Spokane River Regional Toxics Task Force
January 25, 2023 Meeting

Third Round SPMD Water Column Trend Assessment Sampling

Mission Reach Groundwater Flow Direction Study

3rd Round SPMD Water Column Sampling for 2022-2023 Trend Assessment

3rd Round Water Column Trend Assessment Sampling

Background

- Task Force initiated long-term water column monitoring program in 2020-2021 to support trend assessment
  - Annual average PCB concentration estimated from SPMD deployment for three different seasonal flow regimes
    - Late summer low flow, winter moderate flow, spring high flow
- Sampling for 2022-2023 has only been authorized for two seasonal flow periods, due to Task Force sunset in June, 2023
    - Late summer low flow, winter moderate flow, ~~spring high flow~~
- TTWG asked for preparation of scope for spring high flow sampling

3rd Round Water Column Trend Assessment Sampling

Draft Scope Assumptions

- Maintain concurrent collection of grab sample PCB measurements
  - Started in 2022 sampling
  - Supports parallel trend assessment using grab samples
- Maintain use of existing contractors, including SGS AXYS as PCB lab
  - Necessary to provide consistency with prior SPMD analyses
- Ecology can review QAPP addendum within eight weeks
  - QAPP coordinator on vacation through February 10

3rd Round Water Column Trend Assessment Sampling

Draft Scope Assumptions

- Completion: December, 2023
- Budget: $94,000 ($45K pre-June 30, $49K post-June 30)

Deliverable	Start Date	Due date	Lead staff
QAPP			
Draft QAPP Addendum	February, 2023	March, 2023	David Dilks
Final QAPP	April, 2023	April, 2022	David Dilks
Field and laboratory work			
Spring high flow sampling	April, 2023	May, 2023	Shawn Hinz
Laboratory analyses	May, 2023	July, 2023	Sean Campbell
Laboratory data validation	July, 2023	August, 2023	Renn Lambert
Database			
Database entry and review	August, 2023	October, 2023	David Dilks
Data uploaded to EIM	October, 2023	November, 2023	David Dilks
Final report			
Draft report to Task Force	October, 2023	November, 2023	David Dilks
Final report on web	November, 2023	December, 2023	David Dilks

Item	Cost
Scopes of Work	$6,000
Draft QAPP	$3,000
Final QAPP	$3,000
Field planning and coordination	$2,000
SPMD preparation/rental	$5,000
Field labor	$21,000
Laboratory analyses	$35,000
Data validation	$4,000
SPMD data assessment	$6,000
Reporting	$6,000
Data uploading	$3,000
Total	**$94,000**

3rd Round Water Column Trend Assessment Sampling
Discussion

- Questions?

Mission Reach Groundwater Flow Direction Study

Mission Reach Groundwater Flow Direction Study
Background

- The purpose of the Task Force is to identify and remove sources of PCBs to the Spokane River
- High PCB concentrations have been identified in the Mission Reach
  - No obvious sources exist for this contamination
  - Recent historical assessment has identified areas of known and suspected PCB use in upland areas of the Mission Reach
  - General understanding is that Mission Reach is a net losing segment
- Does a groundwater pathway exist between contaminated sites and the Mission Reach of the river?

Mission Reach Groundwater Flow Direction Study
Purpose

- Develop a conceptual site model of groundwater flow direction near the Mission Reach
  - Leverage elevation data from existing monitoring wells

Mission Reach Groundwater Flow Direction Study Tasks

1. Identify existing monitoring well locations and associated reports
2. Construct inventory and interactive map
   - Feasibility assessment

