



**CITY OF KIRKLAND**  
**Department of Public Works**  
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**www.kirklandwa.gov**

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## **MEMORANDUM**

**To:** Kurt Triplett, City Manager

**From:** Rod Steitzer, P.E., Capital Projects Manager  
Julie Underwood, Interim Public Works Director

**Date:** October 8, 2020

**Subject:** CEDAR CREEK CULVERT REPLACEMENT— UPDATE AND BUDGET ADJUSTMENT

### **RECOMMENDATION:**

Staff recommends that the City Council:

- Receive an update on the Cedar Creek Culvert Replacement Project (Project); and
- Authorize the fiscal note transferring \$220,000 from Surface Water Reserves to this Project and adjusting the budget.

By taking action on this memo and fiscal note during approval of the consent calendar, City Council is authorizing the transfer and increasing the funding for the Project.

### **BACKGROUND DISCUSSION:**

This Project is located on 100<sup>th</sup> Avenue NE, just south of Simonds Road NE (see Attachment A, Vicinity Map). The Project, which is identified in the *Surface Water Master Plan*, called for the replacement of an aged 36-inch box culvert crossing, removal of a non-functioning upstream flow control structure, and removal of a downstream fish barrier east of 100<sup>th</sup> Avenue NE.

To date, the Project has installed a new 8-foot high, 14-foot wide, 120-foot long culvert, removed fish pass barriers, replaced an adjacent in-stream detention facility, opened 5,200 feet of upstream aquatic habitat for Cutthroat Trout, Coho, Sockeye, and Kokanee Salmon, and restored the 100<sup>th</sup> Avenue NE roadway surface to accommodate future roadway improvements. Improvements will result in less stream bank erosion, degradation of aquatic habitat, reduce risk of downstream flooding, and improved maintenance access and reduced maintenance costs.

The Project has maintained the anticipated fast-paced schedule and met requirements for in-water “fish window” work as well as reopening the roadway after full closure of 100<sup>th</sup> Avenue NE. The following is a brief summary of project schedule elements. Highlights of the Project schedule include advertisement in March 2020, award of the construction contract On April 21, beginning material procurement on April 22, and starting construction work on June 17. The

100<sup>th</sup> Avenue NE road closure and culvert installation begin on July 22 and work was completed and the roadway reopened by August 13; well within the July 15 – September 30 fish window.

The Project encountered several significant setbacks exceeding the current contingency budget including:

- An increase in quantity to install the retaining walls. The Project design plans accommodate the future 100<sup>th</sup> Avenue NE roadway project including location, height, and loading of the walls; however, the quantities used at the time of bidding reflected a wall size only needed for the culvert installation. This quantity resulted in a \$130,000 increase. However, the 100<sup>th</sup> Avenue NE project will no longer need to construct the walls, decreasing those costs (see Figure 1).
- An increase in quantity due to unsuitable soil conditions. Soils within and adjacent to the creek bed were unsuitable to support the culvert and roadway. The unsuitable soils were hauled off the site and appropriate material was brought in to fill the excavation. This quantity increase was \$156,000 (see Figure 2).
- A differing site condition that required the support of 12 fiber conduit ducts. A \$75,000 change order was issued to cover the contractor's cost of the site condition work. However, staff is working with the design consultant, Frontier Communications and City Attorney's Office for cost recovery. An update for this will be provided when construction contract work is accepted (see Figure 2).



