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The City of Twin Falls, Idaho

**BEFORE THE ENVIRONMENTAL APPEALS BOARD  
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, D.C.**

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

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**PETITION FOR REVIEW**

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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 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. This is a modification of the permit issued on September 22, 2009, which modification was signed June 24, 2010, with an effective date of August 1, 2010. Notice to the City was provided on June 25. *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) Removal of the authorization of water quality trading for phosphorus from the City’s NPDES Permit.

## **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 March 29, 2010, the EPA issued a public notice for the draft modification of the City’s NPDES permit, to remove the water quality trading provision for phosphorus discharges from the City’s waste water treatment plant. The reason given by the EPA for the modification was that “Upon reconsideration, EPA determined that because the wasteload allocations in The Upper Snake Rock TMDL Modification (July, 2005) were based upon assumed attenuation, the trading ratios of 1:1 in the 2009 Permit were not valid.” The City objected to the modification and provided the documentation to the EPA that the 1:1 trading ratio was the only valid and approved trading ratio for phosphorus in this reach of the Snake River. Despite the specific and irrefutable evidence provided in the public comment, the EPA simply states that the City’s “interpretation” is “unreasonable.” In addition, after the EPA rejects the 1:1 phosphorus trading, stating that the Loss/Attenuation percentages contained in the 2005 Upper Snake Rock TMDL

Modification correct, it modified the permit to remove the opportunity for water quality trading for phosphorus.

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

### **ARGUMENT**

#### **1. THE EPA AND THE NPDES PERMIT WRITER ERRED BY APPLYING LOSS/ATTENUATION RATIOS CONTRARY TO THE APPROVED TMDL.**

The City, in its public comment to the permit modification, provided a concise but detailed statement of the EPA's error in its reading of the TMDL. The City clearly demonstrated that, what the TMDL called "loss/attenuation" was actually the percentage reductions in phosphorus necessary to meet the 0.075-mg/L target for phosphorus in each segment of the river. The text of the comment is set forth below:

"The proposed permit modification will remove pollutant trading for phosphorus, permitted in Section I.B.1 and Appendix A of the permit. The stated basis for the proposed modification is the EPA's misunderstanding of the discussion of "8.0 Loss and Attenuation" contained in the 2005 Upper Snake Rock TMDL Modification.

The Fact Sheet, provided with the Notification of Draft Permit Modification, states that "trading ratios are not consistent with the attenuation assumptions of the TMDL." This statement is in error. The Fact sheet also refers to an alleged inconsistency between the Guidance, which provides for a 1:1 trading ration for all segments, and the 2005 Upper Snake Rock TMDL Modification, which contains a percent of reduction in phosphorus by attenuation that does not support a trading ratio of 1:1 for this reach of the Snake River. This is also in error.

**THE 2005 UPPER SNAKE ROCK TMDL MODIFICATION CONTAINS NO LOSS / ATTENUATION PERCENTAGES, NOR ANY OTHER DATA INCONSISTENT WITH 1:1 PHOSPHORUS TRADING.**

The 2003 Guidance contains a trading ratio of 1:1 for phosphorus, based upon the 2000 Upper Snake Rock TMDL, which was approved by the EPA. The TMDL

instream target for TP is 0.075-mg/L. See, Section 8.0, Paragraph 4, page 33, 2005 Upper Snake Rock TMDL Modification. Section 8.0 also contains a table labeled “TP Loss/Attenuation” (below) *which in reality is a table comparing the derived concentrations of TP at each compliance point* (see line item “Sub Total Concentration” for TP, Tables 1-A through 6-A, Section 10.0, 2005 Upper Snake Rock TMDL Modification) *to the target TP concentration for the river of 0.075-mg/L.*

Compliance Point	“=====TP Loss/Attenuation=====		
	Sub Total	% Loss/Attenuation	Total
Milner Dam	-	-	0.075-mg/L
Pillar Falls	0.077-mg/L	2.8%	0.075-mg/L
Crystal Springs	0.111-mg/L	32.4%	0.075-mg/L
Box Canyon	0.084-mg/L	18.3%	0.075-mg/L
Gridley Bridge	0.090-mg/L	17.0%	0.075-mg/L
Shoestring Bridge	0.083-mg/L	9.8%	0.075-mg/L
King Hill	0.077-mg/L	2.0%	0.075-mg/L”

For example, the derived TP for Pillar Falls shown in Section 10.1 is 0.077. The amount of TP reduction required to meet the 0.075-mg/L target for TP is 2.8%. The derived TP for Crystal Springs shown, Section 10.2 is 0.111-mg/L. The amount of TP reduction required to meet the 0.075-mg/L target for TP is 32.4%. And so on. (Note: The TP table in Section 8.0 contains an error in the “Sub Total” number for Box Canyon, which is stated as 0.084-mg/L, but is actually 0.092-mg/L. See, Section 10.3, Table 3-A). See table of calculations below:

10.1 SEGMENT 1 – MIDDLE SNAKE RIVER - Milner Dam to Pillar Falls Load Calculation Derived from Table 1-A.

TP Sub Total Load (using Sources) = 1967.61 lbs/day  
 TP using Load Capacity of 0.075mg/L-4,737cfs X 0.0749055 X 5.39 = 1,912.52 lbs/day  
 Difference between Sources and Load Capacity 1,967.61 – 1912.52 = 55.09 lbs/day  
 Percent difference from target (1 - (1,912.52/1,967.61)) X 100 = **2.8 %**

10.2 SEGMENT 2 – MIDDLE SNAKE RIVER - Pillar Falls to Crystal Springs Load Calculation Derived from table 2-A.

TP Sub Total Load (using Sources) = 3,287.13 lbs/day  
 TP using Load Capacity of 0.075mg/L 5,498cfs X 0.0749843 X 5.39 = 2,222.10 lbs/day  
 Difference between Sources and Load Capacity 3287.13 – 2,222.10 = 1,065.13 lbs/day  
 Percent difference from target (1 - (2,222.10/3,287.13)) X 100 = **32.4 %**

10.3 SEGMENT 3 – MIDDLE SNAKE RIVER – Crystal Springs to Box Canyon Load Calculation Derived from table 3-A.

TP Sub Total Load (using Sources) = 3,567.65  
 lbs/day  
 TP using Load Capacity of 0.075mg/L-7,212cfs X 0.0749825 X 5.39 = 2,914.77  
 lbs/day  
 Difference between Sources and Load Capacity 3,567.65 – 2,914.77 = 652.88  
 lbs/day  
 Percent difference from target (1 - (2,914.77/3,567.65)) X 100 = **18.3 %**

