

Response to Comments

City of Sandpoint Wastewater Treatment Plant NPDES Permit # ID0020842

§401 Water Quality Certification

Public Comment Period: April 19, 2016 through July 5, 2016
For Draft Certification dated February 23, 2016

The 401 certification and the draft NPDES permit were advertised for public comment at the same time since one is a subset of the other. As a result comments are received that address both permit topics and certification topics. DEQ has selected comments from the respondents that relate to 401 certification topics. EPA also develops a response to comments document addressing comments specific to their permit.

1. Comment

Idaho Conservation League (ICL) commented:

“It is not clear to us what the justification is for a total phosphorus mixing zone that utilizes greater than 25% of the receiving flow. Idaho’s most recent mixing zone rule provides for the following [excerpt from Idaho Water Quality Standards (WQS) IDAPA 58.01.02.060 Mixing Zone Policy not included].

We interpret all of this to mean that the DEQ can, under certain circumstances, authorize a mixing zone larger than 25% of the receiving flow. However, doing so requires that the DEQ undertake significant analysis to justify this action.

Support documents included in DEQ’s 401 Cert provide analysis of the proposed mixing zone. However, this analysis does not demonstrate that this larger mixing zone does not “cause an unreasonable interference with, or danger to, beneficial uses.” On the contrary, the analysis demonstrates that the expanded mixing zone causes these impacts.

Further DEQ’s review concludes that the existing outfall is poorly located and discharges to slack water. This in turn hinders mixing. DEQ’s rules direct that “The Department shall not authorize a mixing zone that is determined to be larger than is necessary considering siting, technological, and managerial options available to the discharger.” DEQ seems to have failed to consider whether or not there are modifications that could be made to the outfall which would eliminate the need for a mixing zone that exceed 25%. No analysis of relocating the outfall is presented. As a result, the DEQ analysis fails to comply with the agency’s own rules and fails to provide adequate water quality protections for the receiving water.

The lack of review discussed above makes it inappropriate for the DEQ or the EPA to authorize a mixing zone of the extreme size proposed in the 401 Cert and the draft NPDES permit. Absent additional review and justification, the agencies are precluded from utilizing a mixing zone that is greater than 25%.”

ATTACHMENT 23

Response

As noted by ICL, a mixing zone larger than 25% can be authorized if it will not cause unreasonable interference with, or danger to, beneficial uses (IDAPA 58.01.02.01.d). A mixing zone causes unreasonable interference or danger to beneficial uses when it causes conditions that impede or prohibit recreation in or on the water body (IDAPA 58.01.02.060.01.d.vi). This assessment unit of the Pend Oreille River (Pend Oreille Lake to Priest River) is not impaired due to excess nutrients, meaning there are not conditions that can cause visible slime growths or other nuisance aquatic growths that impair beneficial uses (IDAPA 58.01.02.200.06). The phosphorus limits in Sandpoint's permit will result in less phosphorus in the receiving water during the summertime period. Since under current conditions, nutrients do not cause an impairment of uses, the new limits for phosphorus in the permit should not impair recreational uses.

It should also be emphasized that phosphorus is not a toxic pollutant and mixing zones for non-toxic substances should be treated differently. In most situations, the time for nuisance aquatic growth to respond to an increase in nutrients will be longer than the time to reach full mixing. Therefore, in general, nuisance aquatic growth basically responds to fully mixed conditions. This allows DEQ to provide a 100% mixing zone for nutrients without, in most instances, an adverse impact on uses. DEQ did, however, limit the mixing zone to 47% for the Sandpoint discharge due to the difficult discharge point that demonstrated poor mixing during critical flows. DEQ used field data collected by DEQ and modeling completed by EPA in determining this mixing zone.

2. Comment

ICL also footnotes within the above comment that, "It is not clear to us that these rules [IDAPA 58.01.02.060] have been approved by the EPA. As such, it is not appropriate for the DEQ to be utilizing them for the development of mixing zones in Idaho. Nor is it appropriate for the EPA to be incorporating these rules into an EPA NPDES permit."

