

Sandy Cove Park Bank Protection and Restoration - Phase 2 Rescoping (Amendment 1.2)

Prepared by Northwest Hydraulic Consultants Inc.

Scope of Work

Prepared for City of Snoqualmie

March 12, 2024

PROJECT DESCRIPTION

The City of Snoqualmie has requested that Northwest Hydraulic Consultants, Inc. (NHC) provide an updated scope of work for Phase 2 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 full bank protection and restoration project at Sandy Cove Park. In December 2022, the city notified NHC that construction of the full bank protection concept would not be funded in 2023 and directed NHC to develop a design for temporary bank protection measures (Phase 1) to be constructed in 2023. Significant out of scope efforts from the previous task order include design, permitting and construction oversight for the Phase 1 temporary bank protection measures, which were successfully completed in Fall 2023.

Additional effort is needed to incorporate stakeholder comments and revise and advance the 60% Design for permitting and bid deliverables.

The primary objectives of the Project will include:

- Resubmit JARPA and continue federal, state and local permitting processes.
- Update the previously submitted 60% design drawings to reflect the approved concepts developed during the Alternatives Analysis and stakeholder consultation process.
- 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 2024 season.
- Prepare and submit a No Rise analysis for the proposed bank protection measures.

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

Following Phase 1 construction, a pre-filing request to initiate a new WQC application was filed with Ecology on February 6, 2024, which is currently being processed as an individual Section 401 WQC and reviewed for



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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.

- 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 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.



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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.

Stell, NHC's archaeological sub-consultant will conduct a cultural resources pedestrian survey (required for SEPA review and USACE 404 review). Stell's scope of work and fee is included as Attachment E.

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 2024 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).
- 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.



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- No cultural resources exist at the site. If remains or artifacts are identified, the contract will be amended to include the required expertise.
- 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.

KPFF 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 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,



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- 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. FEMA No-Rise Analysis

The proposed bank protection project is located within FEMA's regulatory floodway for the Snoqualmie River. The original Phase 2 scope of work assumed that NHC would develop a Conditional Letter of Map Revision (CLOMR) with the Federal Emergency Management Agency (FEMA) – however, due to the change in scope to focus on the Phase 1 temporary bank protection, the CLOMR effort was put on hold. In order to maintain the timeline for permitting and construction of the full bank protection design in summer 2024, NHC recommends that the CLOMR effort be continued and finalized under a separate scope of work, and that a No-Rise Analysis be submitted for this phase of the project.

Assumptions:

- The existing calibrated model developed for the CLOMR will be sufficient for completing the No Rise analysis.

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- The 60% Sandy Cove Park proposed design will be sufficient for inclusion in the No Rise submittal.

Deliverables:

- Brief memorandum documenting the analysis and results.

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.



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, KPFF will prepare a 100% design, to be included in the Sandy Cove Park construction documents. KPFF 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.



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NHC and KPFF 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.
- KPFF 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.



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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
 - 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. No Rise memorandum to City (Task 7)

TIME AND PERFORMANCE

At a schedule coordinated with City staff following issuance of this Task Order that achieves construction in 2024.



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COST ESTIMATE

nhc -- Northwest Hydraulic Consultants Inc.								PAGE 1 OF 2
12787 Gateway Drive S. Seattle, WA 98168 Tel. (206) 241-6000 Fax (206) 439-2420			Prepared for: City of Snoqualmie Project: Sandy Cove Park Bank Protection and Restoration (Phase 2) Date: February 16, 2024 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	Madalyn Oht	Diane Nurrich	
3	Hydraulic Modeling Plan and Model Development							\$0
5	Refinement of Preferred Alternative, 60% Design Drawings, and Permitting Support	10		16	120	120	2	\$49,660
6	Final Design and Embankment Design Documentation	24	10	8	216	116	2	\$71,700
7	FEMA No Rise		10		40	80	1	\$24,680
10	King Street Stormwater Outfall 100% Design							\$0
13	Project Management/ Administration and Quality Control	16			60		2	\$16,580
14	Construction Support							\$0
Total Hours and Direct Labor Cost (DL)		50.0	20.0	24.0	436.0	316.0	8.0	7.0
Standard Rate (2024)		\$310.00	\$290.00	\$290.00	\$185.00	\$160.00	\$165.00	\$260.00
TOTAL LABOR COST								\$162,620
Direct Expense Detail								
					Units	Rate		Cost
	Mileage (estimated 3 round trips)				180	\$0.580		\$104
	Reproduction & Communication							
	Survey Equipment (Boat/ RTK GPS/ Eco Sounder)				1	200.00		\$200
							Total Direct	\$304
Subconsultants								
					Sub Fee	Markup		Cost
Base Scope of Work								
	Geotechnical support for Task 1 from AESI				\$10,000			\$10,000
	KPFF (design and bid support)				\$100,400			\$100,400
	Beraer				\$32,450			\$32,450
	48N				\$30,767			\$30,767
	Stell				\$26,642			\$26,642
							Base Scope of Work	\$200,259
Cost Summary								
Total NHC Labor								\$162,620
Total Direct Expenses								\$304
Subconsultants								\$200,259
TOTAL COST (DESIGN SCOPE)								\$363,183
Remaining budget in existing Task Order (as of Jan 31 2024)								\$79,702
TOTAL COST, LESS REMAINING BUDGET IN EXISTING TASK ORDER								\$283,481



February 25, 2024

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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 12th 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

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

\$30,767 to complete Amendment 2 scope

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.

Sincerely,

A handwritten signature in black ink, appearing to read 'BM', followed by a long horizontal flourish. The signature is set against a light beige rectangular background.

Bill Mavros, Senior Scientist
48 North Solutions, Inc.