10.4 SEGMENT 4 – MIDDLE SNAKE RIVER – Box Canyon to Gridley Bridge  
 Load Calculation Derived from table 4-A.

TP Sub Total Load (using Sources) = 4,439.65  
 lbs/day  
 TP using Load Capacity of 0.075mg/L-9,113cfs X 0.0750199X 5.39 = 3,684.91  
 lbs/day  
 Difference between Sources and Load Capacity 4,439.25 – 3,84.91= 754.74  
 lbs/day  
 Percent difference from target (1 - (3,84.91/4,439.65)) X 100 = **17.0 %**

10.5 SEGMENT 5 – MIDDLE SNAKE RIVER – Gridley Bridge to Shoestring  
 Bridge Load Calculation Derived from table 5-A.

TP Sub Total Load (using Sources) = 4,963.83  
 lbs/day  
 TP using Load Capacity of 0.075mg/L-11,108cfs X 0.0747823 X 5.39 = 4,477.37  
 lbs/day  
 Difference between Sources and Load Capacity 4,963.83 – 4,436.25 = 760.36  
 lbs/day  
 Percent difference from target (1 - (4477.37/4963.83)) X 100 **9.8 %**

10.6 SEGMENT 6 – MIDDLE SNAKE RIVER – Shoestring Bridge to King Hill  
 Bridge Load Calculation Derived from table 6-A.

TP Sub Total Load (using Sources) = 4,687.92  
 lbs/day  
 TP using Load Capacity of 0.075mg/L 11,398cfs X 0.0747806 X 5.39 = 4,594.16  
 lbs/day  
 Difference between Sources and Load Capacity 4,687.92 – 4,601.83= 86.08  
 lbs/day  
 Percent difference from target (1 - (4594.16/4687.92)) X 100 = **2.0 %**

The “Percent difference from target” in the calculations above shows the *identical* percentages as contained in the TP table in Section 8.0 in the column labeled “% Loss/Attenuation.” It isn’t at all clear why Section 10.0 of Upper Snake Rock TMDL Modification used a TP target very slightly more or less than the 0.075-mg/L target, but it is absolutely clear that these are target TP numbers and not sampled data from each segment. See, Upper Snake Rock –Five Year Review, March 2009, Table 3.3b Summary of Water Quality Data collected since 2000 on the Snake River, page 32. The sampled data looks nothing like the numbers contained in the tables, but are nearly identical to the target 0.075-mg/L TP for the river.

The percentages given in the Section 8.0 table do not measure loss/attenuation, but rather the percentage reduction from the derived TP concentrations required to meet the target TP concentration for the river, and each segment of the river, of 0.075-mg/L.

The last sentence of Section 8.0 confirms that the 2005 Upper Snake Rock TMDL Modification does nothing to change the TP export and attenuation data contained in the 2000 Upper Snake Rock TMDL, approved by the EPA. “For the present, the *TP and TSS export and attenuation models are the same as used in the Upper Snake Rock TMDL.*”

Section 9.0 of the 2005 Upper Snake Rock TMDL Modification is entitled “Total Phosphorus Pollutant Trading.” The first sentence of this modification refers back to the Guidance for total phosphorus trading. “Total phosphorus pollutant trading is presently described under a trading guidance that was developed by EPA and DEQ.” The Guidance, in Appendix C, very specifically set forth a 1:1 trading program for phosphorus in this reach of the Snake River. In addition, the last paragraph of Section 9.0 of the 2005 Upper Snake Rock TMDL Modification gives an example of phosphorus trading that uses the approved 1:1 trading ratio:

As an example, if facility X has an NPDES permit allowing for the discharge of 100 lb/day of phosphorus and is able, through technology, to reduce its discharge to 75 lb/day, it has 25 credits to sell. If facility Y has an NPDES permit allowing for the discharge of 100 lb/day phosphorus, but is currently discharging 125 lb/day, it is exceeding its permit limit by 25 lb/day phosphorus. *Facility Y may either find a way to reduce an additional 25 lb/day of phosphorus in order to meet its permit limit or it may purchase 25 lb/day of phosphorus credits from facility X. At this point, the same amount of phosphorus is discharged into the river, 200 lb/day, but through a different distribution between facilities X and Y.* Each point source must reflect the actual discharge amount of phosphorus in their Discharge Monitoring Reports and also show the purchase of credits in a Trade Summary report in accordance with DEQ’s trading guidance.

The EPA has clearly erred in its reading of the 2005 TMDL. The 1:1 trading ratio for phosphorus within the Middle Snake River is the ratio approved by IDEQ and EPA in the 2000 Upper Snake Rock TMDL and in the 2003 Guidance for Pollutant Trading, and there is nothing in the 2005 Upper Snake Rock TMDL that modifies the 1:1 trading ratio for phosphorus. The EPA already recognizes this 1:1 phosphorus trading ratio, as demonstrated by the issuance of the aquaculture general permit which contains this 1:1 ratio for phosphorus trading.

The City of Twin Falls NPDES permit should not be modified to remove 1:1 phosphorus trading. The 1:1 trading is permitted by the 2003 Guidance, and the 2005 Upper Snake Rock TMDL Modification does nothing to modify this ratio.



The City understands that future TMDL's and modifications to the Guidance may result in changes to the phosphorus trading ratios, at which time the EPA may reopen to modify, as it has done here. Until there is contrary data, the 1:1 phosphorus trading should be permitted, as provided in all the EPA approved documents.”

In its response to the City's comment, the EPA could not dispute the facts set forth above: That the target for TP for each segment of the Middle Snake River is 0.075-mg/L; that the calculated TP for each segment of the Middle Snake River is more than 0.075-mg/L; that reductions are required for each segment of the Middle Snake River in order to comply with the target TP of 0.075-mg/L; and that the percentage reductions for each segment required to meet the 0.075-mg/L target are the numbers listed in the “loss/attenuation table” relied on by the EPA in removing the water quality trading provision for phosphorus in the NPDES permit. The EPA's circuitous reasoning in its response is virtually a non-response. It isn't sufficient for the EPA to simply say that the City's “interpretation” is unreasonable. It isn't sufficient for the EPA to respond by providing a correct explanation of loss/attenuation. That explanation doesn't change the fact that the numbers relied on by the EPA in removing water quality trading for phosphorus do not measure loss or attenuation, despite the label. And it isn't sufficient for the EPA to respond that the numbers in the table are for “loss/attenuation”, because that's what the IDEQ labeled them. Those numbers are clearly and unambiguously calculations of the percentage reductions required for each segment of the river to comply with the 0.075-mg/L target.