Figure 1: Wall Height  
Looking west at 100<sup>th</sup> Ave NE

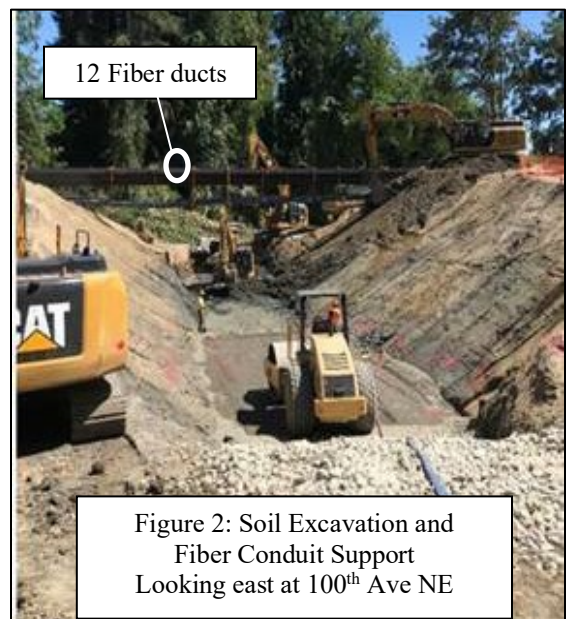
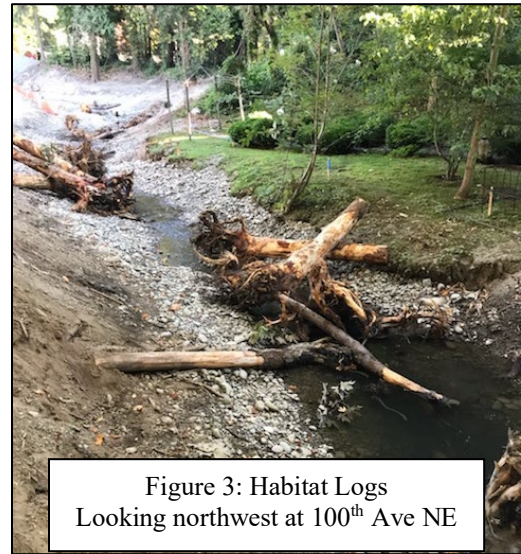


Figure 2: Soil Excavation and  
Fiber Conduit Support  
Looking east at 100<sup>th</sup> Ave NE

- A \$103,000 change order was issued to increase the number of in-stream habitat logs from 49 to 164 (115 log increase). The change was a permit condition initiated by the Tribes to improve fish habit. The permit condition was received after the Project bid date, which was set to meet fish window.

Fortunately, the construction management team worked with ICI to identify, and implement, opportunities for savings. Those efforts resulted in savings of \$85,500.



### Remaining Work

The Project continues to progress along the original schedule with several work elements planned to be completed this year. Those elements include; installing 530 trees and 3,758 shrubs within the nearly 1.5-acre project site, installing concrete traffic barriers along the top of the walls, and installing chain link fencing at the top of the walls.

### Funding

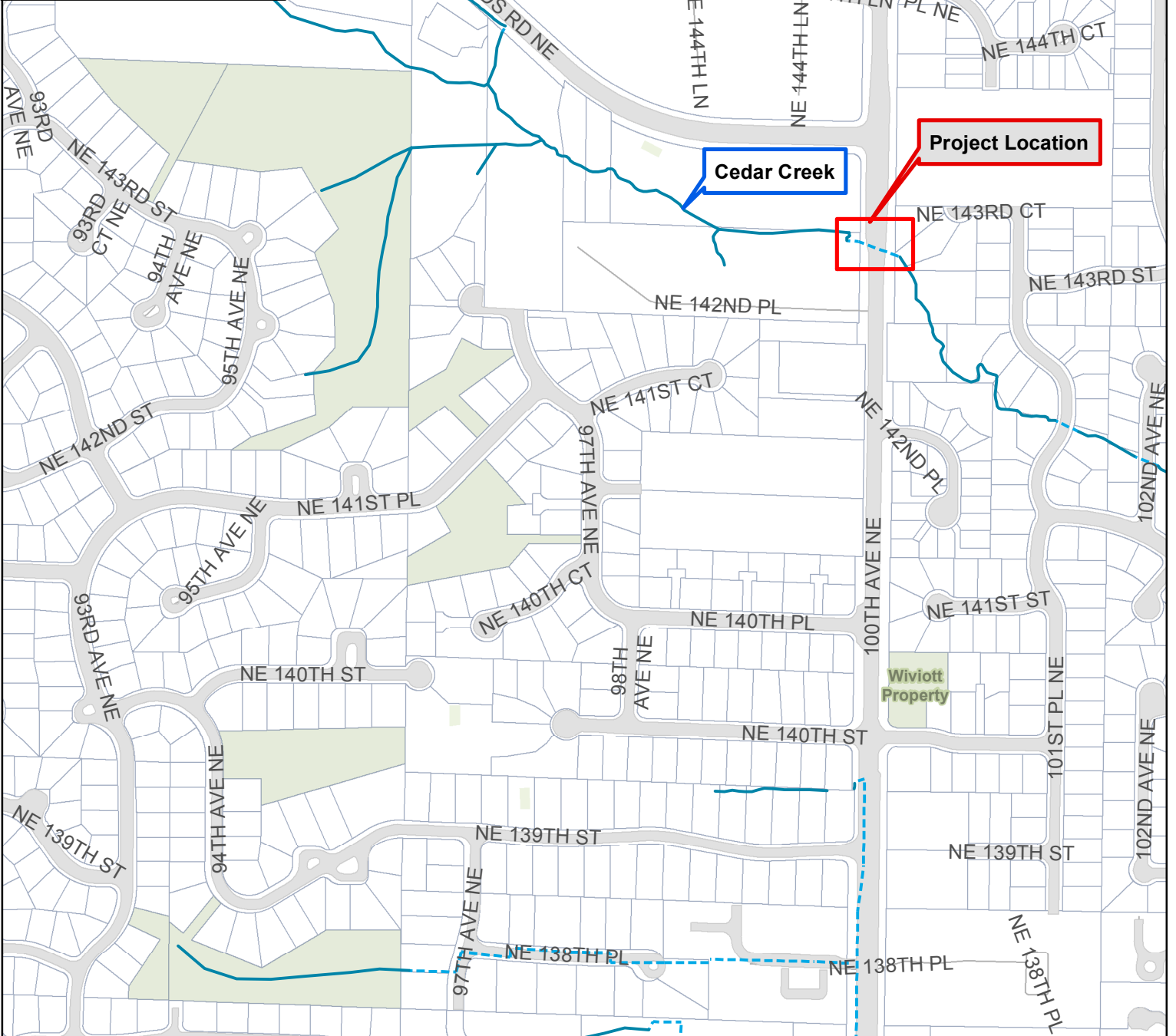
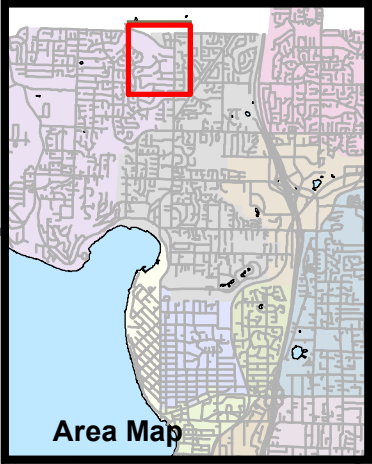
Although the Project has achieved the overall goals for the project, the site setbacks have impacted the budget. Staff is recommending authorization of additional budget authority to cover projected expenses and have prepared a fiscal note for consideration (see Attached Fiscal Note). A summary of funding, and to-date and projected expenses, is shown in Table 1 below with the overall Project budget shown in the Project Budget Report (see Attachment B, Project Budget Report). The Project is funded entirely from local Surface Water Funds.

Table 1: Project Funding and Expenses (SDC 124)