February 25, 2024

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Attachment B

Sub-consultant Berger's Scope and Fee Estimate

Fee Estimate Worksheet

Date: 5/16/2022

Project: Sandy Cove Park Lower Bank Stabilization

Rev: 1/22/2024

	Principal AM	Associate	PM JF	LA Staff SS	Admin CG	Total
60% Design						
Project restart (2022 - 2024)	2			4		\$990.00
Virtual team coordination meetings (2)	2			2		\$730.00
City / Agency meetings (2)	2			2		\$730.00
Develop Restoration Planting Plans for lower bank - identify view corridors	2			8		\$1,510.00
Coordinate details for water access	2			8		\$1,510.00
Provide ROM Cost Estimate support to related items	2			6		\$1,250.00
Draft Specification, planting & Site furnishings	4			8	4	\$2,440.00
60% Design Total	16	0	0	38	4	\$9,160.00
90% Design						
Project Management	2		8			\$1,750.00
Virtual team coordination meetings (4)	4		4			\$1,580.00
City / Agency meetings (2)	2		2			\$790.00
Respond to comments (including 1 round permit review)	2			8		\$1,510.00
Finalize Restoration Planting Plans	1			8		\$1,275.00
Finalize details for water access			4	8		\$1,680.00
Provide details for park site furniture	2			8		\$1,510.00
Update ROM Cost Estimate for related items	1		4			\$875.00
Revise landscape specific specifications	2		12		4	\$2,850.00
90% Development Total	16	0	34	32	4	\$13,820.00
100% Design / Bid Administration						
Project Management			6			\$960.00
Virtual team coordination meetings (2)	2		2			\$790.00
Respond to comments	2		4			\$1,110.00
Finalize plans, specification, update Cost Estimate	2			8	4	\$1,970.00
Respond to bidder questions	2		8			\$1,750.00
Provide any required addenda	2		12			\$2,390.00
Bid Administration Total	10	0	32	8	4	\$8,970.00
Project Totals (Berger)	42	0	66	78	12	\$31,950.00
						Reimbursable Expenses (Berger) \$500.00
						Grand Total \$32,450.00



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Attachment C

Sub-consultant KPFF's Scope and Fee Estimate



March 7, 2024

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

Subject: Sandy Cove Park Revetment
Civil Engineering Fee Proposal (Restart)

Dear Mr. Stuart:

We appreciate the opportunity to continue providing consulting services for the Sandy Cove Park Revetment project.

The project went on hold in January 2023 after submission of 60% design drawings. A fee adjustment is requested for the following changes to the project scope and schedule as discussed and documented in the Schedule and Site Plan provided on Jan 12, 2024.

Resubmit 60% and Extended Schedule

- Update the 60% drawings and specifications to include the stormwater outfall, water quality vault, and revised revetment design from NHC.
- Resubmit 60% drawings and specifications.
- Attend additional coordination meetings resulting from the 2 month extension of the design schedule.

Schedule Shift to 2024

- A 10% escalation fee has been added to remaining scope items due to significant salary adjustments that occurred in the last year.

Construction Support Services

- Participate in construction meetings as required (3 assumed).
- Conduct two site visits, including a final site walk-through and preparation of a punch list.
- Review submittals and respond to requests for information related to the civil design (5-each assumed).

Mr. Derek Stuart
March 7, 2024
Page 2

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.

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 were provided in the original proposal:

Task	Original Fee	Additional Fee	New Total Civil Fee
Meetings	\$ 4,800	\$ 1,000	\$ 5,800
Division 01 Spec Review	\$ 4,000	\$ 500	\$ 4,500
TESC, SWPPP, NOI	\$ 8,000	\$ 1,000	\$ 9,000
Stormwater Outfall	\$ 34,000	\$ 3,000	\$ 37,000
Document Management	\$ 22,600	\$ 4,000	\$ 26,600
Bid Support	\$ 9,500	\$ 1,000	\$ 10,500
Construction Support Services	-	\$ 7,000	\$ 7,000
Total	\$ 82,900	\$ 17,500	\$100,400

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

We look forward to continuing to work 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

2200691

Approved by: _____ Date: _____
Northwest Hydraulic Consultants



February 25, 2024

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Attachment D

Sub-consultant AESI's Scope and Fee Estimate



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 5th Avenue
Kirkland, Washington 98033

on the 9th 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 5th 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.



February 25, 2024

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Attachment E

Sub-consultant Stell's Scope and Fee Estimate



February 7, 2024

Northwest Hydraulic Consultants
12787 Gateway Drive South
Seattle, WA 98168
ATTN: Mr. Derek Stuart P.E., Principal
DStuart@nhcweb.com

RE: Scope and Budget ---Phase II Sandy Cove Park Upper Bank Project, Snoqualmie –
Cultural Resources Survey

Dear Mr. Stuart:

As a proposed amendment modification to subcontract No. 2003862-2, Stell archaeologists will perform the following tasks to satisfy requirements for the above referenced project as set forth in local King County ordinances and Washington's State Environmental Policy Act (SEPA).

Scope of Work

Task 1 – Cultural Resources Survey: Led by key personnel (resumes attached) for this project, Stell will conduct a systematic field survey to identify previously recorded and/or unrecorded archaeological resources where ground-disturbing activities are expected to take place. Field reconnaissance will include a series of pedestrian transects at varying intervals, depending on terrain and vegetation cover experienced across the project area. Shovel test probes will be excavated to a maximum depth of 100 centimeters across the entire project area approximately 20 meters (65 feet) apart. All sediment excavated from the shovel probes will be hand screened using ¼- inch hardware mesh. A hand auger will be used to determine subsurface deposits deeper than 1 meter and will be used to a maximum depth of 3 meters. New archaeological sites will be mapped, photographed, and recorded on Washington State Archaeological Site Inventory forms. This assessment assumes that no more than one new archaeological site will be identified and recorded during the fieldwork. Previously documented sites within the project area will be relocated, reevaluated for condition, and updated on a Washington State Archaeological Site Inventory Addendum Sheet. The Washington State Historic Inventory Database will be utilized to record the identified historic resources.