The EPA's misunderstanding of the data contained in the 2005 TMDL is clearly shown in its response to the comments contained on page 4: This response shows that the EPA is interpreting the 0.075-mg/L *target* for phosphorus as the *observed or measured*

phosphorus. The NPDES permit writer, in reading the 2005 TMDL, assumes that the *measured* phosphorus at the beginning of Segment 1 is 0.075-mg/L (same as the target), and after the addition of phosphorus from various sources in the segment, and after loss of phosphorus by attenuation, the water returns to 0.075-mg/L at the end of Segment 1. This phenomenon occurs again in Segment 2, again in Segment 3, again in Segment 4, again in Segment 5, and amazingly, again in Segment 6! The EPA permit writer assumes that each time phosphorus is measured, it magically matches the TMDL target of 0.075-mg/L. Despite complete reliance on the “loss/attenuation” words used in the 2005 TMDL in dismissing the City’s argument, the EPA acknowledges at the end of its comments to Paragraph 3 that “EPA agrees that the target TP values are calculated values and not sample results for the current river. The use of calculations is necessary and appropriate, because TMDL’s establish a future, calculated pollutant budget for the river.” So, despite its responses to the City’s comments in Paragraphs 1 and 2, it acknowledges that 0.075-mg/L used at the end of each segment is the target, and not the measured TP. Thus, it is clear that the numbers contained in the table labeled “loss/attenuation” are actually the percentage reduction required to meet the target, and have nothing to do with loss or attenuation.

“The last sentence of Section 8.0 confirms that the 2005 Upper Snake Rock TMDL Modification does nothing to change the TP export and attenuation data contained in the 2000 Upper Snake Rock TMDL, approved by the EPA. ‘For the present, the *TP and TSS export and attenuation models are the same as used in the Upper Snake Rock TMDL.*’” The EPA responds to this clear and unambiguous statement by stating: “EPA agrees that this sentence is confusing ...” ? The City does not believe that this sentence is

in any way confusing, so it is unclear who the EPA is agreeing with. The trading ratio for phosphorus approved by the EPA in the 2000 Upper Snake Rock TMDL is 1:1, which was the ratio approved before the EPA modified the City's permit.

The EPA acknowledges that it has, in fact, approved the 1:1 phosphorus trading ratio for issuance of the aquaculture general permit for this reach of the Snake River. And it goes without saying that the huge aquaculture industry on this reach of the Snake River returns waste water to the river in amounts hundreds or thousands of times larger than the small amount returned by the City. Nevertheless, the EPA, states that it hasn't approved the DEQ's Guidance for Pollutant Trading, and that it isn't required to approve or disapprove State Pollutant Trading Guidance. This is especially troubling, in view of the EPA's stated policy of encouraging water quality trading, discussed below.

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

The EPA promotes 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).

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). 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. 4.*, 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.*

Despite all of the very clear statements by the EPA favoring water quality trading in NPDES permits, 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 not have been modified, to remove the opportunity for water quality trading for phosphorus. The EPA cannot deny its stated policy and responsibility of encouraging water quality trading, by deferring to the IDEQ. The City

should be permitted to participate in water quality trading for phosphorus in a 1:1 ratio, or such other ratio approved by the EPA, but water quality trading should not be denied or deferred to a state agency.

DATED, This 24th day of July, 2010.



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Attorney for Petitioner

## **LIST OF EXHIBITS**

- Exhibit 1. Notice of Issuance of NPDES Renewal Permit
- Exhibit 2. Petitioner's Comments to the Draft NPDES Permit
- Exhibit 3. Response to Comments on Modification



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 10  
1200 Sixth Avenue, Suite 900  
Seattle, WA 98101-3140

JUN 25 2010

OFFICE OF  
WATER AND WATERSHEDS

**CERTIFIED MAIL - RETURN RECEIPT REQUESTED**

Ms. Jackie Fields, City Engineer  
City of Twin Falls  
P.O. Box 1907  
Twin Falls, Idaho 83303-1907

Re: City of Twin Falls Wastewater Treatment Plant, NPDES Permit No. WA-002127-0

Dear Ms. Fields:

We are issuing a modification to the National Pollutant Discharge Elimination System permit for the City of Twin Falls. The enclosed permit has been modified to not include the water quality trading provisions for phosphorous at Section I.B.1 and Appendix A. The remainder of the permit remains in effect except for those provisions which are stayed during the pendency of the EAB Appeal (Nos. NPDES 09-12, 09-13). In accordance with EPA's November 20, 2009 letter, "Notification of Stayed Permit, City of Twin Falls", Section I.B.2, Table 1 (TSS mass based limits) and Section I.C (compliance schedule for TSS mass based limits) are stayed. Also enclosed is EPA's response to the comments received on the draft permit modification during the public notice period.

This letter serves as service of notice under 40 CFR §124.19(a). This regulation, in combination with the "computation of time" regulations at 40 CFR 124.20, states that any petition for an appeal of the permit must be submitted to the Environmental Appeals Board (EAB) within a 30-day period plus an allowance of three days for mailing, beginning with the service of notice, unless a later date is specified in that notice.

The permit modification will become effective on the date indicated in the permit unless a timely appeal meeting the requirements of 40 CFR §124.19 is received by the Environmental Appeals Board. Information about the administrative appeal process may be obtained on-line at <http://www.epa.gov/eab> or by contacting the Clerk of the Environmental Appeals Board at (202) 233-0122.

Sincerely,

A handwritten signature in cursive script that reads "Christine" followed by a flourish.

Michael A. Bussell, Director  
Office of Water and Watersheds

Enclosures

cc: Fritz Wonderlich, Attorney for City of Twin Falls  
Justin Hayes, Idaho Conservation League  
Bill Allred, Idaho Department of Environmental Quality

EXHIBIT 1



# WONDERLICH & WAKEFIELD



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Director, Office of Water and Watersheds  
United States Environmental Protection Agency (EPA)  
Region 10  
1200 Sixth Avenue, Suite 900, OWW-130  
Seattle, WA 98101

Re: Comment and Request for a Public Hearing, Permit No. ID-002127-0

Dear Director:

Please accept this letter as the City of Twin Falls' comment and request for a public hearing regarding the Notice of Proposal to Modify the NPDES permit issued to the City of Twin Falls, Idaho, Wastewater Treatment Plant. The proposed permit modification will remove pollutant trading for phosphorus, permitted in Section I.B.1 and Appendix A of the permit. The stated basis for the proposed modification is the EPA's misunderstanding of the discussion of "8.0 Loss and Attenuation" contained in the 2005 Upper Snake Rock TMDL Modification.

The Fact Sheet, provided with the Notification of Draft Permit Modification, states that "trading ratios are not consistent with the attenuation assumptions of the TMDL." THIS STATEMENT IS IN ERROR. The Fact sheet also refers to an alleged inconsistency between the Guidance, which provides for a 1:1 trading ratio for all segments, and the 2005 Upper Snake Rock TMDL Modification, which contains a percent of reduction in phosphorus by attenuation that does not support a trading ratio of 1:1 for this reach of the Snake River. THIS IS ALSO IN ERROR.

