INFORMATIONAL MEMORANDUM

TO: **Transportation and Infrastructure Committee**
FROM: **Hari Ponnekanti, Public Works Director**
BY: **Joshua Hopkins, Surface Water Project Manager**
CC: **Mayor Thomas McLeod**
DATE: **May 7, 2024**
SUBJECT: **Gilliam Creek Fish Barrier Removal and Habitat Enhancement**
Project No. 99830105, Contract No. 23-191
Amendment No. 2 Additional Design and Engineering Services

ISSUE
Approve amendment No. 2 to Contract No. 23-191 with Otak for additional design and engineering services.

BACKGROUND
The Gilliam Creek Fish Barrier Removal and Habitat Enhancement project was established as a City CIP project in 2019, it is a priority project with Water Resource Inventory (WRIA) 9 and the Salmon Recovery Fund Board. The goals of the project are to restore fish passage between Gilliam Creek and the Green River, enhance habitat, and maintain or improve flood protection and maintenance and operation of the tide gate system.

ANALYSIS
This contract amendment will include flood gate system assessment, preliminary flood study, habitat enhancement design development, and design and permitting services to stabilize erosion at the culvert inlet incurred this past winter.

FISCAL IMPACT
Otak has provided a cost estimate not to exceed $398,200.00 to perform additional engineering services. Total funding for contract 22-068/23-191 is $1,350,000.00.

	Consultant	Budget
Otak Contract 22-068 (original)	$330,622.00	
Otak Contract 23-191*	($39,500.00)	
Amendment No. 2	$398,200.00	
Grants		$1,350,000.00
Total:	$728,822.00	$1,350,000.00

* = Contract amount is the balance remaining in expired contract 22-068. Amendment No. 1 was a no cost time extension.

RECOMMENDATION
Council is being asked to approve Amendment No. 2 to Contract 23-191 with Otak for additional design and engineering services in the amount of $398,200 and to consider this item on the Consent Agenda at the June 3, 2024, Regular Council Meeting.

Attachments: CIP 2023-2028, Pg 81
Otak Scope and LOE

CITY OF TUKWILA CAPITAL PROJECT SUMMARY

2023 to 2028

PROJECT: **Gilliam Creek Fish Barrier Removal** Project No. 99830105

DESCRIPTION: Construct fish passage improvements at existing flap gate and restore salmonid habitat; replace flap gate which may include a self-regulating tide gate or flood wall.

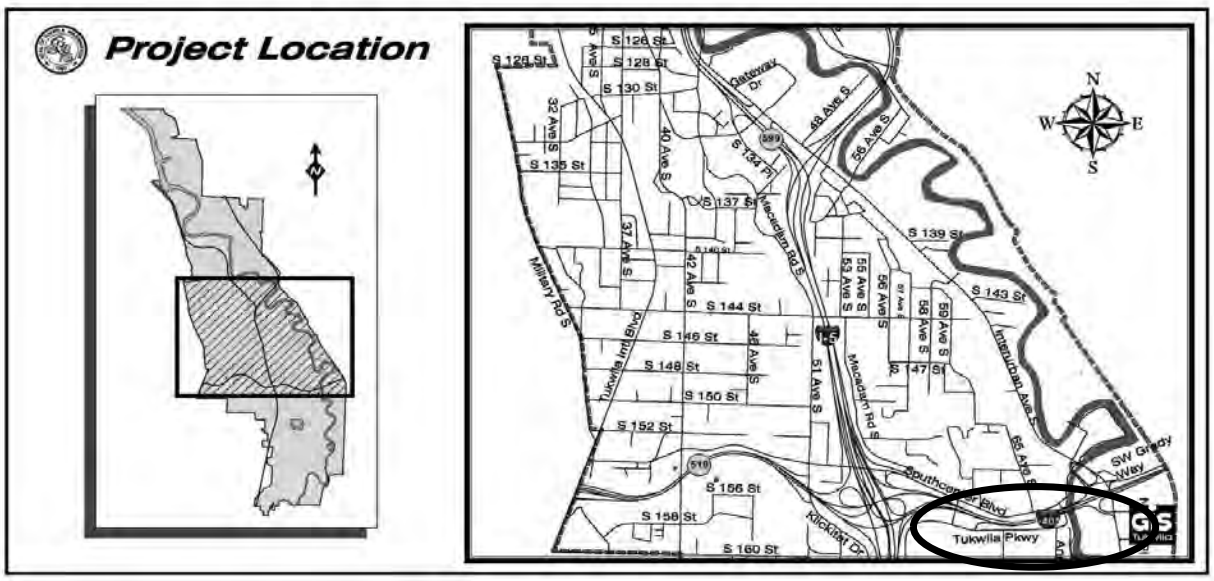
JUSTIFICATION: Enable fish access to lower Gilliam Creek under wider range of flow conditions; fish barrier per WDFW and City; WRIA 9 salmon habitat project.

STATUS: Analysis of lower Gilliam Creek is being conducted in 2018 to determine the best solution for fish passage and to address potential flooding.

MAINT. IMPACT: Likely a shift in maintenance commitments with potential elimination of flapgate maintenance.

COMMENT: In 2020, SRFB listed as Project of Concern, WRIA pulling funding from this cycle; BA Fish Barrier Board - scored 63 of 94; outcomes yet to be determined; $100K allocated in CWM via WRIA 9.

FINANCIAL (in $000's)	Through 2021	Estimated 2022	2023	2024	2025	2026	2027	2028	BEYOND	TOTAL
EXPENSES										
Design	60	150	600	650						1,460
Land (R/W)										0
Monitoring										0
Const. Mgmt.					1,000					1000
Construction					7,500					7,500
TOTAL EXPENSES	**60**	**150**	**600**	**650**	**8,500**	**-**	**-**	**0**	**0**	**9,960**
FUND SOURCES										
Awarded Grant		150	325	375						850
Proposed Grant			275	275	6,800	-				7,350
Mitigation Actual										0
Mitigation Expected										0
Utility Revenue	60	0	0	0	1700	-	-	0	0	1,760
TOTAL SOURCES	**60**	**150**	**600**	**650**	**8,500**	**-**	**0**	**0**	**0**	**9,960**



City of Tukwila
6200 Southcenter Boulevard, Tukwila WA 98188

Agreement Number:

CONTRACT FOR SERVICES

Amendment # 2

Between the City of Tukwila and Otak, Inc.

That portion of Contract No. **23-191** between the City of Tukwila and **Otak, Inc.** is hereby amended as follows:

Section 2: Scope of Services. Work under this contract shall be amended to include reimbursement for direct expenses and costs associated with the additional contract scope of services as described in **Exhibit A,** attached.

Section 4: Payment. Payment is hereby changed to include an additional **$398,200.00** for this additional scope of services. See **Exhibit A.** The maximum amount payable under this contract as amended inclusive of all fees and other costs shall not exceed **$437,700.00** without express written modifications of the Agreement signed by the City.

All other provisions of the contract shall remain in full force and effect.

Dated this _____ day of _____, 20_____.

City of Tukwila
6200 Southcenter Boulevard, Tukwila WA 98188

Agreement Number:

***** City signatures to be obtained by City Clerk's Staff ONLY. *****

CITY OF TUKWILA

Thomas McLeod, Mayor

ATTEST/AUTHENTICATED:

Andy Youn, City Clerk

APPROVED AS TO FORM:

Office of the City Attorney

***** Contractor signature to be obtained by sponsor staff. *****

CONTRACTOR:

By: Russell Gaston

Printed Name: Russell Gaston

Title: Principal

EXHIBIT A

SCOPE OF WORK
DESIGN/ENGINEERING SERVICES
City of Tukwila
Gilliam Creek Fish Barrier Removal and Habitat Enhancement Project
OTAK Project No. 20610.002
AMENDMENT NO. 2
May 2024

Introduction and Background

The City has received initial feedback from project stakeholders and has applied for additional grant funds for implementation of the project. The City will continue with stakeholder coordination and providing information to the public regarding the project progress. There are technical elements of the conceptual design that require further analysis to determine feasibility and the preferred approach. During conceptual design for the existing culvert replacement, significant erosion has occurred during storm events around the existing culvert inlet. The existing culvert inlet requires stabilization measures to withstand further storm events and protect the roadway embankment prior to implementation of the future culvert replacement project.

This scope provides additional consultant services for the following:

- Preliminary Existing Conditions Hydraulic Modeling to develop baseline for study of flooding
- Project Planning Workshops with the City
- Final Design of Erosion Repair for Existing Culvert Inlet

The Scope of Services is described in detail in the following sections.

SCOPE AND BUDGET MODIFICATIONS

1.0 Project Management and Coordination

1.1 Coordination with City

The scope for this task is increased to provide project management and coordination for an extended project schedule per Task 1 Assumptions below. This includes additional services for regular status update meetings with the City, project management, and preparation of status reports.

1.4 Project Monitoring and Reporting

The scope for this task is increased to provide project management monitoring and reporting for an extended project schedule through the end of 2024. Project monitoring and reporting will include the coordination of design team members, internal project scheduling, and the preparation of a monthly progress report and a monthly billing statement.

TASK 1 DELIVERABLES

- Bi-weekly project reports submitted to the City by email (electronic PDF file format)
- Monthly progress report and monthly invoice (electronic PDF file format)

TASK 1 ASSUMPTIONS

- The duration for this phase of the project is assumed not to extend beyond June 30, 2025.

NEW SCOPE TASKS

4.0 Topographic Survey and Basemap

4.1 Supplemental Topographic Surveying and Mapping of Culvert Inlet Erosion

Otak previously provided topographic survey of the project area under a separate contract in 2022. After the initial survey, significant erosion occurred around the inlet of the Gilliam Creek culvert at 66th Ave. S. Under this contract, Otak will provide supplemental topographic survey and will update the electronic basemap to reflect the current conditions around the culvert inlet. The extents of supplemental survey to capture the recent scour are estimated at 20-feet to the west, 30-feet to the north and south, and 30-feet to the east of the existing culvert inlet.

The topographic survey requirements include the following:

- Vertical Datum: NAVD 88
- Horizontal Datum: State Plane Coordinates (Washington North Zone, NAD 83/91 adjustment)
- Contours at a maximum interval of 1′
- TIN surface
- Surface features:
  - Top/Toe of slopes
  - Channel thalweg
  - Top of bank
  - Toe of bank
  - Culvert invert elevations
  - Vegetation including trees, shrubs, fallen trees in stream over 8-inches in diameter
  - Boulders or rocks in the stream greater than 12” across
  - Rock scour protection limits in place around culvert inlet

Mapping shall be consistent with City of Tukwila Infrastructure Design and Construction standards.

TASK 4 DELIVERABLES

- Updated Topographic Base Map (Scale 1″ = 20 feet) with one-foot contour intervals (AutoCAD DWG file format)

TASK 4 ASSUMPTIONS

- Traffic control will not be required for culvert inlet supplemental survey which is outside of the roadway.
- If required, the City will obtain right-of-entry for the parcels for the area of survey.

5.5 Gilliam Creek Flap Gate Replacement Preliminary Flood Study – Existing Conditions

Under this task, the preliminary existing conditions model will be developed to estimate the baseline for existing flooding in the Southcenter area. It is expected the final flood study for basis of design for the Gilliam Creek project will be added under a contract amendment.

The preliminary existing conditions hydraulic model will be based on the unsteady HEC-RAS hydraulic model of the study area developed in 2015 for the first phase of the levee accreditation process (developed by Northwest Hydraulic Consultants [NHC]). The portion of the NHC model associated with the project covers roughly 1,150 acres from I-5 on the west to the Green River on the east and from I-405 on the north to about 1,500 feet north of S 200th St on the south. The storm and surface water system in the Southcenter area is complex and includes Tukwila Pond, P17 Pond, closed pipes, open channels, slide gates, flap gates, three publicly operated stormwater pump stations, and outfalls to both the Green River and Gilliam Creek, which will be simulated in the preliminary existing conditions model. Under this task, Otak will provide the following services:

- Conduct desktop analysis of hydrologic and hydraulic information available in the NHC model, City GIS, and system operation manuals to identify re-usable information and data needs.
- Convert NHC unsteady 1D HEC-RAS model to HSPF-SWMM
- Survey up to 10 critical inverts if needed and update model with that information
- Calibrate HSPF-SWMMM at existing Gilliam flapgate to represent impact of existing gate on flow backup in Giliam Creek
- Calibrate HSPF-SWMM model with 1D HEC-RAS model by checking result at up to 5 critical nodes (with one being just upstream of the existing 108” diameter pipe) by
    - Comparing plots of water surface elevation over a sample year
    - Compare plots of water surface elevations for 3 peak event hydrographs
    - Prepare 3 simple GIS figures of the Southcenter mall area showing locations of flooding for the three peak events to obtain confirmation from City staff that the flooding conditions are similar to what has been observed in the field
- Attend three meetings with City maintenance staff to review results of existing flooding conditions and to discuss the existing manual slide gate configuration that will be simulated in the model.
- Prepare a memorandum that documents issues encountered while converting the model prepared by others, assumptions and methodology used for developing and calibrating the existing conditions model. The memo will also recommend the next steps for advancing the flood study work in support of the Gilliam Creek Fish Barrier Removal and Habitat Enhancement project including listing considerations, limiting factors and opportunities for modification of Southcenter drainage features or the Gilliam Creek flood gate that are identified while preparing the preliminary existing conditions model.

TASK 5.5 DELIVERABLES

- Preliminary Gilliam Creek Flap Gate Replacement Flood Study – Existing Conditions Memorandum (Draft and Final, electronic PDF file format)
- HSPF-SWMM Electronic Model

TASK 5.5 ASSUMPTIONS

- Hydraulic modeling of solution alternatives and proposed conditions will be completed in a future phase of work

6.3 Flood Gate System Assessment

6.3.1 Feasibility Study

Otak will identify a subconsultant with expertise in hydraulically powered gates. Through discussions with the subconsultant and online research Otak will identify and evaluate available flood-gate systems and technologies that could be applied for flood protection and fish passage at the Gilliam Creek site. Otak will reach out to up to five flood-gate system manufacturers via email with conceptual drawings and follow up with a phone call to discuss the applicability of their product and obtain cost information. Otak will evaluate and compare between the different gate systems including the side-hinge tide gate technology currently proposed in the Alternatives Analysis based on criteria such as technical feasibility to provide flood protection and fish passage, operations, cost and maintenance among others. Evaluation and comparison of the gate systems will be in coordination with the subconsultant. Otak will conduct up to two meetings with the City to review findings and a memo will be prepared to summarize the findings on feasible gate technologies.

When a subconsultant is identified to be added to the project team and approved by the City, a request will be made to utilize management reserve funds for advancing the study with a subconsultant partner.

TASK 6.3 DELIVERABLES

- Flood Gate System Feasibility- Preliminary Memorandum of Findings (Outline and Draft, electronic Word .docx file format)

7.2 Culvert Inlet Erosion Repair Geotechnical Design Review

A geotechnical subconsultant, HWA GeoSciences (HWA), will provide consultation to the design team including reviewing the plans and specifications. HWA will conduct a review of the plans at the 60% design level and a review of the plans and specifications at the 90% design level.

TASK 7.2 DELIVERABLES

- Comments on 60% Design Plans (electronic pdf)
- Comments on 90% Design Plans (electronic pdf)
- Comments on 90% Specifications (electronic pdf)

9.3 Project Planning Workshops

9.3.1 Kickoff and Ongoing Coordination

The Otak Team will kick off the project with the City team and provide ongoing coordination during the collaborative study process. Subtasks will include:

- Kick off meeting to discuss the overall purpose of this phase of collaborative study, study timeline, and desired outcomes, and to confirm all products to be delivered.
- Prepare a task work plan and schedule.

TASK 9.3.1 DELIVERABLES:

- Kick-Off Meeting Agendas and Notes
- Work Plan/Schedule for this Task
- File Sharing Internet Site Maintenance
- Summary of Relevant Background Information/Data to Guide the Collaborative Study Process

9.3.2 Collaborative Workshops/Study Sessions with City Staff (and Others as May Be Directed by City)

The Otak Team will facilitate up to four two-hour collaborative workshops/study sessions with City staff and potentially involving other interests (subject matter experts, agency representatives, potential partners, tribes, and other interests) as directed by the City. For these workshop sessions, the Otak team will use collaborative interactive tools, such as in-person workshop facilitation/facilitated activities, as well as online programs such as Mentimeter and/or Mural to gather input and ideas. We will prepare agendas, presentations, hand-outs, and other materials for the workshops. We will carefully document discussions, decisions, and outcomes of each session. Following is a general description of the potential focus of each workshop session:

Workshop 1: Framework for Evaluating Habitat Enhancement Based on Considerations, Limitations and Opportunities at Project Site
The goal of this workshop is to build a framework for evaluation of habitat uplift based on considerations, limitations and opportunities at the project site. The framework will be based on the following studies and guiding documents, which will be reviewed by Otak

- WRIA 9 Salmon Habitat Plan
- WRIA 9 2021 Habitat Plan Update
- King County Juvenile Chinook Use of Non-natal Tributaries in the Lower Green River Study
- Lower Green River Corridor Flood Hazard Management Plan and levy upgrade planning documents
- Juvenile Chinook Salmon Effectiveness Monitoring of Duwamish Shallow Water Restoration Sites
- Lower Green River Corridor Flood Hazard Management Plan PEIS
- Meta-analysis of Project Effectiveness Monitoring in Rivers within King County (2013–2019)
- Scope Comments by the City Project Manager regarding natural debris loading in the stream system and the categories of habitat at the site:
    - (1) Confluence habitat
    - (2) Passage/Habitat Structure
    - (3) Upstream Habitat.

The discussion will identify the decision criteria for making the project successful based on the framework developed.

Workshop 2: Vision and Concepts—Based on the framework and decision criteria from Workshop 1, the team will collaborate on developing a vision statement and thoughts about initial concepts/options for design and further study.

Workshop 3: Draft Concepts Review/Refinement—Otak will present a set of potential concepts based on discussion in Workshop 2 and then this workshop session will focus on review and refinement of the concepts for initial analysis. Otak will conduct initial analysis comparing the options to the criteria and bring that back to Workshop 4.

Workshop 4: Preferred Path Ahead/Preferred Solution—Otak will present the initial analysis of concepts and the team will discuss the preferred option/preferred path ahead (could be a hybrid of options) to further analyze and illustrate. The team will discuss and define deliverables for development by Otak under other project tasks such as Task 6.0 Alternatives Analysis, Task 9.2 Agency and Stakeholder Coordination, and Task 9.4 Public Engagement Support. Future deliverables to be defined through the collaborative workshops are anticipated to include:

- *Visualization graphics (2-D and 3-D renderings)*
- *Habitat Enhancement Considerations, Limitations and Opportunities Study*
- *Habitat Enhancement Schematic Design Figures*
- *Flood Gate System Technology Alternatives Assessment*(based on workshops and Task 6.3)
- *GIS-based Storymap or other materials for website posting*

TASK 9.3.2 DELIVERABLES:

- Workshop Agendas
- Workshop Hand-Outs and Presentation Materials
- Project Vision Statement
- Project Goals, Performance Measures, and Decision Criteria
- Up to three separate concepts for evaluation (illustrated and described conceptually)
- Evaluation matrix results
- Memorandum documenting decisions around the preferred direction/preferred solution and a list of deliverables for the next phase of work.

10.0 Culvert Inlet Erosion Repair Final Design

10.1 Final Design

10.1.1 30% Plans and Engineer's Estimate and Basis of Design Memo

Otak will prepare conceptual plans that include the site layout and section details of the proposed erosion repair design. The 30-percent design will include the cover sheet, plan and profile, and typical cross sections. We assume that the concept plans will be prepared at the same scale as the final design plans. Included in the 30-percent design submittal will be a preliminary engineer's cost estimate.

Otak will prepare a Basis of Design Memo describing the need to repair scour protection measures around the inlet of the existing culvert to minimize impacts to the environment, infrastructure and O&M safety. The memo will also i potential habitat enhancement measures that may be implemented with the erosion repair that could be considered incremental improvements contributing to the future long-term restoration project plans at the Gilliam Creek site.

TASK 10.1.1 DELIVERABLES

- 30-percent Design Plans (electronic pdf)
- Engineer's Cost Estimate (electronic pdf)
- Basis of Design Memo (electronic pdf)

Thtj10.1.2 60% Construction Documents

Otak will prepare an engineering design and plan set based on the 30-percent plans to a scale and layout appropriate for a construction plan set, address comments from the City's review of the 30-percent design, and revise the plans to represent a 60-percent level of detail. Accompanying the 60-percent plans will be a list of anticipated special provisions and an updated Engineer's cost estimate.

The following is a preliminary drawing list:

1. Cover Sheet
2. Legend, Notes, and Abbreviations

3. Survey Control and Existing Condition Plan, Scale 1” = 20’
4. Temporary Erosion and Sediment Control and Stream Bypass Plan, Scale 1” = 10’
5. Stream Stabilization Plan and Profile, Scale 1” = 10’
6. Channel Cross Sections, Scale Varies
7. Stream Stabilization Details, Scale Varies
8. Construction Staging Plan and Details (if necessary), Scale Varies

TASK 10.1.2 DELIVERABLES

- 60% Design Plans (electronic pdf)
- List of Special Provisions (electronic pdf)
- Engineer’s Construction Cost Estimate (electronic pdf)

10.1.3 90% Construction Documents

Otak will advance plans developed at the 60% level and prepare 90% level plans for the inlet erosion repair. The 60% construction review comments will be addressed in the 90% plans, and comment responses will be prepared for the 60% review comments.

TASK 10.1.3 DELIVERABLES

- 90% Design Plans (electronic pdf)
- 90% Special Provisions and Project Manual (electronic .doc and .pdf)
- Engineer’s Construction Cost Estimate (electronic pdf)

10.1.4 100% Construction Documents

Otak will address the City’s comments from the 90-percent design and the final design submittal will include ad-ready construction drawings, a final Engineer’s cost estimate and project specifications including the bid schedule.

TASK 10.1.3 DELIVERABLES

- Final Design Plans (electronic pdf)
- Special Provisions (Divisions 1-9) and Project Manual (electronic .doc and .pdf)
- Engineer’s Construction Cost Estimate/Bid Schedule (electronic pdf)

TASK 10.1 ASSUMPTIONS

- The design concept identified as the preferred alternative in the inlet erosion assessment memo (prepared under separate contract) will be the design carried forward to the 30-percent design level with minimal changes.
- Special Provisions will be based on the 2024 (or current) edition of the WSDOT Standard Specifications with the APWA supplement, current amendments, and City requirements.
- The City will provide a set of current City General Special Provisions and City standard contract and bid forms to be used for preparation of the Project Manual.

10.2 Permitting for Inlet Erosion Repair

10.2.1 Pre-Application Meeting, Agency Meetings, and Permit Facilitation

During preparation of permit applications and support documentation, Otak will organize and conduct a pre-application field meeting with all applicable City, State, and Federal resource and regulatory agency representatives necessary to assure that they have a solid understanding of the existing and proposed conditions for the project prior to receiving the JARPA package. Participants in the pre-application field meeting are anticipated to include agency staff from WDFW, Army Corps, City of Tukwila, relevant tribal biologists, and potentially WRIA 9 technical staff such as Chris Gregersen.

After permit applications are submitted, Otak will coordinate with City staff to respond to comments, provide additional clarification, and assist with shepherding the permits through the process efficiently.

TASK 10.2.1 ASSUMPTIONS:

- A single pre-application field meeting, not to exceed two hours in duration, will be conducted under this task. Hours also include time for responding to agency comments following the meeting and preparing meeting minutes.

10.2.2 JARPA Form and Figures

Otak will prepare a JARPA form and figure set for the project when the project reaches a 60-percent design stage. The JARPA and Wetland and Stream Report will be used to apply for and support a Washington State Department of Fish and Wildlife (WDFW) Hydraulic Project Approval (HPA). The JARPA and the Biological Evaluation will be used to obtain a Department of the Army (Section 404) Nationwide permit from the Corps of Engineers. Otak will review the Department of Archaeology and Historic Preservation's web database for known cultural or historical sites to support the application. A formal cultural resources report will not be prepared.

TASK 10.2.2 ASSUMPTIONS:

- The project will be permitted by the Army Corps of Engineers under one of the Nationwide Permits available (e.g., NWP #13).
- The project will not require offsite compensatory wetland or stream mitigation. The project is intended to be self-mitigating through restoration of a native riparian plant community above the bank armoring.
- The project will not require an individual Section 401 Water Quality Certification from Washington State Department of Ecology.
- A Cultural Resources report, will not be required.
- The City will pay for all required permit fees.

10.2.3 ESA Compliance Documentation

Documentation necessary for compliance with the provisions of the Endangered Species Act will be prepared during preparation of and in coordination with the 60-percent design level plans. Otak will prepare a Biological Evaluation (BE) for the project per the USACE format. A BE will be prepared for the USACE's informal consultation with the National Marine Fisheries Services (NMFS) and US Fish and Wildlife Service (USFWS) for project impacts to ESA-listed species. Informal consultation with NMFS and USFWS is anticipated for this project because the stream and riparian impacts from the bank stabilization will be characterized as pre-existing as a result of previous stabilization efforts, and therefore will be considered not likely to adversely affect (NLAA) ESA listed species or their critical habitats. If agencies disagree with a NLAA effects determination then a biological assessment will need to be prepared under a separate scope of work for formal consultation with USFWS and NMFS. The BE will be submitted as part of the JARPA package for the 404/401 permit application to the USACE.

