

**Scopes and Budgets for Priority Projects:  
Mission Reach Sediment/Biofilm Monitoring  
Next Level Historical Review**

**Spokane River Regional Toxics Task Force  
June 22, 2022 Meeting**

# Scopes and Budgets for Priority Projects

- Data synthesis workshop identified several projects for consideration
  - In addition to previously identified activities
- Staged plan for approval
  1. Develop scopes and rough budgets for interim approval by TTWG and Task Force ✓
  2. Develop scopes and final budgets for the projects receiving interim approval
    - Subsequent review by TTWG ✓ and Task Force prior to final approval

# Scopes and Budgets for Priority Projects

- Previously identified projects
  - Synoptic survey from Spokane USGS gage to Nine Mile
  - Long term water column trend analysis
  - Long term fish tissue trend analysis
- New priority projects
  - Expanded synoptic survey
  - Springfield stormwater catch basin sampling
  - Artesian well sampling
  - Next level historical review
  - Additional sampling at Mirabeau
  - Mission Reach sediment/biofilm sampling
  - Expanded object detection survey
  - Deeper dive into Mission Reach groundwater/surface water interaction

# Status of Refined Scopes and Budgets

- Completed
  - Expanded object detection survey
  - Expanded synoptic survey/stormwater catch basin/artesian well sampling
  - Long term water column trend analysis/sampling at Mirabeau
- Presented today for approval
  - Mission Reach sediment/biofilm sampling
  - Next level historical review
- Other
  - Long term fish tissue trend analysis previously approved by Task Force
    - currently preparing QAPP
  - Deeper dive into Mission Reach groundwater/surface water interaction
    - deferred

# Mission Reach Sediment/Biofilm Sampling

- Background/Purpose

- PCBs in Mission Reach bed sediments/biofilm and are of interest because:
  - they can help identify the location where previously unidentified sources of PCBs enter
  - they represent PCB exposure to the base of the benthic food chain and can be informative in terms of describing bioaccumulation of PCBs in fish

