

Suggestions for SRRTTF Monitoring

SRSP “Strawman” Proposal for TTWG Consideration at September 6, 2017 Meeting

Goal

- Demonstrate measurable progress

Objectives

- Satisfy SRRTTF Comp Plan requirements
- Demonstrate in-river trends/central tendency over time
- Understand changes from point sources and stormwater/CSOs
- Understand relationship between water column, sediment and fish tissue levels
- Ensure monitoring plan is cost effective and achievable with anticipated resources and budget

Monitoring Elements

1. Monitoring Relating to Comprehensive Plan Element 6.1 Implementation Effectiveness Assessment Over Five Year Evaluation Period

A. Monitor PCB Loadings from Primary Delivery Mechanisms (Comp Plan element 6.1 Implementation Effectiveness Assessment, first bullet)

- i. Loading types to be monitored
 - Point sources – use required Method 1668 permit monitoring to generate loading levels data. No new data needed.
 - Stormwater – use City of Spokane in-house data collection to generate loading levels. No new data needed.
 - Groundwater – TCP Sites – rely on river sampling data or use existing upland groundwater monitoring data as available (Kaiser and other site data) to generate appropriate data. Consider LimnoTech assessments of other groundwater sources to clarify what groundwater data to use and determine actual approach. No new data needed, unless use river sampling approach.
- ii. Track changes in loadings over evaluation period
 - Point sources – Annually
 - Stormwater – Annually

- Groundwater – Annually in coordination with other sampling events if river sampling performed or semi-annually (April/October) if groundwater approach used.

B. Monitor Spokane River PCB Concentrations, and Changes in Concentrations (Comp Plan element 6.1, second bullet).

- i. Track changes in concentrations over evaluation period at river locations from Lake Coeur d’Alene to Nine Mile and Hangman Creek. New data needed.
 - Locations – Lake Coeur d’Alene Outlet, Post Falls Dam, Barker Road, Trent, Greene Street, Spokane, Nine Mile, and Hangman Creek (gaging station locations).
 - All locations via synoptic sampling events during the four river flow regimes during the same calendar year once during the five-year evaluation period.
 - Potential coordination with Idaho permittees sampling.
 - Requires 32 samples over 5-year evaluation period (8 locations x 4 times per year x 1 year).
- ii. Long-term monitoring at Lake Coeur d’Alene Outlet and Nine Mile (gaging station locations). New data needed.
 - Sampling twice annually:
 - August (dry weather)
 - November (wet weather)
 - *Note: This sampling can be coordinated with the 1.B.i track changes sampling events above to eliminate redundancy.*
 - Requires 16 samples over 5-year evaluation period (2 locations x 2 times per year x 4 years since one year is covered through the 1.B.i track changes sampling event).
- iii. Fish tissue monitoring
 - Sample three species of fish tissue from Mission Park reach once over 5-year evaluation period. Consider WDFW recommendations and age of fish to correlate with available water quality data. New data needed.
 - *Note: This sampling can be coordinated with the data gap filling 2.B element below to eliminate redundancy.*
 - Requires 3 fish tissue samples over 5-year evaluation period.
- iv. Evaluate central tendency at Barker Road or Mirabeau, Trent, and Nine Mile (gaging station locations). Begin sampling before treatment plant upgrades are on-line to establish a baseline. New data needed.
 - All locations via synoptic sampling during the four river flow regimes during the same calendar year every other year.

- *Note: This sampling can be coordinated with the 1.B.i track changes sampling and 1.B.ii long-term monitoring events above to eliminate redundancy.*
- Requires 11 samples over 5-year evaluation period (3 locations x 4 times per year x 1 year since second year of sampling is covered through the 1.B.i track changes sampling event if Barker Road location is used, and one Nine Mile sample is covered under the 1.B.ii long-term monitoring sampling event).
- Compilation of data
 - Consolidate data and generate reports relative to appropriately tracking changes based on information generated.

2. Data Gap Filling Studies

A. Groundwater Source Identification Projects (Comp Plan element 5.14 Category C: Identification of Sites of Concern for Contaminated Groundwater)

- i. Analyze Barker Road to Trent reach
 - Utilize existing data on groundwater to develop path forward for any data analysis and additional source identification data collection. No new data needed.
- ii. Analyze Trent to Greene Street reach
 - Utilize existing data on groundwater to develop path forward for any data analysis and additional source identification data collection. No new data needed.
- *Note: Consider more samples if LimnoTech evaluates they are needed.*

B. Study to Understand Relationship Between Fish Tissue / Water Column / Sediment (Comp Plan element 6.3 Studies to Address Data Gaps)

- i. Study Mission Park reach over three-year period. New data needed.
 - Water column sampling at Greene Street annually during four river flow regimes each year for three years.
 - *Note: This sampling can be coordinated with the track changes in concentrations sampling in 1.B.i to eliminate redundancy.*
 - Sediment sampling survey once during the three-year period.
 - Sample fish tissue (three species), in the three years of age range, once at end of three-year period.
 - *Note: Get WDFW and LimnoTech input to clarify approach.*
 - Requires 8 water column samples and 1 sediment sample over 5-year evaluation period (one year of water column samples covered through 1.B.i

track changes sampling event and fish tissue sampling is covered through 1.B.iii sampling event).

Note: Total samples required over 5-year evaluation period:

- 67 water column samples (13.4 samples per year)
- 3 fish tissue samples
- 1 sediment sample