TASK 10.2.3 ASSUMPTIONS

- The project will result in a May Affect, Not Likely to Adversely Affect (NLAA) determination for ESA-listed fish species and designated critical habitat that may occur in the project action area. The project will result is No Effects determination for all other listed species occurring in King County.
    - As such, the project will not undergo formal consultation with the National Marine Fisheries Service and the U.S. Fish and Wildlife Service (the Services).
    - The USACE and Services will concur that due to the eroding slope and erosion, previous bank armoring and slumping, and proposed bioengineered bank stabilization design, the project will have insignificant or discountable effects to designated critical habitat for Chinook salmon (Gilliam Creek).
    - Work area isolation and fish removal will be required. Fish removal will be conducted using herding methods and nets rather than handling (e.g., trapping and relocating).
    - The project will achieve ESA compliance utilizing the USACE Abbreviated Biological Evaluation for Informal ESA Consultation, or similar format.

TASK 10.2.3 DELIVERABLES

- Draft Biological Evaluation and one (1) electronic file (PDF format)
- Final Biological Evaluation and one (1) electronic file (PDF format)

10.2.4 Prepare Shoreline Permit Exemption Application

The project will require compliance with the City's critical areas (e.g., wetlands, streams and their buffers) regulations at TMC 18.45.100 (Watercourse Designations, Rating and Buffers), 18.45.150 (Fish and Wildlife Habitat Conservation Areas Designation, Mapping, Uses and Standards), floodplains, and shorelines per TMC 18.44 (Shoreline Overlay). Part of the project area is located within shoreline designation. Otak will complete a pre-application conference request with City staff in addition to the site meeting under Task 10.2.1, and the shoreline permit exemption application. The project is expected to be considered normal repair of existing structures/developments including repair of damage caused by elements (e.g., precipitation and stream flows).

ASSUMPTIONS

-Project will qualify for the Shoreline Permit Exemption. No net loss of shoreline ecological functions will still need to be achieved in accordance with the requirements of the Shoreline Exemption. Stabilizing the eroding bank and replating with native plants is expected to provide adequate mitigation for the proposed bank armoring.

DELIVERABLES

-Shoreline Exemption Application
-Floodplain Permit Application

10.2.5 SEPA Compliance

The project will require compliance with the State Environmental Policy Act (SEPA). Otak will prepare a SEPA checklist for the project, with vicinity map and simple plan view appropriate for the general public, and will submit the checklist to the City for environmental review as the lead agency in the SEPA process.

ASSUMPTIONS

The proposed project will result in a Determination of Non-Significance (DNS).
Preparation of a SEPA EIS is not included in this scope.

DELIVERABLES

Draft and Final SEPA checklist with vicinity map and site plan, submitted to the City.

10.2.6 Prepare Critical Areas Report

A Critical Areas Report (CAR) will be prepared for the permit applications to local, state, and federal agencies. The Wetland and Stream Delineation Report prepared under the previous scope of work will be amended to include a project description, impacts assessment, and proposed restoration of temporary impacts to result in no net loss of shoreline ecological functions.

ASSUMPTIONS

-Onsite restoration of temporary impacts using native plants will be adequate mitigation for project impacts to Gilliam Creek.

DELIVERABLES

-Draft and Final Critical Ares Report (PDF)

Management Reserve

If directed by the City, consultant will provide services needed to assist the City for unforeseen tasks related to this project that were not specifically addressed in this scope of work. When requested by the City, the consultant will provide a scope and budget for the task identified by the City. The consultant will not proceed with the task until written authorization has been provided by the City. The allotted amount for this task is $30,000.00.

Direct Expenses

Direct expenses to be submitted for reimbursement include:

- Mileage/Travel for site investigations and meetings
- Other Misc. Expenses

Exhibit B
City of Tukwila - Gilliam Creek Fish Barrier Removal and Habitat Enhancement
Fee Estimate - AMENDMENT NO. 2
Otak Project #020610.002
5/7/2024

