

## Sandy Cove Park Bank Protection and Restoration - Phase 2 Rescoping

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Prepared by Northwest Hydraulic Consultants Inc.

### Scope of Work

Prepared for City of Snoqualmie

July 18, 2022

## PROJECT DESCRIPTION

The City of Snoqualmie has requested that Northwest Hydraulic Consultants, Inc. (NHC) provide an updated scope of work for the second phase of the Sandy Cove Park Bank Restoration Project (NHC, 2014). A continuation of the Phase 2 scope of work is needed to continue the federal, state, and local permitting process for the bank protection and restoration project at Sandy Cove Park.

NHC prepared and submitted a Joint Aquatic Resources Permitting Application (JARPA) for a Nationwide Permit (NWP) in January 2020 under the original Phase 2 scope of work. Upon review of the JARPA submittal, the US Army Corps of Engineers (Corps) transferred the project to a new Project manager on June 18, 2020, initiated an Individual Permit (IP) permitting path and requested an Alternative Analysis Framework analysis as part of the IP process during a meeting on July 9, 2020.

Corps and stakeholder review of the 2020 JARPA submittal and associated Alternatives Analysis were delayed by the COVID-19 pandemic, which lead to inadequate time for Washington Department of Ecology (Ecology) review of the application within their 12-month review period. In July 2021, the Corps recommended the project be withdrawn from Ecology review and a new application started. Significant out-of-scope efforts conducted to date include the Alternatives Analysis (Approved in September 2021), and preparation of temporary/emergency Stabilization concepts (September 2021). Following the completion of the Alternatives Analysis, a draft Mitigation Plan with suggested mitigation alternatives and mitigation ratios was submitted to the previous USACE project manager on January 30, 2020. Consultation regarding finalizing mitigation alternatives and mitigation ratios is anticipated to occur with a USACE project manager, once assigned. This process is on hold until the USACE appoints a new project manager.

Additional effort is needed to incorporate stakeholder comments and revise and resubmit the 60% Design drawings in a new JARPA application.

The primary objectives of the Project will include:

1. Update the previously submitted 60% design drawings to reflect the approved concepts developed during the Alternatives Analysis process. Resubmit JARPA and continue federal, state and local permitting processes
2. Advance the 60% drawings through the 100% final construction plans, including preparation of construction specification and bid support services, in order to start construction during the summer 2023 season.
3. Prepare and submit a CLOMR for the Snoqualmie river above the falls.



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The following scope of work defines the specific work plan tasks requested by the City. Task numbers have been retained from the previous scope of work.

### **Task 3. Hydraulic Model Development**

There are several aspects of the project that will require riverine hydraulic modeling to support engineering analysis and mapping. Under the previous scope of work, NHC developed a 2D HEC-RAS model of the Snoqualmie river from the Falls to Three Forks, incorporating previous 1D and 2D modeling of the area. A topobathymetry dataset was generated from 2016 LiDAR, previous survey work, and new topographic and bathymetry survey by NHC.

Since the previous scope of work was initiated, the City has requested that NHC create a refined Hydraulic model of the reach to support a CLOMR application, based on the latest available topographic and bathymetric surface data (King County, 2020). The refined model will serve as the basis of the new CLOMR application (Task 7) as well as informing the design of instream barbs and wood structures (Task 5 and 6). The following tasks were not included under the previous scope:

- Preparation of a composite 2020 topobathymetry surface to create a corrected effective model
- Calibration of the effective model, incorporating new peak flow data and surveyed high water marks from October 2019.
- Create a post-project hydraulic model based on latest topobathymetry (including the updated 60% design grading to be prepared under task 5).
- Refine the 2D model near Sandy Cove Park to the extent needed to compute hydraulic values supporting the proposed bank protection design.

#### **Assumptions:**

- No new hydrologic analysis is included in this task order.

#### **Deliverables:**

- Input and output files for models developed under Task 3.

### **Task 5. 60% Design/JARPA Drawings, and Permitting Support**

On January 30, 2020, a JARPA was submitted to the USACE and Ecology with the 60% design for the purpose of obtaining a Nationwide Wetland Permit (NWP). Upon review of the JARPA submittal, the USACE transferred the project to a new Project manager on June 18, 2020 and initiated an Individual Permit (IP) permitting path and requested an Alternative Analysis Framework analysis as part of the IP process during a meeting on July 9, 2020. Since the project was delayed in the Alternatives Analysis Framework process, Ecology determined that the



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project had not met the requirements of the state's Shoreline Management Act and Water Pollution Control Act and did not have sufficient time to obtain the shoreline permit and Section 401 Water Quality Certification before the deadline of July 13, 2021.

Ecology canceled the January 30, 2020, application as the USACE withdrew the project from Ecology review. A pre-filing request to initiate a new WQC application was filed with Ecology on July 16, 2021, and they are currently processing this permit application as an individual Section 401 WQC and reviewing for consistency with Washington's Coastal Zone Management Program. Ecology has requested that a new JARPA will need to be submitted for concurrence of Section 401 of the Clean Water Act, in addition to the other information that Ecology requires for WQC. Under this new application process, Ecology will require the following completed applicable information (in the list below) to start review of the Section 401 WQC for this project. These items were not required for the January 30, 2020 application.

- WQC form or email acknowledge receipt
- Completed, signed, and dated new JARPA
- The latest 60% design with Best Management Practices (BMPs), with construction methodology
- Draft Mitigation Plan
- Wetland Delineation Report and ratings
- Water Quality Monitoring Plan or Water Quality Monitoring and Protection Plan (WQMPP)
- Dewatering Plan (may not be needed depending on construction methodology)
- Revegetation/Restoration Plan
- Erosion and Sediment Control Plan
- SEPA checklist (note: final determination does not need to be complete)
- CZM review needs to be re-initiated by the Corps

NHC will produce a Basis of Design (BOD) Report memorandum (1-3 pages) that presents documentation supporting the project design and summarizing technical analyses developed for the project. The BOD Report will integrate and/or reference technical documentation from the preliminary basis of design report (NHC, 2014), Reach Geomorphic Assessment (2019) and earlier tasks. The BOD report will be updated and expanded as part of subsequent tasks serving as the final design documentation report at the completion of Task 6. The memorandum will be submitted in draft form to the City for review and will be finalized following receipt of comments.

NHC will refine the "preferred" bank protection alternative 3a from the Alternatives Analysis based on the updated hydraulic model output and stakeholder comments received on the conceptual design. The refined alternative (3a) will again target a design that is practical, cost effective, durable and likely to receive approval



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from the permitting agencies. A preliminary construction cost estimate will be developed, based on the updated 60% design drawings.

NHC's permitting sub-consultant, 48 North Solutions, will prepare and submit all permits. NHC will support 48 North Solutions with information needed to prepare the environmental permits such as grading quantities. A scope of work for 48 North Solutions embankment is included as Attachment A.

NHC's Landscape Architecture sub-consultant, Berger, will provide 60% designs for planting and restoration of the park, including public access ramps to the river, park infrastructure, and mitigation planting plans to support the required critical areas mitigation. For the 60% design deliverables, Berger will provide draft construction plans, specifications, and estimates for review by the City. A scope of work for Berger is included as Attachment B.

KPFF, NHC's civil sub-consultant, will provide bid package assembly support for the draft Division 01 Specifications. The project specifications will be compiled for 60% design submittal as listed in the NHC proposal in PDF format. KPFF will review and provide a comment matrix with proposed corrections for the draft Division 01 Specifications. Recommendations for specification editing, including draft language will be provided based on comments for the City's use. KPFF's scope of work and fee is included as Attachment C.

AESI, NHC's geotechnical sub-consultant, will provide consultation on the 60% design including participation in project meetings, coordination with the design team, review of previous exploration logs and bank protection plan drawings and specifications, numerical slope stability analysis of proposed bank stabilization measures, and supporting documentation. AESI's scope of work and fee is included as Attachment D.

NHC will incorporate one round of consolidated comments from permitting agencies, stakeholders and the City, make revisions, and develop details for the 60% design, special provisions and quantity estimates. The 60% plans will also be developed in JARPA format (8.5"x11") to support permitting. Special provisions will be developed assuming the WSDOT Standard Specifications for 2018 unless NHC is otherwise directed by the City. The project QAQC plan, including senior review of all deliverables will be followed throughout the design process.

**Assumptions:**

- NHC will use its standard CAD templates for all drawings, such as borders, titles, and plot files, etc.
- City will provide information on property boundaries (ROW, property lines, easements), Riverwalk Park layout and planting plan in the vicinity of the bank protection project.
- See Design Meeting, Deliverable, and Comment Workflow summary at end of scope of work for commentary of design review and comments. It is assumed that comments on the 60% submittal package will each be returned to NHC within 3 weeks.
- Review comments for the 60% design submittal will be provided to NHC in one set from each stakeholder (i.e. not individual sets of comments from individual staff).



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- Time is included for one meeting following the 60% design submittal.
- The City will be responsible to pay any federal, state, or local permitting costs or associated fees.
- No cultural resources exist at the site. If remains or artifacts are identified, or a cultural resources field survey is deemed necessary, the contract will be amended to include the required expertise.
- The City would like to enhance the wetland within Sandy Cove Park. It is assumed that this enhancement will include plantings, signage, and similar minor interventions (i.e. not earthwork or structures). NHC has assumed 8 staff hours for discussion and design of these elements. If a more extensive design is requested additional design hours may be required.
- Design of the "Upper Bank" above Sandy Cove Park and including the King Street lot is not included in this Task Order.

**Deliverables:**

- Draft and Final 11"x17" 60% design drawings, special provisions, and quantity estimates.
- One draft of JARPA format drawings (8.5" x11") for construction grant applications.
- A meeting with the City to discuss possible refinements to the 60% embankment design (following Task 5).