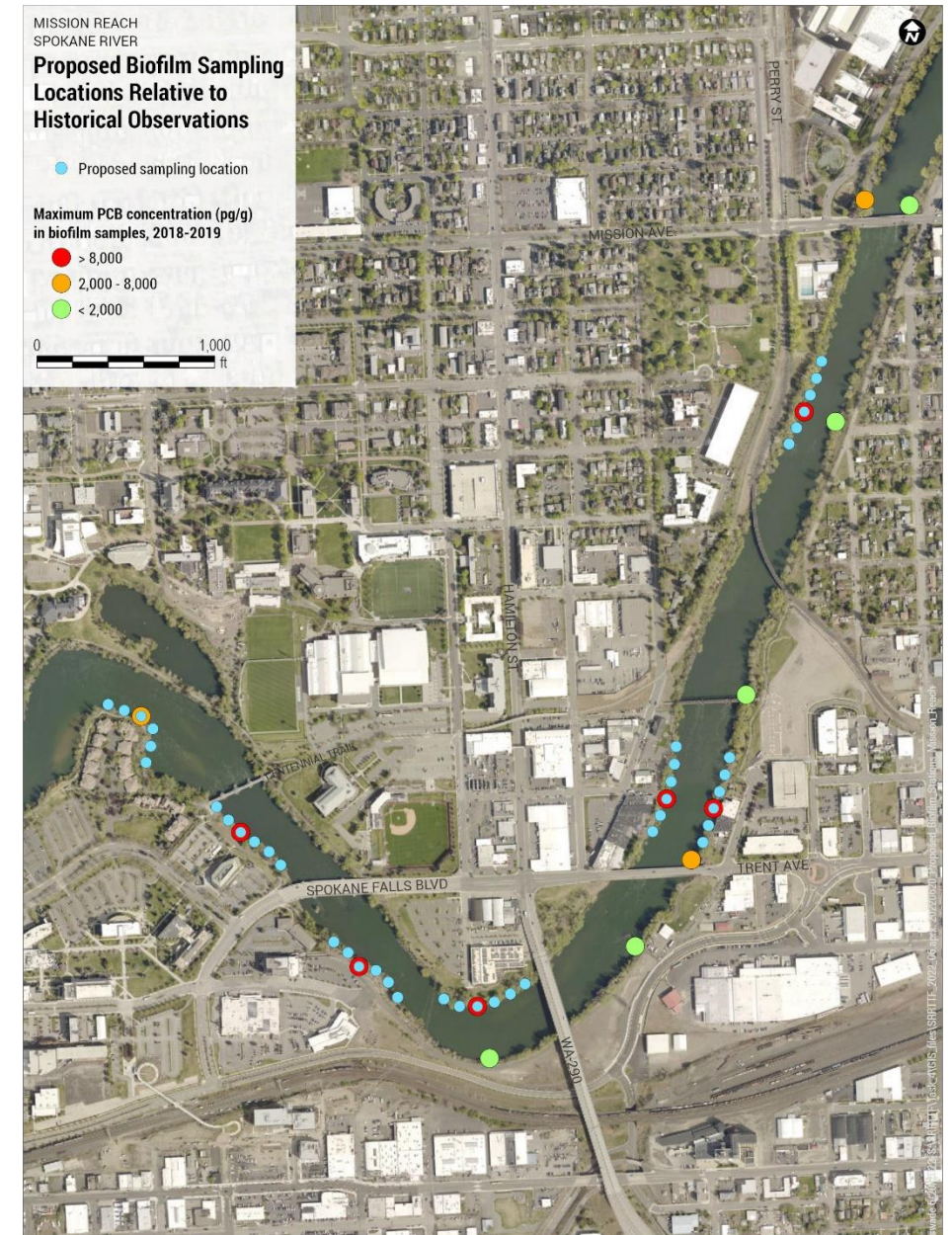
- Scope

- Collect ~50 bed sediment/biofilm PCB samples
  - Targeted high spatial resolution biofilm sampling near areas of historical hot spots
  - Direct vicinity of all metallic objects identified during object detection survey
- Interpret data regarding
  - Location of PCB sources to the Mission Reach
  - Overall benthic characteristics related to bioaccumulation



# Proposed Biofilm Sampling Locations

- Targeted high spatial resolution sampling near areas of historical hot spots
  - Six stations spaced 100 feet apart centered around each of seven locations with highest observed biofilm PCB concentrations





# Proposed Sediment Sampling Locations

- Targeted sampling:
  - Immediately downstream of all metallic objects identified during object detection surveys
  - previous locations of elevated sediment PCB concentrations



# Mission Reach Sediment/Biofilm Sampling

- Schedule

- Completion early winter, 2023

Deliverable	Completion Date
Draft QAPP	June 29, 2022
Final QAPP	July 29, 2022
Samples collected	September 30, 2022
Laboratory results	November 15, 2022
Draft technical report	December 30, 2022
Final technical report	February 21, 2023
Data loaded to Ecology's EIM	March 15, 2023

- Budget

- \$156,000

Item	Budget
Scopes of Work	\$5000
Draft QAPP	\$3000
Final QAPP	\$3000
Field labor and coordination	\$40,000
Laboratory analyses	\$66,000
Data validation and assessment	\$9,000
Reporting	\$12,000
Data uploading	\$8,000
Project management	\$10,000
<b>Total</b>	<b>\$156,000</b>



# Historical Review

- Background/Purpose
  - Majority of PCBs in the river have been traced to legacy contamination
  - Review of historical land uses is a means to identify potential PCB sources
- Desired scope
  - Review Sanborn fire insurance maps from 1950 to 1980 and identify facilities that were potential sources of PCB releases
  - Review relevant historical documents and associated monitoring data
  - Prioritize sites regarding their potential of being an ongoing PCB source

