

January 5, 2010

Spokane County Department of Utilities  
1026 West Broadway Avenue  
Spokane, Washington 99260-0430

Attention: Ben Brattebo  
Water Resources Specialist

Subject: Review of Existing Data of Uncertain Credibility  
Bi-State Nonpoint Source Phosphorus Study  
File No. 0188-135-01

## **INTRODUCTION AND SCOPE**

This letter provides results of Subtask 2.1 of the Phase 1 Supplement of the Bi-State Nonpoint Source Phosphorus Study. Specifically, the consultant team's scope item addressed in this letter consists of the following:

"A number of existing data and reports were deemed to be of uncertain credibility during Phase 1, in some cases because of sufficient information was not readily-available to confirm data credibility. We proposed to select up to six existing reports and/or data sets that have the most potential to fill identified data gaps and reexamine these uncertain data for possible inclusion into the project database. This likely will involve additional research to obtain original laboratory certificates, reports, and/or other supporting information not included in the summary reports reviewed during Phase 1 activities, as well as additional data entry."

Results of the consultants team's review, which was performed by Michael Kasch and Dave Clark of HDR, Inc., is provided herein.

## **SELECTION OF REPORTS FOR REEXAMINATION**

The library tracking spreadsheet used to report the findings of the initial report credibility initially was reexamined by the consultant team. The consultant team proposed an initial ranking of the uncertain reports for further reexamination. Based on Spokane County input, the following reports were selected for reexamination as listed below (and in the previously-transmitted spreadsheet entitled *SpokNPS\_Library\_Uncertain Data Review\_Consensus\_120309.xls*):



1. Newman Lake Total Phosphorus Total Maximum Daily Load (TMDL) Water Quality Improvement Plan;
2. Hangman Creek Watershed Management Plan;
3. Hangman Hills Treatment Plant 2008; and
4. Coeur d'Alene Lake and River Sub-basin Assessment and Proposed Maximum Daily Loads.

The consultant team also proposed that the following spatial datasets be evaluated for use during future project analysis, and will be addressed under separate cover:

1. Spokane County Proper Functioning Condition Stream Inventory and Assessment; and
2. Drywell Spatial Data for the City of Spokane.

## **NEWMAN LAKE TOTAL PHOSPHORUS TOTAL MAXIMUM DAILY LOAD WATER QUALITY IMPROVEMENT PLAN**

### **Findings**

Since the time our original review of this report was completed, the Newman Lake draft report has been finalized as *Newman Lake Total Phosphorus Total Maximum Daily Load, Water Quality Improvement Report, November 2007*, Washington State Department of Ecology (Ecology) Publication Number 06-10-045. We obtained and examined a copy of this version of the report from Ecology's website. Consistent with our review of the draft Newman Lake TMDL, this is still no clear information on the methods used to collect the water quality monitoring samples or the laboratory procedures followed.

On page 86 of this report, Ecology indicates that the data are a compilation from various sources. Ecology specifically states that "The majority of available water quality data historically collected on Newman Lake was brought together and collectively analyzed as part of this TMDL. No comprehensive analysis of this information had occurred prior to this effort. This information was gathered from numerous reports published by Washington State University, Washington State Department of Ecology, and the United States Geological Survey among others, as well as data from more current data collection efforts. However, not all of the previous data and analyses were used in the TMDL."

Despite these limitations, our review of this report also suggests that Ecology performed an extensive review of the available dataset for Newman Lake, and excluded the non-credible data from their analyses. Therefore, we conclude that our study should consider including the data that Ecology deemed valid for the TMDL within our database.

### **Proposed Actions**

GeoEngineers will evaluate whether these data are currently in the project database. If these data are not in the latest database, we recommend including the data points not highlighted in Table B-3 (pages 114 through 118) of the final Newman Lake TMDL.



## HANGMAN CREEK WATERSHED MANAGEMENT PLAN

### Findings

This report is the oldest of the reviewed reports authored by the Spokane County Conservation District (SCCD). For the following reasons, it is our opinion that the data included in this plan should be incorporated into the project database:

- All of the other reports from the SCCD that were deemed relevant were deemed credible during Phase 1 of this investigation. That is, SCCD has a solid track record of quality data monitoring and SCCD deemed these data to be of sufficient quality for use during their analysis.
- The report includes sections on Sample Procedures, Data Review Reduction and Reporting and Quality Assurance.
- Ecology appears to have provided as least partial funding for the project and accepted the data.

However, our supplemental review suggests that only summarized data are provided in this report and not individual data points.

### Proposed Actions

GeoEngineers will examine whether specific data points associated with these summarized data are already included in the project database. If so, then no action is recommended. If not and if GeoEngineers can identify specific datapoints within this report, we recommend including the values in the database.

## HANGMAN HILLS TREATMENT PLANT 2008

### Findings

These data are in spreadsheets without an associated report that provides backup information regarding data credibility. However, the data are associated with treatment plant discharge monitoring reports (DMRs), which generally consist of high quality data. As such, recommend including them in the project database.

### Proposed Actions

GeoEngineers will examine if the data are currently in the latest version of the project database. There are two spreadsheets to check and confirm that all the data without duplication are in the database. The library tracking spreadsheet indicates there are twelve phosphorus data points associated with this report. If these data are not in the project database, we recommend that they be incorporated.

## COEUR D'ALENE LAKE AND RIVER SUB-BASIN ASSESSMENT AND PROPOSED MAXIMUM DAILY LOADS

### Findings

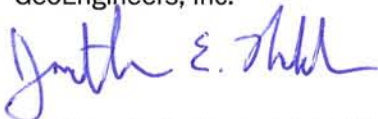
No new basis was developed to include the data from this report in the database. These data are from lateral lakes and not Coeur d'Alene Lake. There is no latitude/longitude or any other information other than the name of the lake to locate the sampling points. The report references the U.S. Geological Survey. Therefore, if the data are credible they are likely already included within the project database.

### Proposed Actions

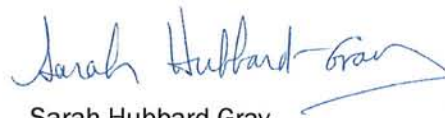
No action is proposed and we do not recommend adding the data to the database.

Please contact us if you have any questions about the contents of this letter.

Sincerely,  
GeoEngineers, Inc.



Jonathan E. Rudders, LG, LHG  
Senior Hydrogeologist



Sarah Hubbard Gray  
Principal

JER:SHG:tlm  
Spok: p:\0\0188135\01\finals\uncertaindatareviewletter.docx

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