# RESPONSE TO COMMENTS
# City of Notus
# Wastewater Treatment Facility
# NPDES Permit # ID-002101-6
# August 23rd, 2013

On June 3rd, 2013, the U.S. Environmental Protection Agency (EPA) issued a public notice for the issuance of the City of Notus Wastewater Treatment Plant (WWTP) draft National Pollutant Discharge Elimination System (NPDES) Permit No. ID-002101-6. This Response to Comments provides a summary of significant comments and provides corresponding EPA responses. No changes were made to the permit as a result of these comments. Additionally, the EPA received comments from Idaho Rivers United outside the comment period, on July 8th 2013; these comments are not addressed.

Comments were received from Thomas H. Barry, City of Meridian, Public Works Director (Meridian)

1. **Comment (Meridian):** "Without an EPA approved TMDL on the Lower Boise River, the City of Meridian does not support the prescription of ultra-low phosphorus limits in NPDES permit for discharges in the Lower Boise River Watershed. The City of Meridian also points out that when the Lower Boise River TMDL for phosphorus is developed by the Idaho DEQ, and approved by the EPA, the permits must be re-opened and modified to incorporate the phosphorus wasteload allocations (WLAs) and condition as stated in the TMDL (see 40 CFR 122.62). "

   **Response**: The EPA supports development of a TMDL for phosphorus on the Lower Boise River. The completion and EPA approval of a TMDL for phosphorus would be new information and therefore the permit may be re-opened and modified to incorporate any applicable requirements in the TMDL (see 40 CFR 122.62). However, once a TMDL is approved by EPA, the wasteload allocations from the TMDL would most likely be incorporated into permits during reissuance. In accordance with 40 CFR 122.44(d)(1)(vii)(B) permit limits must be consistent with the assumptions and requirements of any applicable WLAs in an EPA-approved TMDL. Generally, incorporation of WLAs occurs during the reissuance of a permit, as opposed to modification of a current permit. The Idaho Department of Environmental Quality (IDEQ) intends to submit to the EPA a draft nutrient TMDL for the Lower Boise by spring 2014. EPA intends to incorporate in the next permit term the assumptions and

requirements of any applicable WLAs from any revision of the lower Boise TMDL (see Fact Sheet, page [34]).

2. **Comment (Meridian):** "The structure of the effluent limits for phosphorus is a primary concern in review of the Notus permit because it includes both concentration and mass limits for both average monthly and maximum weekly conditions. Inclusion of both concentration and mass limits over-specifies phosphorus control unnecessarily and discourages effective management approaches such as recycled water use and water quality offsets and trading. Specifying an effluent concentration of 70 ug/L removes the incentive for a wastewater utility to create recycled water and trading programs that may more effectively protect water quality. An effluent concentration limit requires wastewater treatment to achieve the concentration target regardless of a load that is offset by recycled water use or trading. We recommend structuring permits with seasonal mass limits for phosphorus that provide the maximum flexibility for utilities to meet phosphorus control objectives.

   **Response**: With regards to the concentration based effluent limits, the Snake River Hells Canyon TMDL requires the Boise River to achieve a load allocation of less than or equal to 70 µg/L. The EPA has used this 70 µg/L load allocation to interpret Idaho's narrative criterion for nutrients for the Boise River. Therefore the phosphorus effluent limits are expressed as concentration based limits. With regards to mass-based limits, the federal regulations at 40 CFR §122.45(f) require that limitations be expressed as mass-based limits. Finally, with regards to weekly limits, the federal regulations at 40 CFR §122.45(d)(2) require that POTW limitations be average weekly and average monthly limits.

3. **Comment (Meridian):** The basis for inclusion of weekly effluent limits for phosphorus is not well founded in the water quality requirements for the Boise River or Snake River-hells Canyon TMDL. Associating a 140 ug/L weekly limit with the average monthly limit of 70 ug/L is not based on either receiving water quality protection or on treatment process performance at low effluent phosphorus levels. Further, the 140 ug/L weekly limit for Notus is inconsistent with the weekly limits in other Boise River permits. At low effluent levels, there is a high degree of variability in daily and weekly effluent phosphorus performance. We recommend that weekly limits for phosphorus be removed from Boise River permits until such time that a valid water quality protection requirement is established for weekly limits and actual effluent data for advanced treatment technology is available for specific treatment plants to establish a valid statistical relationship between monthly and weekly limits.

