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June 24, 2020

Monica Tonel, On-Scene Coordinator
United States Environmental Protection Agency
1200 Sixth Avenue, Mailstop 13-J07
Seattle, Washington 98101

RE: Contract Number: EP-S7-13-07
Task Order Number: F0079
Final Northport Time-Critical Removal Action Sampling and Analysis Plan

Dear Ms. Tonel:

Enclosed please find the final Sampling and Analysis Plan for the Northport Time-Critical Removal Action site, which is located in Northport, Stevens County, Washington. If you have any questions regarding this submittal, please call me at 206-624-9537.

Sincerely,

Steven G. Hall
START-IV Removal Team Leader

cc: Renee Nordeen, Project Manager, E & E, Seattle, Washington

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SAMPLING AND ANALYSIS PLAN

**Northport Properties Time-Critical Removal Action
Northport, Stevens County, Washington
TO: F0079**



Prepared for

U.S. Environmental Protection Agency, Region 10
1200 Sixth Avenue
Seattle, Washington 98101

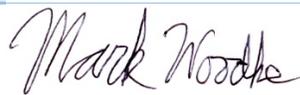
Prepared by

Ecology and Environment, Inc.
720 Third Avenue, Suite 1700
Seattle, Washington 98104

June 2020

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Approvals

Title	Name	Signature	Date
EPA On-Scene Coordinator	Monica Tonel		6/9/2020
EPA EMB Quality Assurance Coordinator	Eric Nuchims		6/9/2020
START-IV Team Leader	Steve Hall		6/8/2020
START-IV Quality Assurance Officer	Mark Woodke		6/8/2020

Project Organization

Name and Title	Organization	E-Mail and Phone Number	SAP Recipient	Data Recipient
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Abbreviations and Acronym List

Acronym/Abbreviation	Definition
µm	micrometer
bgs	below ground surface
DU	Decision Unit
E & E	Ecology and Environment, Inc.
EPA	United States Environmental Protection Agency
g	gram
mg/kg	milligrams per kilogram
NHPA	National Historic Preservation Act
OSC	On-Scene Coordinator
QA	Quality Assurance
RI/FS	Remedial Investigation/Feasibility Study
RSE	Removal Site Evaluation
SAP	Sampling & Analysis Plan
SSDMP	Site-Specific Data Management Plan
START	Superfund Technical Assessment and Response Team
TCRA	Time-Critical Removal Action
Teck	Teck American, Inc., Teck Resources, Inc.
XRF	X-ray Fluorescence

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1. Introduction

The United States Environmental Protection Agency (EPA) has tasked Ecology and Environment, Inc., member of WSP (E & E), under Superfund Technical Assessment and Response Team (START) contract number EP-S7-13-07, Task Order Number F0079, to support a time-critical removal action (TCRA) at the Northport Properties site which is located in Northport, Stevens County, Washington.

This Sampling & Analysis Plan (SAP) is prepared and used in conjunction with the Quality Assurance Plan for the Emergency Management Program (EPA 2010) and the START-IV Quality Assurance Project Plan (E & E 2013) for collecting samples during this Removal Program project. Information collected from this removal action will be stored as outlined in the Site-Specific Data Management Plan (SSDMP). The information contained herein is based on the information available at the time of preparation. As additional information becomes available, this SAP may be adjusted or updated through a Sample Plan Alteration Form .

2. Site Location and Background

Northport Properties Time-critical Removal Action	
Properties:	See Table 1
Location:	Up to 16 individual parcels in the town of Northport, WA
SSID:	10SF
EPA ID:	WAN001020185
Latitude, Longitude:	48.91587, -117.781665 (Center of Town)

2.1 Site Description

The town of Northport, with a land area of approximately 0.6 square miles, lies in the northeastern section of Washington State along the eastern shoreline of the upper Columbia River, approximately seven miles south of the U.S./Canada border and 35 miles north of Colville, Washington. The town of Northport is situated within the Colville Confederated Tribes' usual and accustomed treaty rights area and the Upper Columbia River Site remedial investigation and feasibility study (RI/FS) project area in northeast Washington state. The population of Northport was estimated at 295 during the 2010 United States census. The major industry is self-sustaining community businesses such as education, health, social services, tourism and recreation. The TCRA addresses residential properties and common use areas located within the Northport town limits west of a former smelter, i.e., LeRoi Smelter (Figure 1). (EPA 2020)

In 2002, the EPA Site Assessment program completed a Site Reassessment of the former LeRoi Smelter property located in the town of Northport and referred the area assessed to the EPA Removal Program for further consideration. In 2003, EPA conducted a removal site evaluation (RSE) at the former LeRoi Smelter property. Impacts from historical Le Roi Smelter operations may have extended beyond the private property boundary; therefore, the 2003 RSE expanded into a project area comprised of the former smelter property and properties within or near the Northport town limits through a voluntary soil sampling effort. Contamination from the operations of the Le Roi Smelter is likely comingled with contamination attributable to the Teck Resources, Inc. (Teck) lead and zinc smelter, which is located in Trail, British Columbia. Based on the findings of the 2003/2004 RSE, EPA identified several residential and common use areas for a removal action. From July 19, 2004 through October 22, 2004, EPA completed TCRAs at the former Le Roi Smelter property and at 29 residential properties located within or near the Northport town limits. In 2004, the TCRA action level for lead in soil was 1,000 milligrams per kilogram (mg/kg). (EPA 2020)

Additionally, in 2003, EPA began an RI/FS at the Upper Columbia River site in northeast Washington State to investigate contamination along the upper Columbia River from the Grand Coulee Dam to the US-Canada border. The RI/FS included the bed and banks of the Columbia River and adjacent upland areas as related to smelting operations impacting the site. As part of the RI/FS field sampling activities, EPA identified several residential properties and tribal allotments located outside the Northport town limits with lead and/or arsenic in soil at elevated levels. In 2015, a TCRA was conducted by Teck American Inc. with EPA oversight at residential properties and a Tribal allotment located outside the Northport town limits using a removal action level for lead in soil of 700 mg/kg or arsenic of 90 mg/kg. EPA determined that 700 mg/kg was the action level for TCRA's in the Upper Columbia River site, with lead concentrations above that threshold potentially presenting an imminent and substantial endangerment to public health or welfare or the environment. This updated TCRA action level was based on more protective guidance from EPA and the Centers for Disease Control and Prevention. The removal action cleanup level for lead in soil was 250 mg/kg or less, and 20 mg/kg or less for arsenic, based on a project-specific determination by EPA (Albright 2015). In 2017 and 2018, additional removal actions were conducted by Teck with EPA oversight at residential properties located outside Northport town limits. (EPA 2020)

