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

Attention: Ben Brattebo, Water Resources Specialist

Subject: Draft Nonpoint Source Reduction Plan Outline
Bi-State Nonpoint Source Phosphorus Study
File No. 0188-135-01

INTRODUCTION

This letter provides a draft Nonpoint Source Reduction Plan (NPS Reduction Plan) outline for review and comment by Spokane County. This NPS Reduction Plan outline was developed by the GeoEngineers, Inc. (GeoEngineers) project team as a component of Task 1 of the Phase 1 Supplement of the Bi-State Nonpoint Source Phosphorus Study (NPS Study).

The primary project result of the NPS Study will be development of the NPS Reduction Plan. The following draft outline provides a preliminary framework for the NPS Reduction Plan, the components of which are being completed as separate tasks during execution of the project. While we are requesting your initial comments at this time, we consider this to be a fluid outline that can be modified during the project depending on project findings and/or the evolution of project priorities.

DRAFT NPS REDUCTION PLAN OUTLINE

EXECUTIVE SUMMARY

Chapter 1 Spokane River Watershed NPS Phosphorus Background and Issues

Section 1.1 Introduction
Section 1.2 Background
Section 1.3 Watershed and Subbasin Description
Section 1.4 Purpose
Section 1.5 Phosphorus Control Approach

Chapter 2 Spokane River Watershed Total Maximum Daily Load (TMDL) Identification of NPS Phosphorus Loads

Section 2.1 Summary of NPS Phosphorus Sources
Section 2.2 Summary of NPS Phosphorus Loads and Load Allocations

Note that Chapter 2 provides the TMDL information on NPS phosphorus. Since the information is general the information and supporting analyses in Chapters 3 through 6 provide more detailed information.

Chapter 3 Spokane River Watershed – NPS Phosphorus

Section 3.1 Water Quality Report Screening (Summarize and Appendix with Phase 1 Technical Memorandum [TM])
Section 3.2 Report and Data Credibility Assessment (Summarize and Appendix with Phase 1 TM)
Section 3.3 NPS Phosphorus Database (Summarize and Appendix with Phase 1 TM)
Section 3.4 Summary of Dataset (Summarize and Appendix with Phase 1 GIS Concentration Maps)
Section 3.4 Groundwater Total Phosphorus Data Analysis (Summarize and Appendix with Phase 1 TM)
Section 3.5 Groundwater Orthophosphorus Data Analysis
Section 3.6 Surface Water Total Phosphorus Data Analysis (Summarize and Appendix with Phase 1 TM)
Section 3.7 Surface Water Orthophosphorus Data Analysis
Section 3.8 Prioritization of NPS Phosphorus Sources and Subbasins (Summarize and Appendix with Phase 1 TM)
Section 3.9 NPS Phosphorus Data Gaps (Summarize and Appendix with Phase 1 TM)
Section 3.10 NPS Phosphorus Recommended Studies (Summarize and Appendix with Phase 1 TM)

Note that Chapter 3 primarily consists of the data compilation and analyses completed during Phase 1. Chapters 4 and 5 will be addressed during the advanced analyses being completed during the Phase 1 Supplement and Phase 2, and could include Geographic Information System (GIS)-based analyses, modeling, statistical techniques, or other analytical tools.

Chapter 4 Spokane River Watershed – Groundwater NPS Phosphorus Advanced Analysis

Section 4.1 Groundwater Analytical Methods and Tools for NPS Phosphorus Assessment
Section 4.2 Applicability and Feasibility of Groundwater Techniques for Spokane River Watershed
Section 4.3 Selection of Groundwater Analysis Techniques for Application to Spokane River Watershed
Section 4.4 Application of Selected Groundwater Analysis Techniques
  Section 4.4.X Summary and Results of Analyses

Chapter 5 Spokane River Watershed – Surface Water NPS Phosphorus Advanced Analysis

Section 5.1 Surface Water Analytical Methods and Tools for NPS Phosphorus Assessment
Section 5.2 Applicability and Feasibility of Surface Water Techniques for Spokane River Watershed
Section 5.3 Selection of Surface Water Analysis Techniques for Application to Spokane River Watershed
Section 5.4 Application of Selected Surface Water Analysis Techniques

