appendix E.
11	5.4.1 (98)	<p>The City recommends the selection of a tool to separate baseflow in order to identify the dry weather flows. For example, the following two public-domain tools can separate base flow:</p> <ul style="list-style-type: none"> <li>• Web-Based Hydrograph Analysis Tool (WHAT) - <a href="https://wiki.epa.gov/watershed2/index.php/Web-Based_Hydrograph_Analysis_Tool_(WHAT)">https://wiki.epa.gov/watershed2/index.php/Web-Based_Hydrograph_Analysis_Tool_(WHAT)</a></li> <li>• PART - <a href="http://water.usgs.gov/ogw/part/">http://water.usgs.gov/ogw/part/</a></li> </ul> <p>These tools should be used to separate dry weather from stormwater flows in the 15-month Lower Boise River model record. The model would then be paired with the Lower Boise River water balance model in order to distinguish groundwater, wastewater, reservoir release, and runoff inputs. Because the overall dataset is limited and there are specific time constraints, a spreadsheet-based pollutant loading model might be the most efficient approach to calibrate stormwater loads. This type of model is relatively straightforward to develop and can provide land use-based information that will help subdivide the wet-weather loads. Results from a spreadsheet-based pollutant loading model (i.e., Watershed Treatment Model) could then be used to partition loads from these different hydrologic fluxes by location and land use.</p>
12	5.4.1 (98)	The rationale and feasibility of the assumed 42% and 84% load reductions are unclear based on the description provided in the text. Many stormwater BMPs remove only 10–45% of influent phosphorus loads (Simpson and Weammert, 2007). It is neither technically nor economically feasible to treat all stormwater runoff from a locality, and, thus, the percent required load reductions may not be achievable. Moreover, on a dollar-per-pound basis, the costs of reducing urban stormwater loads can be 2–3 orders of magnitude higher than other sectors (Jones, 2010; Wieland, 2009). For these reasons, the reduction value should not be interpreted as an appropriate goal for any single locality or MS4 permit. Rather, TMDL-related activities by the stormwater sectors should be determined on a locality-by-locality basis, based on a reasonable level of effort in individual permit terms. Trading with other sectors and sources should be allowed and encouraged, to facilitate cost-effective load reductions.

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13	5.4.1 (99)	The City suggests that the DEQ address the inherent assumptions with the percent reduction approach. While the City supports this method for expressing stormwater wasteload allocations, it should be acknowledged that these percent reductions are based on the current understanding of baseline loads. Should baseline load estimates be reduced in the future through further data evaluation, the percent reductions should also be reduced to yield the same wasteload allocations.
14	5.4.1 (99)	Add the following at the end of the first sentence of the first paragraph <i>“...therefore refinements should be made as additional characterization information becomes available.”</i>
15	5.4.1 (99)	Modify the second sentence of the first paragraph to read "Further, these TP <i>wasteload and load allocations</i> may need to be adjusted to reflect MS4 boundary and land use changes in the lower Boise River subbasin."
16	5.4.1 (100)	Modify the second sentence of the first bullet in the Concentration vs. Load section to read "For this reason.....designed and implemented to reduce loads ( <i>not concentrations</i> ) for each MS4."
17	5.4.1 (100)	Modify the third sentence of the first bullet in the Concentration vs. Load section to read “...expressed as percent reduction from the baseline <i>load...</i> ”
18	5.4.1 (100)	The first bullet in the Concentration vs. Load section references “...the reduction of loads from the baseline that can be translated into management activities.” However, the current method for determining a baseline is unclear either in the text of the TMDL or in Appendix E . The City suggests that DEQ clearly states the baseline assumptions for stormwater loadings as a means to better understand required implementation activities.
19	5.4.1 (100)	Replace the last sentence of the second bullet in the Concentration vs. Load section with the following:  "For these reasons, the reduction value should not be interpreted as an appropriate goal for any single locality or MS4 permit. Rather, TMDL-related activities by the stormwater sectors should be determined on a locality-by-locality basis, based on a reasonable level of effort in individual permit terms. Trading with other sectors and sources should be allowed and encouraged to facilitate cost-effective load reductions."
20	5.4.1 (100)	Suggest changing the second bullet in the Low Frequency Storms section to read:  "Stormwater (wet weather) flows and loads were not captured as part of USGS August 2012 synoptic sampling. Because of the lack of long-term stormwater data, it is unclear at this time how the loads from these discrete events impact periphytic growth."
21	5.4.1 (100)	For the Low Frequency of Storms section it is recommend that the DEQ reference the following EPA guidance "...because storm water discharges are due to storm events that are highly variable in frequency and duration and are not easily characterized, only in rare cases will it be feasible or appropriate to establish numeric limits for municipal and small construction storm water discharges. The variability in the system and minimal data generally available make it difficult to determine with precision or certainty actual and projected loadings for individual