In 2019, the Region 10 Superfund and Emergency Management Division, Emergency Management Branch conducted an RSE of the properties located within the Northport town limits that were sampled in 2003/2004 that contained lead in soil at concentrations near or above the action level of 700 mg/kg, but at which no soil removal action had been taken. To account for a margin of safety EPA included those properties within 10% of 700 mg/kg action level. EPA visited the properties from October 24 to October 28, 2019, documented the condition and layout of each property designated for potential cleanup, and interviewed each of the property owners regarding their use of their property as well as any changes that may have been made to the property since the 2003/2004 soil sampling. At some of the properties, EPA either extended the size of some of the decision units (DUs) or added new DUs. These additions were made based on observations of property use, and interviews with the landowners identifying areas of the property with a high likelihood for human exposure to contaminated soil. A DU is an identified area within a property that is distinguishable from other areas by factors such as location or use, and often included those areas within a property where there was a high likelihood of human exposure to contaminated soil. Example of DUs include play areas, gardens, or lawns. EPA also collected and analyzed soil samples, as determined appropriate by the On-Scene Coordinator (OSC), to better delineate the horizontal extent of contamination, and to assist in removal planning (i.e., disposal and cost estimating). (EPA 2020)

Based on the findings of the 2019 RSE, 16 residential properties and common use areas were identified as meeting the established criteria for a TCRA. The analytical results of soil samples collected from these properties revealed the presence of lead at concentrations near or above the removal action level for lead in soil of 700 mg/kg. Among the 16 properties, four are common use areas: a community park/playground, the Northport Community Library yard/picnic area, a community garden play area, and the Northport American Legion lot used for children's play activities.

3. Project Schedule

The proposed schedule for the project is as follows:

Table 2 Proposed Project Schedule

Activity	Estimated Start Date	Estimated Completion Date	Comments
SAP/SSDMP Submittal	4/30/2020	6/8/2020	
Mobilize to the Site	July 2020	July 2020	

Activity	Estimated Start Date	Estimated Completion Date	Comments
Sample Collection Activities	July 2020	September 2020	
Laboratory Receipt of Samples	July 2020	September 2020	48-hr TAT on soil samples, 1-week TAT for air samples
Demobilize from the Site	September 2020	September 2020	
Sample Processing	July 2020	September 2020	
Laboratory Analysis	July 2020	September 2020	
Data Validation	July 2020	September 2020	

4. Sampling Objectives

The objectives of this sampling event include:

- Air monitoring
 - Real-time air monitoring to determine particulate levels within, at the perimeter of, and downwind from the soil removal areas.
 - Air monitoring of on-site personnel.
- Sample collection
 - Air sampling for worker health and safety within the soil removal areas, as determined necessary by the OSC.
 - Soil sampling to estimate contamination levels within the soil removal areas.

5. Intended Data Use

Data that are generated will:

- Air monitoring data will be compared to site-specific action levels for airborne particulates and the metals of concern (including lead and arsenic). Site-specific action levels were developed based on personal exposure limits as part of the Site-Specific Health and Safety Plan.
- Soil sample results will be compared to a site-specific cleanup level. The site-specific removal cleanup levels to be used for this project are 250 mg/kg for lead and 20 mg/kg for arsenic.

6. Data Quality Objectives

After the excavation of the top 6 inches of soil within a DU, the field-portable x-ray fluorescence (XRF) unit will be utilized to determine concentrations of lead and arsenic within the DU. A minimum of one XRF measurement per 400 square feet will be collected. The following potential actions will occur:

- If XRF results are below the removal cleanup levels for lead and arsenic, one 30-point increment composite sample will be collected from the DU, targeting soils from 0 to 1 inch below ground surface (bgs). If off-site fixed laboratory results for the composite sample are below the removal cleanup levels, the DU will be backfilled.
- If XRF results are above the removal cleanup levels for lead or arsenic, an additional 6 inches of soil will be removed and one 30 increment composite sample will be collected from the DU, targeting soils from 0 to 1 inch bgs. The results of the composite sample will result in the following actions:
 - If the off-site fixed laboratory results are below the removal cleanup levels, the DU will be backfilled.

- If the off-site fixed laboratory results are above the removal cleanup levels, a visual barrier (geotextile fabric or similar material) will be placed on the bottom of the excavation prior to backfill.

7. Conceptual Site Model

Potential contaminants of concern for the site, transport mechanisms, and potential receptors are provided in the table below.

Table 3 Conceptual Site Model

Source	Transport	Exposure
Aerial deposition of metals (i.e., lead and arsenic) from historic and operating smelters	Re-suspension from wind or surface water transport	Incidental ingestion from direct contact with contaminated soil
Fugitive dusts from smelter operations	Vehicular tracking of dusts	Incidental ingestion of soil tracked into homes
Fugitive dusts from smelter feed stock	Re-suspension from wind. Surface water transport. Vehicular tracking of dust.	Pre-school children are most susceptible to adverse health effects from lead because they are more highly exposed and biologically susceptible to cognitive health effects
Placement of slag or other waste materials	NA	Incidental ingestion

8. Cleanup Levels

EPA concluded that the following cleanup levels, when exceeded, represent the concentrations of lead or arsenic that may present an imminent and substantial endangerment to public health, welfare, or the environment (EPA et al. 2017). Soil samples collected for off-site fixed laboratory analysis will be analyzed for arsenic, cadmium, copper, and lead; however, only arsenic and lead will be compared to cleanup levels. The cleanup levels that will be applied to this site are included in Table 4.

Table 4 Cleanup Levels

Action Level Source	Action Level Type	Matrix	Analyte	CAS No.	Value	Unit	Publication Date
Site-Specific Cleanup Level	Direct Contact	Soil	Lead	7439-92-1	250	mg/kg	9/2015
Site-Specific Cleanup Level	Direct Contact	Soil	Arsenic	7440-38-2	20	mg/kg	9/2015

Key:

CAS = Chemical Abstracts Service.

mg/kg = milligrams per kilogram

9. Monitoring Approach

In general, monitoring at the site will take place to meet one of the following objectives:

- Assess work site activities (e.g. worker health & safety, airborne particulates). Worker health and safety related monitoring action levels are included in the Site-Specific Health and Safety Plan.
- Site characterization (e.g. determining particulate levels, perimeter monitoring).

- Community protection (e.g. downwind monitoring).

Table 5 Site Monitoring

Objective	Analyte	Action Level	Action to be Taken	Basis	Instrument	Detection Limit	Correction Factor
Site Characterization	Particulates	2.5 mg/m ³	Upgrade to Level C	E&E H&S Plan	DustTrak	0.001 mg/m ³ (1 µg/m ³) to 150 mg/m ³ (150,000 µg/m ³)	N/A

Key:

H&S = Health and Safety.

mg/m³ = milligrams per cubic meter.

µg/m³ = micrograms per cubic meter.

N/A = Not applicable.

10. Sampling Approach

The following is a discussion of the sampling strategy that has been developed for the TCRA.

