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CITY BOARD

October 20, 2009

*Via Overnight Delivery*

U.S. Environmental Protection Agency  
Clerk of the Board, Environmental Appeals Board  
Colorado Building  
1341G Street, N.W., Suite 600  
Washington, DC 20005

Re: In re: City of Twin Falls, Idaho  
NPDES Permit No. ID-002127-0

Dear Clerk of the Board:

Enclosed please find the original and five (5) copies of the City of Twin Falls for Review of NPDES Permit Issued by Region 10 on September 22, 2009 including three (3) sets of exhibits. I am authorized to receive service relating to this proceeding. My contact information is:

Fritz Wonderlich  
P.O. Box 1812  
Twin Falls, ID 83303-1812

Thank you for your assistance.

Very truly yours,

Fritz Wonderlich



**ORIGINAL**

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## INTRODUCTION

Pursuant to 40 C.F.R. § 124.19(a), the City of Twin Falls, Idaho (“Petitioner”) petitions for review of specified conditions of September 22, 2009, NPDES Permit No. ID-002127-0 (“the Permit”), issued by Christine Psyk for Michael A. Bussell, Director, Office of Water and Watersheds, USEPA, Region 10. The permit was enclosed with a cover letter to the Petitioner dated September 22, 2009, and received by the Petitioner on September 25, 2009. *Exhibit 1 to the Petition*. The permit at issue in this proceeding is a renewal of a permit authorizing the Petitioner to discharge waste water treatment plant effluent to the Snake River. Petitioner contends that certain conditions are based on clearly erroneous findings of fact and conclusions of law, and an exercise of discretion or an important policy consideration which the Environmental Appeals Board should, in its discretion, review. Specifically, petitioner challenges the following permit conditions:

- (1) average monthly mass limits and average weekly mass limits on TSS measured in lbs/day, that are in conflict with the approved TMDL for the segment of the Snake River affected, and
- (2) failure to authorize the use of water quality trading for compliance with new TSS mass limits.

## THRESHOLD PROCEDURAL REQUIREMENTS

Petitioner satisfies the threshold requirements for filing a petition for review under Part 124, to wit:

1. Petitioner has standing to petition for review of the permit decision because it participated in the public comment period on the permit. See 40 C.F.R. §

124.19(a). The Petitioner submitted both a summary and detailed comments during the extended comment period. *Petitioner's Comments, Exhibit 2 to the Petition.*

2. The issues raised by Petitioner in its petition were raised during the public comment period and therefore were preserved for review. *Petitioner's Comments, Exhibit 2 to the Petition.*

### **FACTUAL AND STATUTORY BACKGROUND**

The City of Twin Falls owns and operates a public wastewater treatment plant ("WWTP") that treats wastewater from domestic, industrial and commercial sources. The facility discharges on average 7.13 million gallons per day of secondary treated wastewater throughout the year to the Snake River at approximately river mile 608.5. This section of the river is listed on the 303(d) list of impaired waters and is part of the Middle Snake River watershed which has an EPA approved Total Daily Maximum Load (TMDL) for Total Phosphorus (TP) and Total Suspended Solids (TSS).

On December 22, 1999, the Idaho Department of Environmental Quality (IDEQ) submitted to the USEPA its TMDL in "The Upper Snake Rock Watershed Management Plan," This plan was subsequently approved by the USEPA. The Plan set 52 mg/L TSS instream target as the "water quality standard" for the Snake River. The Plan noted that point sources "already have imposed NPDES permit limits which will be reviewed at the end of Year 5 of the Plan implementation" and therefore did not recommend TSS limits for any point source, including for the Petitioner. The NPDES permit TSS limits for the Petitioner at the time of adoption of the Plan were 45 mg/L average weekly limit (AWL), and 30 mg/L average monthly limit (AML), both of which are more stringent than the 52 mg/L TSS instream target. Significantly, the Plan did not set daily, weekly, monthly or

annual waste load limits or ceilings, but rather included observed annual mean loads, in tons per year, for all point sources of TSS in the segment, for the period between 1991 and 1997.