**Task 6. Final Design and Embankment Design Documentation**

NHC will develop the 90% and final (100%) construction plans, special provisions and cost estimates (PS&E) by revising the design based on comments provided by the City and adding further details. NHC will attend a design review meeting to discuss final revisions and comments with the City.

NHC will provide a TESC plan covering both in-water and upland construction and staging areas. The Basis of Design report from Task 5 will be updated to document design methods and summarize analyses added to the design in Task 6.

KPFF will provide bid package assembly support including coordination of specification questions developed by contractors during the bid process for the Division 01 Specifications. KPFF will also assemble the division 1 specifications and specification deliverables. The project specifications will be compiled for 90% and Final design submittals as listed in the NHC proposal in PDF format. KPFF will review and provide a comment matrix with proposed corrections for the Division 01 Specifications. Recommendations for specification editing, including draft language will be provided based on comments for the City's use. KPFF's scope of work and fee is included as Attachment C.

NHC's geotechnical sub-consultant, AESI, will provide consultation on the final design including participation in project meetings, coordination with the design team, review of previous exploration logs and bank protection



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plan drawings and specifications, numerical slope stability analysis of proposed bank stabilization measures, and supporting documentation. AESI's scope of work and fee is included as Attachment D.

**Assumptions:**

- City will provide information on property boundaries (ROW, property lines, easements), Riverwalk Park layout and planting plan in the vicinity of the bank protection project,
- See Design Meeting, Deliverable, and Comment Workflow summary at end of scope of work for commentary of design review and comments. It is assumed that comments on the 90% submittal package will be returned to NHC within 3 weeks.
- Development of a construction traffic control plan is not included as a deliverable for this project.
- Construction inspection and/or support services are not included in this scope of work. The City has requested construction support services be scoped separately.
- NHC will make a final set of revisions based on the final design meeting (1) and one set of comments provided by the County.
- The necessary Division 01 specifications will be provided from the City to NHC and KPFF for KPFF's use and review.
- Specification Sections provided by the City will be in WSDOT format and will not require formatting over and above compiling the sections into different document types.

**Deliverables:**

- NHC will submit the final design package stamped by a Washington State registered Professional Engineer consisting of plans (PDF), special provisions (MS Word), and engineer's cost estimate. A basis of design memorandum will be prepared to document design methods and summarize analyses.
- TESC plan for in-water and upland construction and staging areas.
- Meeting with the City to provide an overview of the possible refinements to the final design (occurs during Task 6).

**Task 7. Conditional Letter of Map Revision (CLOMR)**

The proposed bank protection project is located within FEMA's regulatory floodway for the Snoqualmie River. The original Phase 2 scope of work assumed a No-Rise Analysis would be sufficient, however, the City has requested that NHC develop a Conditional Letter of Map Revision (CLOMR) with the Federal Emergency Management Agency (FEMA). The CLOMR notifies FEMA and the surrounding communities of intent to increase the 100-year flood profile. This will require NHC to complete the requirements of FEMA's MT-2 forms and submittal process. The following effort will be required:



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- Create a corrected effective model and/or pre-project model with HEC-RAS 2D (Task 3)
- Create a post-project model including proposed project features with HEC-RAS 2D (Task 3)
- Complete all required hydrologic runs for a CLOMR submittal
- Create required maps showing updated Base Flood Elevations (BFEs), floodway limits, floodplain limits and other CLOMR mapping requirements.
- Complete required models, GIS data, and other requested information to FEMA

Once the submittal has been complete and reviewed, FEMA may request additional information requiring further modeling and analysis. The scope and budget included in this proposal only includes that required for the CLOMR submission, not additional correspondence and analysis required during the review iterations.

**Assumptions:**

- Work already completed by 48 North and/or letters of support from various agencies will be sufficient to satisfy ESA requirements.
- Notification of the CLOMR process will be made by the City
- NHC will run all required hydraulic model runs for CLOMR submission
- NHC will produce all required maps and GIS data required for CLOMR submission
- The City will pay the required CLOMR Fees directly to FEMA
- Survey completed by NHC will be sufficient for CLOMR submittal (e.g. not performed by a PLS)
- The 60% Sandy Cove Park proposed design will be sufficient for inclusion in the CLOMR submittal.

**Deliverables:**

- FEMA required CLOMR modeling and map files to the City.

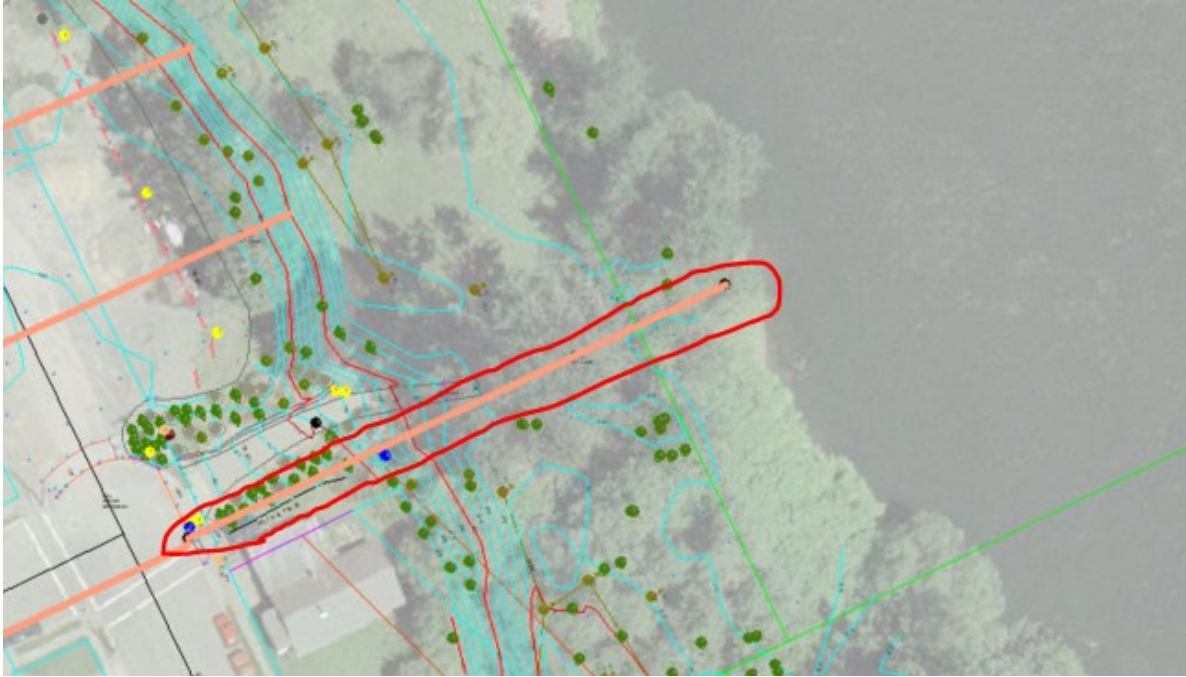
**Task 10. King Street Stormwater Outfall 100% Design**

The existing stormwater outfall at King Street and Falls Avenue was found to be undersized as part of the 2015 Snoqualmie Infrastructure Improvement Project (NHC, 2015). The existing outfall pipe, a 15" galvanized pipe circled red in a hybrid of the 2017 KPFF and NHC 2012 surveys shown below, is approximately 260 feet in length.



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**Figure 1: King Street Stormwater Outfall Pipe (circled in red)**

Under the original Phase 2 scope of work, NHC developed a 30% design and planning level cost estimate for a new stormwater outfall to the Snoqualmie River at King Street. Based on previous utility locates and survey work at the site, it is expected that the existing storm pipe may be damaged between the nearest catch basin in King Street and the presumed outfall location within the limits of the Sandy Cove park project. For the revised Phase 2 scope, NHC will prepare a 100% design, to be included in the Sandy Cove park construction documents. NHC will prepare a construction cost estimate and specifications for the storm drain between the outfall and the nearest existing catch basin in King Street. The outfall will be designed and constructed in accordance with the 2016 King County Stormwater Design Manual, as adopted & amended by the City of Snoqualmie.

NHC will attend a design review meeting via phone to discuss final revisions and comments with the City.

**Assumptions:**

- Previous topographic survey of the Sandy Cove/Record Office project areas, completed by KPFF in May 2017, will be sufficient for preparation of the final 100% construction plans.
- The design fee estimate for the King Street outfall design assumes that stormwater modeling and other technical analysis for sizing the outfall pipe previously completed in Phase 2 will be sufficient for preparation of the final 100% construction plans.





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- NHC will include the final (100%) outfall construction plan as up to three (3) sheets in the construction drawing package for Sandy Cove.
- City will provide information on property boundaries (ROW, property lines, easements).
- The gravel parking lot between Sandy Cove Park and the bowling alley will be suitable for construction staging.
- No cultural resources support is included for the stormwater pipe replacement corridor.
- No arborist will be required for the project or one will be provided by the City separately from this Task Order.

**Deliverables:**

- Final (100%) construction plans, specifications, and cost estimates (PS&E) for a new stormwater drainage pipe and outfall to the Snoqualmie River at King Street.

**Task 13. Project Management/Administration and Quality Control**

NHC will keep the City's project manager informed on project activities through the use of email and phone. Meeting dates will be set well in advance to ensure adequate time to secure commitments from key participants. Monthly invoices will be submitted that are accompanied by a brief progress report. Each progress report will detail the following:

1. Work completed from the Scope in this billing period.
2. Work anticipated for next billing period.
3. Project issues that need to be addressed.
4. Tracking of any work performed outside the original scope.