At each DU designated for removal (i.e., yard and play areas), the soil will be excavated to an initial depth of 6 inches bgs, or as directed by the OSC, to a depth of 12 inches bgs based on site-specific conditions and/or existing information. The excavated soil will be set aside for disposal. At the bottom of the initial 6-inch excavation, in-situ soil measurements from the bottom of the excavation will be conducted using a field portable XRF unit to acquire immediate data to determine whether additional excavation is required. Additional measurements may be collected around hand-dug features (i.e., trees). For the smaller DUs, discussions with the EPA OSC will determine the appropriate number of XRF measurements that will be conducted to ensure an accurate assessment of the effectiveness of the removal activities.

- If the soil XRF screening results at the bottom of the 6-inch excavation are below the removal action cleanup level for lead (250 mg/kg) and arsenic (20 mg/kg), one 30-increment composite sample will be collected from the DU, targeting soils from 0 to 1 inch bgs, and submitted to an off-site fixed laboratory for analysis. To help ensure each of the 30 increments are equally represented in a given composite sample via comparable volumes of soil, a multi-increment sampling device will be used during sample collection. Each sample will be collected into a zip-topped resealable bag, with a second external bag for secondary containment. Samples may be stored at ambient temperature from collection until analysis.

After receipt at the off-site laboratory, soils will be dried and sieved to retain particles < 150 micrometer (µm) which pass through a 100 Tyler mesh/100 ASTM International sieve. The < 150 µm particle size fraction is representative of dermal adherence and subsequent ingestion, also known as “hand to mouth” exposure (Stalcup 2016).

Laboratory subsampling will consist of 30 increments; all remaining sieved soil will be archived after analytical samples are obtained. The sampling protocol will be conducted as illustrated in Figure 2. No additional subsampling will be done once the laboratory subsample (2 grams [g] of <150 µm or <250 µm soil) is placed in the jar. If laboratory replicate samples or split samples are required from a particular sample, additional jars will be required, and 2 g of soil will be placed in each jar. TA minimum mass of 2 g is required to control fundamental error at 5 percent for both <150 µm and <250 µm grain size fractions. A minimum mass of 2 g is also required to collect a representative subsample using incremental subsampling methods (Crumbling 2014).

If the laboratory results indicate that the lead and arsenic levels are below the removal action cleanup levels, the area will be backfilled.

- If XRF screening results from any location at the bottom of the 6-inch excavation indicates that the soil contains either lead or arsenic above the respective cleanup levels of 250 mg/kg and 20 mg/kg, excavation will continue at that location to a maximum depth of 12 inches bgs or as determined by the OSC based on site conditions. The lateral extent of any additional excavation will be determined by soil sampling and analysis to ensure all soil with concentrations exceeding the lead or arsenic above cleanup levels is removed.

At the bottom of any 12-inch excavation area (excluding gardens and flower bed DUs), one 30-increment composite sample will be collected from the DU, targeting soils from 0 to 1 inch bgs for off-site fixed laboratory analysis. If soil at the 12-inch depth is below both lead and arsenic cleanup levels, backfilling can proceed. If soil is above cleanup levels for lead or arsenic, then a geotextile fabric or similar material will be laid down at the bottom of the excavation area before backfilling as a visual indicator between contaminated soil and clean backfill.

Around mature trees, excavation will be performed by hand and will only extend to approximately two inches bgs within the tree's root radius to avoid damaging the tree.

In garden/flower bed areas, the soil will be excavated to an initial depth of 12 inches. At the bottom of the 12-inch excavation, in-situ soil measurements will be conducted using an XRF unit.

- If the soil screening results at the bottom of the 12-inch excavation are below the removal action cleanup level for lead (250 mg/kg) and arsenic (20 mg/kg), one 30-increment composite sample will be collected and submitted to an off-site fixed laboratory for analysis. If the laboratory results indicate that the lead and arsenic levels are below the removal action cleanup levels, the area will be backfilled.
- If the XRF soil screening results from the 12-inch interval exceed the removal cleanup levels for lead and/or arsenic, additional soil will be excavated to a depth of 18 inches. Soil at the bottom of the excavation area will be screened using the XRF. If the soil screening results are below the cleanup levels, one 30-increment composite sample will be submitted to an off-site fixed laboratory for analysis. If the laboratory results indicate the samples are below the removal action cleanup levels, the garden/flower bed area will be backfilled. If the samples from the 18-inch interval exceed the removal action cleanup levels, additional soil will be excavated to a depth of 24 inches. One 30-increment composite soil sample will be collected from the bottom of the excavation area and submitted to an off-site fixed laboratory for analysis. If the laboratory results indicate that the lead and/or arsenic results are below the removal action cleanup levels, the area will be backfilled. The maximum excavation depth for a garden is 24 inches. If the samples from the bottom of the excavation exceed the removal action cleanup levels, a visual warning barrier (i.e., geotextile fabric or similar material) will be placed on the bottom of the excavation before the clean backfill material is placed on top.

Soil samples from the stockpiled soil marked for disposal will be sampled for waste profile analyses. It is expected that sampling will be performed at an approximate rate of one sample per 200 cubic yards of excavated soil, with at least one sample collected per removal property. The samples of stockpiled soil will be submitted for off-site fixed laboratory analysis using the Toxicity Characteristic Leaching Procedure and metals analysis. Specific waste profile sampling and analytical requirements will be confirmed with the disposal subcontractor during the removal action.

Soil samples will be collected from the contaminated soil laydown area prior to any soil being stockpiled. Up to five grab soil samples (one from each corner and one from the center) will be collected for

analysis of total metals (arsenic, cadmium, copper, and lead) analysis. Standard turnaround time is requested for these samples.

Personnel air samples will be collected from on-site soil removal workers at the direction of the OSC. Sample collection will be utilized to document potential lead and arsenic exposure. Samples will be collected in accordance with the air sampling Standard Operating Procedure (SOP).

Rinsate samples will be collected from the multi-increment samplers at a rate of one sample per 20 MIS samples per MIS sampling tool. The samples will be collected by pouring deionized water over the MIS sampling tool into a pre-labeled sample container. The samples will be preserved with nitric acid to a pH less than 2 prior to sample shipment.

The turnaround time requested for the laboratory analysis of total metals is 24 hours to reduce the amount of time each excavation is left open. The samples will be analyzed by TestAmerica, Inc. in Seattle, Washington. Based on the description of the site provided in Section 2 above, the following samples are planned to be collected for this project:

Table 6 Sample Information Summary

Sampling Area	Matrix	Number of Samples	Type of Sample	Sample Pattern	Data Quality	Analytical Method
All Decision Units	Soil	TBD	Grab	Targeted	Screening Data	XRF in Soils
All Decision Units	Soil	Up to 160	Composite	Grid	Definitive data	1. Dried & Sieved to <150µm 2. Metals (arsenic, cadmium, copper & lead)/ EPA 3050B+6010D/ ICP-AES on < 150µm fraction
Stockpiles	Soil	Up to 20	Grab	Targeted	Definitive data	TCLP plus EPA 6010D
Personnel	Air	Up to 20	Grab	Targeted	Definitive data	NIOSH 7303
Laydown Area	Soil	Up to 5	Grab	Targeted	Definitive data	Metals (arsenic, cadmium, copper & lead)/ EPA 3050B+6010D/ ICP-AES
All Decision Units	Water	Up to 20	Grab	Targeted	Definitive data	Metals (arsenic, cadmium, copper & lead)/ EPA 3050B+6010D/ ICP-AES

Key:

µm = micrometer.