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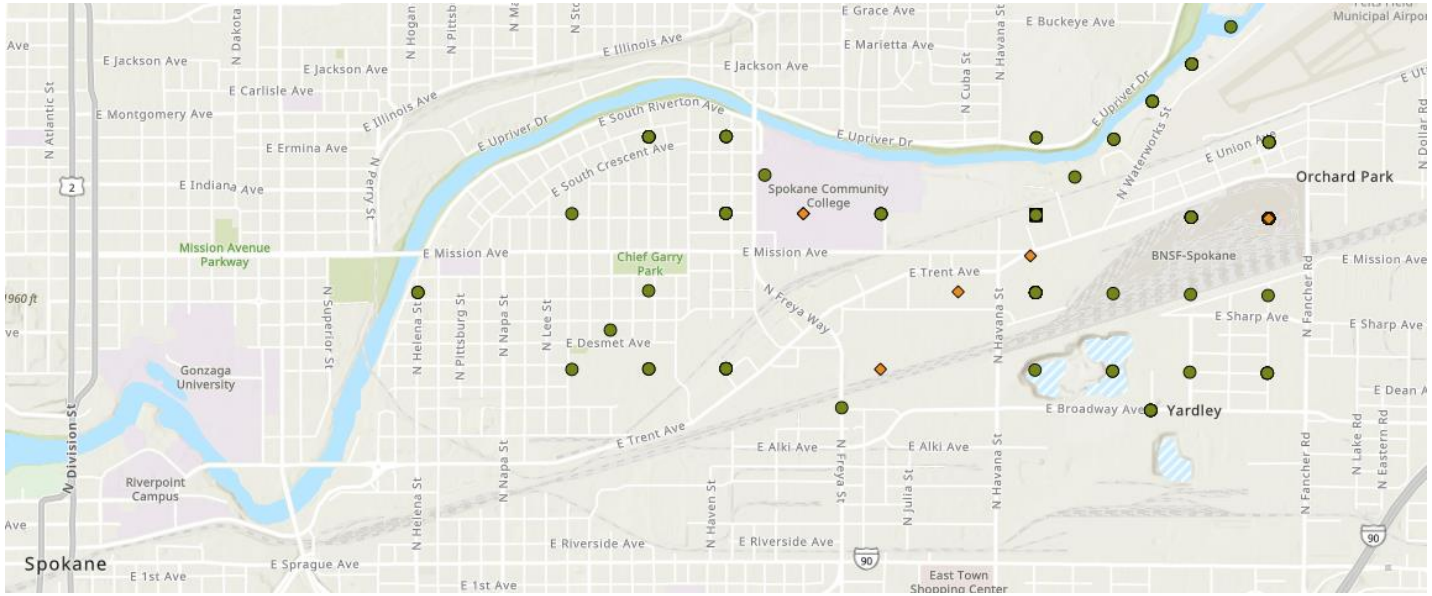
3. Construct conceptual site model (or provide recommendations for filling data gaps)
4. Reporting

Mission Reach Groundwater Flow Direction Study
Task 1: Identify Monitoring Well Locations and Reports

- Conduct a well search using online data sources to determine the existence of groundwater monitoring wells in Mission Reach
- Expand spatial scope from what was done previously near GE site



Mission Reach Groundwater Flow Direction Study
Task 2: Construct Inventory and Interactive Map

- Convert site addresses to surveyed monitoring well location coordinates
- Compile geologic information from boring logs and well construction information
- Construct Excel well database and interactive ArcGIS Online well map

- Perform feasibility assessment
  - Are available data sufficient to develop Conceptual Site Model?

Mission Reach Groundwater Flow Direction Study
Task 3: Construct Conceptual Site Model

- Results from Task 2 will be used to construct a Conceptual Site Model (CSM) that will identify the following:
  - Hydrostratigraphic units and other significant aquifer features within Mission Reach
  - Horizontal groundwater flow directions and gradients
  - Vertical groundwater flow direction and gradients from available clustered well locations
  - Locations of known or suspected upland sources of PCBs near Mission Reach relative to groundwater flow direction
  - Data gaps and areas that may require additional investigations and/or input to confirm initial evaluations

Mission Reach Groundwater Flow Direction Study

Schedule and Budget

- Current approval request is only for Tasks 1 and 2

Task	Schedule	Budget
1. Identify Monitoring Well Locations and Reports	February 15, 2023	$9,300
2. Construct Inventory and Interactive Map	March 15, 2023	$13,800
Total		**$23,100**

- Budget for Tasks 3 and 4 contingent on findings of Feasibility Assessment

Task	No Model	Model of Mission Reach South of River
3. Develop Conceptual Site Model	-	$12,100
4. Reporting	$5,000	$8,800
Total	**$5,000**	**$20,900**

Mission Reach Groundwater Flow Direction Study
Discussion

- Questions?