Task 2 – Cultural Resource Monitoring: Stell will conduct archaeological monitoring during construction activities. Due to the high archaeological probability of the project area, Stell expects that all ground disturbing construction will require archaeological monitoring. Per NHC, it is anticipated that monitoring will take place over the course of approximately eight (8) weeks.

Stell archaeologists will conduct monitoring following federal and state standards and guidelines. Archaeological monitoring will include at least one monitor on site observing ground disturbances. The archaeologist will document the stratigraphic matrix as sediment is being removed, making note of any exposed cultural materials. If any cultural materials are identified, then the archaeologist will collect information to determine the significance of the findings. Daily

6100 219th Street SW (STE 480) | Mountlake Terrace, Washington 98043 | 206.717.7010 | www.stellee.com

Certified VOSB | WOSB | MWBE

notes and photographs will be taken and compiled for documentation and submitted to NHC each day. A compilation of daily monitoring reports will be presented as an Appendix to the Cultural Resource Monitoring Report.

All new or previously recorded archaeological sites and isolated finds encountered during construction will be documented using the DAHP's Washington Information System for Architectural and Archaeological Records Data (WISAARD) system. Each site will be evaluated for listing in the NRHP, and recommendations will be provided in the monitoring report. All archaeological resources identified will be immediately reported to NHC.

Task 3 – Regulatory Compliance and Reporting: After the completion of the fieldwork, Stell will prepare a technical cultural resources report that meets state and federal standards for reporting as outlined in the guidelines provided by the DAHP. Reporting will be done in compliance with all NEPA, NHPA, and Section 106 review requirements. The technical report will describe survey methodology, summarize, and interpret findings, and provide management recommendations. The report will contain brief geological, prehistoric, and historical contexts for the area, as well as discussion of the fieldwork strategy employed, results, and field conditions. Stell will submit the report to NHC and the DAHP.

Stell will support NHC and the City of Snoqualmie in coordination with DAHP, affected Native American Tribes, and stakeholders. The APE letter will initiate communications related to the planned cultural resources survey and schedule. Stell will attend up to two meetings with project proponents and stakeholders to supply information related to cultural resources services and needs. Stell will coordinate directly with DAHP, with adherence from the City of Snoqualmie to assist with project requirements.

The Time and Materials cost for this scope of work is **\$54,522.06**.

Stell's proposed cost for this project is provided as Attachment 1. The pricing estimate is based on the following assumptions:

- NHC will provide all rights of entries.
- Weather conditions permitting, the cultural resources survey is scheduled to be completed within 7 (seven) weeks from the start date.
- No more than 30 shovel test probes will be excavated to a depth of no more than 100 centimeters (39 inches) below the ground surface.
- No historic buildings/structures over 50 years of age have been identified in the project area and therefore no buildings/structures will be inventoried as part of this assessment.
- Not more than one archaeological site will be recorded during fieldwork.
- Should archaeological testing for NRHP evaluation eligibility and/or data recovery efforts be determined necessary, a new scope and budget will need to be submitted.
- Human remains will not be encountered. If human remains are encountered, the King County Sheriff and Coroner will be immediately contacted. If the remains are determined to be not part of a criminal investigation and anthropological in nature, Washington Department of Archaeology and Historic Preservation forensic anthropologist Guy Tasa will be contacted immediately, as will be the affected Native American tribes.

- The draft technical report will be delivered for review to HNC within 4 weeks after the completion of fieldwork.
- The draft/final technical report will not exceed 30 pages of text (not including appendices) and five figures.
- The report will undergo one cycle of review and comment; NHC will collate all comments into a single list for response by Stell.
- One hard copy of the final report will be delivered to NHC within 1 week after receiving comments on the draft report.
- Stell staff will not require or need to provide project-specific training.
- Stell will provide cultural resources services under a Time and Materials contract.
- The scope and price quote are valid for 60 days from the date of this proposal letter.

Based on the above assumptions, this project is anticipated to take 60 days, plus NHC review time of the draft technical report.

Stell looks forward to the opportunity to support NHC and the City of Snoqualmie. Please contact me at 713.417.5421 or rkrause@stellee.com with any questions.

Regards,

Robert Krause

Rob Krause, Ph.D.
Cultural Resources Director

Attachments:

- 1.) Price Estimate
- 2.) Resumes of Key Personnel

1). Price Estimate

LABOR CATEGORIES	BASE YEAR	Unit	Task 1: Cultural Resource Survey		Task 2: Cultural Resource Monitoring		Task 3: Regulatory Compliance and Reporting		Summary	
			Hrs	Cost	Hrs	Cost	Hrs	Cost	Hrs	Cost
Jason Jones/Principal Investigator	\$96.10	HR	24	\$2,306.40	8	\$768.80	24	\$2,306.40	56	\$5,381.60
Nichole Pavodano/Mid. Archaeologist	\$86.80	HR	64	\$5,555.20	280	\$24,304.00	40	\$3,472.00	384	\$33,331.20
Cristina Rodriguez-Franco/Sr. Archaeologist	\$94.22	HR	56	\$5,276.32	24	\$2,261.28	40	\$3,768.80	120	\$11,306.40
GIS Specialist	\$77.50	HR	8	\$620.00	4	\$310.00	16	\$1,240.00	28	\$2,170.00
Editor	\$59.12	HR	8	\$472.96	4	\$236.48	16	\$945.92	28	\$1,655.36
			160	\$14,230.88	320	\$27,880.56	136	\$11,733.12	616	\$53,844.56
TRAVEL & ODC COSTS	Rate	Unit	Qty	Cost	Qty	Cost	Qty	Cost	Qty	Cost
GPS	\$35.00	Day		\$-		\$-	10	\$350.00	10	\$350.00
Mileage	\$0.655	mile		\$-		\$-	500	\$327.50		\$327.50
ODC/Travel Subtotal				\$-		\$-		\$677.50		\$677.50
Total Price				\$14,230.88		\$27,880.56		\$12,410.62		\$54,522.06

Task 2 to be completed under a future scope of work.