EPA = United States Environmental Protection Agency.

ICP-AES = Inductively Coupled Plasma, Atomic Emission Spectroscopy.

NIOSH = National Institute for Occupational Safety and Health.

TBD = To be determined.

TCLP = Toxicity Characteristic Leaching Procedure.

XRF = X-Ray Fluorescence.

Table 7 Sample Container Summary

Analysis ^a	Container size (per sample)	Total # of Containers	# Field Quality Control Samples	Chemical Preservation (≤ 6°C)
Metals (arsenic, cadmium, copper & lead)	1-gallon zip-topped plastic bag	Up to 160	8 MSD, 8 field duplicate, 8 Sieve Blank	None
TCLP Metals (RCRA 8)	1-8 oz glass jar	Up to 20	1 MSD	None
Lead and arsenic	0.8 µm mixed cellulose ester membrane	TBD	2 to 10 filter blanks per set	None
Metals (arsenic, cadmium, copper & lead)	1-liter polyethylene	Up to 20	NA	pH ≤ 2 nitric acid

Notes:

a For detailed technical analytical information see Attachment A.

b Field QC includes MSD for some analyses (see Attachment A), blanks, and field duplicates.

Key:

µm = micrometer.

MSD = matrix spike/matrix spike duplicate.

°C = degrees Celsius.

RCRA = Resource Conservation and Recovery Act.

TBD = To be determined.

Each sample will be provided with a unique numerical identifier as well as a unique sample code. The sample numbers will either be assigned by the EPA Regional Sample Control Coordinator for Contract Laboratory Program samples or generated by the START using the following format.

Table 8 Sample Numbers

Digits	Description	Example
1,2	Year of sampling	20
3,4	Month of the year	07
5,6,7,8	Consecutive numbers	1000

In addition, the following sample code system will be used to assign a secondary location ID, designed to allow easy reference to the sample's origin and type. The sample code key will not be provided to the laboratory.

Table 9 Sample Coding Key

Digits	Description	Code	Example
1,2	Property/Personnel Identification	XX	Pre-assigned two-digit code corresponding to each property
3,4	Decision Unit	01	Decision unit number on a given property
5,6	Consecutive Number within DU	01	Consecutive grab sample within a DU
7,8	Matrix Code	AR	Air
		WT	Rinsate Blank
		SS	Surface Soil
9,10	Sample Depth	01	Lowest depth of sample matrix

11. Cultural Resources

Section 106 of the National Historic Preservation Act of 1966 (NHPA) requires federal agencies to take into account the effects of their actions or programs specifically on historic and archeological properties prior to implementation. Implementation of EPA's TCRA at the properties located in the town of Northport constitutes an "undertaking" as defined in the NHPA; therefore, complying with the NHPA requirements is the responsibility of EPA. As such, A *Cultural Resources Coordination Plan* has been developed to outline the plans that will be undertaken as part of this TCRA. The plan is included in Attachment B.

12. Data Quality

Data can generally be divided into three categories: definitive methodology (generally data generated utilizing standard methodology), non-definitive methodology (also referred to as screening data), and screening data with at least 10% definitive confirmation. The generation of definitive data is preferable; however, in emergency and time-critical situations where definitive data is not available, or for certain types of monitoring equipment, non-definitive data may be generated.

The following data quality will be applied to the site:

- **Screening data** which will include dust monitoring or field soil screening with XRF.
- **Definitive data** which will include soil samples analyzed at an off-site fixed laboratory.

13. Data Validation

Commercial laboratory data validation will be performed by a START-IV chemist. Data will receive a minimum of Stage 2B manual evaluation (100% Stage 2 Validation Manual and 10% of the data will receive a minimum of a Stage 4 manual evaluation (10% Stage 4 Validation Manual).

Screening level data validation will be performed by a START-IV Chemist. All screening level data will receive a Stage 2A evaluation.

All data validations will be performed in accordance with the quality assurance/quality control requirements specified in the technical specifications of the analytical methods and the following documents:

- *USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Data Review* (EPA 2017).

Validation deliverables will include a QA memo discussing QA conformance and deviation issues that may have affected the quality of the data. Data usability, bases of application of qualifiers, and percentage of qualified data will also be discussed in the Removal Action report. The analysis data sheets (Form I or equivalent) with the applied validation qualifiers will also be a part of the validation deliverables. Where more than one result is reported for a single sample and compound by the lab, the START-IV QA chemist will identify the appropriate result for use and R-qualify (reject) in the final validation qualifier column all other reported results (e.g., dilution and re-extraction) for that single sample/compound.

The following final qualifiers shall be used during data validation:

- J = The associated numerical value is an estimated quantity because the reported concentrations were less than the sample quantitation limits or because quality control criteria limits were not met.

- R = The sample results are rejected (analyte may or may not be present) due to gross deficiencies in quality control criteria. Any reported value is unusable. Resampling and/or reanalysis is necessary for verification.
- U = The material was analyzed for but was not detected. The associated numerical value is the sample quantitation limit.
- UJ = The material was analyzed for but was not detected. The reported detection limit is estimated because QC criteria were not met.

14. Data Reporting

In accordance with the Region 10 Data Management Plan, all field data will be managed in accordance with a SSDMP. The SSDMP will be updated as conditions require. Following collection, field data shall be processed to generate a Scribe compatible file, which will be imported into a Scribe database. Scribe datasets shall be published to Scribe.net.

15. Sampling Methodology

The following Standard Operating Procedures and/or instrumentation manuals will be used during the project:

- Field Activity Logbooks;
- Procedure for Routine GPS Operation;
- Sample Handling, Packaging and Shipping;
- Surface and Shallow Subsurface Soil Sampling;
- Using Existing Data; and/or
- Standard Operating Procedure for Analysis of Metals in Soil Using X-Ray Fluorescence.

16. References

Albright, Richard, April 21, 2015, United States Environmental Protection Agency, Director, Office of Environmental Cleanup, Seattle, Washington, Memorandum regarding Dispute Decision Regarding Upper Columbia River Action Levels for Time-Critical Removal Action Dispute, Upper Columbia River Superfund Site to Mr. Pendowski, et al.

Crumbling, D. 2014. Mass of analytical sub-sample for metals & IVBA. (W. Thayer, ed). Washington, DC: U.S. Environmental Protection Agency. Personal Communication. April 15.

Ecology and Environment, Inc. (E & E), July 2013, *Quality Assurance Project Plan EPA Region 10 Superfund Technical Assessment and Response Team*, Revision 1.