The draft NPDES renewal permit contained the same TSS average monthly limits (30 mg/L), average weekly limits (45 mg/L), and removal (>85%), as contained in the previous permit, but included drastically reduced TSS mass limits measured in lbs/day. The new TSS mass limits result in a much more stringent standard than set by the water quality target for this segment of the Snake River. In fact, based upon the average flows from the POTW of 7.31 mgd, the new limits would result in a TSS limit of approximately 13.5 mg/L AML and 20.2 mg/L AWL, compared to the instream target of 52 mg/L. In addition, the draft permit did not authorize a pollution trading program for TSS, proposed by the Petitioner.

The Petitioner submitted its comments on the draft permit, noting that the TMDL study ("The Upper Snake Rock Watershed Management Plan") described only mean loads in tons/year. As noted above, the Plan was never intended to set monthly and weekly total load limits measured in lbs/day on point sources. Page 2 of the Petitioner's detailed comments to the draft permit:

The most restrictive of the TSS targets for the Upper Snake Rock TMDL was 52 mg/L. Thus, even at the technology-based standard for secondary treatment (i.e., 30 mg/L) that served as the limit for TSS in the existing permit, the Twin Falls WWTP represents a dilution source for TSS in the Snake River relative to the target. As noted above, the City's WWTP has historically performed better than the existing permit limit. Thus, it seems inappropriate for the City to have to commit a substantial amount of its limited financial resources to install filtration to treat wastewater that is already of substantially higher quality than the instream target. The fact that municipal WWTPs are a dilution source relative to a similar TSS target was considered in the EPA-approved Lower Boise River sediment TMDL, and the wasteload allocations (WLAs) for these WWTPS were based on the secondary treatment standard plus an allowance for future growth. The City of

Twin Falls understands that the permit limits must be consistent with the Upper Snake Rock TMDL, but believes EPA has sufficient flexibility to set the limits in a way that is both consistent with the TMDL, allows for TSS trading, and can be met by the City without the need for costly effluent filtration.

The Petitioner, in its comments, also described the TSS pollution trading program that it proposed, and provided documentation of the partnership proposed with the Twin Falls Canal Company (the main source of TSS in this segment of the river) to reduce total TSS in the river with a pollution trading program.

The City of Twin Falls requests TSS pollution trading compliance schedule. Since Middle Snake River has a TMDL for TSS, this makes it a candidate for pollution trading and pollution trading is one of the preferred methods by EPA to reach the target water quality limits in water bodies that are impaired. On January 13th 2003 EPA released the Final Water Quality Trading Policy and in August of 2007 EPA published Water Quality Trading Toolkit for Permit Writers. If the City is allowed the work with EPA, the Idaho Department of Environmental Quality (DEQ), and the Mid-Snake WAG to develop a pollution trading program, the city believes that it would be more cost effective for all the stakeholders and there would be greater environmental benefits to the Snake River. Since pollution trading is not new to DEQ or EPA it should not take to much effort to develop a policy. At the June 16, 2009 Watershed Advisory Group (WAG) meeting the WAG approved TSS trading and will begin writing the guideline for trading (see Appendix A for the WAG letter to DEQ). The City has been working with the Twin Falls Canal Company to develop a partnership for TSS trading. Appendix B includes a recent letter from the canal company to the City that demonstrates their willingness to participate. The City has concluded based on discussions with the canal company that they will be able to generate more than sufficient TSS credits to meet the City's trading needs. Further, it is likely that the company would not have the resources to complete these TSS control projects on their own or in a timely way. Thus, the trading program will clearly meet EPA trading criteria in that water quality improvement will be secured in a more timely and cost effective manner. The City requests that the permit include language that authorizes TSS trading with the provision that the TSS trading program is approved by both DEQ and EPA. This could be accomplished preferably with relatively minor language changes to the Pollutant Trading Appendix A to the permit, or at a minimum including specific permit reopener language in the schedule of compliance to allow for this relatively minor permit modification at the time when DEQ and EPA have approved the TSS trading program.



When the NPDES renewal permit was issued, the Petitioner's request for authorization of water quality trading was erroneously denied by the NPDES permit writer.

