

Starkweather Creek Phosphorus Treatment Project – Amendment No. 2
Additional Water Quality Analytics
July 8, 2015

Reason for Amendment Request

One component of the Starkweather Creek Phosphorus Treatment Project is conducting a series of water quality sampling from the Creek. The samples are then treated with coagulants at the Wisconsin State Laboratory of Hygiene (WSLH) and analyzed to determine the level of phosphorus control that may be achieved. Brown and Caldwell holds the project contract with the City of Madison and the WSLH is subcontracted to Brown and Caldwell.

In the original project scope, up to six high flow (6) sampling events were identified. For each sampling event, two coagulants would be tested along with one untreated water sample. During the actual sampling, it was determined that three coagulants would be tested and three raw (untreated) samples would be analyzed. This change resulted in an increase in the total number of analyses performed by the WSLH. The additional sample analyses are critical to provide sound background information guiding stormwater treatment decisions on this project.

The additional analyses result in additional cost to the project. To reduce the cost to the City, the WSLH agreed to reduce the analytical charges by 16% (resulting in a savings of \$2,615.00.) In addition Brown and Caldwell agreed to absorb the costs for the additional staff assistance provided at the WSLH during the sample processing effort (resulting in a savings of \$3,900.00.)

Amendment Request

The requested budget adjustment to this contract to complete all six rounds of sampling is \$9,004.55. This budget amendment request is to solely cover the analytical costs (with the 16% reduction) from WSLH. The cost for Brown and Caldwell additional time is not being requested.

Starkweather Creek Project - Recommended Sample #'s for Total Task

Total Cost with 3 Coagulants/2 Al Concentrations Tested and Raw Sample Compositied for Final 2 Rounds					
Parameter	Unit Price	# of Raw Samples	# of Coag. Samples Rounds 1 - 4: (3 coags / 3 Al conc.) Rounds 5 & 6: (3 coags/ 2 Al conc.)	Total # of Analyses	Total Price
Al, Undigested Diss.	\$ 13.00	28	48	76	\$ 988.00
Metals Digestion	\$ 23.24	28	48	76	\$ 1,766.24
Al Total Recoverable	\$ 13.00	28	48	76	\$ 988.00
pH, Alkalinity, Cond.	\$ 22.00	28	48	76	\$ 1,672.00
pH only*	\$ 13.00	42	144	186	\$ 2,418.00
Dissolved Phosphorus	\$ 23.60	28	48	76	\$ 1,793.60
Total Phosphorus	\$ 23.60	28	48	76	\$ 1,793.60
Total Suspended Solids	\$ 18.80	28	48	76	\$ 1,428.80
Sulfate, Total	\$ 26.00	28	48	76	\$ 1,976.00
Chloride	\$ 20.00	28	48	76	\$ 1,520.00
					\$ 16,344.24
				Analytical with 16% Discount:	\$ 13,729.16
				Wis State Lab of Hygiene Labor Costs:	\$ 1,102.00
				TOTAL WSLH COSTS:	\$ 14,831.16
				Current WSLH subcontract budget:	\$ 5,826.61
				Deficit / Amendment Request:	\$ (9,004.55)