

## Open Solicitation-2022 Spring Offering Mid Columbia (Region 6)

**Application Number:** 222-6028-22250

**Project Type:** Technical Assistance

**Project Name:** Mill Creek Baseflow Assessment  
and Springs Inventory

**Applicant:** Walla Walla Basin Watershed  
Foundation

**Region:** Mid Columbia

**County:** Umatilla

**OWEB Request:** \$17,855

**Total Cost:** \$96,349

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**Application Description** The Walla Walla Basin Watershed Council (WWBWC), City of Walla Walla, Confederated Tribes of the Umatilla Indian Reservation (CTUIR), and the Walla Walla Ranger District on the Umatilla National Forest seek funds to locate, map, and describe the surface flow paths and groundwater resources that provide summertime base flows in Mill Creek.

Mill Creek is utilized by ESA-listed Mid-Columbia Steelhead, bull trout, and culturally significant spring Chinook salmon. The upper watershed provides excellent aquatic habitat, but the area is vulnerable to catastrophic fires and other climate-related impacts. Downstream conditions in Mill Creek are far less suitable, with well-documented impairments including seasonal low flow and high water temperature.

Climate models predict changing precipitation and infiltration patterns in the Blue Mountains will reduce water storage and consequently reduce spring production. Mill Creek is a groundwater-dependent system with summer base flows supplied, in large part, by numerous springs emerging from basalt aquifers in the Blue Mountains. The location and status of the watershed's groundwater resources are not well documented. Baseline data describing the current conditions of groundwater resources in the Mill Creek Municipal Watershed are needed to document and understand climate-related impacts on water supplies, protect existing high quality habitat, and guide efforts to reduce the impact of predicted climate changes on native fish.

### Review Team Evaluation

#### Strengths

- The project addresses a baseflow data gap in a unique, cold water refugia utilized by multiple ESA-listed fish species. This data will be important for understanding climate related impacts on water supply and stream habitat and will guide future restoration actions to sustain this critical source of habitat and flow.
- Any information gathered will add to the Walla Walla 2050 Bi-State Water Planning effort.
- Better understanding of the hydrology and spring systems in Mill Creek is needed to inform future management efforts, including fire resiliency and fuel treatments on public land.

- Timing for the proposed baseflow assessment is critical with the recent catastrophic weather events such as sustained drought and multiple 100-year floods.
- The project team has relevant experience collecting flow data and has successfully produced useful monitoring results on the upper reaches of the South and North Forks of the Walla Walla River.
- Appropriate partners will be engaged to provide necessary public land access and valued technical expertise.

### **Concerns**

- The application does not elucidate next steps once the data is analyzed.

### **Concluding Analysis**

The project will provide valuable baseline data for headwater spring sources, such as flow and water temperatures, that create Mill Creek. This data will be used to model and predict drought and altered precipitation regimes resulting from climate change. The results will be valuable in the development of future restoration plans that increase habitat resiliency for bull trout, spring chinook salmon, and summer steelhead in this critical headwater basin.

### **Review Team Recommendation to Staff**

Fund

### **Review Team Priority**

5 of 5

### **Review Team Recommended Amount**

\$17,855

### **Review Team Conditions**

n/a

### **Staff Recommendation**

#### **Staff Follow-Up to Review Team**

n/a

### **Staff Recommendation**

Fund

### **Staff Recommended Amount**

\$17,855

**Staff Conditions**

n/a