\$26,642 to complete Amendment 2 scope

2). Resumes attached



Jason M. Jones

Environmental Compliance Manager / Archaeologist

EDUCATION

MA, History/Anthropology,
Eastern Washington
University, Cheney, WA, 2005

BA, Anthropology, Eastern
Washington University,
Cheney, WA, 2003

REGISTRATIONS/ CERTIFICATIONS

Certified Erosion & Sediment
Control Lead (CESCL) 2016-
2020

HAZWOPER 40 hour, 2020

OSHA Oil Spill Clean-up,
2020

TRAINING

First Air/CPR/AED
Certification

Cornell Lab of Ornithology
Bird Academy Hawk & Raptor
Identification Training 2020

EPA- The Clean Water Act
Training 2019

Introduction to Native Plant
Identification, 2016

DNR-Unstable Slopes
Training, 2011

INDUSTRY TENURE

17 Years

AREAS OF EXPERTISE

Environmental compliance
inspections (cultural and natural
resources)

Erosion Control
BMPs/Plans/Stormwater Prevention

Environmental Oversight – In-
stream work (culvert installations,
de-watering and water diversion,
controls of pollutants, fills, and pH
modifying sources

Stream Turbidity (Nephelometric
Turbidity Unit (NTU) monitoring

Biologic resource protection

Noxious weed and fugitive dust
control

Spill response clean-up

Phase I, II, III archaeological
surveys and investigations

Human burial recovery

Historic properties inventories

Lithic analysis

Stratigraphic profiling

GIS/GPS data collection

Prehistoric/historic artifact
analysis/identification

Determinations of adverse effects
and resource eligibility

Tribal/Agency consultation

Technical Reporting

Public outreach/training

PROFESSIONAL EXPERIENCE

Mr. Jones has over 17 years of professional cultural resource management experience and over four years of natural resource protection experience. He meets the Secretary of the Interiors Standards for a professional archaeologist and has conducted fieldwork in Washington, California, Oregon, Idaho, Montana, Nevada, North Dakota, Missouri, Illinois, and Newfoundland. He has a current database user agreement with the California, Oregon and Washington State Historic Preservation Offices (SHPO) and he has worked as a crewmember as well as a supervisor on the completion of Phase I, II and III cultural resource field investigations as obligated under Archaeological Resources Protection Act (ARPA), National Historic Preservation Act (NHPA, Section 106 and Section 110), State Environmental Policy Act (SEPA), National Environmental Policy Act (NEPA), Native American Graves Protection and Repatriation Act (NAGPRA) and Washington Executive Order (EO) 05-05 compliance projects. He has participated extensively in consultation with state and federal agencies as well as Pacific Northwest tribal groups. Since 2016 he has been providing environmental compliance and natural resources inspection support on small-scale and large-scale construction projects, including obligations under Section 404 of the Clean Water Act. Jason is currently a Certified Erosion & Sediment Control Lead (CESCL).

PROJECT EXPERIENCE

Cultural Resource Services for the Olympic Region 22 Fish Passages Project | Clallam, Jefferson, Mason, and Grays Harbor Counties, WA | Principal Investigator | 2019–Ongoing. Archaeologist. Stell is on a team of consultants supporting WSDOT for environmental documentation related to the removal of 23 fish barriers and the design and implementation of new fish passages throughout the Olympic Peninsula in Washington State. Stell is conducting background literature and records review of each fish passage location, archaeological survey, and reporting the results per Section 106 of the National Historic Preservation Act of 1966. Stell reviewed preliminary design plans and PHD documents for each culvert location, coordinated with project leads to identify and map



Jason M. Jones
Environmental Compliance Manager / Archaeologist

estimated project footprint (temporary and permanent) to be used in the analysis, and established and mapped an estimated APE for each culvert based on project footprint. Pertinent literature on the archaeology, ethnography, and history was reviewed to determine the probability for archaeological resources, traditional cultural properties and historic resources in the study area. Previous cultural resources and geotechnical studies, historic building and structure inventories, ethnographies, local histories, historic maps, in-house records and records held by the Department of Archaeology and Historic Preservation (DAHP) were consulted. Archaeological survey, including pedestrian and subsurface testing will be completed across each fish passage APE. Previously recorded and newly located archaeological resources and historic properties observed will be documented and updated using the Washington Information System for Architectural and Archaeological Records Data (WISAARD) and in coordination with the DAHP. Stell is assisting WSDOT with tribal coordination for each of the fish passage locations to address any cultural resource concerns, including the Jamestown S’Klallam Tribe, Lower Elwha Klallam Tribe, Port Gamble S’Klallam Tribe, Makah Tribe, Puyallup Tribe, Quileute Nation, Quinault Nation, Squaxin Island Tribe, and the Suquamish Tribe.

Snohomish County PUD, Swamp Creek Switching Station Pole Installation, Snohomish County, Washington 2020. Mr. Jones served as the Project CESCL during clearing, grading and the installation of power poles related to upgrades to the switching station. All work was being performed to meet environmental guidelines/restrictions set forth by the Washington State Department of Ecology and mandates defined under the Construction Stormwater General Permit.