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		dischargers or groups of dischargers. Therefore, EPA believes that in these situations, permit limits typically can be expressed as BMPs, and that numeric limits will be used only in rare instances.” (Revisions to the November 22, 2002, Memorandum “Establishing Total Maximum Daily Load (TMDL) Wasteload Allocations (WLAs) for Storm Water Sources and NPDES Permit Requirements Based on Those WLAs, EPA)
22	5.4.1 (101)	On the 4th bullet under Non-Stormwater (Dry Weather) delete "and other BMPs targeting phosphorus reductions, increased attention to on-site stormwater inspection, maintenance, and public education." and replace with "reuse, dry weather inspections, and public education."
23	Table 42 (110)	The City supports the wasteload allocation approach for large WWTFs in the Lower Boise River watershed (i.e., wasteload allocation based on 0.1 mg/L discharge from WWTFs). While this concentration still approaches the current limits of technology, the proposed wasteload allocations provide some operational flexibility.
24	Tables 40–45 (104–116), Tables 50–55 (133–140), & Tables 56–57 (141–142)	Request that the DEQ present all wasteload allocations for point sources included in these tables as either “lb/day <i>as a monthly average</i> ” or “lb/day <i>as a seasonal average</i> .” The DEQ has consistently presented the allocations, and therefore the potential permit limits, as a monthly or even seasonal average for point source discharges. The current presentation could potentially lead to interpretation of these numbers as daily limits, which would increase the cost of compliance for dischargers without improving water quality in the Lower Boise River.
25	5.4.2 (117) & Figure 47 (123)	The City requests that the DEQ present and discuss the AQUATOX model scenarios for the October thru April timeframe that have point source discharges at higher wasteload allocations (e.g., discharge at 0.5 and 1.0 mg/L). It is unclear, based on the current documentation, the added benefit from reducing point source discharges to 0.35 mg/L as compared to slightly higher levels of discharge. This change impacts the implementation cost for the City and therefore should be examined closely.
26	5.4.2 (119)	The City supports the DEQ’s proposed approach (i.e., channel modifications in the Lower Boise River) to further improve water quality in the Lower Boise River. The growth of periphytic algae in the Lower Boise River, like any system, is complex with any number of factors influencing the ultimate concentrations in the river. Because of this, there appears to be a limit to the effectiveness of total phosphorus controls to meet water quality goals, as shown in Figure 47. It is important that the DEQ continues to look for the most cost-effective methods for improving water quality.
27	5.4.2 (119)	The City supports the DEQ’s use of AQUATOX for the quantification of the periphytic algae in the Lower Boise River. However, as discussed in Comment No. 2, there is still uncertainty associated with the use of the calibrated AQUATOX model. Because of this, the City requests that the DEQ use a multiple lines of evidence approach in the development of this TMDL and the review of its effectiveness in the future. This approach would be further supported by the collection of additional water quality data that could serve to better calibrate the current AQUATOX model.

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28	5.4.8 (147)	Allocation for future municipal growth is critically important to the City. As such, it is suggested that the first sentence of the third paragraph be modified to read "...unless new point sources <i>or the expansion of existing point sources</i> discharging directly or indirectly to the Lower Boise River, Mason Creek, or Sand Hollow Creek: (1) receive a mean monthly NPDES permit limit for TP of < 0.07 mg/L, (2) a DEQ 5-year review identifies a growth reserve calculated as the difference between current TP loads and TP allocations, where the difference is divided among new/existing point sources, (3) implement approved water quality offsets or trading, <del>or</del> (4) no discharge, <i>or (5) a technical study demonstrating the proposal to discharge meets the TMDL targets is provided to and approved by the DEQ.</i> "
29	Appendix E	<p>The City requests that Appendix E be removed from the TMDL documentation. This document was not developed by the Stormwater Group, as referenced in the document, and, as such, does not necessarily represent the views of the entire group. This document should be viewed similarly to other input received from stakeholders throughout the process, which is not included in the formal TMDL documentation.</p> <p>If Appendix E remains as a reference document, the City requests that Cheryl Jenkins, Mike Mieyr, and Ted Douglass's names be removed from the list of Stormwater Group Members. The City (and its consultant) provided general input and data to the group. However, the City did not fully validate the calculations used to derive the stormwater loading values. Refer to Comment No. 11, above, regarding the City's perspective on the appropriate method for quantifying stormwater loads.</p>