### **ARGUMENT**

**1. THE NPDES PERMIT WRITER ERRED BY APPLYING TSS MASS LIMITS THAT WERE CONTRARY TO THE APPROVED TMDL.**

40 CFR 122.45(f) requires that "All pollutants limited in permits shall have limitations, standards or prohibitions expressed in terms of mass, except ..." It appears that the NPDES permit writers believed they were compelled to include new mass limits on TSS in the permit. This was done despite the exception provided in 40 CFR 122.45(f)(ii), "[w]hen applicable standards and limitations are expressed in other units of measurement ..." The permit already contains applicable standards and limitations for TSS expressed in average monthly limits and average weekly limits in mg/L, which is obviously an "other unit of measurement." *Expired Permit ID-002127-0, Exhibit 3 to the Petition*. In addition, the renewal permit contains a TSS removal requirement of >85%, to prevent dilution as a method of compliance. Since the exception to mass limitations applies, it arguably should not have even been included in the permit at all.

The Upper Snake Rock Watershed Management Plan (TMDL), relied on by the EPA in setting the permit mass limits for TSS, found that the NPDES permit limits for point sources existing at the time of the report (1999) were sufficient to protect the water quality of the river, and to meet the 52 mg/L TSS instream target. Those TSS limits were 1,952 lbs/day Average Monthly Limit, and 2,928 Average Weekly Limit, as contained in

the previous permit. *Exhibit 3 to the Petition*. The TMDL recommended no reductions in TSS limits for point sources.

... point sources provide a small amount of TSS (as a whole) to any of the segments on the Middle Snake River. Tributaries vary widely in their point source TSS pollution to their associated waterbodies. However, in general, most tributaries provide a small fraction of TSS pollution from point sources... No additional reductions are proposed for any of the point sources discharging directly or indirectly to the Middle Snake River at this time since these have undergone a permit change this year which addresses TSS.

*Page 201, Ll. 15-21, The Upper Snake Rock Watershed Management Plan.*

(Emphasis supplied). *Exhibit 4 to the Petition*. Thus, the TMDL found that the limits contained in the Petitioner's previous permit (1,952 lbs/day AML and 2,928 lbs/day AWL) were sufficient to protect the water quality of the river, and proposed no additional reductions. The TMDL provided for TSS reductions only for surface waterbodies.

All surface waterbodies shall reduce to reach the instream target of < 52.0 mg/L TSS ... Point sources (which account for 2.2% before reduction and 3.1% after reduction of the total mean load) already have imposed NPDES permit limits which will be reviewed at the end of year 5 of plan implementation.

*Page 215, Ll. 10-11, Page 216, Ll. 3-5, The Upper Snake Rock Watershed*

*Management Plan.* (Emphasis supplied). *Exhibit 5 to the Petition*.

It is clear from the TMDL Executive Summary that the TMDL was never intended to be used for the setting TSS limits in the NPDES, but rather, was intended to facilitate NPDES permitting only for total phosphorus (TP).

Loading capacities for TSS and total phosphorus in the Upper Snake / Rock Subbasin TMDL are calculated as an annual average load (tons/year). Determination of the loading capacity is a function of streamflow and target concentrations. While total phosphorus (TP) loading capacity was calculated as an annual load, allocations of TP are expressed as lbs/day to facilitate NPDES permitting and comparison to the Mid-Snake TP TMDL approved in 1997. Its reductions in annual loading of TP that are expected to be effective in meeting water quality criteria. The relationship of these parameters to identification of the loading capacity and subsequent development of the TMDL is discussed below.

*TMDL Executive Summary, Upper Snake / Rock Subbasin TMDL, p. A-7.*

(Emphasis supplied). *Exhibit 6 to the Petition.* The TMDL intended that WLA's in the Plan for TP would be used to facilitate NPDES permitting. It is significant that no similar statement is given for TSS, and it is more significant that the TMDL did not express allocations of TSS as lbs/day, as was done for TP. The EPA erred as a matter of fact and law by attempting to convert TSS from tons/year mean averages to lbs/day limits, when the TMDL was never intended to be used to set limits for TSS in NPDES permits. The TMDL recommended that the TSS mass limits in the existing NPDES permit were sufficient to protect the water quality of this segment of the river.