Bonneville Power Administration’s HEC Marker Ball Year 1 Project, Idaho, Montana, Oregon, and Washington 2020. Mr. Jones completed pre-construction reconnaissance over four states to help clear proposed helicopter landing zones for PAR Electric and WINCO. These landing zones were planned for use during emergency marker ball installation and replacement on existing BPA transmission lines. The pre-construction work entailed navigating to select locations using aerial photography, USGS maps and compass. Once on-site, Jason completed a pedestrian survey of the proposed location to make certain that no protected natural resources or cultural resources were overlooked during the desktop review and that no vulnerable resources would be affected by the proposed work. Following the field work, Mr. Jones completed a technical summary document with applicable photographs and environmental protection recommendations for the contractor to consult during their work.

Raver Substation Expansion Erosion Control Project, King County, Washington 2020. Mr. Jones acted as a team-member during this erosion control project which necessitated both hand and mechanized broadcast of seed and appropriate fertilizer, hand-raking, mechanized tilling (ATV and bucket spreader) and photographs and documentation of all work completed. Work was completed under contract to BPA to assist them with the control of noxious weeds and limit erosion around the perimeter of their Raver Substation.

Pacific Power’s Tieton Substation Expansion Project, Yakima County, Washington 2019-2020.

Mr. Jones was the Environmental Inspector for Rawhide Excavating, Inc. and helped them meet their Stormwater Pollution Prevention Plan (SWPPP) obligations as required for construction by the Department of Ecology State of Washington.

Bonneville Power Administration’s Lane to Wendson No. 1 Transmission Line Rebuild Project, Lane County, Oregon 2019-2020. Mr. Jones represented Rogue Line LLC (Rogue) as their Project Environmental Inspector and also acted as the Land Liaison and CESCL. He helped Rogue meet their Project environmental compliance obligations as outlined by BPA in accordance with the Endangered Species Act (ESA), Oregon Department of State Lands (DSL), Oregon Department of Environmental Quality (DEQ) and U.S. Army Corps of Engineers (ACOE) Section 404 permit conditions and Nationwide Permit (NWP) General Conditions. He constructed temporary fencing and signage around sensitive water resources (i.e., protected streams and wetlands) and in areas of the protected marbled murrelet and streaked horned lark, provided oversight of in-stream work to ensure environmental/permit compliance, sought contact with each affected landowner, assisted with seeding and mulching of disturbed areas to support site restoration, and participated in on-site meetings and telephone and email correspondence with representatives of the Project. Work took place over 41 linear miles from Eugene to Florence, Oregon and necessitated daily reporting and weekly SWPPP reporting.



Cristina Rodriguez-Franco, M.A., RPA

Scientist Archaeology

EDUCATION

Master's Degree, Archaeology of Death of Memory, University of Chester, UK, 2017

Bachelor's Degree, Anthropology, University of Puerto Rico, 2015

REGISTRATIONS/ CERTIFICATIONS

Register of Professional Archaeologists, #18149, since 2020

PSMJ Project Management

First Aid/AED Training

PROFESSIONAL AFFILIATIONS

Society for Historical Archaeology

Association of Oregon Archaeologist (AOA)

Association for Washington Archaeologist (AWA)

PERMITS/LICENSURE

Washington WISAARD Access

Oregon OARRA Access

Permitted Oregon Archaeologist

STELL TENURE

< 1 Year

INDUSTRY TENURE

10 Years

AREAS OF EXPERTISE

Caribbean Archaeology

Mortuary Studies

Colonial Archaeology

PROFESSIONAL EXPERIENCE

Cristina Rodriguez-Franco obtained her BA from the University of Puerto Rico where she participated in pre-Hispanic and colonial Caribbean Archaeological research throughout her undergraduate career.

Ms. Rodriguez-Franco was head research assistant in a successful three-year community archaeology investigation in the river basin of Manati, Puerto Rico, funded by the National Science Foundation. She then pursued her master's degree at the University of Chester in the UK where she expanded her breadth of knowledge to include both classic and contemporary European mortuary and osteological archaeology studies.

She is a Registered Professional Archaeologist (RPA) with ten years of experience in archaeology. Ms. Rodriguez-Franco's duties have included directing pedestrian survey and testing projects, writing archaeological reports, permits, and proposals, and has experience communicating with multiple Oregon Tribal agencies. She has participated in and supervised cultural resources investigations on the Oregon Coast, Great Basin, Columbia Plateau, the North and Central Coasts of California, Shasta Cascades, and the California Desert. Ms. Rodriguez-Franco has also worked in overseas archaeological projects in Cyprus, Wales, and England.

PROJECT EXPERIENCE

State Parks: Latourell Falls, Multnomah County, OR. Field Director. The project involved monitoring ground disturbance for trail improvements within Guy W. Talbot State Park. Ms. Rodriguez-Franco was responsible for previous archaeological research within government databases such as SHPO and Oregon Archaeological Records Remote Access (OARRA), in-field analysis of findings, and archaeological site report writing.

Rabe Consulting: Willamette NF Upper Canyon Heritage Survey, Linn County, OR. Field Director. The project involves the pedestrian survey in approximately 1,033 acres of 97 timber stands for the USDA Forest Service in Canyon Creek and Upper Canyon Creek watershed. Ms. Rodriguez-Franco was responsible for staff coordination with the Sweet Home Ranger District, previous archaeological research within government databases such as SHPO and Oregon Archaeological Records Remote Access (OARRA), pedestrian survey coordination, field analysis of findings, and archaeological site report writing.



