RESPONSE TO COMMENTS

City of Homedale
Wastewater Treatment Plant
NPDES Permit # ID-002042-7
August 16, 2013

On March 1, 2013, the U.S. Environmental Protection Agency (EPA) issued a public notice for the reissuance of the City of Homedale (City) Wastewater Treatment Plant (WWTP) National Pollutant Discharge Elimination System (NPDES) Permit No. ID-002042-7. This Response to Comments provides a summary of significant comments and provides corresponding EPA responses. The comments resulted in no changes to the permit.

Comments were received from the following:

Justin Hayes, Program Director, Idaho Conservation League (ICL)

1. Comment (ICL): Total Phosphorus Effluent Limits Not Consistent with TMDL Waste Load Allocations

The Mid Snake River/Succor Creek Subbasin Assessment and TMDL, developed by the Idaho Department of Environmental Quality (DEQ) in 2003 and subsequently approved by the EPA, is the approved TMDL for this segment of the Snake River. This TMDL established Waste Load Allocations (WLAs) for point sources that discharge in to this segment of the Snake River, including this facility.

This TMDL established a Total Phosphorus (TP) WLA of 5 kg/day [equivalent to 11 lbs/day] for the Homedale WWTP. When developing NPDES effluent limits, the Clean Water Act provides that the permitting agency (in this case EPA) needs to ensure that these effluent limits are consistent with the assumptions and requirements of the WLA developed in an EPA approved TMDL.

The Draft NPDES permit for Homedale proposes a TP limit as follows:

Average weekly limit is 17 lbs/day

Average monthly limit is 11 lbs/day.

If the facility were to operate in such a manner that it discharged TP at 17 lbs/day for a week it would be in compliance with the draft permit. Indeed it could discharge significantly more than 17 lbs/day for several days, provided that there were sufficient lower discharge days to average 17 lbs/day over the course of a week. If the facility were to operate in such a manner it would be in compliance with the draft permit.

However, discharging greater than 11 lbs/day exceeds the TMDL wasteload allocation assigned to the Homedale WWTP. The WLA is “the maximum daily load” that this facility can lawfully discharge. The WLA is not expressed as an annual load as some EPA approved Idaho TMDLs are; nor is it expressed as a monthly or weekly load. Neither the State’s TMDL nor the EPA approval of the TMDL provide justification for extrapolating this facility’s daily load limit to an average monthly or weekly load limit. Doing so would allow the facility to exceed the EPA approved WLA on some days. Thus it is possible to be in compliance with the TP limit proposed in this draft NPDES permit and in violation of the TMDL. This conflict is unlawful and must be remedied. Therefore, the effluent limit for the facility must include a maximum daily discharge

limit for TP of no greater than 11 lbs/day. As EPA must develop weekly and monthly average limits pursuant to 40 CFR 122.45(d)(2), then EPA must state that the weekly and monthly average limit is 11 lbs/day.

Response: The EPA disagrees with ICL's assertion that the TP wasteload allocation (WLA) in the Mid Snake River/Succor Creek Subbasin Assessment and TMDL (IDEQ, April 2003) (TMDL) of 5 kg/day, is expressed as a maximum daily load.

The WLA as expressed in the TMDL is an average monthly load based on a TP discharge concentration of 3.5 mg/L of TP, at the facility's design capacity of 0.4 mgd (maximum monthly design flow). Establishing the WLA as a maximum daily limit would be inconsistent with the TMDL.

Table 50 of the TMDL presents the current load and WLA for the Homedale WWTP.

Current Load:	3 kg/day (6.6 lbs/day)
Wasteload Allocation:	5 kg/day (11 lbs/day)

As described on page 176 of the TMDL, the WLA allows the facility to discharge up to the design capacity without providing nutrient removal:

> *The point source wasteloads for the two WWTPs are based on a discharge of 3.5 mg/L of TP (average discharge for unmonitored facilities as determined by SR-HC TMDL) at design capacity.* …

Page 178 of the TMDL states:

> *In regards to the point sources in the watershed, since their current allocation is based on their operation at design capacity, any growth that requires expansion of the existing facility triggers phosphorus removal requirements.*

Therefore, as explained in the TMDL, the calculation of the WLA is based on a design capacity for the lagoon of 0.4 mgd. This is not the daily maximum design flow of the facility, but is the maximum monthly flow (expressed in units of mgd). This is articulated in the comments and responses on page 319 of the TMDL. The City Engineer states: "Capacity: Homedale's wastewater treatment lagoon facility was designed for a monthly maximum flow rate of 0.45 MGD…". DEQ's response again acknowledges that nutrient would only be required only "if the plant is going to undergo expansion."

The calculation of the WLA is based on the monthly design flow:
WLA = 0.4 mgd × 3.5 mg/L × 3.7854 = 5.3 kg/day

Where: 3.7854 is the conversion factor from gallons to liters.

The EPA's interpretation of the averaging period for the WLA was confirmed through communication with IDEQ staff during development of the permit. (Personal communication between John Drabek and Lauri Monnot, Watershed Manager, IDEQ Boise Regional Office in 2012 and Marti Bridges, IDEQ Program Manager on May 17, 2013). IDEQ's 401 Certification states "The EPA approved *Mid Snake River/Succor Creek TMDL(2003)* established wasteload allocations for total phosphorus….the effluent limitations and associated requirements contained

in the City of Homedale WWTF permit are set at levels that comply [with] these waste load allocations."

Therefore the monthly limit of 11 lbs/day TP is consistent with the assumptions and requirements of the WLA in the TMDL and appropriately implemented in the permit as a monthly average with units of lbs/day.

The units of a TMDL, i.e. lbs/day (kg/day) units do not require the compliance period to be daily average. The permit correctly requires that all samples of TP measured for the month be averaged for compliance with the TP monthly effluent limitation. This is similar to monthly average compliance monitoring of TSS and BOD_5 for compliance with the monthly effluent limitations for TSS and BOD_5. Even though the limits have lbs/day units the average of all samples over the month are averaged for compliance with the monthly limits.

The EPA established a weekly TP limitation of 17 lbs/day consistent with the procedures in EPA's Technical Support Document for Water Quality-Based Toxics Control (TSD). The limits account for effluent variability, but require that the discharge average less than 17 lbs/day for the week and 11 lbs/day for the month.

2. **Comment (ICL): Average weekly limit inappropriately rounded up**
   The above stated concern notwithstanding, the 17 lbs/day TP value used for the average weekly limit appears to be incorrect. On page 24 of the draft NPDES factsheet, the calculation is shown for the derivation of the weekly average value is demonstrated. There, the value is reported to be 16.5 lbs/day. It is inappropriate for EPA to 'round this figure up' from 16.5 to 17.

   Response: The average weekly limit for TP is changed to 16.5.