

## **Scope of Work City of Sammamish Lake Support Services 2019-2020**

The King County Water and Land Resources Division will provide services through the Lake Stewardship Program (KC-LSP, "The Program") to the City of Sammamish ("City") for monitoring water quality and quantity for Beaver Lake Basins 1 and 2 and Pine Lake on both an annual and seasonal basis. Services will be provided pursuant to the Interlocal Agreement, executed on 9/26/2007. This Scope of Work covers services conducted in 2019 and 2020.

Monitoring services include sample pickup and delivery to the King County Environmental Lab for analysis, compilation and quality control of data collected by volunteers, reporting the data back to the City and volunteers online or by other preferred means, and providing technical assistance to the City and the public regarding questions about water quality, best management practices, and ecosystem function.

### **Annual monitoring program:**

KC-LSP will train designated volunteers in the correct methods for measuring daily precipitation and lake water levels, weekly measurements of surface water temperature and Secchi transparency, and observations on particles in the water, goose abundance, and gathering information on lake use. The Program will provide and maintain the proper equipment and will consult or supervise on proper installation and use. Volunteers will provide a boat and safety equipment necessary for getting to the specified sampling site on the lake.

KC-LSP will also provide blank field sheets or Excel spreadsheet templates for data reporting on a quarterly basis and will accept either completed field sheets or Excel files in return.

### **Seasonal monitoring program:**

Volunteers will collect water samples on a biweekly basis from May through October for a total of 12 sampling events per season. KC-LSP will train volunteers in the correct sample collection and storage methods, measurements of surface water temperature and Secchi transparency, and making observations on particles in the water, goose abundance, and gathering information on lake use. The Program will provide proper sampling equipment and will be responsible for repair or replacement if necessary. The Program will also provide all sample bottles, properly labeled, and will pick up filled bottles at a designated site to deliver to the King County Environmental Lab for analysis.

During ten of the sampling events, water will be collected at one meter beneath the surface. The other two sampling events will collect depth profiles, during which water is collected from one meter beneath the surface, as well as near the middle and the bottom of the water column. Parameters analyzed during all sampling events are total phosphorus, total nitrogen, and chlorophyll-*a*. Additional parameters measured during depth profile sampling events are soluble reactive phosphorus, ammonia, nitrate/nitrite, alkalinity, and UV254 (water color).

Volunteers will also search for scum accumulations of cyanobacteria during the routine monitoring and, if found, will take a sample to be submitted to King County Environmental Labs for toxin analysis through the Washington State Toxic Algae program, with location identified. King County will provide technical assistance as needed for this effort.

**Database management, data analysis, quality assurance, and reporting:**

The Program will:

- enter all data received from monitors and the King County Environmental Lab into a database available online at the King County Small Lakes Data webpage;
- analyze all data for consistency and general water quality conditions;
- pursue explanations for anomalies and look for trends or indicators of change in the parameters over time;
- if requested, make management suggestions to the City or volunteers based upon the data and findings.

As part of the Program's annual update, a compilation of Pine and Beaver (2) Lake(s) data will be provided to City staff and volunteers. The Program will also provide Excel files of the data on request.

**Additional technical assistance:**

At the specific request of City staff, the Program can provide the following additional services outside the scope of seasonal and annual water quality monitoring activities:

- technical assistance to City staff on lake monitoring issues, such as collecting and analyzing additional samples and preparing technical memos
- special educational activities for City staff or residents on the nature and management of lake ecosystems

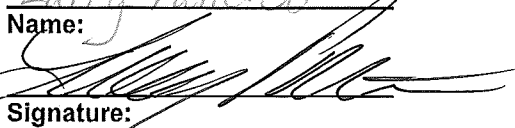
Additional outreach or monitoring assistance outside the scope of the Lake Stewardship Program will be billable by the hour and for materials or equipment required. Prior to providing services, KC-LSP and the City will agree in writing (can be via email) on a scope of work and cost ceiling for additional services provided. Billing for any services provided will be included in annual invoices to the City.

**Budget 2019-2020**

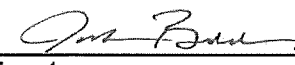
Samamish- Pine and Beaver (2) Lakes	2019	2020
Seasonal WQ monitoring	\$29,505	\$30,975
Annual Monitoring ( Pine Lake)	\$625	\$625
Flat fee subtotal	\$30,130	\$31,600
Additional assistance	\$1,000	\$1,000
Total contract amount	\$31,130	\$32,600

Costs include staff salaries, lab costs, indirect charges, and equipment

**Authorized by City of Sammamish:**

Larry Patterson  
 Name:  
  
 Signature:  
3/20/2019  
 Date:

**Authorized by King County:**

Josh Baldi, Division Director  
 Name:  
  
 Signature:  
2-1-19  
 Date: