



Amendment No. 1  
Whatcom County Contract No. 202202028  
CONTRACT BETWEEN WHATCOM COUNTY FLOOD CONTROL ZONE DISTRICT AND  
Tetra Tech, Inc.

THIS AMENDMENT is to the Contract between Whatcom County Flood Control Zone District and Tetra Tech, Inc., dated February 28, 2022 and designated "Whatcom County Contract No. 202202028". In consideration of the mutual benefits to be derived, the parties agree to the following:

This Amendment extends the term of this Agreement through December 31, 2024.

This Amendment adds Exhibit B-1 to the Budget and increases the maximum consideration by **\$231,551** to a total consideration of **\$271,551**.

This Amendment also adds Exhibit A-1 to the Scope of Work.

Unless specifically amended by this agreement, all other terms and conditions of the original contract shall remain in full force and effect.

IN WITNESS WHEREOF, Whatcom County and Tetra Tech, Inc. have executed this Amendment on the date and year below written.

DATED this \_\_\_\_\_ day of \_\_\_\_\_, 2022.

Each person signing this Contract represents and warrants that he or she is duly authorized and has legal capacity to execute and deliver this Contract.

**CONTRACTOR:**

*Tetra Tech, Inc.*

\_\_\_\_\_  
*Ed Sussenguth, Vice-President of Northwest Operations* *Date*

**CONTRACTOR INFORMATION:**

Tetra Tech, Inc.  
19803 N. Creek Pkwy, Tech Center II  
Bothell, WA 98011  
Phone: (208) 939-4391  
Fax: (208) 939-4402  
Email: [rob.flaner@tetrattech.com](mailto:rob.flaner@tetrattech.com)

**WHATCOM COUNTY FLOOD CONTROL ZONE DISTRICT:**

Recommended for Approval:

\_\_\_\_\_  
Jon Hutchings, Public Works Director                      Date

**Approved as to form:**

\_\_\_\_\_  
Christopher Quinn, Senior Civil Deputy Prosecuting Attorney                      Date

**Approved:**

Accepted for Whatcom County:

By: \_\_\_\_\_  
Satpal Singh Sidhu, Whatcom County Executive                      Date

**EXHIBIT "A-1"**  
(SCOPE OF WORK)

## PROJECT SUMMARY AND OVERVIEW

Under the original contract, Tetra Tech, Inc. (CONSULTANT) provided technical consulting services to **Whatcom County Flood Control Zone District (COUNTY)** for preparation of two grant applications under FEMA's Hazard Mitigation Assistance (HMA) suite of Grant Programs, one for property acquisition and one for structure elevation. Under this amendment, the CONSULTANT will provide technical consulting services to the COUNTY for: (1) preparation of four additional FEMA HMA grant applications; (two for acquisition and two for elevation); (2) preparation of Benefit Cost Analyses (BCAs) as needed for the grant applications; and (3) initial grant implementation, if awarded. Additionally, the CONSULTANT will prepare a Substantial Damage Response Plan (SDRP), perform Hazus analysis to generate information to support both benefit-cost analysis and substantial damage determinations, and support the COUNTY in the appraisal of property value process.

In response to recent devastating flood events within Whatcom County, the COUNTY has begun establishment of a willing participant home acquisition/elevation program and is bolstering the program with the pursuit of grant funding under FEMA's suite of HMA grant programs. Grant application costs associated with this scope of work are eligible for reimbursement as "pre-award" costs should the grant be awarded. FEMA HMA grants provide funds to states, territories, Indian tribes, communities, colleges, universities and other non-profits for mitigation planning and the implementation of cost-effective mitigation projects. Funding for these plans and projects reduces the overall risks to the population and structures. The principle prerequisites for eligibility for project grants under this program is an approved hazard mitigation plan compliant with the federal requirements under the Code of Federal regulations (44 CFR §201.6). The focus for this scope of work will be:

- To continue support to the COUNTY for the "willing participant" aspect of the program by identifying targeted properties and securing willing participation from those property owners.
- To continue support to the COUNTY in the deployment of a public outreach strategy to promote the willing participant program.
- Once properties are identified as potential willing participant, CONSULTANT will screen those properties for program application (acquisition vs. elevation) and BCA application.
- For those properties determined to need a BCA, CONSULTANT will prepare the fully documented BCA.
- To support the BCA process, hydraulics & hydrology (H&H) modeling may be need from preexisting models to bolster the cost-effectiveness of some properties. CONSULTANT will provide this support as needed.
- Prepare full set of documents for the HMA grant applications
- Once the Grants are awarded, CONSULTANT will support the COUNTY in administration and implementation of the grants.
- Prepare a Substantial Damage Response Plan (SDRP) that is in full compliance with the Community Rating System (CRS) Activity 510.d planning requirements prior to the upcoming flood season.
- Perform Hazus analyses of areas that sustained damages utilizing available high-water mark data from the flood events to support the estimation of damages for both substantial damage determination and benefit-cost analyses for the grant applications.
- Support the County as needed in the determination of fair market value of properties targeted for acquisition.

A detailed breakdown of these tasks are as follows:

## **SCOPE OF WORK**

### **Task 1.0: Support of Willing Participant Program.**

Under this task, the CONSULTANT will support the COUNTY with the development and implementation of a “Willing Participant” program. Following recent flood events, the COUNTY has established a county-wide list of impacted structures that could be candidates for property acquisition because of their post-acquisition benefits to the over floodplain function or could be candidates for elevation due to incurring substantial damage. Under this task, CONSULTANT will support the COUNTY by:

- Developing a target property outreach strategy
- Providing example outreach letters and refining outreach to the targeted properties.
- Processing the responses from the targeted outreach
- Developing and maintaining an inventory of willing participants based on response to target outreach

Specific information will need to be collected on each property that expresses interest in the Willing Participation program that include:

- FEMA model acknowledgement of conditions
- Affidavit
- FEMA declaration and release
- photos of structure
- property record/tax card
- fair market value/appraisal of property
- elevation certificate
- copy of flood insurance policy
- estimate to elevate structure

The “Willing Participant” database, developed under the original contract, is based on data received from the Notice of Voluntary Interest (NOVI) process and/or extraction of data from the Whatcom County Assessor. All data acquired will be formatted into a geo-database to support loss estimation analysis (if needed) using the FEMA Hazus-MH risk assessment platform (version 5.0).

### ***Task 1.0 deliverables:***

The deliverables for this task include:

- Example Letters and outreach materials
- Continued development of the willing participant database
- Hazus-MH formatted property inventory if needed (Geo-database)

Date: This will be an on-going task through the term of this contract amendment

### **Task 2.0: Additional Outreach.**

Under this Task, CONSULTANT will provide additional outreach support to the COUNTY as needs are identified through the completion of Task 1 above. The primary objective for this task will be the ongoing promotion of the “Willing Participant” program to acquire as much interest as possible. Under this task, the CONSULTANT can support the COUNTY by facilitating the following:

- Public Meetings (in-person or virtual)
- Webinars

- Social media outreach
- Press releases
- Develop material to post on a website

The deployment of these additional outreach mediums will be time sensitive to the grant application deadlines for the grant opportunities the COUNTY chooses to pursue. However, since there are multiple grant opportunities available for the COUNTY to pursue, this task will be considered to be on-going and as-needed based on the response to task 1 and the number of grant opportunities the COUNTY chooses to pursue. The outreach methods applied under this task will be determined by coordination between the COUNTY and CONSULTANT and will result in the development of an outreach plan by the CONSULTANT.

### *Task 2.0 deliverables*

The deliverables for this Task include:

- Outreach Plan
- Outreach support materials
- Documentation (i.e. attendance logs/records)

Due Date: This will be an on-going task through the term of this contract amendment

### **Task 3.0: Target Property Screening.**

Under this task, CONSULTANT will screen and categorize all properties that have committed to the “Willing Participant” program. Using the target property inventory created under Task 1, CONSULTANT will sort all properties into two categories, acquisitions and elevations, based on the level of participation committed to by each property owner. Once that categorization has been completed, CONSULTANT will coordinate with the COUNTY to establish metrics for determining the estimated costs for each category. Once costs have been assigned, CONSULTANT will screen each property to determine if the cost falls under FEMA’s pre-determined benefit values for acquisitions and elevations (\$323,000/structure for acquisitions and \$205,000/structure for elevations, each adjusted by regional multiplier). Those properties qualifying under the pre-determined benefit policy will be sorted to one list, with those properties needing the BCA will be sorted to another. Please note, that some sort of “threshold” policy will need to be established for those properties that are on the cusp since the costs are being based on estimates.