Stalcup D. 2016. Recommendations for sieving soil and dust samples at lead sites for assessment of incidental ingestion. Washington, D.C: Office of Land and Emergency Management.

United States Environmental Protection Agency (EPA), January 2017, *National Functional Guidelines for Inorganic Superfund Methods Data Review (ISM02.4, EPA 540-r-2017-001)*.

— — —, September 2010, *Quality Assurance Plan for the USEPA Region 10 Emergency Response Unit*, Revision 2.0.

United States Environmental Protection Agency (EPA), March 30, 2020, Action Memorandum and \$2 Million Exemption Request for a Removal Action at Properties in Northport, Stevens County,

Northport Properties Time-Critical Removal Action

TO: F0079

Washington, from Monica Tonel, On-Scene Coordinator, to Sheila Fleming, Acting Director Superfund and Emergency Management Division.

United States Environmental Protection Agency, United States Department of Justice, Teck Metals Limited (EPA et al.), 2017, Administrative Settlement Agreement and Order on Consent for Removal Actions.

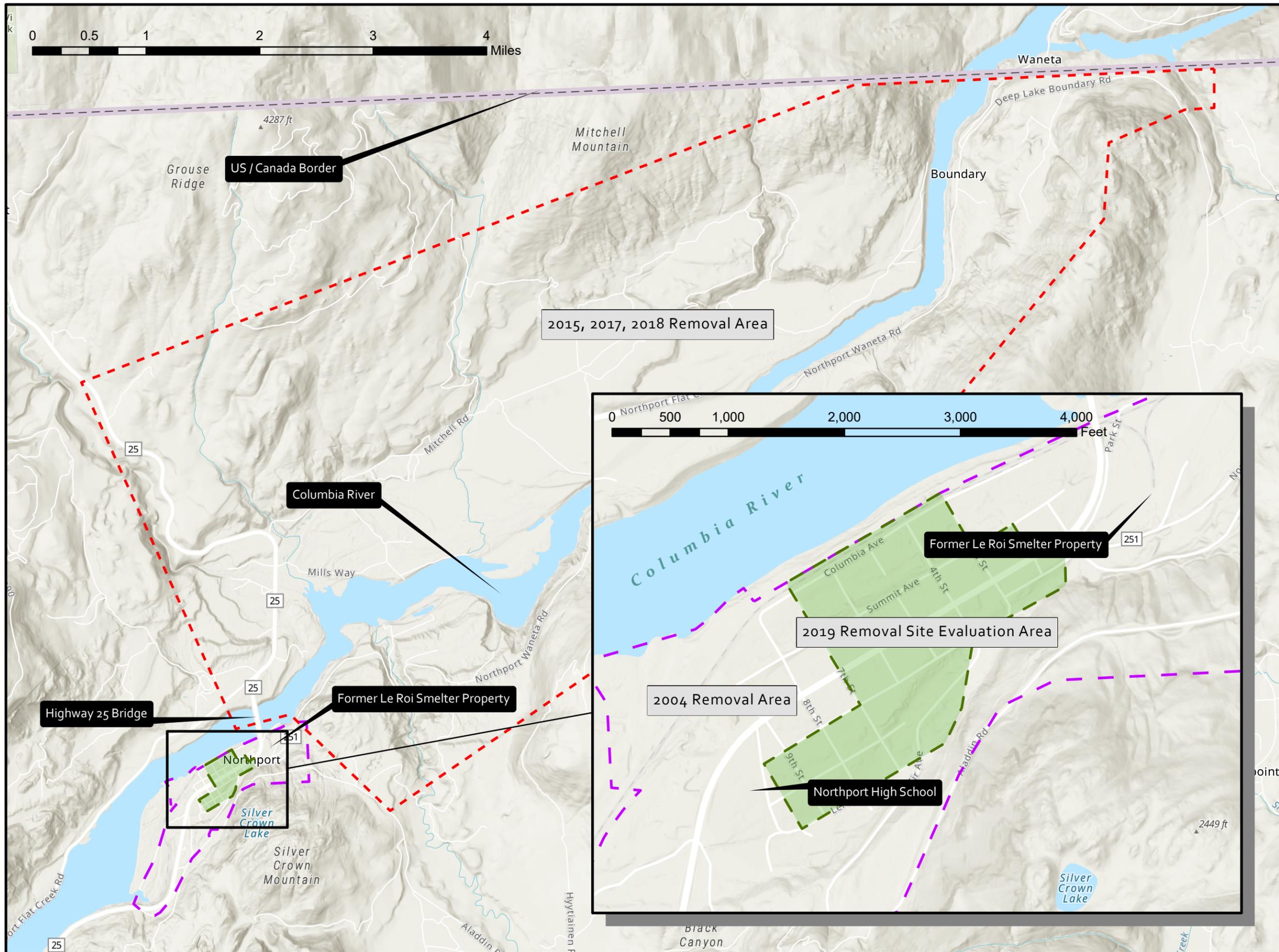
Table 1 Removal Properties

Property ID	Parcel ID	Decision Unit	Size (ft ²)
NA	Lyn Kast Gould Memorial Park	Whole Yard Play Area	41,135 2,593
15486	0388000	Front Yard Side Yard Flower Bed	1,258 1,362 750
15488	0388200	Side Yard	1,297
15489	0388300	Play Area Front Yard	479 432
15490	0388400	Whole Yard	3,243
15509	0390400	Back Yard	3,125
15519	0391300	Whole Yard	2,217
15527	0392100, 0392000, 0391900, 0391800	Whole Yard	9,760
15542	0393500	Whole Yard Front Yard Flower Bed	2,569 428 208
15560	0395300	Back Yard Play Area	1,904 497
15573	0396600	Whole Yard	11,081
15575	0396800	Whole Yard	5,676
15581	0397400	Whole Yard	4,526
15593	0398400	Back Yard Front Yard	2,251 401
15656	0403820	Garden Area Yard Area	129 560
15799	0415400	Back Yard	9,787

Key:

ft² = square feet.

ID = Identification.



**FIGURE 1
VICINITY MAP**

Northport Properties
Northport, WA

Legend

- ▬ 2019 Removal Site Evaluation
- - - 2015, 2017, 2018 Removal Area
- - - 2004 Removal Area

Note: 2019 Removal Site Evaluation Area is partially inclusive of the 2004 Removal Area



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ATTACHMENT A

Sample Handling Information

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Table A1 Sample Handling Information									
Analysis Type	Sub Analysis	Matrix	Prep Method	Analytical Method	Container Type	Minimum Volume	Chemical Preservative	Temperature/Storage	Technical Holding Times
Metals	Arsenic, cadmium, copper, lead	Solid	Air Dry & Sieve to <150 µm	Select TAL Metals (no Hg)/ EPA 6010D/ ICP-AES	1-gallon zip topped bag	200 g	N/A	None	180 days
Metals	TCLP RCRA 8 metals	Solid	EPA 1311 and 3010A	Select TAL Metals (no Hg)/ EPA 6010D/ ICP-AES	8 oz glass jar	200 g	N/A	None	6 months (extraction)/6 months (analysis)
Metals	Lead and arsenic	Air	NIOSH 7303	NIOSH 7303	0.8 µm cellulose ester membrane	35 L	N/A	None	N/A

Note: For matrix spike and/or duplicate samples, no additional volume is required for air, oil, product, or solid samples except for VOC and gasoline range organics which require triple volume. Matrix spike and/or duplicate samples are collected at a rate of 1 per 20 samples collected.