Section 5.4.X Summary and Results of Analyses

Chapter 6 Subbasin Assessment - NPS Phosphorus

Section 6.1 Lower Spokane River Subbasin
Section 6.1.1 GIS Land Use Analysis
Section 6.1.2 Subbasin Pollution Sources
Section 6.1.3 {Provisional Section – dependent upon selected additional analyses}
Section 6.2 Middle Spokane River Subbasin - NPS Phosphorus
Section 6.2.1 GIS Land Use Analysis
Section 6.2.2 Subbasin Pollution Sources
Section 6.2.3 {Provisional Section – dependent upon selected additional analyses}
Section 6.3 Little Spokane River Subbasin - NPS Phosphorus
Section 6.3.1 GIS Land Use Analysis
Section 6.3.2 Subbasin Pollution Sources
Section 6.3.3 {Provisional Section – dependent upon selected additional analyses}
Section 6.4 Hangman Creek Subbasin - NPS Phosphorus
Section 6.4.1 GIS Land Use Analysis
Section 6.4.2 Subbasin Pollution Sources
Section 6.4.3 {Provisional Section – dependent upon selected additional analyses}
Section 6.5 Upper Spokane River Subbasin - NPS Phosphorus
Section 6.5.1 GIS Land Use Analysis
Section 6.5.2 Subbasin Pollution Sources
Section 6.5.3 {Provisional Section – dependent upon selected additional analyses}
Section 6.6 Coeur d'Alene Lake Subbasin - NPS Phosphorus
Section 6.6.1 GIS Land Use Analysis
Section 6.6.2 Subbasin Pollution Sources
Section 6.6.3 {Provisional Section – dependent upon selected additional analyses}
Section 6.7 Upper Coeur d'Alene River Subbasin - NPS Phosphorus
Section 6.7.1 GIS Land Use Analysis
Section 6.7.2 Subbasin Pollution Sources
Section 6.7.3 {Provisional Section – dependent upon selected additional analyses}
Section 6.8 South Fork Coeur d'Alene River Subbasin - NPS Phosphorus
Section 6.8.1 GIS Land Use Analysis
Section 6.8.2 Subbasin Pollution Sources
Section 6.8.3 {Provisional Section – dependent upon selected additional analyses}
Section 6.9 St. Joe River Subbasin - NPS Phosphorus
Section 6.9.1 GIS Land Use Analysis
Section 6.9.2 Subbasin Pollution Sources
Section 6.9.3 {Provisional Section – dependent upon selected additional analyses}

Chapter 7 NPS Phosphorus Control Measures

Section 7.1 Groundwater Best Management Practices (BMPs) for NPS Phosphorus

Section 7.2 Applicability and Feasibility of Groundwater BMPs for Spokane River Watershed
Section 7.3 Surface Water BMPs for NPS Phosphorus
Section 7.4 Applicability and Feasibility of Surface Water BMPs for Spokane River Watershed

Chapter 8 Watershed Conditions and Supplemental Data

Section 8.1 Visual Inspection of Watershed Conditions
Section 8.2 Groundwater Phosphorus Source Monitoring Data {Content dependent upon selected monitoring}
Section 8.3 Groundwater BMP Evaluation {Content dependent upon selected monitoring}
Section 8.4 Surface Water Phosphorus Source Monitoring Data {Content dependent upon selected monitoring}
Section 8.5 Surface Water BMP Evaluation {Content dependent upon selected monitoring}

Note that Chapter 8 provides actual watershed information to support the preceding chapters. Chapters 9 through 18 combine the results of data analyses, BMP evaluation, and watershed conditions into specific watershed management strategies.}

Chapter 9 Spokane River Watershed – NPS Phosphorus Management Strategy and Actions

Section 9.1 Introduction
Section 9.2 Priorities based on Phosphorus Data Analysis (Summarize and Appendix with Phase 1 TM)
Section 9.3 Regulatory Authorities in Idaho
Section 9.4 Regulatory Authorities in Washington
Section 9.5 Integration Strategy
Section 9.6 Summary of Actions and Schedule

Chapter 10 Lower Spokane River Subbasin - NPS Phosphorus Management Strategy and Actions

Section 10.1 Introduction
Section 10.2 Implementation Strategy, Actions, and Schedule
Section 10.3 Specific Actions by Category
  Section 10.3.X Title {Provisional Sections – dependent upon selected activities}
  Potential SubSection titles include:
    Public Education and Outreach Programs
    Urban/Suburban Stormwater Treatment and Infiltration to Groundwater
    Stormwater Runoff and Discharge to Surface Water
    Septic Sewage Abatement and Leaching to Groundwater
    Septic Sewage Abatement and Discharge to Surface Water
    Agricultural Practices, Stormwater Runoff, and Soil Erosion
    Forestry Practices