### *Task 3.0 deliverables*

The deliverables for this Task include:

- Updated “Willing Participant” database sorted and categorized based on screening results

Due Date: The due dates anticipated for this task will be commensurate with the application deadline for each grant application the COUNTY submits. It is anticipated that this will be an on-going task through the term of this contract amendment.

### **Task 4.0: Perform Benefit Cost Analysis (BCA).**

For those properties identified under Task 3.0 needing full, BCA’s, CONSULTANT will perform those BCA’s using version 6.0 of the FEMA Benefit Cost Calculator (BCC). It is anticipated that two aggregate level BCA’s will be created for two application packages to be submitted by the COUNTY per each grant opportunity. This would be one BCA for the acquisitions and one BCA for the elevations. These would be aggregate level analyses that aggregated the results for all properties targeted into one benefit-cost ratio per project. Each BCA will be fully documented and will be “FEMA grant ready” and include:

- A BCA Methodology memorandum that will serve as the data documentation for each analysis
- The BCA Report exported from version 6.0 of the FEMA BCC

- The BCA export file from version 6.0 of the BCC

#### *Task 4.0 deliverables*

The deliverables for this Task include:

- 1 each, FEMA HMA grant ready BCA submittal package per application prepared (total of two applications per grant opportunity)

Due Date: No later than 10 days prior to the grant application deadline for each grant opportunity the COUNTY pursues.

#### **Task 5.0: H&H Support (as needed)**

To perform a BCA under Task 4.0 above, H&H flood data that identifies expected water surface elevations for multiple flow scenarios to estimate pre- and post-project damages for varying mitigation alternatives. Typically, this information can be extracted from the FEMA Flood Insurance Study (FIS) in effect for a project area. However, there could be situations where the FIS is not the best available data source to support a benefit-cost analysis. These situations could include:

- More current, higher resolution H&H data is available from that used in the FIS
- Targeted property lies within an area where the FIS does not provide water surface elevation data (i.e. unnumbered A zone).
- Flooding occurred outside of the FEMA SFHA, and H&H modeling exist for those areas

The COUNTY has prepared numerous models of its floodplains to support its floodplain management program that would be considered to be “best available data” when comparing to the FIS. In the situation where the CONSULTANT has determined that a property is not cost-effective using the FIS data, CONSULTANT will utilize these existing COUNTY models to extract relevant water surface elevation data if that data is likely to generate a higher BCR for that property. These analyses would be property specific and will only be performed on properties found not to be cost-effective using the FIS. This task is considered to be an “as-needed” task.

#### *Task 5.0 deliverables*

The deliverables for this Task include:

- Multi-flow WSE’s per property targeted in need of this support
- Backup documentation on the model and how the WSE was generated.

Due Date: No later than 10 days prior to the grant application deadline for each grant opportunity the COUNTY pursues.

#### **Task 6.0: Prepare FEMA HMA Grant Application.**

Under this task, CONSULTANT will prepare the complete HMA grant application for each project that COUNTY has committed to submitting for each grant opportunity. This task has assumed that two applications per opportunity will be submitted. One grant application for acquisitions and one grant application for elevations per opportunity and a total of two opportunities (four grant applications total). These will be fully assembled, fully documented HMA grant applications that include:

- Scope of Work Narrative
- Budget Summary and Narrative
- Construction SF-424C budget form
- Funding Commitment Letter
- Maintenance Agreement Letter
- Timeline and Project Milestones

- Environmental & Historic Preservation Requirements
- Assurances Construction Projects Form 424-D
- Assurances Non-Construction Projects Form 424-B
- Certification Regarding Lobbying, Debarment and Suspension Form
- Disclosure of Lobbying Activities Form (if needed)
- Copies of all support documentation assembled
- Fully documented BCA package

### *Task 6.0 deliverables*

The deliverables for this Task include:

- Two each, complete FEMA grant applications (one for acquisitions, one for elevations) per grant funding opportunity

Due Date: Complete grant application packages no later than seven (7) days prior to the grant application deadline for each grant opportunity the COUNTY pursues.