Key:
µm = micrometer.
CLP = Contract Laboratory Program.
EPA = United States Environmental Protection Agency.
g = grams.
ICP-AES = Inductively Coupled Plasma, Atomic Emission Spectroscopy.
L = liter.
N/A = Not applicable.
NIOSH = National Institute for Occupational Safety and Health.
RCRA = Resource Conservation and Recovery Act.
TAL = Target Analyte List.
TCLP = Toxicity Characteristic Leaching Procedure.

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ATTACHMENT B

Cultural Resources Coordination Plan

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1. Introduction

The U. S. Environmental Protection Agency (EPA) is conducting a time-critical removal action (TCRA) at 16 properties in the Northport area within the Upper Columbia River Site (Site). The properties are located in Northport, Stevens County, Washington. The soils at these properties have been contaminated by hazardous substances, including lead, from smelting operations in the area. The soil removal action will be performed by EPA and in accordance with the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), as amended. The area where the TCRA will take place is located within the Confederated Tribes of the Colville Reservation (CCT) usual and accustomed rights area.

Section 106 of the National Historic Preservation Act of 1966 (NHPA) requires federal agencies to take into account the effects of their actions or programs specifically on historic and archaeological properties, prior to implementation. Implementation of EPA’s TCRA at the properties located in the town of Northport constitutes an “undertaking” as defined in the NHPA; therefore, complying with the NHPA requirements is the responsibility of EPA. EPA is the lead federal agency for cultural resources consultation and coordination for the Northport properties TCRA.

In January 2020, EPA provided the CCT History/Archaeology Program and the Washington State Department of Archaeology and Historic Preservation (DAHP) with the geographical information system (GIS) shapefiles showing the project area where the soil removal action is planned to occur. The CCT History/Archaeology Program and DAHP both concur with the project’s area of potential effect (APE). EPA is working closely with the CCT History/Archaeology Program regarding the cultural resources coordination and communication aspects of this removal action, and together with the CCT will share pertinent information with DAHP.

Any issues or concerns related to cultural resources during the planning and/or implementation of the work shall be brought to the attention of EPA for discussion and/or consultation with the CCT History/Archaeology Program, as appropriate. The names and contact information for EPA and CCT representatives are provided in Table 1 below.

Table 1. EPA and CCT contact persons

EPA contact persons			
Monica Tonel (Primary)	OSC	office: 206-553-0323 mobile: 206-348-2692	tonel.monica@epa.gov
Jeff Fowlow (Alternate)	OSC	office: 206-553-2751 mobile: 206-225-5582	fowlow.jeffrey@epa.gov
CCT contact persons			
Elizabeth Armstrong (Primary)	Archaeologist II	office: 509-634-2887 mobile: 509-978-9351	Elizabeth.Armstrong.HSY@colvilletribes.com
Arrow Coyote (Alternate)	Senior Archaeologist	office: 509-634-2736 mobile: 509-634-1280	Arrow.Coyote@colvilletribes.com

2. Cultural Coordination

The objective of the Cultural Resources Coordination Plan is to ensure that the implementation of the TCRA and associated soil sampling activities does not adversely affect any cultural resources. The plan therefore defines a general process and specific procedures to be followed during excavation activities and soil sampling to minimize the potential for inadvertent disturbance of cultural resources.

Tribal Cultural Monitor On Site

A Tribal cultural monitor (the monitor) will be present on the property to visually observe and monitor ground-disturbance activity including excavation activities and soil sampling to determine if evident or likely artifacts are present or if other deposits are present that are likely to be cultural in origin.

All cultural resources monitors will be required to have read the applicable health and safety plan and use the required personal protective equipment. In addition, all on-site personnel are subject to the elements of the Site Safety Plan generated by EPA and the directions of the EPA OSC to assure the safety of all staff.

Excavation

For each decision unit (DU) where soil excavation occurs, the limits of each DU will be marked off by tape, spray paint, and/or other identifiable markers. A DU is an identified area within a property that is distinguishable from other areas by factors such as location or use and includes areas within a property with a high likelihood of exposure to humans from contaminated soil. Examples of decision units are play areas, gardens, or lawns.

The cultural monitor will survey the DU prior to excavation. Upon the monitor providing clearance of the excavation area, the field crew spotter will designate a location from which the cultural monitor can observe the excavation work. The location should be as close to the soil removal action area as safely possible.

In each DU where soil excavation occurs, the contaminated soil will be excavated to an initial depth of 6 inches below ground surface (BGS), or as directed by the OSC to a depth of 12 inches BGS (up to 24 inches in garden areas). In most areas, excavation will primarily be with mechanical equipment (e.g., excavators, skid steers, and loaders), while in some sensitive locations (i.e., near houses, buried utilities, or trees/vegetation), excavation will be performed by hand using shovels, trowels, and other hand tools.

At the discretion of the monitor, the excavation activity may be slowed or halted any time that a suspected artifact or other indications of archaeological deposits (e.g., charcoal stained soil, fire-cracked or -altered rock) is encountered. Hand signals and/or a high-visibility flag will be used to communicate a stop excavation directive and slowing of excavation activities to the field crew

spotter. The objective of this slowing or halting of ground-disturbing activity is to allow the monitor to confirm and/or make a preliminary assessment of the suspected artifact or archaeological deposit.

A preliminary assessment by the monitor may require one or more of the following activities:

1. Entering the excavation
2. Examining the excavated soil and the location from which it came
3. Cleaning off a wider surface or wall to enhance visibility
4. Probing soil in and around the excavation with a trowel, shovel, or other tool
5. Similar types of expedient steps

If no artifacts or archaeological deposits are identified in the soil spoil or at the location from which the soil came, work may proceed.

If an artifact or archaeological deposits are identified in the soil spoil or at the location from which the soil came from, and in the judgement of the monitor, the discovery does not present a significant archaeological deposit, the find will be recorded using a GPS unit with submeter accuracy. The relative location and extent of the find will be noted on sketch maps. Digital photographs will be taken of the materials in place in such a manner as to provide information on provenience. All common, non-diagnostic artifacts and archaeological materials will be reburied on the property in accordance with the monitor's instruction. No samples of archaeological materials will be collected.

If in the judgement of the monitor the discovery represents a significant archaeological deposit, the field crew spotter and the monitor will work to ensure the security of the find until a more extensive evaluation and documentation of the discovery can be made. The monitor will contact the EPA and CCT representatives identified in Table 1 immediately. The monitor and EPA field personnel may discuss redirecting the soil removal actions to another portion of the DU, as long as there exists a suitable buffer around the find that can secure the find from disturbance.