Chapter 11 Middle Spokane River Subbasin - NPS Phosphorus Management Strategy and Actions

Section 11.1 Introduction
Section 11.2 Implementation Strategy, Actions, and Schedule

Section 11.3 Specific Actions by Category
Section 11.3.X Title {Provisional Sections – dependent upon selected activities}

Chapter 12 Little Spokane River Subbasin - NPS Phosphorus Management Strategy and Actions

Section 12.1 Introduction
Section 12.2 Implementation Strategy, Actions, and Schedule
Section 12.3 Specific Actions by Category
Section 12.3.X Title {Provisional Sections – dependent upon selected activities}

Chapter 13 Hangman Creek Subbasin - NPS Phosphorus Management Strategy and Actions

Section 13.1 Introduction
Section 13.2 Implementation Strategy, Actions, and Schedule
Section 13.3 Specific Actions by Category
Section 13.3.X Title {Provisional Sections – dependent upon selected activities}

Chapter 14 Upper Spokane River Subbasin - NPS Phosphorus Management Strategy and Actions

Section 14.1 Introduction
Section 14.2 Implementation Strategy, Actions, and Schedule
Section 14.3 Specific Actions by Category
Section 14.3.X Title {Provisional Sections – dependent upon selected activities}

Chapter 15 Coeur d'Alene Lake Subbasin - NPS Phosphorus Management Strategy and Actions

Section 15.1 Introduction
Section 15.2 Implementation Strategy, Actions, and Schedule
Section 15.3 Specific Actions by Category
Section 15.3.X Title {Provisional Sections – dependent upon selected activities}

Chapter 16 Upper Coeur d'Alene River Subbasin - NPS Phosphorus Management Strategy and Actions

Section 16.1 Introduction
Section 16.2 Implementation Strategy, Actions, and Schedule
Section 16.3 Specific Actions by Category
Section 16.3.X Title {Provisional Sections – dependent upon selected activities}

Chapter 17 South Fork Coeur d'Alene River Subbasin - NPS Phosphorus Management Strategy and Actions

Section 17.1 Introduction
Section 17.2 Implementation Strategy, Actions, and Schedule
Section 17.3 Specific Actions by Category
Section 17.3.X Title {Provisional Sections – dependent upon selected activities}

Chapter 18 St. Joe River Subbasin - NPS Phosphorus Management Strategy and Actions

Section 17.1 Introduction
Section 17.2 Implementation Strategy, Actions, and Schedule
Section 17.3 Specific Actions by Category
Section 17.3.X Title {Provisional Sections – dependent upon selected activities}

Chapters 19 through 22 are additional supporting information that typically is part of an Implementation Plan. These sections will be brief in the NPS Reduction Plan to provide the necessary and relevant information concerning the "what" and "where" components of implementation and the NPS Reduction Plan's connectivity to the TMDL process but will not provide the level of detailed information that an implementation plan would.

Chapter 19 Funding Opportunities

Section 19.1 Potential Funding Sources

Chapter 20 Measuring Progress

Section 20.1 Supporting Activities
Section 20.2 Performance Measures and Targets
Section 20.3 Progress Tracking and Monitoring Database
Section 20.4 Flow and Water Quality Monitoring

Chapter 21 Adaptive Management

Chapter 22 Reasonable Assurances

Appendices

Appendix A TMDL Summary, Listings, Load Allocations and Water Bodies
Appendix B Report and Credibility Screening and Database (Phase 1)
Appendix C Phosphorus Data Analyses
Appendix D Data Gaps, Prioritization and Recommended Studies (Phase 1)
Appendix E Groundwater NPS Phosphorus Analysis
Appendix F Surface Water NPS Phosphorus Analysis
Appendix G Subbasin and Source Prioritization
Appendix H Data/Analysis Gaps and Recommended Studies
Appendix H NPS Phosphorus Control Measures
Appendix I Watershed Conditions and Supplemental Data
Appendix J Meeting Minutes
Appendix K NPAC Supplemental Information

Please contact us if you have any questions about the contents of this letter and/or comments on the proposed NPS Reduction Plan outline.

Sincerely,
GeoEngineers, Inc.

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Principal

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