### **Task 7.0: Grant Administration Support**

Under this task, CONSUTANT will support the COUNTY in the administration of each grant for which the COUNTY has been awarded funding. Grant administration costs are general administration costs attributed to the overall management of the grant. Tasks presented in this section will run concurrently during the performance period of the grant. Administrative services under the FMA grant are reimbursable by FEMA in the amount of the federal share of the total grant amount, with the local share being the responsibility of the COUNTY and/or property owner.

For acquisitions, CONSULTANT will provide the following grant administration services to the COUNTY:

- Develop a Microsoft OneDrive project page with secure access for the COUNTY for the management of documents, data, and information related to grant administration and project management.
- Hold a virtual project kick-off meeting with the COUNTY and develop a Standard Operating Procedures (SOP) to help carry out the operations of the grant program. This will include the roles and responsibilities of the COUNTY, property owners, and any third parties that may be contracted.
- Depending upon COVID-19 requirements and guidelines at the time of the meeting, Tetra Tech will facilitate a hybrid (in-person with virtual option) kick-off meeting for the property owners and the COUNTY to review and discuss the acquisition process and ensure property owners understand all policies and restrictions that affect the acquisition of their property. Tetra Tech will ensure that the property owners are aware of the mitigation process in general, duplication of benefits, and municipal and county policies and procedures.
- Communicate with each property owner to ensure that the owner understands all policies and restrictions that affect the acquisition of their property, and to collect any missing data. Tetra Tech will ensure that the property owner is aware of the mitigation process in general, duplication of benefits, and COUNTY policies and procedures.
- Confirm information previously gathered is valid and accurate.
- Review procurement activities to comply with the COUNTY, FEMA, and Washington Emergency Management Division (WAEMD) Procurement Policy.
- Provide information to property owners regarding the COUNTY'S policy regarding second appraisals.
- Assist the COUNTY in procuring professional services including, but not limited to, appraiser, surveyor, property inspectors, asbestos inspector, etc. Tetra Tech will work with the professional services and homeowners to coordinate and schedule inspections.
- Facilitate property owner completion of the hazardous materials property survey.
- Provide documentation of all meetings with property owners.

- Determine Duplication of Benefits (DOB) in consultation with the State subsequent to the determination of fair market value by the appraiser, and formally, advise the COUNTY of purchase price to be offered to the owner. Tetra Tech will verify that all requirements for DOB research submitted to the State contain the required information for proper and timely review and decision and will ensure that all required documents are properly signed and executed prior to closing.
- Note environmental procedural requirements, if any, as indicated in the grant award letter.
- Prepare the written offers to purchase, in accordance with State guidelines.
- Review and analyze “Requests for Payments” for compliance with program requirements and authorized payments to contractors.
- Review, analyze, and evaluate requests for change orders.
- Assist the COUNTY in responding to information and data requests from State, County and FEMA officials.
- Comply with grant program mandates and documentation requirements.
- Conduct financial tracking of program funds and homeowner payments.
- Inspect ongoing construction for compliance with program requirements.
- Develop quarterly progress reports for the COUNTY as required by EMD.
- Assist with COUNTY preparation of Requests for Reimbursements/Payment for consistency with the procedures established for the program.
- Assist COUNTY in requesting funds to pay owner(s) and schedule closings.
- Complete proper home inspections prior to closing; provide an opportunity for the property owner to attend the home inspections; and confirm that fixtures included in the appraisal have not been removed.
- Assist with preparation of the deed recordation for each property to include restrictions set by FEMA and EMD.
- Schedule and coordinate with title company for property closings; and confirm all necessary forms and documents are completed.
- Provide progress reports, as required, to keep the COUNTY informed on the progress of each acquisition project.
- Work with the municipal floodplain administrators to develop and submit the FEMA NFIP Repetitive Update Loss Forms for each property.
- Availability to the COUNTY to answer questions associated with acquisitions.
- Correspondence with WAEMD throughout the period of performance.

For elevations, CONSULTANT will provide the following grant administration services to the COUNTY:

- Hold a project kick-off meeting with the COUNTY and develop a Standard Operating Procedures (SOP) to help carry out the operations the grant program.
- Hold a kick-off meeting for the COUNTY, property owners, and their contractors to discuss the grant process and required materials needed in order to proceed.
- Develop a Microsoft OneDrive project page for the management of documents, data, and information related to grant administration and project management.
- Be available to the COUNTY, property owners, and contractors to answer questions associated with elevations.
- Develop a timeline with the COUNTY to keep all involved on track and within the period of performance.
- Quarterly check-ins with property owners to provide progress reports, as required, to keep the COUNTY informed on the progress of each acquisition project.
- Comply with grant program mandates and documentation requirements.
- Conduct financial tracking of program funds and homeowner payments.
- Inspect ongoing construction for compliance with program requirements.
- Work with the municipal floodplain administrators to develop and submit the FEMA NFIP Repetitive Update Loss Forms for each property.
- Develop quarterly progress reports for the COUNTY as required by EMD.