THE 2005 UPPER SNAKE ROCK TMDL MODIFICATION CONTAINS NO LOSS / ATTENUATION PERCENTAGES, NOR ANY OTHER DATA INCONSISTENT WITH 1:1 PHOSPHORUS TRADING.

The 2003 Guidance contains a trading ratio of 1:1 for phosphorus, based upon the 2000 Upper Snake Rock TMDL, which was approved by the EPA. The TMDL instream target for TP is 0.075-mg/L. See, Section 8.0, Paragraph 4, page 33, 2005 Upper Snake Rock TMDL Modification. Section 8.0 also contains a table labeled "TP Loss/Attenuation" (below) *which in reality is a table comparing the derived concentrations of TP at each compliance point* (see line item "Sub Total Concentration" for TP, Tables 1-A through 6-

EXHIBIT 2

A, Section 10.0, 2005 Upper Snake Rock TMDL Modification) to the target TP concentration for the river of 0.075-mg/L.

Compliance Point	“-----TP Loss/Attenuation-----”		
	Sub Total	% Loss/Attenuation	Total
Milner Dam	-	-	0.075-mg/L
Pillar Falls	0.077-mg/L	2.8%	0.075-mg/L
Crystal Springs	0.111-mg/L	32.4%	0.075-mg/L
Box Canyon	0.084-mg/L	18.3%	0.075-mg/L
Gridley Bridge	0.090-mg/L	17.0%	0.075-mg/L
Shoestring Bridge	0.083-mg/L	9.8%	0.075-mg/L
King Hill	0.077-mg/L	2.0%	0.075-mg/L”

For example, the derived TP for Pillar Falls shown in Section 10.1 is 0.077. The amount of TP reduction required to meet the 0.075-mg/L target for TP is 2.8%. The derived TP for Crystal Springs shown, Section 10.2 is 0.111-mg/L. The amount of TP reduction required to meet the 0.075-mg/L target for TP is 32.4%. And so on. (Note: The TP table in Section 8.0 contains an error in the “Sub Total” number for Box Canyon, which is stated as 0.084-mg/L, but is actually 0.092-mg/L. See, Section 10.3, Table 3-A). See table of calculations below:

10.1 SEGMENT 1 – MIDDLE SNAKE RIVER - Milner Dam to Pillar Falls Load

Calculation Derived from Table 1-A.

TP Sub Total Load (using Sources) = 1967.61 lbs/day  
 TP using Load Capacity of 0.075mg/L-4,737cfs X 0.0749055 X 5.39 = 1,912.52 lbs/day  
 Difference between Sources and Load Capacity 1,967.61 – 1912.52 = 55.09 lbs/day  
 Percent difference from target (1 - (1,912.52/1,967.61)) X 100 = **2.8 %**

10.2 SEGMENT 2 – MIDDLE SNAKE RIVER - Pillar Falls to Crystal Springs Load

Calculation Derived from table 2-A.

TP Sub Total Load (using Sources) = 3,287.13 lbs/day  
 TP using Load Capacity of 0.075mg/L 5,498cfs X 0.0749843 X 5.39 = 2,222.10 lbs/day  
 Difference between Sources and Load Capacity 3287.13 – 2,222.10 = 1,065.13 lbs/day  
 Percent difference from target (1 - (2,222.10/3,287.13)) X 100 = **32.4 %**

10.3 SEGMENT 3 – MIDDLE SNAKE RIVER – Crystal Springs to Box Canyon Load

Calculation Derived from table 3-A.

TP Sub Total Load (using Sources) = 3,567.65 lbs/day  
 TP using Load Capacity of 0.075mg/L-7,212cfs X 0.0749825 X 5.39 = 2,914.77 lbs/day  
 Difference between Sources and Load Capacity 3,567.65 – 2,914.77 = 652.88 lbs/day  
 Percent difference from target (1 - (2,914.77/3,567.65)) X 100 = **18.3 %**

10.4 SEGMENT 4 – MIDDLE SNAKE RIVER – Box Canyon to Gridley Bridge Load

Calculation Derived from table 4-A.

TP Sub Total Load (using Sources) = 4,439.65 lbs/day  
 TP using Load Capacity of 0.075mg/L-9,113cfs X 0.0750199X 5.39 = 3,684.91 lbs/day  
 Difference between Sources and Load Capacity 4,439.25 – 3,84.91= 754.74 lbs/day  
 Percent difference from target (1 - (3,84.91/4,439.65)) X 100 = **17.0 %**

10.5 SEGMENT 5 – MIDDLE SNAKE RIVER – Gridley Bridge to Shoestring Bridge Load Calculation Derived from table 5-A.

TP Sub Total Load (using Sources) = 4,963.83 lbs/day  
TP using Load Capacity of 0.075mg/L-11,108cfs X 0.0747823 X 5.39 = 4,477.37 lbs/day  
Difference between Sources and Load Capacity 4,963.83 – 4,436.25 = 760.36 lbs/day  
Percent difference from target (1 - (4477.37/4963.83)) X 100 **9.8 %**

10.6 SEGMENT 6 – MIDDLE SNAKE RIVER – Shoestring Bridge to King Hill Bridge Load Calculation Derived from table 6-A.

TP Sub Total Load (using Sources) = 4,687.92 lbs/day  
TP using Load Capacity of 0.075mg/L 11,398cfs X 0.0747806 X 5.39 = 4,594.16 lbs/day  
Difference between Sources and Load Capacity 4,687.92 – 4,601.83= 86.08 lbs/day  
Percent difference from target (1 - (4594.16/4687.92)) X 100 = **2.0 %**

The “Percent difference from target” in the calculations above shows the *identical* percentages as contained in the TP table in Section 8.0 in the column labeled “% Loss/Attenuation.” It isn’t at all clear why Section 10.0 of Upper Snake Rock TMDL Modification used a TP target very slightly more or less than the 0.075-mg/L target, but it is absolutely clear that these are target TP numbers and not sampled data from each segment. See, Upper Snake Rock –Five Year Review, March 2009, Table 3.3b Summary of Water Quality Data collected since 2000 on the Snake River, page 32. The sampled data looks nothing like the numbers contained in the tables, but are nearly identical to the target 0.075-mg/L TP for the river.

The percentages given in the Section 8.0 table do not measure loss/attenuation, but rather the percentage reduction from the derived TP concentrations required to meet the target TP concentration for the river, and each segment of the river, of 0.075-mg/L.