In March, 2009, IDEQ issued its draft 5-year TMDL Review. Significantly, the Review did not recommend changes to NPDES permits for TSS, nor did it set waste load allocations (WLA) for any point sources, because this segment of the Snake River was in compliance with the 52 mg/L instream target for TSS. *Pp. 61-62, 5-Year TMDL Review, Exhibit 7 to the Petition.* This finding further justifies the TMDL recommendation that the NPDES permits should not be modified for TSS mass limits.

40 CFR 122.44(d) requires the NPDES permit to limit each pollutant based upon the technology based standard or the water quality based standard, whichever is more stringent. For the TSS component in the Petitioner's permit, the technology based Secondary Treatment standard for POTW's is 30 mg/L average monthly limit (AML) and 45 mg/L average weekly limit (AWL), and the water quality based standard is 52 mg/L, from the instream target for TSS in the TMDL. For a mass based limitation, using the technology based secondary treatment standard for POTW's is 2,142 lbs/day AML and 3,213 lbs/day AWL. The water quality standard is based upon the TMDL's 52 mg/L

instream target, or 3,712 lbs/day AML and 3,712 lbs/day AWL. Clearly, the technology based limits for POTW's is more stringent than the water quality standard, and should apply. The final mass based limits for TSS should remain the same as they were in the previous permit, as recommended by the TMDL. The NPDES permit writer erred as a matter of fact and law by reducing the TSS mass limits. The NPDES permit should be modified, for final mass base limits, to 1,952 lbs/day AML and 2,928 mg/L AWL, as recommended in the TMDL.

## **2. THE NPDES PERMIT WRITER ERRED BY REFUSING TO AUTHORIZE WATER QUALITY TRADING.**

In order to attempt to comply with the much more stringent TSS mass limits contained in the draft NPDES permit, the Petitioner located a partner (Twin Falls Canal Company) that is a major non-point discharger of TSS in the subject segment of the river, in order to use water quality trading. The return flows from the Twin Falls Canal Company irrigation system to the Snake River in the subject river segment, are a major source of TSS in the river. The EPA promotes this type of water quality trading, by encouraging the incorporation into the NPDES permits. In the 2008 "EPA Water Quality Trading Evaluation Final Report," the EPA states:

Water quality trading (WQT) offers a promising approach to controlling pollutants from multiple sources that collectively impact water quality conditions. Traditionally under the Clean Water Act, controls were mostly focused on pollutants with local impact from particular point sources, such as wastewater plants. As the focus of efforts to protect water quality has shifted to include pollutants whose collective impact is felt downstream, it is not always necessary or cost-effective to control pollutants at specific locations. Alternatively, some pollutants can be controlled across multiple sources within a watershed; nitrogen, phosphorus, and sediment are the three pollutants EPA most commonly recognizes as having such potential.

The primary potential benefit of WQT that attracts consideration by policy makers is the potential ability to control pollutants at an overall lower cost to

society. In its most simple form of point-to-point trading, water quality trading allows one point source to over control for a pollutant at a low cost, selling the over control as "credits" to another point source that is not able to reduce pollutants as cost-effectively. Through the trade, the second point source can achieve its share of responsibility at a lower cost, the first point source can recoup part of its costs, local water quality is not negatively impacted, and downstream water quality is improved. Other potential benefits of greater flexibility include the ability to better plan capital intensive upgrades, and better time such upgrades within existing financial options (such as retirement of previous debt obligations prior to incurring new debt obligations).

A less tangible but no less real benefit of water quality trading is the increased incentive for innovation. Even if a point source purchases "credits," the water quality trading program creates incentives for the point source to find low-cost ways to reduce pollutants, to reduce the need to purchase credits. At the same time, a point source selling such credits has added incentive to maintain the performance of their pollutant controls since doing so translates into more credits for sale. Both incentives work in balance to achieve the needed reduction of a pollutant at the overall lowest cost to society, and for all parties involved.

Finally, pollutant sources not traditionally regulated, most notably non-point pollutants from agriculture, are the primary source of water quality impairment in many watersheds. WQT provides a framework wherein pollutants can be voluntarily reduced by farmers for the purpose of selling credits. As such, WQT is one of few current tools that EPA has to address unregulated discharges.