Response

The mixing zone provisions in IDAPA 58.01.02.060, adopted in 2015, have not yet been approved by EPA. However, there are several reasons why it is appropriate to reference these provisions. First, DEQ is not limited to relying upon WQS when it considers certification under section 401 of the Clean Water Act (CWA). It is also allowed to include conditions necessary to ensure compliance with "any other appropriate requirement of state law" (CWA section 401(d)). The mixing zone provisions are an appropriate requirement of state law. Regardless of the version of the mixing zone rules, mixing zones for toxic substances do not exceed 25% of the critical flow condition and the acute or chronic mixing zones for toxic substances are not contrary to any other provision of these rules.

Second, like the new provisions, the prior mixing zone provisions that were approved by EPA prohibit mixing zones that cause an unreasonable interference with, or danger to beneficial uses. DEQ's interpretation of the prior provisions also allowed the agency to vary from the 25% limit on mixing zones, but only if the mixing zone still ensured protection of uses. The new provisions provide further explanation for what constitutes an unreasonable interference and confirm the agency practice of allowing larger or requiring smaller mixing zones. At the very

least, while not yet effective for CWA purposes, the new provisions assist in DEQ's interpretation and application of the mixing zone provisions that have been approved by EPA.

3. Comment

ICL comments, "As noted in our previous comments, we believe that DEQ has erred in determining that the receiving water a tier I water for aquatic life. We ask the agencies to review our prior comments and reconsider their conclusions."

ICL's previous comments on this topic in a letter to DEQ dated January 30, 2015 are as follows:

"The antidegradation review conducted by the DEQ for this draft permit incorrectly determined that the receiving water was only a tier I water for aquatic life. Idaho antidegradation rules are found in IDAPA 58.01.02.054. [Excerpt from WQS IDAPA 58.01.02.054 omitted.]

An additional error exists in the antidegradation review. The review (and the factsheet) states that the receiving water is impaired for total dissolved gas supersaturation. However, the receiving water in the vicinity of the discharge is not in violation of standards for total dissolved gas supersaturation. Downstream from the WWTP point of discharge is the Albeni Falls Dam. Distant and downstream from the WWTP, as a result of the Albeni Falls Dam, the river exceeds the state water quality standards for this parameter. The Albeni Falls Dam is a barrier to fish passage in the river. Since the impacts of gas supersaturation are exclusive to aquatic life, and aquatic life that is impacted by the gas supersaturation caused downstream of the dam cannot swim upstream past the dam, it is not logical to say that the waters in the vicinity of the WWTP discharge are impacted by the supersaturated gas levels downstream from the dam. For this reason, the receiving water needs to be listed as *not* impaired by dissolved gas supersaturation."

Response

The Pend Oreille Lake to Priest River segment of the Pend Oreille River is listed as impaired due to total dissolved gas. This includes the portion of the river where City of Sandpoint's (Sandpoint) wastewater treatment plant (WWTP) outfall is located. The reason for this impairment is not the Albeni Falls dam. The source of the dissolved nitrogen gas in this portion of the Pend Oreille River is Avista's two hydroelectric facilities located on the Clark Fork River. The dissolved nitrogen gas impairment on the Clark Fork River is being addressed per the FERC relicensing agreement as directed by the *Lower Clark Fork River Subbasin Assessment and Total Maximum Daily Loads*, IDEQ, 2007. Currently, spillway crest modifications are being installed and initial results have been positive in some reductions of dissolved nitrogen gas. Eventually, reductions per these efforts should restore this section of the Pend Oreille River to meeting WQS for dissolved nitrogen gas. This impairment is relevant to the cold water aquatic life use and lowers the level of protection to Tier 1 only for this use in the Pend Oreille River. In addition, the aquatic life for this assessment unit is also impaired due to elevated temperatures. Therefore, regardless of the dissolved nitrogen gas, the unit would receive Tier 1 protection only for aquatic life.