The last sentence of Section 8.0 confirms that the 2005 Upper Snake Rock TMDL Modification does nothing to change the TP export and attenuation data contained in the 2000 Upper Snake Rock TMDL, approved by the EPA. “For the present, the *TP and TSS export and attenuation models are the same as used in the Upper Snake Rock TMDL.*”

Section 9.0 of the 2005 Upper Snake Rock TMDL Modification is entitled “Total Phosphorus Pollutant Trading.” The first sentence of this modification refers back to the Guidance for total phosphorus trading. “Total phosphorus pollutant trading is presently described under a trading guidance that was developed by EPA and DEQ.” The Guidance, in Appendix C, very specifically set forth a 1:1 trading program for phosphorus in this reach of the Snake River. In addition, the last paragraph of Section 9.0 of the 2005 Upper Snake Rock TMDL Modification gives an example of phosphorus trading that uses the approved 1:1 trading ratio:

As an example, if facility X has an NPDES permit allowing for the discharge of 100 lb/day of phosphorus and is able, through technology, to reduce its discharge to 75 lb/day, it has 25 credits to sell. If facility Y has an NPDES permit allowing for the discharge of 100 lb/day phosphorus, but is currently discharging 125 lb/day, it is exceeding its permit limit by 25 lb/day phosphorus. *Facility Y may either find a way to reduce an additional 25 lb/day of phosphorus in order to meet*

*its permit limit or it may purchase 25 lb/day of phosphorus credits from facility X. At this point, the same amount of phosphorus is discharged into the river, 200 lb/day, but through a different distribution between facilities X and Y. Each point source must reflect the actual discharge amount of phosphorus in their Discharge Monitoring Reports and also show the purchase of credits in a Trade Summary report in accordance with DEQ's trading guidance.*

The EPA has clearly erred in its reading of the 2005 TMDL. The 1:1 trading ratio for phosphorus within the Middle Snake River is the ratio approved by IDEQ and EPA in the 2000 Upper Snake Rock TMDL and in the 2003 Guidance for Pollutant Trading, and there is nothing in the 2005 Upper Snake Rock TMDL that modifies the 1:1 trading ratio for phosphorus. The EPA already recognizes this 1:1 phosphorus trading ratio, as demonstrated by the issuance of the aquaculture general permit which contains this 1:1 ratio for phosphorus trading.

The City of Twin Falls NPDES permit should not be modified to remove 1:1 phosphorus trading. The 1:1 trading is permitted by the 2003 Guidance, and the 2005 Upper Snake Rock TMDL Modification does nothing to modify this ratio. The City understands that future TMDL's and modifications to the Guidance may result in changes to the phosphorus trading ratios, at which time the EPA may reopen to modify, as it has done here. Until there is contrary data, the 1:1 phosphorus trading should be permitted, as provided in all the EPA approved documents.

A public hearing is requested on this matter so that IDEQ personnel and others can testify to the errors made by the EPA in misunderstanding the permitted phosphorus trading within the Middle Snake River, and to the data and information contained in the documents prepared by IDEQ related to this issue.

Very truly yours,

A handwritten signature in black ink that reads "Fritz Wonderlich". The signature is written in a cursive style with a large, stylized initial "F".

Fritz Wonderlich  
Twin Falls City Attorney

# RESPONSE TO COMMENTS ON MODIFICATION

## City of Twin Falls Wastewater Treatment Plant NPDES Permit #ID-002127-0 June 20, 2010

On March 29, 2010, the U.S. Environmental Protection Agency (EPA) issued a public notice for the draft modification of the City of Twin Falls Wastewater Treatment Plant National Pollutant Discharge Elimination System (NPDES) Permit No. ID-002127-0 (the Twin Falls permit) to not include water quality trading provisions for phosphorus discharges from the sewage treatment plant. This Response to Comments provides a summary of significant comments and provides EPA's responses. Upon reconsideration, EPA determined that because the wasteload allocations in The Upper Snake Rock TMDL Modification (July, 2005) (2005 TMDL Modification) were based on assumed attenuation, the trading ratios of 1:1 in the 2009 Permit were not valid. The trading provisions in the 2009 permit could not assure that the state water quality standards would be met as required by CWA section 301(b)(1)(C).

The primary comments on removal of the trading provisions are from the City of Twin Falls. The City believes EPA did not correctly interpret the 2005 TMDL Modification in its decision to withdraw the water quality trading provisions included in the Twin Falls permit.

Commenters: Fritz Wonderlich, Wonderlich & Wakefield, Twin Falls City Attorney,  
Justin Hayes, Program Director, Idaho Conservation League.

### I. City of Twin Falls Comments

- Comment:** The City of Twin Falls (the City) commented: "The Fact Sheet, provided with the Notification of Draft Permit Modification, states that "trading ratios are not consistent with the attenuation assumptions of the TMDL." This statement is in error. The Fact Sheet also refers to an alleged inconsistency between Idaho's 2003 trading guidance, which provides for a 1:1 trading ration for all segments, and the 2005 Upper Snake Rock TMDL Modification, which contains a percent of reduction in phosphorus by attenuation that does not support a trading ratio of 1:1 for this reach of the Snake River. This is also an error. The 2005 Upper Snake Rock TMDL Modification contains no loss/attenuation percentages, nor any other data inconsistent with 1:1 phosphorus trading. The stated basis for the proposed modification is EPA's misunderstanding of the discussion of "8.0 Loss and Attenuation" contained in the 2005 Upper Snake Rock TMDL Modification.

Compliance Point	"=====TP Loss/Attenuation=====		
	Sub Total	% Loss/Attenuation	Total
Milner Dam	-	-	0.075-mg/L
Pillar Falls	0.077-mg/L	2.8%	0.075-mg/L
Crystal Springs	0.111-mg/L	32.4%	0.075-mg/L
Box Canyon	0.084-mg/L	18.3%	0.075-mg/L
Gridley Bridge	0.090-mg/L	17.0%	0.075-mg/L
Shoestring Bridge	0.083-mg/L	9.8%	0.075-mg/L
King Hill	0.077-mg/L	2.0%	0.075-mg/L"

Section 8.0 contains a table labeled “TP (total phosphorus) Loss/Attenuation” which in reality is a table comparing the derived concentrations of TP at each compliance point. The percentage given in the Section 8.0 table do not measure loss/attenuation, but rather the percentage reduction from the derived TP concentrations required to meet the target TP concentration for the river, and each segment of the river, of 0.075-mg/L.

**Response:** EPA disagrees with the City’s interpretation that the TMDL does not include assumptions about attenuation in development of its wasteload allocations. Attenuation is a process by which a pollutant (e.g. phosphorus) is lost from a water column due to biological and physical processes such as algal uptake and particulate settling. Section 8 Loss and Attenuation, of 2005 TMDL Modification, page 32 describes this process.<sup>1</sup> The table in Section 8.0 is titled “TP Loss/Attenuation” with a column labeled “%Loss/Attenuation”. Both the titles are correct, because the TMDL calculations rest on the assumption that a fraction of the phosphorus entering each segment of the Middle Snake River from the upstream segment, as well as tributaries, groundwater and point sources within the segment, is lost from the water column prior to entering the next downstream segment. The column labeled “% TP Loss/Attenuation” lists the amount of total phosphorus (TP) assumed to be lost (attenuated) from the water column in each of the six segments of the Snake River.