		WATER & NATURAL RESOURCES ENGINEERING						ENVIRONMENTAL SCIENCES			STRUCTURAL	TRANSP & INFRASTRUCTURE		PLANNING & LANDSCAPE			SURVEY					ADMIN				
Task	***Description***	*Sr. PIC/Sr. PM Civil*	*Civil Engineer X*	*Civil Engineer X*	*Civil Engineer VI*	*Civil Engineer VII*	*Engineering Designer IV*	*Scientist VI (Hydrologist)*	*Scientist VI*	*Scientist II*	*Civil Engineer X*	*Civil Engineer X*	*Engineering Tech IV*	*Sr. PIC/Sr. PM LA/Mst Pln*	*Landscape Architect IV*	*Planner IV*	*Professional Land Surveyor V*	*Survey Crew Chief II*	*Survey Field Tech III*	*Survey Office Tech IV*	*Graphics Specialist*	*Project Coord I*	***Otak Total Hours***	***Otak Budget by Sub-Task***	***Sub - HWA Geosciences***	***Total Budget By Task***
	SCOPE AND BUDGET MODIFICATIONS																									
1	**Project Management and Coordination**																									**$45,776.00**
1.1	Coordination with City	4	80		80																20	184	$36,076.00			
1.4	Project Monitoring and Reporting		20																		40	60	$9,700.00			
	NEW SCOPE TASKS																									
4	**Topographic Survey and Basemap**																									**$4,184.00**
4.1	Supplemental Topographic Surveying and Mapping of Culvert Inlet Erosion				2												2	12	12	6			34	$4,184.00		
5	**Hydrology and Hydraulics**																									**$94,120.00**
5.5	Gilliam Creek Flap Gate Replacement Preliminary Flood Study – Existing Conditions	12	20	32	140	80		170									2	8	8	4			492	$94,120.00		
6	**Alternatives Analysis**																									
6.3	Flood Gate System Assessment																									$23,540.00
6.3.1	Feasibility Study	2	20		60		40				12												134	$23,540.00		
7	**Geotechnical Services**																									**$4,915.00**
7.2	Culvert Inlet Erosion Repair Geotechnical Design Review		1		4																		5	$915.00	$4,000.00	
9	**Engagement with City Staff and Others**																									
9.3	Project Planning Workshops																									$68,498.00
9.3.1	Kickoff and Ongoing Coordination		8		12									12	14	24							70	$13,668.00		
9.3.2	Collaborative Workshops/Study Sessions with City Staff	8	32		50		20		16					24	30	80					24	16	300	$54,830.00		
10	**Culvert Inlet Erosion Repair Final Design**																									
10.1	Final Design																									$93,436.00
10.1.1	30% Plans and Engineer's Estimate and Memo		8		36		80				6		8	4	30								164	$26,286.00		
10.1.2	60% Design and Construction Documents		12		40		50				6	8	16		32								152	$25,810.00		
10.1.3	90% Design and Construction Documents		16		50		80					8	16		24								178	$29,806.00		
10.1.4	100% Construction Documents		10		32		20								8								60	$11,534.00		
10.2	Permitting																									$33,195.00
10.2.1	Agency Meeting and Coordination		1		2				12	4													18	$3,533.00		
10.2.2	Prepare JARPA Form and Figures		4		20		24		12	30													86	$13,518.00		
10.2.3	ESA Compliance Documentation								16	40													56	$8,072.00		
10.2.4	Shoreline Permit Exemption								8	24													32	$4,512.00		
10.2.5	SEPA Compliance								8	16													24	$3,560.00		
	Total Hours	26	232	32	528	80	314	170	72	114	24	16	40	40	138	104	4	20	20	10	24	76	2,049			
	Current Billing Rate	$344.00	$231.00	$231.00	$171.00	$183.00	$130.00	207.00	207.00	119.00	$231.00	$231.00	$116.00	$312.00	$144.00	$167.00	241.00	120.00	91.00	138.00	126.00	127.00				
	Total Labor Cost	*$8,944.00*	*$53,592.00*	*$7,392.00*	*$90,288.00*	*$14,640.00*	*$40,820.00*	*$35,190.00*	*$14,904.00*	*$13,566.00*	*$5,544.00*	*$3,696.00*	*$4,640.00*	*$12,480.00*	*$19,872.00*	*$17,368.00*	*$964.00*	*$2,400.00*	*$1,820.00*	*$1,380.00*	*$3,024.00*	*$9,652.00*		***$363,664.00***	***$4,000.00***	***$367,664.00***
100	*Management Reserve*																							***$30,000.00***		***$30,000.00***
050	*Direct Expenses*																							***$500.00***		***$500.00***
	Project Total																									**$398,200.00**

Notes: (ROUNDED)
(1) Billing rates may vary based on the actual staff performing the work.