Excavated soil will be loaded into haul trucks. The haul trucks will then transport the contaminated soil to a centrally located stockpile area or, if necessary and/or feasible, directly to a disposal facility consistent with the off-site rule. The monitor may request to examine the contaminated soil at the stockpile area. That request will be made to and coordinated with the EPA On Scene Coordinator.

At the stockpile location, contaminated soil will be loaded on to trucks for transport to a landfill consistent with the off-site rule.

Soil Sampling

At the bottom of the initial 6-inch excavation, the soil will be screened using a field portable x-ray fluorescence (XRF) unit to acquire immediate data to determine whether additional excavation is required. If XRF screening results at the 6-inch depth is below both lead and arsenic cleanup levels, 250 mg/kg and 20 mg/kg, respectively, discrete soil grab samples will be

collected and submitted to a fixed laboratory to confirm concentrations are below cleanup levels. The soil samples will be collected using a hand trowel or hand shovel. The cultural resources monitor will visually examine the soil samples to determine if evident or likely artifacts are present or if other deposits are present that are likely to be cultural in origin.

If artifacts or likely archaeological deposits are present in the sample, the monitor will record the location of the materials and photograph the materials in place in such a manner to provide information on provenience. The artifacts and other archaeological materials will then be re-deposited at their original location. At the discretion of the monitor, a soil sampling location may be relocated from the location of the discovery. Such relocation will be coordinated between the cultural monitor and the EPA field personnel present on the property.

If XRF screening results from any location indicates that the soil at the bottom of the 6-inch BGS excavation contains either lead or arsenic above the cleanup levels, excavation will continue at that location to a maximum depth of 12 inches BGS, or as directed by the EPA OSC.

At the bottom of any 12-inch excavation area, the soil will be screened by XRF to determine whether the soil is still above lead or arsenic cleanup levels. If XRF screening results at the 12-inch depth is below both lead and arsenic cleanup levels, discrete soil grab samples will be collected and submitted to a fixed laboratory to confirm concentrations are below cleanup levels. The soil samples will be collected using a hand trowel or shovel. The monitor will visually examine the soil samples to determine if evident or likely artifacts are present or if other deposits are present that are likely to be cultural in origin. If artifacts or likely archaeological deposits are present in the sample, the monitor will follow the protocol described above.

If soil is above cleanup levels for lead or arsenic, a geotextile fabric or similar material will be laid down at the bottom of the excavation area before backfilling as a visual indicator between contaminated soil and clean backfill.

Following the excavation of the contaminated soil at each DU, the excavated area will be backfilled to the original grade with pit run gravel and/or topsoil, depending on the property. Additionally, as appropriate grass seed or sod can be added to areas backfilled with topsoil.

3. Reporting

Within 60 days of completion of cultural resource monitoring in the field, an archaeologist will prepare a confidential draft cultural resources monitoring report that presents the results of the archaeological monitoring and responses to any discoveries of archaeological resources or burials. The report will include:

- copies of field notes, descriptions, and maps of all locations at which soil removal actions and sampling were monitored
- descriptions and maps of any discoveries made during such monitoring and the outcome of the discoveries (including the rationale for decisions regarding the disposition of any finds)
- completed Washington State Archaeological Site forms for all discoveries

- recommendations for any changes in the monitoring protocol or how well existing coordination procedures worked

The draft report will be provided to EPA for review and distribution to DAHP for review and comment. EPA will consolidate any EPA and DAHP comments and transmit to CCT. Within 30 days of receipt of any EPA and DAHP comments, a confidential final cultural resources monitoring report will be submitted to EPA.

The CCT History/Archaeology Program will determine if any information needs to be transmitted to DAHP and will transmit that information to DAHP, as appropriate.

4. Confidentiality

EPA will make best efforts, in accordance with federal law, to ensure that its employees and contractors maintain confidentiality in the discovery of any found or suspected human remains, other cultural items, and potential historic properties.

5. Overview of National Historic Preservation Act of 1966, as Amended through 1992 (54 U.S.C. 300101 et seq.)

The NHPA is the centerpiece of federal legislation protecting cultural resources. The NHPA states that the federal government will “provide leadership in the preservation of the prehistoric and historic resources of the United States,” including resources that are federally owned, administered, or controlled. For federal agencies, Sections 106 and 110 of the NHPA provide the foundation for how federal agencies are to manage of cultural resources but other sections provide further guidance. The implementing regulations for the NHPA are in 36 Code of Federal Regulations (CFR) Part 800. These regulations are summarized below.

5.1 Section 106

Similar to the National Environmental Policy Act of 1969, Section 106 of the NHPA requires federal agencies to consider the effects of their actions or programs specifically on historic and archeological properties, prior to implementation. This is accomplished through consultation with the State Historic Preservation Officer (SHPO) and/or the Advisory Council on Historic Preservation (ACHP). On lands held by a Tribe having a Tribal Historic Preservation Officer (THPO), the THPO has the same duties and responsibilities as the SHPO. If an undertaking on federal lands may affect properties having historic value to a federally recognized Indian Tribe, such Tribe will be afforded the opportunity to participate as interested persons during the consultation process defined in 36 CFR 800. Compliance can also be accomplished using agreed-upon streamlined methods and agreement documents such as programmatic agreements.

The Section 106 process is designed to identify possible conflicts between historic preservation objectives and the proposed activity, and to resolve those conflicts in the public’s interest through consultation. Neither the NHPA nor the ACHP’s regulations require that all historic properties be

preserved. Rather, they require that the agency proposing the undertaking consider the effects of the proposed undertaking prior to implementation.

Failure to consider the effects of an undertaking on historic or cultural properties can result in formal notification from the ACHP to the head of the federal agency of foreclosure of the ACHP's opportunity to comment on the undertaking pursuant to the NHPA. A notice of foreclosure can be used by litigants against the federal agency in a manner that can halt or delay critical activities or programs.

The process for compliance with Section 106 consists of the following steps:

1. *Identification of historic properties.* Identification of historic properties located within the area of potential effects is accomplished through review of existing documentation and/or field surveys.
2. *Property evaluation.* Evaluation of the identified historic properties using Register criteria (36 CFR Part 63) in consultation with the SHPO and, if necessary, the ACHP. Properties that meet the criteria will be considered "eligible" for listing in the Register, and will be subject to further review under Section 106. Properties that do not meet the criteria will be considered "not eligible" for listing in the Register, and will not be subject to further Section 106 review.