EPA disagrees that the percentages listed in the “%Loss/Attenuation.” column can be reasonably interpreted as “percentage reduction from the derived TP concentrations required to meet the target TP concentration for the river.” Nowhere in the 2005 TMDL Modification is TP “loss and attenuation” identified as a requirement or target for further phosphorus reductions. Furthermore, the City’s interpretation would only be supportable in the TMDL regulatory framework if the identified percent reductions were assigned to specific sources. There is no such assignment. Rather, EPA relies on the Idaho Department of Environmental Quality’s (IDEQ’s) plain language describing the percentage values as “loss” and “attenuation” from the water column and incorporates the estimated losses into the TMDL calculations in a transparent manner. In contrast, under the City’s reading, IDEQ has highlighted a series of necessary loading reductions, erroneously labeled them “loss/attenuation”, and failed to assign these reductions to specific sources as required by TMDL regulations. EPA does not believe this interpretation is reasonable.

Contrary to the City’s assertion, the State of Idaho Department of Environmental Quality Pollutant Trading Guidance, November 2003 draft, (2003 draft Trading Guidance), and the 2005 TMDL Modification are not compatible. In allowing trading in the Twin Falls permit (Condition I.B.1 on page 7 and Appendix A on page 37), EPA relied on the 2003 draft Trading Guidance which requires environmental equivalency: “*Environmental equivalency is based on the relationship between the impact a given unit of a pollutant has at its point of discharge to the impact at the water body’s point of concern.*” (Page 4, § II.C.1.) While the 2003 draft Trading Guidance page assumed equivalency (1:1 trading ratio) for the Middle Snake River (Appendix C, pages 4, 5, and 6), IDEQ also recognized the effect of attenuation on trading ratios. The guidance states the following: “*If, however, the pollutant is taken up through plants, settles out, is diverted by agricultural uses or is diminished in some other way,*

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<sup>1</sup> : “The assumption is made that total losses to volatilization, soil adsorption, sedimentation, groundwater storage, and denitrification equal the difference between the total inputs and the output. Relative to TP in an aquatic system, volatilization and denitrification do not apply. Phosphorus is present in several forms in an aquatic system, and not all forms are readily available for uptake by phytoplankton. On the other hand, sediment deposits may be organic-rich, thus being affected by volatilization and denitrification. Therefore, TP attenuation may be a combination of substrate sedimentation as well as plant uptake. (2005 TMDL Modification, page 32)

*a buyer may have to purchase more credits than it actually needs at its discharge point to account for the actual reduction in the water body.” (Page 5, § II.C.1.)*

Subsequent to the drafting of the IDEQ’s 2003 draft Trading Guidance, IDEQ incorporated assumptions about loss/attenuation into the 2005 TMDL Modification. The Upper Snake Rock Watershed Management Plan (or Upper Snake/Rock Creek Watershed Management Plan, the Upper snake Rock Subbasin Assessment & The Upper Snake Rock Total Maximum Daily Load., December 20, 1999, did not contain any assumption about attenuation . Furthermore, the 2003 draft Trading Guidance was not revised to address the assumptions and calculations regarding attenuation in the 2005 TMDL Modification. Therefore, trading ratios established in the IDEQ 2003 draft Trading Guidance did not consider attenuation. IDEQ has since stated its intent to revise and finalize the Trading Guidance and has also stated that there are some “*definite deficiencies*” in the 2003 draft Trading Guidance that have yet to be resolved (e-mail Balthasar Buhidar to John Drabek, February 10, 2010). EPA concurs with IDEQ’s conclusion that the 2003 draft Trading Guidance is deficient. The final trading guidance must include equivalency ratios based on attenuation before EPA will include trading in NPDES permits for the Middle Snake River.

- 2. Comment:** The City of Twin Falls commented: “the derived TP for Pillar Falls shown in Section 10.1 of the 2005 TMDL is 0.077 mg/L. The amount of TP reduction required to meet the 0.075-mg/L target for TP is 2.8%. The derived TP for Crystal Springs shown in Section 10.2 is 0.111-mg/L. The amount of TP reduction required to meet the 0.075-mg/L target for TP is 32.4%. And so on”. “(see line item “Sub Total Concentration” for TP, Tables 1-A through 6-A, Section 10.0, 2005 Upper Snake Rock TMDL Modification) *to the target TP concentration for the river of 0.075-mg/L.*”

“See table of calculations below:

**10.1 SEGMENT 1 – MIDDLE SNAKE RIVER - Milner Dam to Pillar Falls Load Calculation**  
Derived from Table 1-A.

TP Sub Total Load (using Sources) = 1967.61 lbs/day  
TP using Load Capacity of 0.075mg/L 4,737cfs X 0.0749055 X 5.39 = 1,912.52 lbs/day  
Difference between Sources and Load Capacity 1,967.61 – 1912.52 = 55.09 lbs/day  
Percent difference from target  $(1 - (1,912.52/1,967.61)) \times 100 = \underline{2.8 \%}$

**10.2 SEGMENT 2 – MIDDLE SNAKE RIVER - Pillar Falls to Crystal Springs Load Calculation**  
Derived from table 2-A.

TP Sub Total Load (using Sources) = 3,287.13 lbs/day  
TP using Load Capacity of 0.075mg/L 5,498cfs X 0.0749843 X 5.39 = 2,222.10 lbs/day  
Difference between Sources and Load Capacity 3287.13 – 2,222.10 = 1,065.13 lbs/day  
Percent difference from target  $(1 - (2,222.10/3,287.13)) \times 100 = \underline{32.4 \%}$

**10.3 SEGMENT 3 – MIDDLE SNAKE RIVER – Crystal Springs to Box Canyon Load Calculation**  
Derived from table 3-A.

TP Sub Total Load (using Sources) = 3,567.65 lbs/day  
TP using Load Capacity of 0.075mg/L-7,212cfs X 0.0749825 X 5.39 = 2,914.77 lbs/day  
Difference between Sources and Load Capacity 3,567.65 – 2,914.77 = 652.88 lbs/day  
Percent difference from target  $(1 - (2,914.77/3,567.65)) \times 100 = \underline{18.3 \%}$

**10.4 SEGMENT 4 – MIDDLE SNAKE RIVER – Box Canyon to Gridley Bridge Load Calculation**  
Derived from table 4-A.

TP Sub Total Load (using Sources) = 4,439.65 lbs/day  
TP using Load Capacity of 0.075mg/L-9,113cfs X 0.0750199X 5.39 = 3,684.91 lbs/day

Difference between Sources and Load Capacity  $4,439.25 - 3,84.91 = 754.74$  lbs/day  
Percent difference from target  $(1 - (3,84.91/4,439.65)) \times 100 = \underline{17.0\%}$

#### 10.5 SEGMENT 5 – MIDDLE SNAKE RIVER – Gridley Bridge to Shoestring Bridge Load

Calculation Derived from table 5-A.