Quality control services performed under this Task includes a drafting a quality control and quality assurance plan memorandum at the outset of project work. The QAQC plan will document measures NHC will implement to assure that the deliverables are on-time, technically sound and meet professional industry standards, and to ensure effective and accurate analyses and development of recommendations, including demonstration of effective integration of multiple disciplines.

**DESIGN MEETING, DELIVERABLE, and COMMENT WORKFLOW SUMMARY**

1. Sandy Cove Park Embankment 60% Design (Task 5)
  - Update 60% plans (preferred alternative), construction notes, technical special provisions, cost estimate, BOD
    - Submit to stakeholders and 48 North in JARPA format
  - 48 North to submit 60% package for permits



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- Meeting to discuss 60% submittal (Meeting #5)
  - Attended by all stakeholders
  - Receive comments from all stakeholders (including permit agencies) and incorporate in next milestone
- 2. Sandy Cove Park Embankment 90% Design (Task 6)
  - Develop 90% plans, complete specifications, cost estimate, BOD
    - Submit to stakeholders
  - Meeting to discuss 90% submittal (Meeting #6)
    - Attended by NHC, City
  - Receive comments from City and incorporate in next milestone
- 3. Final Sandy Cove Park Embankment (100%) Design (Task 6)
  - Develop Final (100%) plans, complete specifications, cost estimate, BOD
    - Submit to City only

## OTHER DELIVERABLES INDEPENDENT OF DESIGN WORKFLOW

1. Input and output files for models developed under Task 3.
2. FEMA required CLOMR modeling and map files to the City (Task 7)

## TIME AND PERFORMANCE

1. At a schedule coordinated with City staff following issuance of this Task Order that achieves construction in 2023.

## COST ESTIMATE

As listed in the following table, the cost estimate for NHC to complete this work is \$487,168 if the City elects to authorize optional task reserves for subconsultants and the use of a 10% contingency. The actual effort required for this project may be reduced to as little as \$385,215 based on use of the contingency, the level of effort needed for geotechnical design of piles and/or anchoring, and the following factors related to the effort required for permitting:

1. If Corps and other agency permitting occurs without many revisions or surprises, the scope may be reduced. As stated previously, the project is on its fourth USACE project manager and the discontinuity is a factor in trying to obtain the Corps permit and coordination with other agencies.

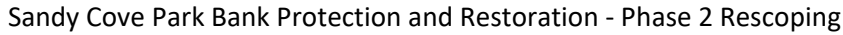


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2. If City Planning staff are available to develop the SEPA checklist, Substantial Development Permit and a Flood Improvement Permit, the permitting scope may be reduced.
3. The best-case scenario for ESA consultation is if the submittal of a No Effect is letter and only minimal USFWS interaction, like Record Office. If NFMS consultation is not required, the permitting scope may be reduced.

If the full \$487,168 is budgeted the City could place between \$51,106 and \$176,953 as optional and/or management reserve tasks that would require City staff authorization to activate if required based on these factors that cannot currently be determined.



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12787 Gateway Drive S.				Prepared for:		City of Snoqualmie			
Seattle, WA 98168				Project:		Sandy Cove Park Bank Protection and Restoration (Phase 2)			
Tel. (206) 241-6000				Date:		July 18, 2022			
Fax (206) 439-2420				Project No.:		2003862			
				Prepared By:		Derek Stuart/ Catherine Billor			
TASK DESCRIPTION		Principal	Principal T3	Staff Scientist	Engineer 1	Engineer 2	Technician/ GIS Analyst	Contract Admin	Totals
		Derek Stuart or Vaughn Collins	Chris Long	Andrew Nelson	Catherine Billor	Laurel Smith or Alex Whitmershaus	Justin Scoltock or Madalyn Ohrt	Diane Numrich	
3	Hydraulic Modeling Plan and Model Development		24		80	80	8	1	\$31,460
5	Refinement of Preferred Alternative, 60% Design Drawings, and Permitting Support	120	40	28	308	200	28	6	\$131,080
6	Final Design and Embankment Design Documentation	80	40	12	208	100		6	\$82,900
7	CLOMR & coordination with FEMA	40			160	80			\$47,800
10	King Street Stormwater Outfall 100% Design	12			24	16			\$9,380
13	Project Management/ Administration and Quality Control	70			100			2	\$35,610
Total Hours and Direct Labor Cost (DL)		322.0	104.0	40.0	880.0	476.0	36.0	15.0	
Standard Rate		\$275.00	\$255.00	\$195.00	\$160.00	\$140.00	\$145.00	\$180.00	
TOTAL LABOR COST (BASE SCOPE OF WORK ONLY)									\$338,230
Direct Expense Detail									
						Units	Rate		Cost
Mileage (estimated 9 round trips)						1,218	\$0.580		\$706
Reproduction & Communication									\$200
Survey Equipment (Boat/ RTK GPS/ Eco Sounder)						1	200.00		\$200
								Total Direct	\$1,106
Subconsultants									
						Sub Fee	Markup		Cost
Base Scope of Work									
Geotechnical support for Task 1 from AESI						\$10,000	\$1,000		\$11,000
KPFF bid package and Division 1 specification review						\$18,000	\$1,800		\$19,800
Berger						\$31,890	\$3,189		\$35,079
48N						\$50,000	\$5,000		\$55,000
								Base Scope of Work	\$120,879
Optional Tasks									
Geotechnical support for Task 1 from AESI						\$10,000	\$1,000		\$11,000
KPFF bid package and Division 1 specification review						\$0	\$0		\$0
Berger						\$0	\$0		\$0
48N Optional						\$36,224	\$3,622		\$39,846
								Optional Tasks	\$50,846
						Subconsultants Base Scope and Optional Tasks Combined			\$171,725



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12787 Gateway Drive S.		Prepared for:		City of Snoqualmie			
Seattle, WA 98168		Project:		Sandy Cove Park Bank Protection and Restoration (Phase 2)			
Tel. (206) 241-6000		Date:		June 28, 2022			
Fax (206) 439-2420		Project No.:		2003862			
		Prepared By:		Derek Stuart/ Catherine Billor			
Cost Summary							
Total NHC Labor						\$338,230	
Total Direct Expenses						\$1,106	
Subconsultants (Base)						\$120,879	
Subconsultants (Optional)						\$50,846	
TOTAL COST BASE SCOPE OF WORK						\$460,215	
TOTAL COST INCLUDING OPTIONAL TASKS						\$511,062	
TOTAL COST INCLUDING OPTIONAL TASKS AND 10% CONTINGENCY						<b>\$562,168</b>	
REMAINING BUDGET IN EXISTING TASK ORDER						\$75,000	
TOTAL COST INCL. OPT. TASKS & 10% CONTINGENCY, LESS REMAINING BUDGET IN EXISTING TASK ORDER						<b>\$487,168</b>	

## REFERENCES

NHC 1993, Draft interim report, Snoqualmie River flood control project. Prepared for City of Snoqualmie, Snoqualmie, Washington.

NHC 2008, Technical Analysis for FEMA Letter of Map Revision for the Snoqualmie River near the City of Snoqualmie, Washington. May 23, 2008. LOMR became effective February 26, 2010. NHC Project Number 21478.

NHC 2014, Sandy Cove Bank Restoration Project, Final Report, Prepared by Northwest Hydraulic Consultants for the City of Snoqualmie in coordination with Perteet Inc. and Terracon Inc. Review Draft April 2013, Final Draft January 2014. NHC Project Number 200080.

NHC 2017, Infrastructure Improvement Program, Hydrologic and Hydraulic Analysis, Final Report, Prepared by Northwest Hydraulic Consultants for Perteet Inc. on behalf of the City of Snoqualmie. February 2017. NHC Project Number 2001642.



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## **Attachment A**

Sub-consultant 48 North Solutions Scope and Fee Estimate for Sandy Cove Park



1275 12<sup>th</sup> Ave NW, Suite 8, Issaquah, Washington, 98027

June 10, 2022

Mr. Derek Stuart, PE,  
Northwest Hydraulics Consultants  
12787 Gateway Drive S.  
Seattle, WA 98168  
[dstuart@nhcweb.com](mailto:dstuart@nhcweb.com)

submitted via email to:

**Re:** Modified Environmental Permitting Support for the City of Snoqualmie's Sandy Cove Bank Stabilization Project (Amendment 1).

Dear Mr. Stuart:

48 North Solutions, Inc. (48 NORTH) is excited to submit this amendment proposal to Northwest Hydraulic Consultants (NHC) to continue to provide permit acquisition services for the proposed Sandy Cove bank stabilization project along the left bank of the Snoqualmie River (the Project), proposed by the City of Snoqualmie (the City).

#### **PART 1: SCOPE OF WORK**

Formal and informal permitting agency consultations with federal, state, and local agencies, as well as external stakeholders is a critical component of the permitting processes in Washington State. Consultation generally involves analysis of a proposed project to determine any potential environmental effects and to develop effective monitoring, mitigation, and adaptive management measures necessary to prevent, minimize and/or mitigate project effects on the environment. Consultation with the agencies for the Project has been initiated and an Alternative Analysis Framework has been conducted at the request of the U.S. Army Corps of Engineers (USACE) to support an Individual Permit (IP) Application. The Washington Departments of Fish and Wildlife (WDFW), Ecology, and Natural Resources (DNR), along with the Snoqualmie Tribe have been consulted on the progress of the design effort. The USACE has changed project managers several times and the Project is currently waiting for the assignment of a new Project Manager. 48 NORTH submitted a draft Mitigation Plan to the USACE on January 30, 2020. It is anticipated that this plan will need to be modified based on the negotiations with the new USACE Project Manager once one is assigned to the project.