*Id. at p. 1-1. (Emphasis supplied) Exhibit 8 to the Petition.*

The EPA encourages the NPDES permit writers to incorporate water quality trading in the NPDES permits. The EPA's "Water Quality Trading Toolkit for Permit Writers" states: "The Water Quality Trading Toolkit for Permit Writers is EPA's first "how-to" manual on designing and implementing water quality trading programs. The Toolkit helps National Pollutant Discharge Elimination System (NPDES) permitting authorities incorporate trading provisions into permits. It will help improve the quality and consistency of all trading programs across the nation." (Emphasis supplied). *Exhibit 9 to the Petition.* The Toolkit specifically addresses the NPDES permit writer: "Once a NPDES permit writer has a clear understanding of the fundamentals of water quality

trading in general and how the specific characteristics of the trading program involving regulated point sources will affect development of the NPDES permit, he or she should then begin to develop a NPDES permit that incorporates trading. To do this, the permit writer should determine the appropriate type of permit for the trading scenario and decide how the trading scenario can be incorporated into a NPDES permit.” (Emphasis supplied). *Id. p. 41, Exhibit 10 to the Petition.* This statement is consistent with the EPA’s January 13, 2003 “Water Quality Trading Policy Statement”, which states that “EPA encourages the inclusion of specific trading provisions ... in NPDES permits ...” More specifically, the EPA Policy Statement provides:

EPA also supports several flexible approaches for incorporating provisions for trading into NPDES permits: i) general conditions in a permit that authorize trading and describe appropriate conditions and restrictions for trading to occur, ii) the use of variable permit limits that may be adjusted up or down based on the quantity of credits generated or used; and/or, iii) the use of alternate permit limits or conditions that establish restrictions on the amount of a point source’s pollution reduction obligation that may be achieved by the use of credits if trading occurs.

*EPA Water Quality Trading Policy, Pp. 6-7, Exhibit 14 to the Petition.* The Petitioner requested that permit writer allow it to water quality trade TSS as part of the renewal NPDES permit. The Petition requested and was granted an extension to the comment period to allow enough time to get approval from the Middle Snake River Watershed Advisory Group (WAG) to water quality trade, because permit writer stated that no trading would be allowed unless the WAG approved it. The WAG approved water quality trading of TSS. *Appendix A to Exhibit 2 to the Petition.* The permit writer stated that the City also needed a willing water quality trading partner. The City fulfilled both requests. *Appendix B to Exhibit 2 to the Petition.* After complying with the permit

writer's requests, the City was still denied water quality trading, even though EPA's own policy encourages it.

Despite all of the very clear statements by the EPA favoring water quality trading in NPDES permits, especially where, as here, "pollutant sources not traditionally regulated, most notably non-point pollutants from agriculture, are the primary source of water quality impairment," the NPDES permit writer simply deferred to the IDEQ, and refused the mandate contained in the EPA's own publications, encouraging the NPDES permit writer to incorporate water quality trading into its permits. This is a very important policy consideration which the Environmental Appeals Board should, in its discretion, review, pursuant to 40 CFR 124.19(a)(2).

#### CONCLUSION

The NPDES permit should be modified to use the technology-based limits for the average monthly and weekly mass limits for TSS, and/or the NPDES permit should be modified to incorporate water quality trading.

DATED, This 20<sup>th</sup> day of October, 2009



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## LIST OF EXHIBITS

- Exhibit 1. Notice of Issuance of NPDES Renewal Permit
- Exhibit 2. Petitioner's Comments to the Draft NPDES Permit
- Exhibit 3. Expired NPDES Permit
- Exhibit 4. Pages 201 from "The Upper Snake Rock Watershed Management Plan"
- Exhibit 5. Pages 215-216 from "The Upper Snake Rock Watershed Management Plan"
- Exhibit 6. Page A-7 from TMDL Executive Summary
- Exhibit 7. Pages 61-62 from the 5-Year TMDL Review
- Exhibit 8. Page 1-1, EPA Water Quality Trading Evaluation Final Report
- Exhibit 9. EPA Water Quality Trading Toolkit for Permit Writers
- Exhibit 10. Page 41, EPA Water Quality Trading Toolkit for Permit Writers
- Exhibit 11. Pp. 6-7, EPA Water Quality Trading Policy Statement