Cristina Rodriguez-Franco, M.A., RPA
Scientist Archaeology

Corps of Engineers: Rio Grande de Manati Cultural Resource Survey, Ciales, Puerto Rico. Crew Chief. NHPA, Section 106 review in response to a federal project with the United States Army Corps of Engineers, Jacksonville District, for the Matai River canalization. The project was in response to Hurricane Maria 2017 flooding in the town of Ciales, which required a review of possible historic properties and archaeological sites. Ms. Rodriguez was responsible for the archaeological and architectural pedestrian survey coordination and execution, community outreach, documentation of built environments, and records research in Puerto Rico's government and educational institutions (SHPO), Insituto Cultura Puertorriquena (ICP). At the end of fieldwork, Ms. Rodriguez was also responsible for document translation from Spanish to English, report writing from collected field results, and determining NRHP eligibility for archaeological sites.

BLM, Oregon, Coos Ranger District: Oregon BLM Broadband Cultural Surveys, Coos Bay, OR. Field Director. The project involved a pedestrian survey on 90 miles of road within Coos County for future broadband installation. Ms. Rodriguez was responsible for staff and field coordination, required review of possible historic properties and archaeological site identification, material analysis, recording, and report writing.

Oregon Department of Forestry: Malheur National Forest Lithic Scatter Recording, Malheur National Forest, OR. Field Director. The project included a surface survey of 8,600 acres for site updates on six large lithic scatter/site complexes in the Malheur National Forest. Ms. Rodriguez was the field director responsible for crew mobilization and training, surface survey, site recording, subsurface testing, identification and analysis of pre-contact and historic-era contexts, main report writing, coordination with Tribal entities and Forest Service staff.

King Range National Conservation Area: King Range Class III Survey, Humboldt County, CA. Crew Chief. For future forest management plans, the project included surveying 3,400 acres within the King Range National Conservation Area. Ms. Rodriguez was responsible for crew coordination, survey execution, on-site analysis of precontact and historical material, NRHP evaluation of sites, and report writing.

Dryer Partnership: Survey and Site Record for Morrill Creek Bridge Removal and Replacement, Langlois, OR. Crew Chief. The project includes removing and replacing an existing bridge on Floras Creek Road in Curry County. Ms. Rodriguez was crew chief responsible for crew coordination, subsurface testing and documentation of precontact contexts, infield analysis of material, curation preparation and report writing.

T Mobile: Longview Campus Tower, Longview, WA. Field Director. The project involved an archaeological survey and testing for the relocation of cell towers and collocations of telecommunication equipment. Ms. Rodriguez was responsible for field investigation, testing, documentation of built environment and archaeological resources, report writing, and NRHP evaluation.

US Bureau of Land Management: Burns Cultural Clearance Class III Survey, Harney County, OR. Crew Chief. The BLM Burns District required a Class III cultural resources inventory and evaluation of approximately 4,412 acres spread across ten units near Burns, Oregon. The Project required the pedestrian survey to identify and evaluate cultural resources.

Oregon State Parks and Recreation Department: Monitoring Silver Falls State Park, Marion County, OR. Field Director. The project included the monitoring and testing for the new construction of the North Falls boardwalk and trail in Silver Falls State Park. Ms. Rodriguez was responsible for the survey, testing, and report writing.

City of North Bend: Ferry Road Park Heritage Management Plan, North Bend, OR. Field Director. The project included a surface survey and subsurface testing of approximately 15 acres within Ferry Road Park in the City of North Bend, OR. The City of North Bend planned future park improvements within a known archaeological site. Ms. Rodriguez was responsible for crew coordination, pedestrian survey, determining the location of subsurface testing based on records research results and CTCLUSI tribal member input, supervising and performing subsurface testing. After the work was completed, Ms. Rodriguez was solely responsible for organizing and preparing archaeological



Cristina Rodriguez-Franco, M.A., RPA
Scientist Archaeology

material for curation, including database creation and statistical analysis of findings. Results created a Heritage Management Report for the City of North Bend.

Neil Friedman: Sweet Way Monitoring in Port Orford, Curry County, OR. Crew Chief/Field Director. Testing and monitoring for private residence at Sweet Home. The project involved the archaeological survey and testing within the prehistoric site and Tribal coordination.

Plumas National Forest: Berry Brush Creek Survey, Plumas National Forest, CA. Crew Chief. The project included a surface survey of 2,600 acres for site updates on multiple archaeological sites within the Plumas National Forest. Ms. Rodriguez was the Crew Chief responsible for surface survey and site recordings of pre-contact and historic-era contexts, NRHP site evaluations, and report writing.

US Cellular: 348332 Sun Dome Cell Tower Project, Yakima, WA. Field Technician. The project included a historic archaeological survey of historic properties within the State Fair Grounds in Yakima, Washington.

Aspen Environmental Group, LLC: Oak Knoll Class III Survey in Klamath National Forest, OR and CA. Field Technician. The project included the surface survey of 6,500-6,800 acres to develop a solar energy generating facility for Arica Solar, LLC. Ms. Rodriguez was responsible for surface survey and site record of prehistoric and historic contexts.

David L. Davis Real Estate: Brandon Ridge Subdivision Survey and Testing, Coos County, OR. Field Technician. The project included a surface and subsurface survey of 4.97 acres on the eastern bank of the Coquille River in Brandon, Oregon for proposed private development. Ms. Rodriguez was responsible for surface survey and site record of prehistoric and historic contexts.

Aspen Environmental Group, LLC: Oberon Class III Survey and Site Record, Desert Center, CA. Field Technician. The project included the surface survey of 6,500-6,800 acres to develop a solar energy generating facility for Arica Solar, LLC. Ms. Rodriguez was responsible for surface survey and site record of prehistoric and historic contexts.