As per the direction of the USACE to pursue an IP for this project and the numerous out of scope permitting efforts conducted, per the direction of the USACE and the City, an amendment to the original Sandy Cove Bank Stabilization Project scope is being requested. Additional out of scope work conducted by 48 NORTH, included USACE Emergency Authorization permit planning and the production of a USACE-directed Alternative Analysis Framework study as a component of the IP Permit Application process path identified by the USACE for this project.



This additional scope will include ongoing local permitting, an Ecology Water Quality Certification (WQC) submittal, Coastal Zone Management (CZM) submittal, Hydraulic Project Approval (HPA) submittal, new Joint Aquatic Resource Permit Application (JARPA) submittal to Ecology, DNR submittal for stormwater outfall, and update the Draft Mitigation Plan based on the new USACE Project Manager's comments. The following documentation and permit applications have been completed:

- On January 30, 2020, a JARPA was submitted to the USACE and Ecology with the initial design.
- An Alternative Analysis Framework was completed for the USACE as a condition for the IP permitting process.
- A draft Mitigation Plan with suggested mitigation alternatives and mitigation ratios was completed and submitted to the previous USACE project manager on January 30, 2020.
- All field work has been completed, as well as the Critical Area Report (CAR).
- Several on-site field meetings (pre-application, emergency, etc...) were conducted with the various federal and state permitting agencies (WDFW, DNR, Ecology, USFWS and USACE as well as the Snoqualmie Tribe).

48 NORTH will support NHC and the City with obtaining the environmental permits and the supporting consultations necessary to complete the bank stabilization and stormwater outfall for the Sandy Cove Project. We have broken these efforts into four tasks.

#### Task 1: Permitting, Meetings and Project Management

48 NORTH will continue to engage with the City Planner to develop a local permitting strategy. Local permitting has been delayed while the USACE-directed Alternative Analysis Framework was conducted. As the City is leading this effort, we assume they will be the lead agency for the State Environmental Policy Act (SEPA) review. We anticipate that a standard SEPA Environmental Checklist will likely be required, as opposed to a SEPA Environmental Impact Statement (EIS). The checklist requires governmental agencies to consider the environmental impacts of a proposal before making decisions and helps agencies identify those impacts. The City (as the lead agency) will use this checklist to determine whether the environmental impacts of the proposal are significant. If impacts are not significant, the City will issue a Determination of Non-Significance for this project. 48 NORTH will work closely with the City's Planner to develop the project's SEPA checklist for their review. In addition to developing the SEPA Checklist, 48 NORTH will prepare a Substantial Development Permit and a Flood Improvement Permit. A CAR has been completed and will be submitted to the City with the SEPA checklist.

As part of the design, critical areas such as wetlands, should be avoided where practical. If they cannot be avoided, impacts should be minimized to the greatest extent practical. As part of the CAR, wetland and Ordinary High Water Mark delineations has been conducted to identify these critical areas so to avoid or at least minimize impacts to these areas (see Task 2 for more detail). Wetlands are regulated by the City under the Sensitive Areas Ordinance, Chapter 19.12.180. Other City-related permits that maybe required include clearing and grading permits.

On January 30, 2020, a JARPA was submitted to the USACE and Ecology with the initial design. Upon review of this submittal, the USACE initiated an IP permitting path and requested an Alternative Analysis Framework analysis as part of the IP process. With the completion of this analysis, the JARPA will need to be updated with the new design that is currently being prepared by NHC. Ecology has cancelled its previous permit review and the City is now under the new Ecology guidelines for this latest design

revision. A new submittal to Ecology was initiated on July 16, 2021. The WDFW HPA permit has not been prepared and will be submitted once the new 60% design plans are completed by NHC.

Upon receiving feedback from the new USACE Project Manager, 48 NORTH will update the JARPA and then re-submit it to the various permitting agencies including Ecology, DNR and USACE. The updated JARPA submission to USACE will be to obtain a Standard Permit (e.g., an IP Permit) since the General Permit (e.g., a Nationwide Permit) path was not approved for this project. The updated JARPA will be re-submitted to Ecology for concurrence of Section 401 of the Clean Water Act, in addition to the other information that Ecology requires for WQC (Task 2). Since this project is in King County and requires federal permitting via an IP permit, a CZM Certification is required. The permit application to WDFW, via its online APPS system, is to obtain a HPA for the in-water work component of the project.

*Deliverables:*

48 NORTH will prepare one (1) draft copy of the SEPA Checklist and each permit application in MS Word format for internal review by NHC and/or the City. Upon receipt of one (1) consolidated set of comments, 48 NORTH will then prepare the final SEPA Checklist, and permit applications for submission to the respective agencies. Copies of all applications, as pdfs, will be submitted to NHC for their records. We assume NHC will prepare all JARPA-formatted figures for this submission. 48 NORTH will use the information included in the revised JARPA and upload it onto the WDFW APPS online application system to obtain an HPA.

48 NORTH recognizes the regulatory agencies are involved with multiple projects at any one time. Therefore, once each application is submitted, 48 NORTH will work closely with the respective agencies to support the permitting review process so that it is completed as efficiently as possible. Our aim will be to minimize any lag time during the application review. Throughout the permit review process, 48 NORTH will monitor and engage these agencies via phone calls and/or electronic mail correspondence to receive updates from them and address any concerns that may arise. We will work closely with NHC to address agency comments received and provide any supplemental information to keep the project on schedule.

**Task 2: Ecology Section 401 Water Quality Certification Support**

The January 30, 2020, JARPA was submitted to Ecology for concurrence of Section 401 of the Clean Water Act (CWA). Ecology requested an individual Section 401 WQC for this project since USACE has decided to go with an IP. Since the USACE is requiring an IP for this project, Ecology is requesting an individual Section 401 WQC for this project. Ecology is currently processing this permit application as an individual Section 401 WQC and is reviewing for consistency with Washington's Coastal Zone Management Program.

Since the project was delayed in the Alternatives Analysis Framework process, Ecology determined that the project had not met the requirements of the state's Shoreline Management Act and Water Pollution Control Act and does not have sufficient time to obtain the shoreline permit and Section 401 Water Quality Certification before the deadline of July 13, 2021. Ecology canceled the January 30, 2020, application as the USACE withdrew the project.

The Pre-Filing Meeting Request for Clean Water Act Section 401 WQC was filed and accepted by Ecology on July 16, 2021. This completes the requirement of the Pre-Filing Meeting Request and initiated

the Section 401 WQC permitting process for this project. Ecology has requested that a new JARPA will need to be submitted for concurrence of Section 401 of the Clean Water Act, in addition to the other information listed below that Ecology currently requires for WQC:

- WQ cert form or email acknowledge receipt
- Completed, signed, and dated **new** JARPA application
- 60% design with BMPs, with construction methodology
- Draft Mitigation Plan
- Wetland Delineation Report and ratings
- Water Quality Monitoring Plan or Water Quality Monitoring and Protection Plan (WQMPP)
- Dewatering Plan (**don't check box** if only putting in a curtain)
- Revegetation/Restoration Plan
- Erosion and Sediment Control Plan
- SEPA decision box and **does not need to be completed**
- CZM review needs to be re-initiated. **Corps will send CZM form**

*Under Specific Nationwide conditions and because of EPA rule (NWP 27) not triggering 401 review but triggering 401 is new language for automatic 401. Ecology had discretion before but not now.*

The WQMPP is intended to describe and/or provide specific information on activities that will be performed within and/or over waters of the State. The WQMPP shall include a monitoring schedule for tracking the performance of Best Management Practices (BMPs) used during in-water and over-water work within the project. Upon discussion with the Ecology project manager on June 6, 2022, a final SEPA determination will not be needed for this project application submittal. This is a new permit application requirement modification that is in the process of being adjusted by Ecology (June 2022).

48 NORTH will consult with Ecology on the above requested information and in coordination with NHC, will draft a WQMPP, Dewatering Plan, and a Revegetation/Restoration Plan as per Ecology's request. NHC will draft an Erosion and Sediment Control Plan. Once this information review is complete and approved, Ecology will issue their WQC.

#### *Deliverables:*

48 NORTH will prepare one (1) draft copy of the WQMPP, Dewatering Plan, and Revegetation/Restoration Plan in MS Word format for internal review by NHC and/or the City. Upon receipt of one (1) consolidated set of comments, 48 NORTH will then prepare the final documents for submittal to Ecology. Copies of all documents, as pdfs, will be submitted to NHC for their records. We assume NHC will prepare all WQMPP, Dewatering Plan, and Revegetation/Restoration Plan figures for this submission. 48 NORTH will draft and submit the above report documentation to Ecology.

#### **Task 3: Endangered Species Act Consultation**

Section 7 of the Endangered Species Act (ESA) requires federal agencies to ensure actions it authorizes, or permits are not likely to jeopardize the continued existence of listed species or adversely modify designated critical habitats. To meet ESA requirements, agencies review the likely effects of their projects in consultation with the National Marine Fisheries Service (NMFS) and/or U.S. Fish and Wildlife Service (USFWS), commonly referred to as the "Services". The Services share responsibility for administering Section 7 of the ESA. Consultation with the Services may be required if the project requires a federal permit from the USACE, which is considered a federal nexus. Projects that have a federal nexus (i.e.,

receive federal funds, occur on federal lands, or require federal permits or approval) trigger the completion of Section 7 consultation with the Services.

Consultation under ESA would require the City to submit either a letter of “no effect” or request a Biological Assessment (BA) for informal (determination of “may effect, is not likely to adversely affect”), or formal consultation (determination of may affect, is likely to adversely affect”) to the Services. The USACE is responsible for initiating and coordinating the consultation process and obtaining the Services concurrence. 48 NORTH will prepare either a “letter of no effect”, or an abbreviated Biological Evaluation (BE) to address the potential impacts and possible mitigation measures to offset these impacts.