- Correspondence with EMD throughout the period of performance.
- Prepare a reimbursement request once all required reimbursement documentation has been provided. The reimbursement request will be done in accordance with the mutually agreed upon schedule with the State.

### *Task 7.0 Deliverables*

The deliverables for this Task include:

- Two Standard Operating Procedures (one for elevations and one for acquisitions)
- Meeting materials as needed
- Reimbursement requests for each property in accordance with FEMA and State requirements
- Quarterly check-ins with property owners
- Develop quarterly progress reports for COUNTY to submit to WAEMD

Due Date: This will be an on-going task through the period of performance of the grant. Schedule will depend on grant award date and period of performance.

### **Task 8.0: Project Management**

Provide overall project management for this amendment, including but not limited to project coordination, work scheduling, product review and certification, budget and expenditure management, invoicing, and issue resolution.

### **Task 9: Prepare a Substantial Damage Response Plan**

Under this task CONSULTANT will prepare a Substantial Damage Response Plan (SDRP) that will be in full compliance with the CRS requirements specified in Section 510.d of the 2021 Addendum to the 2017 CRS Coordinators manual. A SDRP is a management plan for substantial damage within the community and is a detailed community plan, developed before a flood or other hazardous event, that describes the community's process for evaluating damage to buildings and addressing those that have been substantially damaged, as required by the NFIP. A management plan for substantial damage to properties outlines community responsibilities, identifies available data about buildings in the SFHA, describes the community's approach to damage estimation, and lists the steps the community will take if buildings are determined to be substantially damaged. It is important to note that the SDP is the result of a planning process that includes the following steps:

1. Assess vulnerability
2. Assemble a team
3. Assess capacity/capabilities to implement SDRP
4. Make recommendations for improvements to capacity/capability
5. Identify post-event actions
6. Build a structure inventory database
7. Identify pre-event actions
8. Plan implementation, update, and exercise

It has been anticipated that the development of this SDRP will need to be developed in full coordination with FEMA Region X staff as the COUNTY's response to the post event Community Assistance Visit (CAV) process is currently being conducted by FEMA Region X. The ultimate validation of the SDRP will be approved by the CRS Technical Review process for Activity 510.d, and approval by FEMA Region X.

### *Task 9 Deliverables*

The deliverables for this Task include:

- A completed SDRP pursuant to CRS Activity 510.d

- A Completed SDRP Plan review tool
- Facilitation of SDRP approval by FEMA Region X and the Insurance Services Office (ISO) for CRS program compliance.

Due Date: Draft SDRP prior to the upcoming flood season and a completed SDRP within 180 days of the notice to proceed on this task issued by the COUNTY.

### **Task 10: Hazus Analysis**

Under this Task, CONSULTANT will support the COUNTY as needed in the estimation of damages caused by the recent flooding using FEMA's risk assessment platform, Hazus (version 5.0). This analysis will utilize the general building stock database prepared under Task 1 of this scope of work and flood high-water mark data provided by the COUNTY following the Hazus, Level II, user-defined facility protocol for general building stock analysis. This will be an "as-needed" task based on mission assignment from the COUNTY where damage and loss estimations are needed in support of substantial damage determination and/or benefit-cost analysis. The level of effort for this task has assumed that one aggregate level analysis will be performed for structures targeted by the COUNTY.

#### *Task 10 Deliverables*

The deliverables for this Task include:

- Hazus outputs in an excel formats for all properties modeled
- Data Documentation narrative suitable for incorporation into the FEMA BCA Tool
- Documentation to support Substantial Damage determination (where appropriate)
- Hazard Mapping to show the extent and location of the event(s) modeled

Due Date: TBD based on authorization to proceed on this task from the COUNTY. The turn-around time estimated for the Hazus analysis is 30-Days from authorization to proceed.