JUB Engineering, Inc.: Class III Survey for Caldwell Industrial Airport, Caldwell, ID. Field Technician. The project included the development of an updated Airport Master Plan and Airport Layout Plan of 528 acres. Ms. Rodriguez was responsible for surface survey and site recording.

Douglas High School: Monitoring in Douglas High School, Winston, OR. Field Technician. The project required archaeological monitoring of ground disturbance caused by construction and field identification and analysis of precontact and historic materials.

Tri-Leaf Environmental and Environmental Consultants of America: FCC Section 106 Documentation for Various Cell Towers, OR and WA. Field Technician. Projects included new installations of cell towers and collocations of telecommunication equipment. Ms. Rodriguez was responsible for field investigation and documentation of the built environment and archaeological resources supporting the proposed telecommunications facilities.

Cory Vom Baur: Archaeological Predetermination for Everett St. Quadplex, Camas, WA. Field Technician. The project included the construction of a Quadplex apartments. Ms. Rodriguez was responsible for subsurface testing and identifying archaeological materials in impacted areas.

Turner Construction Company: Monitoring in Mission College Blvd Project, Santa Clara, CA. Crew Chief. The project included the archaeological construction monitoring, identification, and documentation of any archaeological materials in impacted areas.



Cristina Rodriguez-Franco, M.A., RPA
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BLM Battle Mountain District: Survey and Site Record in Douglas Canton and Curren Summit Class III, NV. Field Technician. The project included surface survey and site record for 1,000 acres for fuel reduction in BLM land. Ms. Rodriguez was responsible for surface survey and documentation.

BLM Battle Mountain District: Surface Surveys for Applied Archaeological Research, Inc., Woodland, WA. Field Technician. The project included a surface survey and site record for 1,000 acres for fuel reduction in BLM land. Ms. Rodriguez was responsible for the surface survey and historic and precontact site documentation.

Applied Archaeological Research, Inc.: Surface Surveys for Applied Archeological Research, Inc., OR and WA. Field Technician. The project included subsurface testing for apartment complex construction. Ms. Rodriguez was responsible for subsurface testing and documentation of archaeological materials in the proposed area.

European Credit System for Vocational Education and Training (ECVET): Katalymata Ton Plakoton, Akrotiri, CY. Field Technician/Unit Leader. Internship sponsored by Grampus Heritage and Placements in Environmental Archaeological and Traditional Skills (PEATS) to further expand knowledge in classical archaeology. The Erasmus internship also provided community archaeology outreach with soldiers from the Royal Air Force (RAF). This project helped RAF personnel transition to and from military life. Ms. Rodriguez was responsible for data recovery, preservation of mosaics, and teaching archaeological basics to RAF participants.

Alan Brown, MA: Caer Alyn Archaeological Project, Wales, UK. Field Technician. This project aimed to explore Caer Alyn Hillfort's history with public involvement. Ms. Rodriguez was responsible for cleaning and categorizing archaeological material, unit excavation, and site drawing.

Natasha Fernandez, MA: El Morro Kitchen Archaeological Project, San Juan, PR. Field Technician. The project was part of the master's students' thesis to help understand and determine the diet of the fort's occupants during Spanish rule. Sponsored by the University of Puerto Rico. Ms. Rodriguez oversaw excavation, documentation through photography and scale drawings, and soil sample collections.

Conservation Trust of Puerto Rico, People for Nature: Tracing Our Roots, Manati, PR. Principal Research Assistant. Three-year investigation to determine the history of occupation along the Manati river basin. Ms. Rodriguez was involved in extensive field surveys on surrounding lands, ethnography, and community archaeology outreach. Ms. Rodriguez was responsible for organizing meetings with collaboration investigators, teaching volunteer workshops, input and analysis of information, creating the database for this investigation, and report writing.

Nydia Ponton, PhD: Hacienda La Esperanza, Manati, PR. Field Assistant. This project spanned three years for a PhD student candidate from Temple University. Its goal was to understand landscapes of power and determine the location of the slave quarters. Ms. Rodriguez was responsible for unit excavation, documentation, data input, cataloging of material culture, and the identification of historic ceramics of the 18th and 19th centuries.

University of Puerto Rico, Isabel Rivera-Collazo, PhD: Tierras Nuevas, Manati, PR. Principal Field Assistant. An archaeological field school provided by the University of Puerto Rico. Ms. Rodriguez was responsible for teaching university students archaeological ethics and basic techniques and creating and supervising surface surveys, excavation, and data input.



EDUCATION

Bachelor's Degree, Anthropology & Psychology, Boston University, 2020
Global Ocean's Program, Sea Education Association (SEA) Semester, 2019

REGISTRATIONS/ CERTIFICATIONS

HAZWOPER 40 Hour Certification
First Aid/CPR/AED
Asbestos Awareness Training Version 2 Washington 2B

PROFESSIONAL AFFILIATIONS

Association for Washington Archaeology
Society for American Archaeology
U.S Forest Service
Washington Department of Transportation
U.S. Department of the Navy
Puyallup Tribe of Indians

TRAINING

ArcGIS

STELL TENURE

2 Years

INDUSTRY TENURE

2 Years

AREAS OF EXPERTISE

Phase I and II archaeological survey and investigation	Precontact/historic-period materials analysis
Database background research (WISAARD, OARRA)	Technical writing (Reports, MIDP/IDP, APE Letter, Site Forms, Site Condition Forms)
Crew lead (Field Maps, Trimble)	

PROFESSIONAL EXPERIENCE

Ms. Padovano has over two years of professional experience in archaeological research and cultural resource management, conducting numerous surveys throughout the Pacific Northwest. Their responsibilities include, but are not limited to, site recording, site relocation, technical writing and background research, construction monitoring, client coordination, and cultural resource data collection. Ms. Padovano has experience successfully leading crews in the field and following a project from kick-off through final report submission. They have worked for and with the Washington Department of Transportation, U.S. National Parks Service, U.S. National Forest Service, Washington Department of Fish and Wildlife, the Puyallup Tribe of Indians, and the Duwamish Tribe.