The project is located upstream of Snoqualmie Falls and does not contain any ESA-listed species and/or critical habitat overseen by NMFS but may contain ESA-listed species and/or critical habitat overseen by USFWS. Due to the project’s location above the Snoqualmie Falls, USFWS may request consultation, or BMPs, and a determination of impacts for Northern spotted owl and/or marbled murrelet. NMFS may also request consultation due to the possible impacts to ESA listed species below the falls, due to stormwater and turbidity issues. ESA consultation for the adjacent Record Office Revetement Repair Project did not require consultation with NMFS, so we are assuming there will not be a need for consultation with NMFS for this project.

Consultation requirements with the USFWS may include 1) an assessment of the proposed construction of the streambank stabilization to determine the level of effect on ESA-listed species such as the Northern spotted owl (*Strix occidentalis caurina*) and/or marbled murrelet (*Brachyramphus marmoratus*) or their designated critical habitat, which is found just west of the City in the Middle Fork Snoqualmie River basin), protected by the respective agencies, and 2) preparation of a letter (or report, depending on the level of effect) addressed to USFWS requesting concurrence with the effect determination. The USACE will issue a permit once they receive concurrence from USFWS (amongst other items).

Working through the USACE, 48 NORTH will either meet in person or communicate over the phone with the USFWS to discuss the Proposed Action. Following this, 48 NORTH will prepare the requested documentation (i.e., Letter of No Effect, or abbreviated Biological Evaluation [BE]) summarizing the potential impacts of the Proposed Action on ESA-listed species that may occur within the Project Area. A Letter of No Effect was submitted to the Services for the Record Office Project, and this is anticipated to be documentation of what may be required for this project.

#### *Deliverables:*

48 NORTH will prepare one (1) draft copy of either a Letter of No Effect, or abbreviated BE, in MS Word format for internal review by NHC and/or the City. Upon receipt of one (1) consolidated set of comments, we will then prepare a final document for submission to the USACE.

#### **Task 4: Mitigation Plan**

A draft Mitigation Plan with suggested mitigation alternatives and mitigation ratios was submitted to the previous USACE project manager on January 30, 2020, and consultation regarding finalizing mitigation alternatives and mitigation ratios is anticipated with the new USACE project manager, once assigned. Upon the City agreeing to USACE-approved mitigation alternatives and ratios for impacts, as outlined in the draft Mitigation Plan submitted to the USACE, 48 NORTH will develop a final Mitigation Plan. Future Mitigation Plan cost is only an estimate and may change as impacts and ratios have not yet been determined. Negotiations with the USACE are pending. This final mitigation plan will outline how the

City will compensate for the impacts of the aquatic habitats and increase the net aquatic habitat functions and values at a landscape level. There are wetlands present onsite, but all possible wetland impacts will likely be avoided through the design process and will not be included in the mitigation negotiations with the USACE.

*Deliverables:*

48 NORTH will attend up to four (4) virtual meetings to engage with the USACE in negotiating mitigation alternatives and ratios based on the submitted draft Mitigation Plan. prepare one (1) draft copy of a final Mitigation Plan, in MS Word format for internal review by NHC and/or the City. Upon receipt of one (1) consolidated set of comments, we will then prepare a final document for submission to the USACE.

## **PART 2: COST ESTIMATE AND ASSUMPTIONS**

48 NORTH's Time & Materials estimate to complete the environmental permitting for the City's proposed Sandy Cove Bank Stabilization Project is \$83,824 (Table 1). This cost estimate is net of any applicable Federal, state, and local sales taxes or fees. 48 NORTH's 2022 labor rates are presented in Table 2. These rates will be valid for the duration of the project. Our cost estimate does not include any payments for other federal, state, or local permitting costs, or other agreements.

**When costing this estimate, we made the following assumptions:**

- Permitting effort and costs are estimated based on NHC's current draft 60% restoration design concepts and stormwater outfall upgrades identified by City staff.
- Due to the project's location above the Snoqualmie Falls, we do not anticipate consultation with NMFS; however, USFWS may request consultation, or Best Management Practices, and a determination of impacts for Northern spotted owl and/or marbled murrelet. We have costed ESA consultation such as an abbreviated BE that can be later amended to a letter of No Effect upon consultation with USFWS. We have not costed the development of a fully expanded BA.
- The City will be the SEPA lead.
- A SEPA Checklist is sufficient, and the project will not require a SEPA EIS.
- If required by the permitting agencies, a cultural resources report will be completed by a third party and will be provided to 48 NORTH for the permit application submittals.
- A Mitigation Plan for wetland, river, and floodplain impacts is required by the USACE, Ecology and WDFW as well as the City. The negotiation and completion of the draft Mitigation Plan to the USACE has been costed in Task 4. Mitigation Plan cost is only an estimate and may change as impacts and ratios have not yet been determined. Negotiations with the USACE are pending.
- NHC will provide all design figures to support all permit applications.
- To minimize costs and maximize effort, permit tracking will be limited to teleconferences, phone calls, and electronic mail correspondence with regulatory agencies only.

This cost estimate does not include additional agency/stakeholder meetings to address significant changes to the permit submittals and/or agency comments; or substantial project changes that may require modifying the required permits.

**The following additional assumptions were made to reduce anticipated costs and create a range due to current permitting agencies uncertainties. We have included a best-case scenario vs worst case scenario ranges for Tasks 1-4 (see Table 1):**

Task 1: If Corps and other agency permitting occurs without many revisions or surprises, the scope of Task 1 may be reduced. As you are aware, we are on our fourth USACE project manager and the discontinuity is a factor in trying to obtain the Corps permit and coordination with other agencies. Also, if the City Planner develops the SEPA checklist, Substantial Development Permit and a Flood Improvement Permit, the permitting scope for Task 1 may be reduced.

Task 2: The cost range for Ecology permitting may be closer to the upper end since there are a lot of new required application requirements for the Section 401 Certification, including the submittal of a new JARPA to Ecology (see bullet list above).

Task 3: The best-case scenario is if the ESA submittal is a No Effect letter and only minimal USFWS interaction, like Record Office. If NFMS consultation is required due to new regulations, the cost will be on the higher range or even more.

**Table 1:** 48 NORTH's Time & Materials Cost Estimate Per Task for the Sandy Cove Project Amendment

Task	Cost
Task 1: Permitting, Meetings and Project Management	\$25,050 - \$35,576
Task 2: Ecology Water Quality Certification	\$23,100 - \$32,600
Task 3: ESA Consultation	\$2,100 - \$5,018
Task 4: Mitigation Plan Completion	\$4,200 - \$10,080
ODC and Travel (including 10% markup)	\$550
TOTAL	\$55,000 - \$83,824

**Table 2:** 48 NORTH's 2022 Professional Rates

Labor Category	Rate/Hour
Principal Scientist	\$163
Senior Scientist	\$150
Environmental Scientist III	\$131
Environmental Scientist II	\$117
Environmental Scientist I	\$101
GIS Analysis	\$131
Technical Editor	\$ 82
Accounts Specialist	\$ 74

Other Direct Costs (out of pocket expenses), Travel, etc. are invoiced at actual plus 10%  
Rates effective through 12/31/2022

We appreciate the opportunity to submit this proposal and look forward to continuing to support NHC and the City on this project. If you have any questions or would like to discuss this proposal further, please contact Bill Mavros at (206) 637-5442 or via e-mail at [bmavros@48northsolutions.com](mailto:bmavros@48northsolutions.com).

Sincerely,

A handwritten signature in black ink, appearing to read 'BM', followed by a long, horizontal, wavy line that extends to the right.

Bill Mavros, Senior Scientist  
48 North Solutions, Inc.





June 28, 2022

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## **Attachment B**

Sub-consultant Berger's Scope and Fee Estimate

5.16.22



Derek Stuart  
Northwest Hydraulic Consultants  
12787 Gateway Dr S  
Tukwila, WA 98168

### **Proposal for Landscape Architectural Services – Sandy Cove Park Lower Bank Stabilization**

Derek:

We appreciate the opportunity to support your work at Sandy Cove Park associated with the lower bank stabilization project. We understand we will provide landscape architectural services to prepare restoration planting plans that meet required critical area mitigation. This work includes identifying strategies to preserve view corridors from the park to the river. Other elements include working with the project team to further define public access ramps to the river, as well as any supporting park infrastructure to be identified as work progresses.

It is our understanding we will begin work in June of 2022, and construction is assumed to be complete in summer of 2023 (pending permit approvals).

### **60% Design**

---

The following tasks and deliverables will be provided as part of this phase of the project. Work is anticipated to begin in June 2022 with an estimated two-month duration.

1. Project management:
  - a. Time includes coordination with the city and NHC project team members, and review of work completed to date.
  - b. Gather associated background materials and setup CAD sheets for the project.
  - c. Attend up to six one-hour virtual meeting with the team to coordinate associated work items related to the project.
  - d. Attend one kick off meeting on site to observe current conditions of the work area and define project parameters and any other design elements.
2. Landscape architectural design task:
  - a. Coordinate restoration plantings related to bank stabilization work and identify any tree or site protection needs.
  - b. Identify view corridors and coordinate bank stabilization details to ensure plant materials meet project objectives for agencies and stakeholders.
  - c. Coordinate materials and site access needs for two water access ramps down the bank with NHC and the city.