### **Task 11: Property Valuation Support**

Under this task, CONSULTANT will support the County as needed in the determination of the "fair market value" (FMV) for structures targeted for property acquisition. CONSULTANT will apply industry best-management practices to establish a formula for determining the FMV that will be applied to all properties targeted for grant funding. This formula will be vetted through the State (WAEMD) and FEMA to assure compliance with FEMA Hazard Mitigation Assistance (HMA) program criteria. This will be an "as-needed" task contingent upon authorization from the COUNTY to proceed.

#### *Task 11 Deliverables*

The deliverables for this Task include:

- The formula for determining FMV for properties targeted for acquisition
- Documentation of acceptance from WAEMD and FEMA
- Final FMV determination for all targeted structures

Due Date: TBD based on authorization to proceed on this task from the COUNTY.

**EXHIBIT "B-1"**  
**(COMPENSATION)**

As consideration for the services provided pursuant to Exhibit A-1, Scope of Work, the County agrees to compensate the Contractor according to the hourly rates provided in the Rate Schedule provided below. Other reasonable expenses incurred in the course of performing the duties herein shall be reimbursed. Mileage is to be reimbursed at the IRS rate; lodging and per diem will be reimbursed at a rate not to exceed the GSA rate for the location at which services are provided. Reimbursement for air travel will be at coach rates. Other expenditures such as printing, postage and telephone charges shall be reimbursed at actual cost.

The Contractor will invoice monthly. Invoices will include hours worked by employee by day together with tasks accomplished. Requests for reimbursement of expenses must be accompanied by copies of paid invoices itemizing costs incurred. Costs of alcoholic beverages are not eligible for reimbursement. Compensation shall not exceed the amended contract amount of \$231,551 (Figure 3). Any work continuing after the completion date of the amended contract, unless otherwise agreed upon in writing, will be at the Contractor's expense.

The COUNTY may reallocate budget between tasks and adjust deliverables to meet the needs of the project. Adjustments to budget and deliverables will be by memo or email and will not change the not to exceed maximum of this agreement.

**Level of Effort and Budgeting Assumptions:**

Tetra Tech has made the following assumptions in the development of the proposed budget for this scope of work:

- A total of 4 grant applications would be prepared for up to 2 grant funding opportunities. This is inclusive of 1 acquisition grant and 1 elevation grant per grant funding opportunity.
- The BCA task has assumed that all 4 grant applications will require BCA Analysis.
- This scope of work has assumed that some level of H&H model interpretation will be required to support the Benefit-Cost Analyses.
- This scope of work has been budgeted for up to 75 structures to be targeted by all technical phases of the scope of work.
- This scope of work has assumed some level of effort for those properties that decide not to fully participate in the Willing Participant program will be incurred by the project team.
- This scope of work has assumed some field verification of completed projects will be required to support grant close-out procedures.
- This scope of work has assumed that 1 of the 2 grant opportunities will be for the FEMA Building Resilient Infrastructure and Communities (BRIC) program that utilizes FEMA web-based application platform, FEMA GO. This Scope of work assumes that the COUNTY will secure access to the FEMA GO platform and provide Tetra Tech access to its account and an authorized user top prepare the grant applications.
- Tetra Tech will fully prepare all grant applications and support documentation in the grant application format required by WAEMD.

**Bill Rates:**

The bill rates that will be utilized for this project are shown in Figures 1.0 and 2.0 below.

## 2022 TETRA TECH RATE SCHEDULE

**Multiplier: 2.44**

Labor Category	Hourly Billing Rate
Project Manager	\$ 181.00
QA/QC	\$ 195.00
Principal Planner/Scientist I	\$ 185.00
Senior Planner/Scientist III	\$ 175.00
Senior Planner/Scientist II	\$ 165.00
Senior Planner/Scientist I	\$ 155.00
Staff Planner/Scientist III	\$ 145.00
Staff Planner/Scientist II	\$ 135.00
Staff Planner/Scientist I	\$ 125.00
Associate Planner/Scientist III	\$ 115.00
Associate Planner/Scientist II	\$ 105.00
Associate Planner/Scientist I	\$ 95.00
Junior Planner/Scientist II	\$ 85.00
Junior Planner/Scientist I	\$ 75.00
Risk Assessment Lead	\$ 135.00
GIS Analyst III	\$ 150.00
GIS Analyst II	\$ 130.00
GIS Analyst I	\$ 110.00
Technical/Format Editor	\$ 130.00
Financial Manager	\$ 155.00
Word Processing / Clerical	\$ 75.00

**Notes:**

Rates are good through 2022 and are subject to annual escalation of 3% thereafter.