**Response**: The federal regulations at 40 CFR §122.45(d)(2) require that POTW limitations be average weekly and average monthly limits. The comment did not provide a basis as to why the inclusion of weekly effluent limits for phosphorus lacks a statistical relationship and is not well founded in the water quality requirements. Average weekly limits (AWLs) were calculated based on the EPA's *Technical Support Document for Water Quality-Based Toxics Control* (EPA/505/2-90-001, March 1991) (TSD). With respect to the statistical method used to determine average weekly limit, each average weekly limit was calculated from the average monthly limit by the same method used to calculate maximum daily limits from the average monthly limit and accounting for expected effluent variability and sampling frequency. The EPA assumed a coefficient of variation (CV) of 0.6 which is the recommended default CV in the TSD and is also a typical CV for facilities removing phosphorus. The EPA used the 95$^{th}$ percentile probability basis for the average monthly limit and the 99th percentile probability basis for the average weekly limit. This resulted in an AWL/AML ratio of 2.01.

4. **Comment (Meridian):** The City of Meridian is concerned about the recent pattern of Treasure Valley NPDES permits following a common template for dischargers in the Lower Boise River watershed; see recent permits issued by EPA in the Lower Boise River watershed including Boise, Greenleaf, and Notus. EPA agreed that it was not appropriate to follow a template and stated that a site specific review of the facility discharge and the location of the discharge will be used to develop NPDES permits for facilities in the Lower Boise River watershed. Yet, EPA continues to use template permits for municipalities in the Lower Boise River watershed. Our concern is that template permits are not always befitting the discharger's operation. In Meridian's case, the apparent template being used would not correspond to the unique intricacies of the City of Meridian's program.

   **Response**: EPA notes that it may or may not be appropriate to use some form of template for certain aspects of NPDES permits, including the City of Notus permit, and EPA determines whether that is appropriate on a case-by-case basis. To the extent that this comment is a request by the City of Meridian for EPA to not use a template when issuing that permit, the comment is outside the scope of this permit; the EPA encourages Meridian to provide input regarding Meridian's circumstances as that permit is developed.

5. **Comment (Meridian):** It is important that NPDES permits provide the basis for compliance flexibility for solutions beyond advanced treatment such as effluent

management plans that provide equivalent water quality protection for the Boise River. Over-specifying effluent limits by applying the 70 ug/L in-stream concentration target for Parma from the Snake River-Hells Canyon TMDL at the end-of-pipe effectively dictates that only one approach to phosphorus management, advanced wastewater treatment, will be used by wastewater utilities.

**Response:** See Response to Comment 2 for the basis of the 70 μg/L average monthly limit. Considerations of other approaches to meeting the in-stream target for the Boise River (for example seasonal averaging period, mass-based only wasteload allocation, and trading) as proposed elsewhere in Meridian's comments are best vetted during the TMDL process.

6. **Comment (Meridian):** Water quality offsets, trading, and recycled water all provide additional benefits for the Boise River but require that NPDES permits be structured to foster flexibility for their implementation. We recommend that EPA structure Boise River NPDES permits with seasonal mass limits for phosphorus, or provide for an offset calculation structure to satisfy effluent limits similar to the City of Boise permit Part I.B.6. Dixie Drain Offset. Part I.B.6. of the West Boise permit provides for a permittee to meet the final effluent limits for total phosphorus through a combination of removal of total phosphorus at the treatment facility and through load reductions achieved in offsets, trading, and diversion to recycled water.

   **Response:** The EPA recognizes the interest of permittees to have flexibility in meeting stringent nutrient limits. Further, the EPA recognizes that there are potential additional benefits from other treatment options. Because TMDL-like modeling may be required to evaluate the water quality impacts of offsets, extensive resources are often required to develop such projects. Therefore, consideration of offsets in the Lower Boise watershed outside of an EPA-approved TMDL will be limited. The IDEQ is scheduled to submit a nutrient TMDL to the EPA in spring 2014. The EPA encourages Meridian to provide input as that TMDL is developed. In accordance with 40 CFR 122.44(d)(1)(vii)(B) permit limits must be consistent with the assumptions and requirements of any applicable WLAs in an EPA-approved TMDL.