5.12.22

Derek Stuart

Northwest Hydraulic Consultants

Proposal for Landscape Architectural Services – Sand Cove Park Lower Bank Stabilization

Page 2 of 5



- d. Identify any other needs for site furnishings or landscape elements on the lower bank.
  - e. Provide Rough Order Magnitude (ROM) cost estimate to support NHC with associated restoration and landscape materials costs for the project.
  - f. Prepare draft specifications in CSI format following required standards for restoration plantings and any associated landscape elements.
- 3. Deliverables:
  - a. Basis of design narrative for landscape related items.
  - b. Preliminary tree protection plan and planting restoration sheets.
  - c. Preliminary landscape plans laying out park amenities.
  - d. ROM cost estimate.
  - e. Draft Specifications.

## **90% Design**

---

Upon receiving comments from the 60% design submittal, we will engage in the following tasks for 90% design. It is assumed these plans will be used for permit submittals and is estimated as a two-month period of time. Specific tasks for this phase include:

- 1. Project management:
  - a. Attend up to six one-hour virtual meetings with the city and design team to coordinate project elements.
  - b. Internal coordination meetings and QA/QC to ensure tasks are fully coordinated with the NHC team, any related design standards, and input from associated stakeholder and agency review cycles.
  - c. Respond to 1 round of permit review comments and attend one review meeting with city and/or agency stakeholders.
- 2. Landscape architectural tasks:
  - a. Permit ready tree protection plan and coordinate site access to minimize construction impacts. (1 sheet including details).
  - b. Permit ready landscape site plan detailing water access ramps and associated park amenities. (2 sheets).
  - c. Permit ready planting restoration plans that outline any required mitigation. (3 sheets).
- 3. Deliverables:
  - a. Landscape construction documents, up to six drawing sheets.
  - b. Revised cost estimate for landscape related items.
  - c. Revised specification for related landscape items and prepare bid form per WSDOT Standards.

### **100% Design / Bid Administration**

---

After completion of 90% Design set, and all reviews are complete, we will revise the plan sheets to address comments and finalize coordination of the construction documents in preparation for public bid. Specific tasks for this phase include the following:

1. Project management:
  - a. Attend up to two one-hour virtual meetings with the city and design team to coordinate project elements.
  - b. Internal coordination meetings and QA/QC to ensure tasks are fully coordinated with the NHC team, city standards, and input from associated agency / stakeholder review cycles.
  - c. Assist city and NHC with bid phase as needed.
2. Documentation:
  - a. We will provide a written response to all review comments and incorporate all revisions related to our scope of work.
  - b. Cost estimate updates will be provided for related project elements.
  - c. Revise specifications to coordinate project elements with all consultants.
  - d. Respond to bidder questions during bid phase and prepare any necessary addenda (assumes responses to 10 questions and 4 plan revisions).
3. Deliverables:
  - a. Bid ready landscape construction documents, up to six drawing sheets.
  - b. Bid ready landscape related specifications.
  - c. Cost estimate information for landscape architectural scope.
  - d. Plan revisions issued as addenda during the bid period.

### **Assumptions**

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We have made the following assumptions in developing this scope of work:

1. It is assumed 30% Design is complete on the project, and that a JARPA application has been submitted by NHC on behalf of the city.
2. Our work is in support of NHC who is administering the permit process. Our scope includes time to coordinate permit applications and supporting materials needed to satisfy local, state and federal permits.
3. All work is associated with the lower bank only, and does not include implementation of any work on the upper bank associated with a separate project.
4. We will coordinate tree protection details with city arborist.
5. Coordination meetings are assumed to be held virtually, and minimal travel time has been included in this scope and fee.
6. Construction Support Services will be negotiated separately on a future date.
7. No formal presentations or public outreach is anticipated with this scope of work.

## **Fees**

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Based on the scope of services identified at this time, we have established a not to exceed fee for landscape architectural services as follows:

60% Design	\$11,215.00
90% Design	\$12,025.00
100% Design / Bid	\$8,150.00
Reimbursable Expenses	\$500.00
<b>Total</b>	<b>\$31,890.00</b>


Fees will be billed monthly based upon the percentage of work completed. Services beyond those noted in this proposal will be billed as additional services on an hourly basis as follows, or lump sum fees can be negotiated:

Principal	\$215.00 per hour
Associate	\$170.00 per hour
Project Manager	\$140.00 per hour
Landscape Designer	\$115.00 per hour
Administrative Staff	\$100.00 per hour

Invoices not paid within 90 days of invoice date will be subject to late charges of 1% per month. If payment for services is not received within 120 days of the invoice date, all subsequent services and/or issuance of documents may be postponed until receipt of payment, unless special arrangements are made prior to providing the services.

If this proposal meets with your approval, please sign one copy and return it to our office. If you have questions, would like more information, or wish to make any modifications, please do not hesitate to contact us. We look forward to continued work with your office in Snoqualmie! Work will be scheduled upon our receipt of the signed proposal.

Sincerely,  
**Berger Partnership PS**



Andy Mitton  
Principal, ASLA, PLA

5.12.22  
Derek Stuart  
Northwest Hydraulic Consultants  
Proposal for Landscape Architectural Services – Sand Cove Park Lower Bank Stabilization  
Page 5 of 5



***APPROVED:***

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Date

## Fee Estimate Worksheet

Date: 5/16/2022

Project: Sandy Cove Park Lower Bank Stabilization

	Principal AM	Associate	PM JF	LA Staff	Admin CG	Total
<b>60% Design</b>						
Project Management - gather backgrounds, CAD setup	4		10			\$2,260.00
Kick off mtg w/ team on site	3		3			\$1,065.00
Virtual team coordination meetings (4)	4		4			\$1,420.00
City / Agency meetings (2)	2		2			\$710.00
Develop Restoration Planting Plans for lower bank - identify view corridors	2		8			\$1,550.00
Coordinate details for water access	2		4			\$990.00
Identify other park site furniture	1		4			\$775.00
Provide ROM Cost Estimate support to related items	1		4			\$775.00
Draft Specification, planting & Site furnishings	2		6		4	\$1,670.00
<b>60% Design Total</b>	<b>21</b>	<b>0</b>	<b>45</b>	<b>0</b>	<b>4</b>	<b>\$11,215.00</b>
<b>90% Design</b>						
Project Management	2		8			\$1,550.00
Virtual team coordination meetings (4)	4		4			\$1,420.00
City / Agency meetings (2)	2		2			\$710.00
Respond to comments (including 1 round permit review)	1		8			\$1,335.00
Finalize Restoration Planting Plans	1		8			\$1,335.00
Finalize details for water access	1		6			\$1,055.00
Provide details for park site furniture	1		8			\$1,335.00
Update ROM Cost Estimate for related items	1		4			\$775.00
Revise landscape specific specifications	2		12		4	\$2,510.00
<b>90% Development Total</b>	<b>15</b>	<b>0</b>	<b>60</b>	<b>0</b>	<b>4</b>	<b>\$12,025.00</b>
<b>100% Design / Bid Administration</b>						
Project Management			6			\$840.00
Virtual team coordination meetings (2)	2		2			\$710.00
Respond to comments	2		4			\$990.00
Finalize plans, specification, update Cost Estimate	2		8		4	\$1,950.00
Respond to bidder questions	2		8			\$1,550.00
Provide any required addenda	2		12			\$2,110.00
<b>Bid Administration Total</b>	<b>10</b>	<b>0</b>	<b>40</b>	<b>0</b>	<b>4</b>	<b>\$8,150.00</b>
<b>Project Totals (Berger)</b>	<b>46</b>	<b>0</b>	<b>145</b>	<b>0</b>	<b>12</b>	<b>\$31,390.00</b>
			Reimbursable Expenses (Berger)			<b>\$500.00</b>
			<b>Grand Total</b>			<b>\$31,890.00</b>





June 28, 2022

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## **Attachment C**

Sub-consultant KPFF's Scope and Fee Estimate



May 11, 2022

Mr. Derek Stuart, PE, Principal  
Northwest Hydraulic Consultants  
12787 Gateway Drive South  
Seattle, WA 98168

Subject: Sandy Cove Park Revetment  
Specification Review and Assembly Fee Proposal

Dear Mr. Stuart:

We appreciate the opportunity to provide consulting services for the project referenced above. The project intends to provide design documents for stream bank stabilization along a portion of the Snoqualmie River near Sandy Cove Park. The City of Snoqualmie (City) will then provide the design documents to potential bidders for pricing, permitting and construction.

This proposal is provided for a general review and consultation services as it relates to the Division 01 Specifications required for the work and the development of plans and documentation related to temporary erosion and sediment control (TESC) for the areas upslope of the revetment work. We also understand that NHC would like KPFF to assist in the compilation of the project specifications and support the review of bids.

### **SCOPE OF WORK**

Our scope of work as we understand it is as follows:

### **MEETINGS AND COORDINATION**

- Attend one Kick-Off Meeting.
- Attend team coordination calls as needed.
- Attend two City comment review meetings (90% and Final).

### **DIVISION 01 SPEC AND SPEC DELIVERABLES ASSEMBLY**

- The project specifications will be compiled for 90% and Final design submittals as listed in the NHC proposal in PDF format.
- KPFF will review and provide a comment matrix with proposed corrections for the Division 01 Specifications.

- Recommendations for specification editing, including draft language will be provided based on comments for the City's use.

### ***TESC, SWPPP, AND NOI***

- Prepare TESC plans and details for disturbed areas upslope of the revetment.
- Prepare construction cost estimate for TESC elements upslope of the revetment.
- Contribute relevant sections to the Stormwater Pollution Prevention Plan for work upslope of the revetment.
- Prepare, assemble, and submit the Notice of Intent for the Construction Stormwater General Permit.

### ***BID SUPPORT***

- Coordinate specification questions developed by contractors during the bid process for the Division 01 Specifications.
- Revise the design specifications as needed to reflect clarifications during contractor bidding.