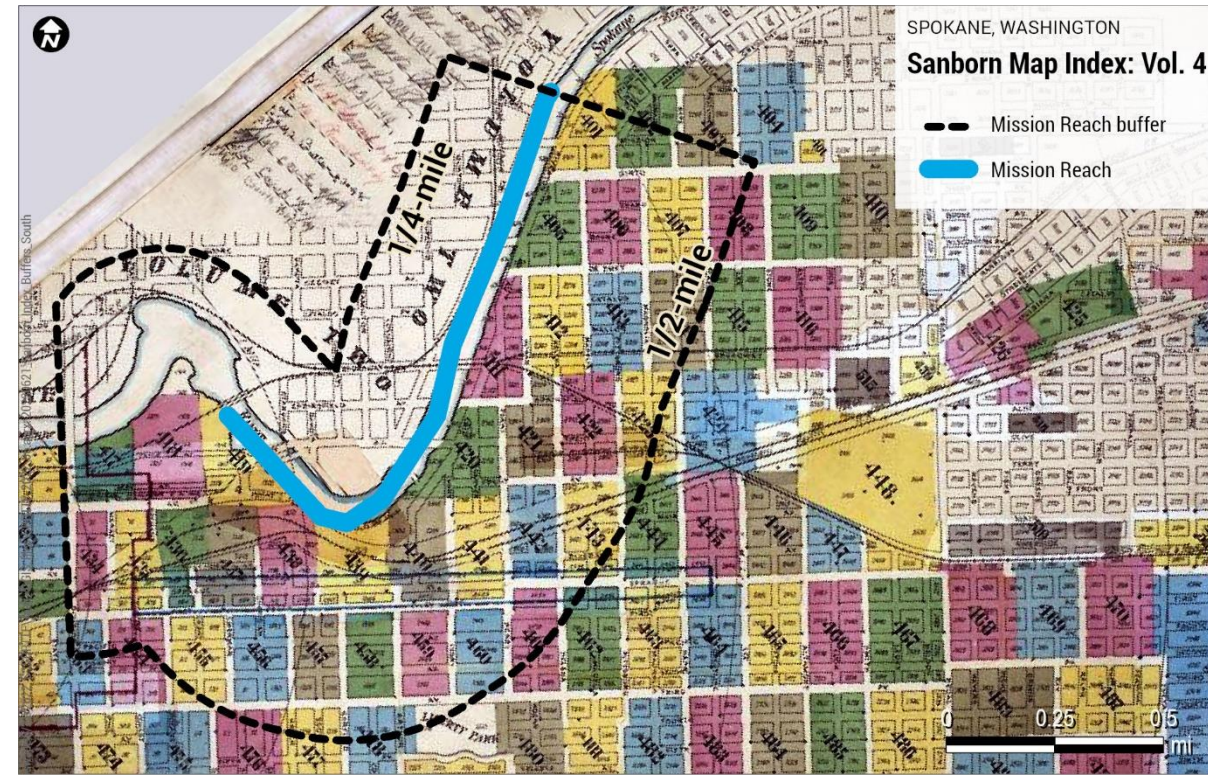
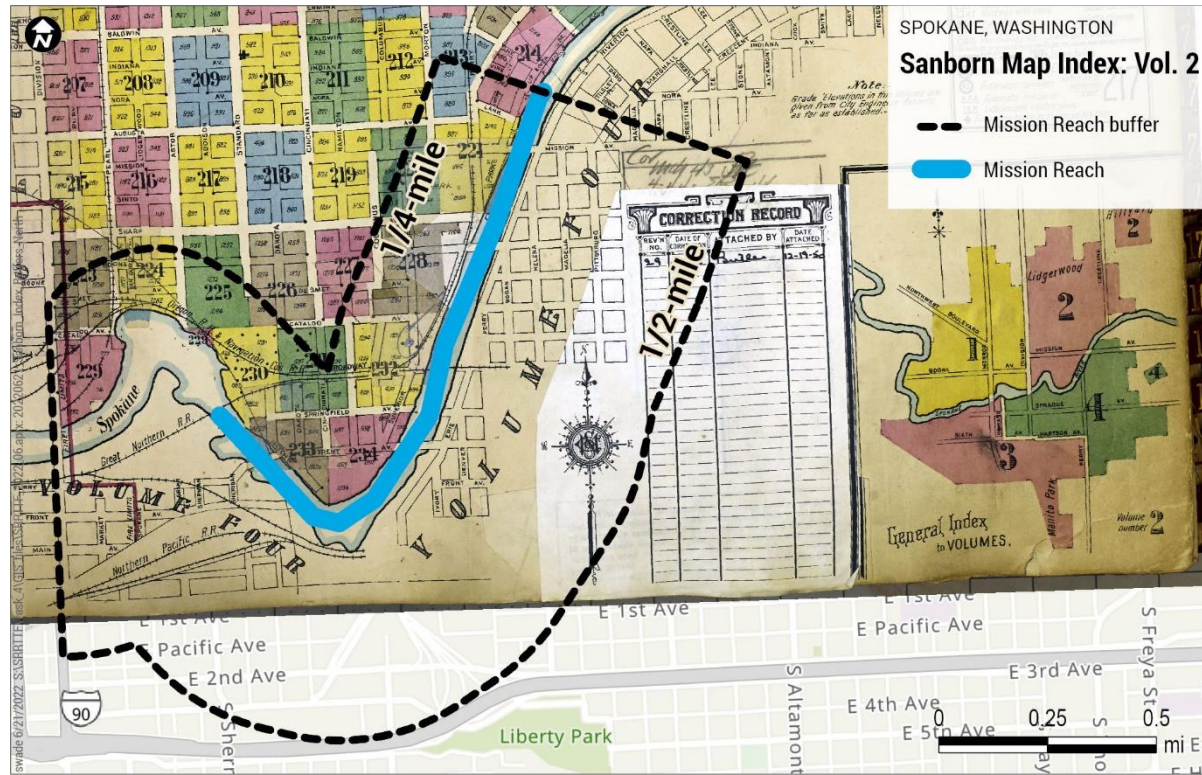
# Number of Maps To Purchase/Review

- Initial request made to Lightbox for all maps within a  $\frac{1}{4}$  mile buffer on either side of Mission Reach
  - Task Force approved purchase of 75 maps
  - Requested estimates of alternate spatial coverages
- We found map Spokane map index and public domain provider to supply many of the maps
  - Now recommending review of all Mission Reach maps within a  $\frac{1}{4}$  mile buffer north and  $\frac{1}{2}$  mile south of the river
  - Recognizes direction of groundwater flow, locations of most industry



# Recommendation on Maps to Purchase and Review

- Review all maps from 1950, 1960, 1970, and 1980
- Purchase maps from 1970 and 1980





# Historical Review Schedule and Budget

- Schedule

- Completion fall, 2022

Deliverable	Completion Date
Technical memorandum documenting Sanborn review	August 26, 2022
Technical memorandum documenting historical report review	August 26, 2022
Technical memorandum prioritizing site and recommending next steps	September 30, 2022

- Budget

- \$35,100

Item	Budget
Develop Scopes of Work	\$4000
Purchase of additional Sanborn maps	<del>\$5000</del>
Sanborn map review	<del>\$14,100</del> <del>\$31,000</del>
Review of identified reports	\$5000
Review of relevant groundwater monitoring data	\$5000
Assessment/prioritization of identified sites	\$4000
Reporting	\$3000
<b>Total</b>	<del>\$35,100</del> <del>\$57,000</del>