

Groundwater Survey Proposal

Scope: Collaborative survey of groundwater wells in Spokane Aquifer funded by Ecology using selected Spokane County resource wells. [Note: Pending budget approval by Ecology. Scope subject to change based on budget and coordination with other Ecology studies.]

Objectives:

- 1) Identify background concentrations at State Line and upgradient of Kaiser location.
- 2) Evaluate groundwater concentrations in aquifer near gaining reaches.
- 3) Correlate with synoptic sampling studies and mass balance determinations.
- 4) Confirmation check for potential groundwater sources to river.

Approach:

- 1) Sample select wells (5) and springs (3) between State line and Little Spokane River.
- 2) Collect 3 sets of data representative of flow regimes (summer/fall low flow, winter mid flow, spring high flow).
- 3) Coordinate summer low flow sample collection with the Task Force synoptic sampling event in August.

Proposed sites:

Type	Number	Location	Justification
Well	5411R03	Sullivan Park	Indication of upstream impacts compared to Kaiser.
Well	5310Q01	SCC	Measures general water quality through valley. Possibly the GE site impacts this well. Also near an old industrial area, known to have highest number of PCB sources and gaining reach. Aquifer contribution is 200 CFS in this area.
Well	5311J07	Knipwrath Cellars	City of Spokane Well, a nested set of wells capable of measuring shallow/middle/deep portions of aquifer. Indication of general aquifer quality upgradient and discharging to river. Also near Near Park Water Yard, a potentially contaminated area.
Well	GEMW22 (TCP)	National Guard Property	Downgradient of a number of TCP sites: City Parcel, Alaska Steel, GE. More sensitive analytical method needed.
Well	6631M04	Consolidated property on Idaho Road	Well location captures main aquifer flow coming from Idaho.
Spring	5212F01S	Three Springs near TJ Meenach Bridge	Captures groundwater inputs into river from west fork of aquifer.
Spring	6306P01S	Waikiki Springs	Captures groundwater inputs into river from west fork of aquifer.
Spring	6211J01S	Griffiths Springs	Feeds hatchery. Coordinate with EAP

Other notes: 1) Sullivan park spring in river near Kaiser, can get in summer but logistically difficult to sample. 2) Coordinate with EAP studies (LSR Listing verification and hatchery study). 3) Upload EIM data for seep and sediment samples collected in 2013.