### ***ASSUMPTIONS***

- We understand that specification sections outside of Division 01 will be provided by NHC to KPFF and that those sections will not require review.
- The necessary Division 01 specifications will be provided from the City for our use in word format.
- Specification Sections provided by others will be in WSDOT format and will not require formatting over and above compiling the sections into different document types (ie: ready for transition from word to pdf file types).
- Design scheduling and management will be by others.
- Input regarding permitting and administrative requirements needed in the Division 01 Specifications will be provided by others for our use.
- All deliverables will be in digital formats. Printing will not be required.

**FEE**

We propose to accomplish the above scope of services on an hourly basis for the following total not to exceed (NTE) fee, in accordance with the enclosed fee schedule and Terms and Conditions, which are made part of this proposal:

Meetings	\$ 3,000
Division 01 Spec Review	4,000
TESC, SWPPP, NOI	8,000
Bid Support	<u>3,000</u>

**Civil Fee Total – NTE    \$ 18,000**

Expenses, such as mileage, are included in this fee. We will not exceed the total estimated fee without prior approval.

We look forward to working with you on this project. If this letter of agreement meets with your approval, please sign below and return one copy for our files. If you have any questions, please contact me at (206) 622-5822.

Sincerely,

Joe Eberhardt, PE  
Associate

BSM:

Enclosure

65400

Approved by: \_\_\_\_\_ Date: \_\_\_\_\_  
Northwest Hydraulic Consultants



June 28, 2022

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## **Attachment D**

Sub-consultant AESI's Scope and Fee Estimate



associated  
earth sciences  
incorporated

May 9, 2022

Project No. 20220191E001

**CONTRACT AGREEMENT TO ENGAGE THE SERVICES OF  
ASSOCIATED EARTH SCIENCES, INC.  
AS A CONSULTANT AND ADVISOR**

**This agreement has been entered into at**

Associated Earth Sciences, Inc.  
911 5<sup>th</sup> Avenue  
Kirkland, Washington 98033

**on the 9<sup>th</sup> day of May 2022 between**

**Client:** Northwest Hydraulic Consultants  
301 W Holly Street, Suite U3  
Bellingham, Washington 98225

**Attention:** Mr. Derek Stuart

**hereinafter referred to as “Client,” and Associated Earth Sciences, Inc. (AESI), hereinafter referred to as “Geotechnical Consultant,” for mutual consideration as hereinafter set forth:**

**1.0 The description and location of the project on which the Client contracts the Geotechnical Consultant’s services are:**

The subject site is Sandy Cove Park, located at 7970 Falls Avenue East in Snoqualmie, Washington, along the bank of the Snoqualmie River. It our understanding that current plans include the construction of new protection measures to reduce bank erosion along the park shoreline. We understand that the Client has requested that AESI provide design-phase geotechnical consultation in support of the proposed project.

**2.0 Geotechnical Consultant agrees to provide the following services:**

Geotechnical consultation in support of the proposed design. Our services may include participation in project meetings, coordination with the design team, review of previous exploration logs and bank protection plan drawings and specifications, numerical slope stability analysis of proposed bank stabilization measures, or the issuance of supporting documentation for the proposed design, including to address jurisdictional comments.

**3.0 Client confirms that the Geotechnical Consultant has explained the full range of services it offers and the manner in which they could be applied to this project. Client also confirms that they have understood the value and benefit of these services and have of their own accord**

decided upon those identified in paragraph 2.0 above. Client agrees to hold the Geotechnical Consultant harmless for claims of any kind that may arise from any source due to the Geotechnical Consultant's failure to provide services that Client has specifically not included in the list of services identified in paragraph 2.0 above. Client further agrees to indemnify the Geotechnical Consultant for the cost of defending any such claims and any awards or settlements resulting therefrom.


**4.0 The Client accepts that all services are provided in accordance with the attached Schedule of Charges and General Conditions, which are made a part of this contract by reference. Client further agrees to compensate the Geotechnical Consultant for their services, and to reimburse the Geotechnical Consultant for expenses incurred on Client's behalf as follows:**

All work will be completed on a time and expense basis (Associate or Senior Principal rate) in accordance with the attached Schedule of Charges and General Conditions. An estimated budget placeholder for the above scope of services is \$10,000. Additional geotechnical consulting, field exploration and testing, or other authorized services that are beyond the proposed scope of work will be performed on a time and materials basis in accordance with our current Schedule of Charges and General Conditions.

Future work may include geotechnical observation services during construction. We can prepare a proposal for these services upon request.

**5.0 The person signing this contract for a business entity attests that they are empowered to act on behalf of the business and agree to the Schedule of Charges and General Conditions attached to this letter. Your signature below will provide acceptance of this proposal, authorizing us to proceed. Please send a signed copy to our Kirkland office address (AESI, 911 5<sup>th</sup> Avenue, Kirkland, Washington 98033).**

The undersigned has reviewed and accepts the attached General Conditions.

  
**ASSOCIATED EARTH SCIENCES, INC.**  
**Kirkland, Washington**  
Bruce L. Blyton, P.E.  
Senior Principal Engineer

\_\_\_\_\_  
Client Date  
Authorized Representative Signature

\_\_\_\_\_  
Client (please print name)

Attachments: Schedule of Charges/General Conditions



**ASSOCIATED EARTH SCIENCES, INC.**  
**SCHEDULE OF CHARGES**

Our compensation will be determined on the basis of time and expenses in accordance with the following schedule unless a lump sum amount is so indicated in the proposal or services agreement. Current rates are as follows:

**Personnel Charges - Engineers, Hydrogeologists, Geologists, and Scientists**

Sr. Principal.....	\$255.00/hour
Principal.....	\$225.00/hour
Sr. Associate .....	\$200.00/hour
Associate .....	\$185.00/hour
Senior .....	\$170.00/hour
Sr. Project .....	\$160.00/hour
Project .....	\$145.00/hour
Sr. Staff .....	\$125.00/hour
Staff .....	\$105.00/hour
Legal Testimony (4 hour minimum) .....	\$400.00/hour

**Personnel Charges - Technicians**

Sr. Field Technician.....	\$115.00/hour
Sr. Field Technician Overtime .....	\$140.00/hour
Technician .....	\$95.00/hour
Technician Overtime.....	\$115.00/hour

**Other Personnel and Disbursement Charges**

Sr. Geographic Information Services (GIS) Analyst.....	\$145.00/hour
Geographic Information Services (GIS) Analyst .....	\$110.00/hour
Drafting and Graphics Specialist.....	\$110.00/hour
Project Assistant.....	\$110.00/hour
Technical Editor.....	\$90.00/hour
Administrative Staff.....	\$75.00/hour
Report Processing and Archiving.....	\$10.00/each
Mileage.....	Federal Reimbursable Rate + 15%
Per Diem.....	To be established on a project basis
Subcontractors and Miscellaneous Expenses.....	cost plus 15%
Water Level Data Logger .....	\$60.00/month
Barometer Data Logger .....	\$40.00/month
Aerial Drone Equipment (certified drone operator charged separately).....	\$200.00/day
Bank/ACH Services or Fee .....	\$25.00/unit [check]

**Laboratory Charges**

Atterberg Limit .....	\$200.00/test
Consolidation .....	\$600.00/test
Constant Head Permeability (ASTM D2434-68) .....	\$450.00/test
Direct Shear .....	\$400.00/3 point test
Ethylene Glycol Test (3 rock minimum).....	\$200.00
Fractured Face Count (AASHTO T-335) .....	\$125.00/test
Hydrometer .....	\$210.00/test
Moisture Content.....	\$25.00/test
Organic Content .....	\$80.00/test
Percent Passing #200 .....	\$105.00/test
Permeability (Falling Head) .....	\$250.00/test
Proctor ASTM D-1557 and ASTM D-698.....	\$255.00/test
Sand Equivalent.....	\$125.00/test
Sieve with Wash #200 .....	\$200.00/test
Specific Gravity + #4 .....	\$125.00/test
Specific Gravity - #4.....	\$150.00/test
Unit Weight .....	\$80.00/test
Void Ratio.....	\$125.00/test

Other laboratory tests, disbursement charges and equipment rental will be provided on a per job basis.

**ASSOCIATED EARTH SCIENCES, INC.  
GENERAL CONDITIONS**

911 - 5<sup>th</sup> Avenue  
Kirkland, Washington 98033  
(425) 827-7701

508 S. Second Street, Suite 101  
Mount Vernon, Washington 98273  
(425) 827-7701

1552 Commerce Street, Suite 102  
Tacoma, Washington 98402  
(253) 722-2992

**Right of Entry**

The Client shall provide AESI legal access to and/or obtain permission for AESI to enter on all property, whether or not owned by Client, as necessary for AESI to perform and complete its work. Client is responsible to provide, by map or drawing, a description of the property, its location and the location of any buried utilities or structures, including but not limited to, underground storage tanks. Any damage that results to a buried utility, or to Associated Earth Sciences, Inc. (AESI) or subcontractor equipment, will be the responsibility of the client. Also, any additional charges for exploratory work, due to encountering the utility, will be the responsibility of the client. We will take reasonable precautions to minimize damage from use of equipment, but have not included in our fee the cost for restoration of damage which may result from our operations.