TP Sub Total Load (using Sources) = 4,963.83 lbs/day

TP using Load Capacity of 0.075mg/L-11,108cfs X 0.0747823 X 5.39 = 4,477.37 lbs/day

Difference between Sources and Load Capacity  $4,963.83 - 4,436.25 = 760.36$  lbs/day

Percent difference from target  $(1 - (4477.37/4963.83)) \times 100 = \underline{9.8\%}$

#### 10.6 SEGMENT 6 – MIDDLE SNAKE RIVER – Shoestring Bridge to King Hill Bridge Load

Calculation Derived from table 6-A.

TP Sub Total Load (using Sources) = 4,687.92 lbs/day

TP using Load Capacity of 0.075mg/L 11,398cfs X 0.0747806 X 5.39 = 4,594.16 lbs/day

Difference between Sources and Load Capacity  $4,687.92 - 4,601.83 = 86.08$  lbs/day

Percent difference from target  $(1 - (4594.16/4687.92)) \times 100 = \underline{2.0\%}$

The 'Percent difference from target' in the calculations above shows the *identical* percentages as contained in the TP table in Section 8.0 in the column labeled '% Loss/Attenuation.'

**Response:** The tables as presented in the comment are not accurate representations of Tables 1-A, 2-A and 3-A in the 2005 TMDL. It is clear from the introductory paragraphs to the calculation tables (quoted below) that the term "attenuation" in these tables is correct. That is, they represent attenuation assumptions in the 2005 TMDL Modification, as described in the response to comment #1. These calculations were made by the commenter based on their interpretation of the entries of the tables in the 2005 TMDL Modification.

Specifically:

On page 37 of the 2005 TMDL Modification, the introductory sentence to Table 1-A states:

*"Export loss/attenuation is estimated at indicated levels based on instream water-quality levels at the compliance points. The equivalent TP concentration shows an increase in TP to 0.077-mg/L TP with a reduction to 0.075-mg/L TP due to export loss/attenuation within Segment 1."*

For Table 2-A the 2005 TMDL on page 43 states:

*"Export loss/attenuation is estimated at indicated levels based on instream water-quality levels at the compliance points. The equivalent TP concentration shows an increase in TP to 0.111-mg/L TP with a reduction to 0.075-mg/L TP due to export loss/attenuation within Segment 2."*

For Table 3-A the 2005 TMDL on page 49 states:

*"Export loss/attenuation is estimated at indicated levels based on instream water-quality levels at the compliance points. The equivalent TP concentration shows an increase in TP to 0.092-mg/L TP with a reduction to 0.075-mg/L TP due to export loss/attenuation within Segment 3."*

To the extent that the city may have questions about the method by which IDEQ estimated the loss/attenuation values, these questions are properly raised when the TMDL is open to public



review. However, they are not open to review in the context of NPDES permit issuance. See also Comment 1.

3. **Comment:** The City of Twin Falls commented: “It isn’t at all clear why Section 10.0 of Upper Snake Rock TMDL Modification used a TP target very slightly more or less than the 0.075-mg/L target, but it is absolutely clear that these are target TP numbers and not sampled data from each segment. See Upper Snake Rock –Five Year Review, March 2009, Table 3.3b Summary of Water Quality Data collected since 2000 on the Snake River, page 32. The sampled data looks nothing like the numbers contained in the tables above for the six segments, but are nearly identical to the target 0.075-mg/L TP for the river.”

**Response:** This comment does not appear relevant to EPA’s modification of the NPDES permit. Rather it is a comment or question regarding the basis for some of the instream target values in the 2005 TMDL Modification. As such, issues regarding the basis for development of the TMDL are not an appropriate issue to rise in the context of an NPDES permit challenge. Nonetheless, EPA offers the following clarification.

EPA believes that TP values in Section 10 pages 38, 43 and 50, of the 2005 TMDL Modification are consistent with IDEQ’s definition and calculations for loss/attenuation (see Comments 1 and 2). EPA agrees that the target TP values are calculated values and not sample results for the current river. The use of calculations is necessary and appropriate, because TMDLs establish a future, calculated pollutant budget for the river.

4. **Comment:** The City of Twin Falls commented: “The last sentence of Section 8.0 confirms that the 2005 Upper Snake Rock TMDL Modification does nothing to change the TP export and attenuation data contained in the 2000 Upper Snake Rock TMDL, approved by the EPA. ‘For the present, the *TP and TSS export and attenuation models are the same as used in the Upper Snake Rock TMDL.*’ ”

**Response:** EPA agrees that this sentence is confusing, but nonetheless the discussions in the responses to comments above identify clear and specific language in the 2005 TMDL Modification that make it clear that attenuation was taken into account in establishing wasteload allocations in the 2005 TMDL Modification.

Loss and attenuation is identified in the 2005 TMDL Modification.

Page 32, Section 8.0 Loss and Attenuation

*“Within this system there is “loss” (downstream transport) and “attenuation” (localized placement) of sediment and total phosphorus.”*

Page 33, Last Sentence

*“The Middle Snake River has phosphorus export losses that range from 4.2 – 36.5% (Buhidar 1999A [Technical Support Document, Section VII] based on instream column monitoring data at the various compliance points. This range supports the research of Smith and Alexander (2000).”*

*“In addition, data from the Idaho Power Company’s trash racks appears to indicate that biomass (as aquatic plant growths) are being cleaned out of the river system. The amount of biomass being collected appears to follow a pattern similar to the loss/attenuation percentage being applied to TP.”*

5. **Comment:** The City of Twin Falls commented: “Section 9.0 of the 2005 Upper Snake Rock TMDL Modification is entitled ‘Total Phosphorus Pollutant Trading.’ The first sentence of this modification refers back to the Guidance for total phosphorus trading. “Total phosphorus pollutant trading is presently described under a trading guidance that was developed by EPA and DEQ.” The Guidance, in Appendix C, very specifically set forth a 1:1 trading program for phosphorus in this reach of the Snake River. In addition, the last paragraph of Section 9.0 of the 2005 Upper Snake Rock TMDL Modification gives an example of phosphorus trading that uses the approved 1:1 trading ratio:

*As an example, if facility X has an NPDES permit allowing for the discharge of 100 lb/day of phosphorus and is able, through technology, to reduce its discharge to 75 lb/day, it has 25 credits to sell. If facility Y has an NPDES permit allowing for the discharge of 100 lb/day phosphorus, but is currently discharging 125 lb/day, it is exceeding its permit limit by 25 lb/day phosphorus. Facility Y may either find a way to reduce an additional 25 lb/day of phosphorus in order to meet its permit limit or it may purchase 25 lb/day of phosphorus credits from facility X. At this point, the same amount of phosphorus is discharged into the river, 200 lb/day, but through a different distribution between facilities X and Y. Each point source must reflect the actual discharge amount of phosphorus in their Discharge Monitoring Reports and also show the purchase of credits in a Trade Summary report in accordance with DEQ’s trading guidance.”*

**Response:** EPA did not develop nor approve IDEQ’s 2003 Draft Trading Guidance. The scope of EPA’s TMDL approval does not include implementation plans, including plans related to potential trading activities. Based on inconsistencies between the 2003 draft Trading Guidance and the 2005 TMDL Modification calculations, EPA believes that IDEQ erred in referring to the trading guidance in the TMDL. This error did not affect the required elements of the TMDL that were subject to EPA approval.

Nevertheless, Section 9.0, page 35 of the 2005 TMDL Modification also correctly states that *“Pollutant trading is a tool that can be used to help a point source meet its NPDES phosphorus limits.” “Trading is voluntary, takes place through private contracts, and is regulated through compliance with NPDES permit requirements.” (Emphasis added).*

EPA issues NPDES permits in the State of Idaho and has discretion on whether to include trading provisions in NPDES permits. In light of the inconsistencies outlined in the fact sheet for the permit modification and in these responses, EPA has chosen not to include the water quality trading provisions in the Twin Falls permit. In this case, EPA has determined that it cannot authorize trading until trading ratios are developed that account for the attenuation which was included in the wasteload allocations in the 2005 TMDL Modification. See also Response to Comments 1, 2 and 3.

6. **Comment:** The City of Twin Falls commented: “EPA has already approved the 1:1 ratio in the 2000 Upper Snake Rock TMDL and in the 2003 Guidance for Pollutant Trading, and there is nothing in the 2005 Upper Snake Rock TMDL that modifies the 1:1 trading ratio for

phosphorus. EPA also recognizes this 1:1 phosphorus trading ratio, as demonstrated by the issuance of the aquaculture general permit which contains this 1:1 ratio for phosphorus trading.”

**Response:** EPA has approved, under the CWA, *The Upper Snake Rock Watershed Management Plan (or Upper Snake/Rock Creek Watershed Management Plan)*, *The Upper Snake Rock Subbasin Assessment & The Upper Snake Rock Total Maximum Daily Load, December 20, 1999* (1999 “Mid-Snake” (Upper Snake Rock) TMDL) and the 2005 TMDL Modification to the 1999 “Mid-Snake” (Upper Snake Rock) TMDL. As noted in the previous comment, TMDL implementation, including proposed trading efforts, are not within the scope of TMDL approvals. Under the CWA, EPA is not required to approve or disapprove State Pollutant Trading Guidance and has not acted to approve Idaho’s draft 2003 Pollutant Trading Guidance.

## II. Idaho Conservation League Comments:

7. **Comment:** The Idaho Conservation League (ICL) commented, “We concur with EPA’s conclusion that pollutant trading, as outlined in the stricken permit sections, was not technically defensible and posed a risk to water quality in the mid-Snake River region. EPA’s decision making on this matter, as presented in the Fact Sheet for this NPDES permit, is consistent with the information presented in our prior comments and our appeal and supporting documents. As such, we support EPA’s decision to remove such pollutant trading from the Twin Falls wastewater treatment plan[t] NPDES permit.”

**Response:** EPA recognizes the comment supporting the permit modification. No action is required.

8. **Comment:** ICL also said: “Several other matters warrant mention at this time.

### TSS Limits

ICL finds that the interim limits for TSS (both average monthly and average weekly) are far too high and will result in continued contributions to the ongoing violations of water quality for this parameter in the mid-Snake region. As such, EPA should reduce (i.e. make more stringent) the interim TSS limits to ensure achievement of TMDL goals for this area.

Further, the final TSS limits need to be reduced to reflect the TMDL assigned WLAs for this facility. The WLA for this facility is 146.4 tons/year. However, the application of the proposed average monthly limit results in 178.85 tons/year discharge.  $[(980 \text{ lbs/day} \times 365 \text{ days/year}) / 2000 \text{ lbs/ton}] = 178.85 \text{ tons/year}$ . Thus the discharge limit is not consistent with the assigned WLA.

### Total Phosphorus Limits

This facility’s WLA for total phosphorus is expressed as a maximum pounds per day discharge. To the best of our knowledge this is meant to be strictly interpreted as a limit on the number of pounds of total phosphorus that this facility can discharge on any given day. Thus, the NPDES permit needs to include a “Maximum daily limit” for total phosphorus. This limit should not exceed 710 lbs/day.

The average monthly limit of 710 lbs/day pays homage to the facility's WLA but, since it is a monthly average, it does nothing to ensure that the daily limit of 710 lbs/day is adhered to. This is so because averaging allows for daily discharges that greatly exceed the monthly average of 710 lbs/day, as long as they are compensated for by lower discharges on other days. It is these days that exceed 710 lbs/day that violate the TMDL's wasteload allocation. The average weekly limit of 990 lbs/day does even less to ensure that this facility does not violate its 710 lbs/day WLA as assigned in the relevant TMDL.

These monthly and weekly average limits fail to ensure compliance with the TMDL WLAs and will result in unlawful discharges of TP to the river and cause this segment of river to exceed the target TP concentrations."

**Response:** The Clean Water Act regulation at 40CFR §122.62 states: "When a permit is modified, only the conditions subject to modification are reopened." The only conditions modified and reopened to public comment during the public comment period, March 29—April 29, 2010, were to not include water quality trading provisions in the Twin Falls permit. Pursuant to 40 C.F.R. § 124.19(d), EPA withdrew Section I.B.1 and Appendix A from NPDES Permit No. ID-002127-0 effective March 2, 2010. Therefore, we find that these additional comments concerning the TSS and total phosphorus limits are outside the scope of the modification. Comments on these permit provisions should have been raised during the comment period of May 15 – July 15, 2009 when the draft permit was open to public review. The commenter did not raise these issues during that comment period, and it is too late to raise them now.

Furthermore, the effluent limitations for Total Phosphorus are in effect and can no longer be challenged. These limits have been in effect since December 23, 2009, in accordance with EPA's November 20, 2009 letter, "Notification of Stayed Permit, City of Twin Falls".