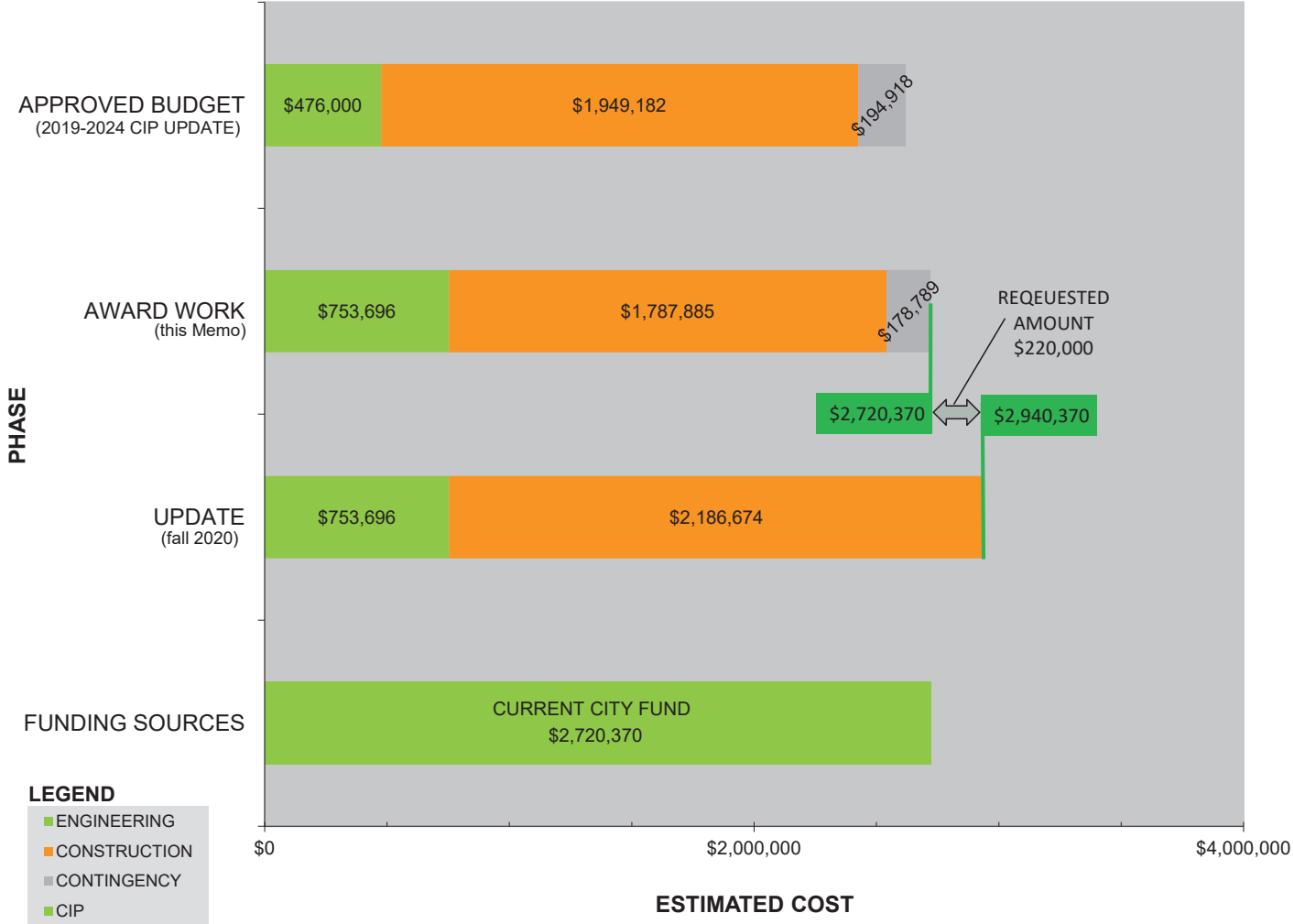
Item	Amount
Funding	\$ 2,720,370.00
Expenses at Award	\$ 2,720,370.00
Additional Retaining Wall Quantity	\$ 130,000.00
Additional Habitat Logs	\$ 103,000.00
Differing Condition Unsuitable Soils	\$ 156,000.00
Differing Condition Fiber Conduits	\$ 75,000.00
Construction Savings	\$ (85,500.00)
Project Contingency (10%)	\$ (178,789.00)
Subtotal	\$ 2,920,081.00
difference	\$ 199,711.00
Additional contingency for remaining work	\$ 20,289.00
requested budget authority	\$ 220,000.00

Weather permitting, staff anticipates the Project will be completed in November.

Attachment A: Vicinity Map  
Attachment B: Project Budget Report  
Attachment C: Fiscal



### Project Budget Report Cedar Creek Culvert Replacement Project (SDC 1240000)



**FISCAL NOTE**

CITY OF KIRKLAND

Source of Request							
Julie Underwood, Interim Director of Public Works							
Description of Request							
One-time request to transfer Surface Water Capital Reserves of \$220,000 to the Cedar Creek Fish Passage/Culvert Replacement Project (SDC1240000).							
Legality/City Policy Basis							
Fiscal Impact							
<b>A transfer of \$220,000 from the Surface Water Capital reserve to the Cedar Creek Fish Passage/Culvert Replacement Project (SDC1240000).</b> The available Surface Water Capital Reserve balance is sufficient to fully fund this request.							
Recommended Funding Source(s)							
<i>Reserve</i>	Description	2020 Est End Balance	Prior Auth. 2019-20 Uses	Prior Auth. 2019-20 Additions	Amount This Request	Revised 2020 End Balance	2020 Target
	Surface Wtr Constr. Reserve	2,307,965	(2,901,451)	1,632,978	(220,000)	819,492	N/A
	Finance Processing notes: Surface Water Construction Reserve - SDR1111001 - 42325931*599014 - Current balance 10.8.20 = \$1,039,492.						
<i>Revenue/Exp Savings</i>							
<i>Other Source</i>							
Other Information							

Prepared By	Kyle Butler, Financial Planning Supervisor	Date	October 8, 2020
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