**Hazardous Substances & Drill Cuttings**

Client warrants that, prior to AESI beginning work, it will provide AESI with all information known, or which reasonably could be known by Client concerning the past or present use of the property and the nature and existence of any hazardous conditions or materials, on, in, under, adjacent to or near the property. When hazardous substances are known, assumed or suspected to exist at a site, AESI is required to take appropriate precautions to protect the health and safety of its personnel, to comply with applicable laws and regulations, and to follow procedures that AESI deems prudent to minimize physical risks to its personnel and the public. Hazardous substances may exist at a site where there is no reason to believe they could or should be present. AESI and Client agree that the discovery of unanticipated hazardous substances constitutes a changed condition mandating a renegotiation of the scope of work or termination of services. AESI and Client also agree that the discovery of unanticipated hazardous substances may make it necessary for AESI to take immediate measures to protect human health and safety, and/or the environment. AESI agrees to notify Client as soon as practically possible should unanticipated hazardous substances or suspected hazardous substances be encountered. Client encourages AESI to take any and all measures that in AESI's professional opinion are justified to preserve and protect the health and safety of AESI's personnel and the public, and/or the environment, and Client agrees to compensate AESI for the additional cost of such work. In addition, Client waives any claim against AESI, and agrees to indemnify, defend and hold AESI harmless from any claim or liability for injury or loss arising from AESI's encountering of unanticipated hazardous substances or suspected hazardous substances. Client also agrees to compensate AESI for work performed in defense of any such claim, with such compensation to be based upon AESI's prevailing fee schedule and expense reimbursement policy.

Client recognizes that, when it is known, assumed or suspected that hazardous substances exist beneath the surface of the project site, certain waste materials, such as drill cuttings and drilling fluids, should be handled as if contaminated. Accordingly, to protect human health and safety as well as the environment, AESI will appropriately contain and label such materials; will promptly inform Client that such containerization and labeling has been performed, and will leave the containers on site for proper, lawful removal, transport and disposal by Client. Client waives any claim against AESI and/or its professional staff, and agrees to defend, indemnify and hold AESI and/or its professional staff harmless from any claim or liability for injury or loss which may arise as a result of the drill cuttings, drilling fluids or other assumed hazardous substances being left on site after their containerization by AESI. Client also agrees to compensate AESI for any time spent and expenses incurred by AESI in defense of any such claim, with such compensation to be based upon AESI's prevailing fee schedule and expense reimbursement policy. AESI will act on behalf of Client to arrange for lawful removal, transport and disposal of hazardous substances and potentially contaminated drill cuttings, drilling fluids and wash water, if Client so requests, and Client agrees to compensate AESI based upon AESI's prevailing fee schedule and expense reimbursement.

Soil, rock, water and/or other samples obtained from the project site are held by AESI for no longer than 30 calendar days after the issuance of any document that includes the data obtained from them, unless other arrangements are mutually agreed upon in writing. Should any of these samples be contaminated by hazardous substances or suspected hazardous substances, it is Client's responsibility to select and arrange for lawful disposal procedures, that is, procedures which encompass removing the contaminated samples from AESI's custody and transporting them to an authorized disposal site. Client is advised that, in all cases, prudence and good judgment should be applied in selecting and arranging for lawful disposal procedures. AESI will act on behalf of Client to arrange for lawful removal, transport and disposal of hazardous substances if Client so requests, and Client agrees to compensate AESI based upon AESI's prevailing fee schedule and expense reimbursement.

Due to the risks to which AESI is exposed, Client agrees to waive any claim against AESI and/or its personnel, and to defend, indemnify and hold AESI and/or its personnel harmless from any claim or liability for injury or loss arising from AESI's containing, labeling, transporting, testing, storing or other handling of contaminated samples. Client also agrees to compensate AESI for any time spent and expenses incurred by AESI in defense of any such claim, with such compensation to be based upon AESI's prevailing fee schedule and expense reimbursement policy.

**Aquifer Contamination**

Subsurface drilling and sampling may result in unavoidable contamination of certain subsurface areas, as when a probe or boring device moves through a contaminated area, linking it to an aquifer, underground stream, or other hydrous body not previously contaminated and capable of spreading hazardous substances off-site. Because subsurface sampling is a necessary aspect of the work which AESI will perform on Client's behalf, Client waives any claim against AESI and/or its personnel, and agrees to defend, indemnify and hold AESI and/or its personnel harmless from any claim or liability for injury or loss which may arise as a result of alleged cross-contamination caused by drilling or sampling. Client further agrees to compensate AESI for any time spent or expenses incurred by AESI in defense of any such claim, in accordance with AESI's prevailing fee schedule and expense reimbursement policy.

**Ownership of Documents**

All designs, drawings, specifications, notes, data, sample materials (exclusive of hazardous substances), report reproducibles and other work developed by AESI are instruments of service and as such remain the property of Associated Earth Sciences, Inc.

**Third Parties**

All services performed by AESI and/or its personnel under this agreement are intended solely for the benefit of the client. Nothing contained herein shall confer any rights upon or create any duties on the part of AESI and/or its personnel toward any person or persons not a party to this agreement including, but not limited to any contractor, subcontractor, supplier, or the agents, officers, employees, insurers, or sureties of any of the above.

AESI shall not be responsible for the means, methods, or procedures of construction, nor for safety on the job site, nor for the contractor's failure to carry out the work in accordance with the contract documents.

**Insurance**

Associated Earth Sciences, Inc. maintains General Liability Insurance for bodily injury and property damage with an aggregate limit of \$1,000,000 per occurrence and we will furnish certificates of such insurance upon written request. Our liability to the Client for bodily injury or property damage arising out of work performed for the Client for which legal liability may be found to rest upon us, other than for professional errors and omissions, will be limited to our General Liability Insurance coverage. AESI also maintains professional errors and omissions insurance. We will furnish certificates of such insurance upon written request. No provision contained in the agreement between AESI and Client shall be construed to void, vitiate or adversely affect any insurance coverage held by AESI.

**Standard of Care**

Services performed by AESI under this agreement will be conducted in a manner consistent with that level of care and skill ordinarily exercised by members of the profession currently practicing in the same locality under similar conditions. No other representation, express or implied, and no warranty or guarantee is included or intended in this agreement or in any report, opinion, and document or otherwise.

**Limitation of Liability**

To the fullest extent permitted by law, the total liability of AESI and its principals, personnel and employees, to Client and anyone claiming by, through or under Client, for any and all claims, losses, costs or damages whatsoever arising out of, resulting from or in any way related to the Project or this Agreement from any cause or causes, including but not limited to the negligence, professional errors or omissions, strict liability, breach of contract or breach of warranty express or implied of AESI or its principals, employees or personnel shall not exceed \$50,000 or the total compensation received by AESI under this Agreement, whichever is less.

The Client further agrees to require the contractor and its subcontractors to execute an identical limitation of AESI's and/or its personnel's liability for damages suffered by the contractor or subcontractors arising from the professional acts, errors, or omissions of AESI and/or its personnel. Increased liability limits may be negotiated upon Client's written request, prior to commencement of services, and upon Client's agreement to pay an additional fee commensurate with the increased risk. Any such increased limit of liability shall be established by written agreement signed by Client and AESI. As used in this section, the term "liability" means liability of any kind, whether in contract, tort, strict liability or otherwise, for any and all injuries, claims, losses, expenses, or damages arising out of or in any way related to services provided by or through AESI.

**Waiver of Consequential Damages**

Client expressly waives as to AESI all claims for lost profit or any other indirect, incidental or consequential damages of any nature.

**Indemnification**

Client shall indemnify, defend, and hold AESI and/or its personnel harmless against all claims, damages, losses, and expenses, including but not limited to attorney's fees and court costs arising out of or in any way related to the services provided by or through AESI; provided that such defense and indemnification obligations shall not apply to claims, damages, losses or expenses that arise out of bodily injury to persons or damage to property to the extent caused by AESI's sole negligence; provided further that Client shall indemnify AESI against liability for damages, losses, or expenses arising out of bodily injury to persons or damage to property and caused by or resulting from the concurrent negligence of Client, its agents or employees and AESI, only to the extent of the negligence of parties other than AESI.

**CLIENT AND AESI AGREE THAT THE PRECEDING PARAGRAPHS RELATING TO LIMITATIONS OF LIABILITY, WAIVER OF CONSEQUENTIAL DAMAGES AND INDEMNIFICATION WERE MUTUALLY NEGOTIATED AND THAT BUT FOR THE INCLUSION OF THOSE PROVISIONS AESI WOULD NOT HAVE ENTERED INTO THIS AGREEMENT, OR AESI'S COMPENSATION UNDER THIS AGREEMENT WOULD HAVE BEEN HIGHER.**

**Stability of Slopes**

The Client also recognizes that risk is inherent with any site involving slopes and Client agrees to accept full responsibility for these risks. Client states that he understands that the information obtained or recommendations made may help to reduce the Client's risks and that no amount of engineering or geologic analysis can yield a guarantee of stable slopes. Therefore, in cases where there is no fault (i.e. no professional errors, omissions or negligence), Client agrees to hold harmless, defend, and indemnify AESI and/or its professional staff for claims from any source in the event of slope movement and any damage resulting.

**Billing**

Invoices will be submitted once per month and are payable upon receipt. Interest of 1-1/2% per month (but not exceeding the maximum rate allowable by law) will be added to any account not paid within 30 days.

**Termination**

In the event that the Client requests termination of the work prior to completion, we reserve the right to complete such analyses and records as required to place our files in order as we consider necessary to protect our professional reputation. At our discretion, a termination charge may also be made to cover our proposal and administrative costs relating to the project.

**Integration**

These General Conditions along with AESI's proposal letter constitute the agreement between AESI and Client, contain the entire understanding between the parties in connection with the subject matter, and supersede and replace all prior negotiations, agreements or representations, whether oral or written. These General Conditions take priority over any conflicting provisions contained within AESI's proposal. No modifications or changes to the agreement shall be effective or binding unless affirmed in writing by the party sought to be bound by the change or modification.