PROJECT EXPERIENCE

SP Cramer & Associates, Inc.: Chewelah A-Z Project, Colville National Forest, WA. Phase I survey. Conducted site recording and historic-period material analysis. **US Forest Service: Heritage Surveys, Okanogan-Wenatchee NF and CRGNSA, Okanogan-Wenatchee National Forest, WA.** Phases I and II survey. Conducted site recording, lithic analysis, and historic-period material analysis. Created shovel probe logs, photo logs, artifact logs, and organized field notes, and previously recorded sites. Authored reports and background research. **US Forest Service: 2021 Rouge River-Siskiyou National Park Snowy Butte Archaeological Surveys, Snowy-Butte National Forest, OR.** Phases I and II survey. Conducted site recording, site relocation, site mapping on Field Maps, lithic analysis, historic-period material analysis, and detailed record keeping. Created shovel probe logs, photo logs, artifact logs, and organized field notes, and previously recorded sites. **US Forest Service: Umpqua National Forest Archie Creek 2, North Umpqua National Forest, OR.** Phases I and II survey utilizing Field Maps and Trimble. Crew lead site recovery and site relocation; conducted lithic analysis and historic-period material analysis. Lead shovel probe layout, documented field notes. Lead author on report, report letter, and background research



Nichole Padovano
Archaeological Field Technician

Anchor QEA: Lower Duwamish Waterway Shellfish Sampling, Seattle, WA. Conducted background research. Co-author on the cultural resources report, APE letter, and IDP/MIDP. **US Forest Service: Archie Creek Wildfire North Umpqua Trail Archaeological Survey, Umpqua National Forest, OR.** Phases I and II survey, utilizing Field Maps and Trimble. Crew lead site recovery and site relocation; conducted lithic analysis and historic-period material analysis. Lead shovel probe layout, documented field notes. Lead author on report and background research. **Shannon & Wilson Inc.: 8801 E. Marginal Way–Remedial Excavations Project, Tukwila, WA.** Sonic drill rig soil extraction and trench excavation construction monitoring for cultural resources. Lead author on cultural monitoring report, conducted background research, and in direct communication with client throughout monitoring work and report writing. **Shannon & Wilson Inc.: 8801 E. Marginal Way–South Remedial Excavation, Tukwila, WA.** Sonic drill rig soil extraction and trench excavation construction monitoring. Lead author on cultural monitoring report, conducted background research, and in direct communication with client throughout monitoring work and report writing. **Confluence: Stanwood IS4 92nd Ave Drainage Improvements Project, Stanwood, WA.** Wrote the MIDP and updated Appendix A., communicating directly with client. Conducted background research for previously known cultural resources. **PBS Engineering & Environmental: Mojonier Road Reconstruction, College Place, WA.** Drill rig soil extraction construction monitoring for cultural resources. Conducted background research for previously known cultural resources, submitted a monitoring log, organized the photo logs, and co-author for the cultural resources report. **PBS Engineering & Environmental: SR 224 Red Mountain Improvement Project, West Richland, WA.** Phases I and II survey and drill rig soil extraction construction monitoring. Conducted background research for previously known cultural resources and properly documented previously recorded HPI's within the APE while in the field. Submitted weekly monitoring logs, organized the photo logs, and co-author for the cultural resources report. **Weston Solutions, Inc.: Shoreline Repair Project Archaeological Monitoring, Puget Sound Naval Shipyard, Bremerton, WA.** Monitored the excavation of the Naval Base Kitsap Bremerton along the shoreline of Sinclair Inlet for cultural resources. Submitted weekly updates, supporting author on monitoring report and IDP/MIDP. **USDA Forest Service: Willamette CRI, Willamette National Forest, OR.** Phases I and II survey utilizing Field Maps and Trimble. Crew lead site recovery and site relocation; conducted lithic analysis and historic-period material analysis. Lead shovel probe layout and documented field notes. Lead author on report and background research. **South Puget Sound Salmon Enhancement Group: Griffinwood Stables – Griggs Creek Fish Passage Project, Thurston County, WA.** Phase I survey. Logged field notes and conducted background research. Communicated directly with client and supporting author on cultural resources report.

Jacobs Engineering Group: Elliot West Wet Weather Treatment Station Alternatives Evaluation, Seattle, WA. Monitored soil disturbing activity (mud rotary drill rig core barrel extractions, sonic drill rig core barrel extractions) for cultural resources. Logged daily field notes and conducted background research. Lead author on report and MIDP/IDP. **DH Environmental, Inc: Archeological Monitoring-Star Forge Demolition Project, Seattle, WA.** Monitored soil disturbing activity for cultural resources, logged daily field notes, and conducted background research. Lead author on monitoring report and MIDP/IDP. **Washington State Department of Transportation: SR 167 Completion General Engineering Consulting (GEC) Services Project, Tacoma, WA.** Monitored soil disturbing activities (excavation, core barrel extractions, spoils) for cultural resources across a 14-year, \$2.69 billion transportation project. Water screened an identified shell midden alongside members of the Puyallup Tribe of Indians. Logged daily field notes, submitted weekly logs. **U.S. Forest Service: BLM Cascade-Siskiyou National Monument Desktop Review.** Desktop literature review. **Washington Department of Fish and Wildlife: L.T. Murray Complex Vantage Hwy Fire 2022.** Phase 1 Survey. Monitored soil disturbances as over 6,000 trees were being planted. Created monitor logs.