**Other Direct Costs**

Miscellaneous direct costs such as travel, supplies, etc., bill at invoice amount plus

G&A (currently 16.01%) and 10% fee.

Subcontractor costs billed at invoiced amount plus 10% fee

*Figure 1.0: Tetra Tech 2022 Rate Schedule*

Rate Table - Northwest Hydraulic Consultants Inc. 12787 Gateway Dr S Seattle WA 96168				
Job Classifications	Direct Labor Hourly Billing Rate	Overhead	Fixed Fee	All Inclusive Hourly Billing Rate
		181.81%	30.00%	
Principal T1	\$82.00	\$149.08	\$24.60	\$255.68
Principal T2	\$77.87	\$141.58	\$23.36	\$242.81
Principal T3	\$72.77	\$132.30	\$21.83	\$226.90
Sr Project Engineer / Scientist	\$75.00	\$136.36	\$22.50	\$233.86
Sr Engineer / Scientist 1	\$61.54	\$111.89	\$18.46	\$191.89
Sr Engineer / Scientist 2	\$53.84	\$97.89	\$16.15	\$167.88
Engineer / Scientist 1	\$44.26	\$80.47	\$13.28	\$138.01
Engineer / Scientist 2	\$39.00	\$70.91	\$11.70	\$121.61
Jr Engineer / Scientist	\$36.18	\$65.78	\$10.85	\$112.81
Sr Engineer Technician	\$43.85	\$79.72	\$13.16	\$136.73
Engineering Technician	\$32.00	\$58.18	\$9.60	\$99.78
Jr Engineering Technician	\$26.00	\$47.27	\$7.80	\$81.07
GIS Analyst 1	\$43.52	\$79.12	\$13.06	\$135.70
GIS Analyst 2	\$33.20	\$60.36	\$9.96	\$103.52
Sr Lab Technician	\$35.00	\$63.63	\$10.50	\$109.13
Office Administrator	\$28.11	\$51.11	\$8.43	\$87.65
Technical Editor	\$36.00	\$65.45	\$10.80	\$112.25
Senior Technical Editor	\$45.32	\$82.40	\$13.60	\$141.31
Contract Administrator	\$50.00	\$90.91	\$15.00	\$155.91

Figure 2.0: NHC 2022 Rate Schedule

**TIME & MATERIAL COST PROPOSAL**  
 Whatcom County  
 Hazard Mitigation Assistance Grant Application Support - Amendment #1  
 August 3, 2022

Labor Classification	Labor Rate	Task 1.0: Support of Willing Participant Program		Task 2.0: Additional Outreach		Task 3.0: Target Property Screening		Task 4.0: Perform Benefit Cost Analysis (BCA)		Task 5.0: H&H Support (as needed)		Task 6.0: Prepare FEMA HMA Grant Application		Task 7.0: Grant Administration Support		Task 8.0: Project Management		Task 9.0: Prepare a SDRP		Task 10: HAZUS Analysis		Task 11: Property Valuation Support		Project Total			
		Hours	Cost	Hours	Cost	Hours	Cost	Hours	Cost	Hours	Cost	Hours	Cost	Hours	Cost	Hours	Cost	Hours	Cost	Hours	Cost	Hours	Cost	Units	Cost		
Project Manager	\$181.00	16	\$2,896.00	8	\$1,448.00	8	\$1,448.00	50	\$9,050.00	8	\$1,448.00	8	\$1,448.00	24	\$4,344.00	16	\$2,896.00	40	\$7,240.00	8	\$1,448.00	8	\$1,448.00			194	\$35,114.00
QA/QC	\$195.00		\$0.00		\$0.00		\$0.00	16	\$3,120.00		\$0.00		\$0.00	16	\$3,120.00		\$0.00		\$0.00		\$0.00		\$0.00			32	\$6,240.00
Staff Planner/Scientist II	\$135.00	40	\$5,400.00	48	\$6,480.00	16	\$2,160.00		\$0.00		\$0.00	124	\$16,740.00	440	\$59,400.00		\$0.00	50	\$6,750.00		\$0.00	40	\$5,400.00			758	\$102,330.00
Staff Planner/Scientist I	\$125.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00			0	\$0.00
GIS Analyst II	\$130.00		\$0.00		\$0.00		\$0.00	50	\$6,500.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00	40	\$5,200.00		\$0.00			90	\$11,700.00
GIS Analyst I	\$110.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00	48	\$5,280.00			48	\$5,280.00
Associate Planner/Scientist III	\$115.00		\$0.00	8	\$920.00		\$0.00		\$0.00		\$0.00		\$0.00	40	\$4,600.00		\$0.00	70	\$8,050.00		\$0.00		\$0.00			118	\$13,570.00
Associate Planner/Scientist II	\$105.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00			0	\$0.00
Associate Planner/Scientist I	\$95.00		\$0.00	8	\$760.00		\$0.00		\$0.00		\$0.00		\$0.00	40	\$3,800.00		\$0.00	70	\$6,650.00		\$0.00		\$0.00			118	\$11,210.00
Junior Planner/Scientist II	\$85.00	16	\$1,360.00	16	\$1,360.00	16	\$1,360.00		\$0.00		\$0.00	100	\$8,500.00	100	\$8,500.00		\$0.00		\$0.00		\$0.00		\$0.00			248	\$21,080.00
Technical/Format Editor	\$130.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00	24	\$3,120.00		\$0.00			24	\$3,120.00
Financial Manager	\$155.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00	8	\$1,240.00		\$0.00		\$0.00		\$0.00			8	\$1,240.00
<b>Total</b>		<b>72</b>	<b>\$9,656.00</b>	<b>88</b>	<b>\$10,968.00</b>	<b>40</b>	<b>\$4,968.00</b>	<b>116</b>	<b>\$18,670.00</b>	<b>8</b>	<b>\$1,448.00</b>	<b>232</b>	<b>\$26,688.00</b>	<b>660</b>	<b>\$83,764.00</b>	<b>24</b>	<b>\$4,136.00</b>	<b>254</b>	<b>\$31,810.00</b>	<b>96</b>	<b>\$11,928.00</b>	<b>48</b>	<b>\$6,848.00</b>			<b>1638</b>	<b>\$210,884.00</b>
<b>Subcontractor Costs</b>	<b>Rate</b>	<b>Units</b>	<b>Cost</b>	<b>Units</b>	<b>Cost</b>	<b>Units</b>	<b>Cost</b>	<b>Units</b>	<b>Cost</b>	<b>Units</b>	<b>Cost</b>	<b>Units</b>	<b>Cost</b>	<b>Units</b>	<b>Cost</b>	<b>Units</b>	<b>Cost</b>	<b>Units</b>	<b>Cost</b>	<b>Units</b>	<b>Cost</b>	<b>Units</b>	<b>Cost</b>	<b>Units</b>	<b>Cost</b>	<b>Units</b>	<b>Cost</b>
NHC - Principal Tier 3	\$226.90		\$0.00	40	\$9,076.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00			40	\$9,076.00
NHC - Principal Tier 2	\$242.81		\$0.00		\$0.00		\$0.00		\$0.00	40	\$9,712.40		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00			40	\$9,712.40
	<b>Fee 10%</b>		\$0.00		\$907.60		\$0.00		\$0.00		\$971.24		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00			0	\$1,878.84
<b>Subcontractor Sub-Total</b>			<b>\$0.00</b>		<b>\$9,983.60</b>		<b>\$0.00</b>		<b>\$0.00</b>		<b>\$10,683.64</b>		<b>\$0.00</b>		<b>\$0.00</b>		<b>\$0.00</b>		<b>\$0.00</b>		<b>\$0.00</b>		<b>\$0.00</b>			<b>80</b>	<b>\$20,667.24</b>
<b>Project Total by Phase</b>			<b>\$9,656.00</b>		<b>\$20,951.60</b>		<b>\$4,968.00</b>		<b>\$18,670.00</b>		<b>\$12,131.64</b>		<b>\$26,688.00</b>		<b>\$83,764.00</b>		<b>\$4,136.00</b>		<b>\$31,810.00</b>		<b>\$11,928.00</b>		<b>\$6,848.00</b>	<b>Project Total</b>		<b>\$231,551</b>	

Figure 3.0: Time & Material Cost Proposal