Determination of Effect. Assessment of the effects of the proposed project on properties that were determined to meet the Register criteria, in consultation with the SHPO/THPO and if necessary, the ACHP. One of the following effect findings will be made:

- a. *No Historic Properties Affected* - If no historic properties are found or no effects on historic properties are found, the agency official will provide appropriate documentation to the SHPO/THPO and will notify the consulting parties. However, the federal agency must proceed to the assessment of adverse effects when it finds that historic properties may be affected or the SHPO/THPO or ACHP objects to a "no historic properties affected" finding. The agency must notify all consulting parties and invite their views.
- b. *No Historic Properties Adversely Affected* - When the Criteria of Adverse Effect are applied (36 CFR 800.5(a)), and it is found that historic properties will not be adversely affected by the undertaking, the agency may make a finding of "no historic properties adversely affected." This finding is submitted to the SHPO for concurrence. Typically, the ACHP will not review "no adverse effect" determinations. However, the ACHP will intervene and review "no historic properties adversely affected" determinations if it deems it appropriate, or if the SHPO/THPO or another consulting party and the federal agency disagree on the finding and the agency cannot resolve the disagreement. If tribes disagree with the finding, they can request the ACHP's review directly, but this must be done within the 30-day review period. Agencies must retain records of their findings of "no historic properties adversely affected" and make them available to the public. The public will be given access to the information upon request, subject to Freedom of Information Act and

other statutory limits on disclosure, including the confidentiality provisions in Section 304 of the NHPA. Failure of the agency to carry out the undertaking in accordance with the finding requires the agency official to reopen the Section 106 process and determine whether the altered course of action constitutes an adverse effect.

- c. *Historic Properties Adversely Affected* - Adverse effects occur when an undertaking may directly or indirectly alter characteristics of a historic property that qualify it for inclusion in the Register. Reasonably foreseeable effects caused by the undertaking must also be considered, including effects that may occur later in time, are farther removed in distance, or are cumulative. The finding of “historic properties adversely affected” will be submitted to the SHPO for concurrence. The SHPO/THPO may suggest changes in a project or impose conditions so that adverse effects can be avoided and thus result in a “no historic properties adversely affected” determination.
3. *Resolution of Adverse Effects/Mitigation* - When adverse effects are found, the consultation must continue among the federal agency, SHPO/THPO, and consulting parties to attempt to resolve them. The agency official must notify the ACHP when adverse effects are found and will invite the ACHP to participate in the consultation when circumstances exist, as outlined within 36 CFR 800.6(a)(1)(i)(A)-(C). A consulting party may also request the ACHP to join the consultation.

When resolving adverse effects without the ACHP, the agency official will consult with the SHPO/THPO and other consulting parties to develop a Memorandum of Agreement (MOA). The MOA will outline the steps or actions to be taken prior to implementation of the project, to mitigate the adverse effects on the historic property. Stipulations included in an MOA may include (but are not limited to) documentation, modification of the project to lessen the adverse effects on the property, efforts to sell or relocate the resource, or step-by-step consultation with interested parties throughout the process to ensure it is carried out according to plan.

The MOA is executed between the agency official and the SHPO/THPO and filed with required documentation with the ACHP. This filing is the formal conclusion of the Section 106 process and must occur before the undertaking is approved.

In some cases, streamlining the Section 106 process can be accomplished through the use of programmatic agreements. The ACHP and the agency official may negotiate a programmatic agreement to govern the implementation of a particular program or the resolution of effects from complex projects or multiple undertakings. Programmatic agreements are particularly useful when programs or projects affecting historic properties are similar and repetitive, and have known effects, such as routine maintenance or a series of similar rehabilitation projects.

5.2 Section 101(d)(2)

This section of the NHPA provides for the assumption by federally recognized Indian Tribes of all or any part of the functions of an SHPO with respect to Tribal lands (e.g., lands within the exterior boundaries of any Indian reservation and dependent Indian communities). Section 101(d)(2) requires federal agencies, in carrying out their Section 106 responsibilities, to consult with federally recognized Indian Tribes that attach religious or cultural significance to a historic property. The agency will consult with federally recognized Indian Tribes in the Section 106 process to identify, evaluate, and treat historic properties that have religious or cultural importance to those groups.

5.3 Section 110

Section 110 of the NHPA is intended to ensure that historic preservation is integrated into the ongoing programs of Federal agencies. This section of the Act requires agencies to identify, evaluate, and nominate for listing in the National Register, historic properties owned or controlled by the agency; use historic properties to the maximum extent feasible; ensure documentation of historic properties that are to be altered or damaged; carry out programs and projects that further the purpose of the Act; and undertake such planning and actions as may be necessary to minimize harm to any formally designated National Historic Landmark properties.

5.4 Section 111

Section 111 of the NHPA requires agency officials, to the extent practicable, to establish and implement alternatives for historic properties, including adaptive use, that are not needed for current or projected agency uses or requirements. Further, Section 111 allows the proceeds from any lease to be retained by the agency to defray the cost of administration, maintenance, repair, and related expenses of historic properties.

5.5 Section 112

Section 112 of the NHPA requires that agency officials who are responsible for protection of historic properties pursuant to the NHPA ensure that all actions taken by employees or contractors meet professional historic preservation standards established by the Secretary of the Interior (Professional Qualifications Standards of the Secretary of the Interior's Standards and Guidelines in Archaeology and Historic Preservation [NPS 1983]).

5.6 Section 304

Section 304 of the NHPA requires that information about the location, character, or ownership of a historic property be withheld from public disclosure when the federal agency head or other public official determines that disclosure may cause a significant invasion of privacy, risk and/or harm to the historic property, or impede the use of a traditional religious site by practitioners.

6. Overview of Archaeological Resources Protection Act of 1979 (16 USC 470aa-470II)

The ARPA is essentially an update to the 1906 Antiquities Act. It expands and strengthens the activities prohibited under the Antiquities Act, increases the criminal penalties for violation, establishes civil penalties, and provides further guidelines for the issuance of permits. The ARPA continues to apply only to federal and Indian lands (the definition of “Indian lands” in ARPA differs slightly from the definition of “tribal lands” in the NHPA). Most archaeological excavations and collection of artifacts on these lands are allowed only with an ARPA permit. Trafficking illegally obtained archeological resources from federal and Indian lands is also prohibited. Individuals convicted of violating the ARPA are liable for the value of the archaeological resource itself, and the cost of restoration or repair of the damage caused by illegal excavation or collection.

The implementing regulations are 43 CFR Part 7 (Department of the Interior), which applies to federal lands that are not within military reservations or national forests. The regulations include detailed definitions of “archaeological resource” and “Indian lands” (lands held in trust by the United States on behalf of a federally recognized tribe or individual members of a federally recognized tribe).

7. Overview of Native American Graves Protection and Repatriation Act (25 USC 3001-3013)

NAGPRA establishes that Native American human remains and associated funerary objects found on federal or tribal lands belong to the lineal descendants of the Native people. When the lineal descendants cannot be determined, the remains belong to the tribe on whose land the remains were found (when found on tribal lands), or to the tribe with the “closest cultural affiliation.”¹ This latter rule also applies to unassociated funerary objects, sacred objects, and objects of cultural patrimony (all defined in NAGPRA). NAGPRA applies to both human remains intentionally excavated (which would require an ARPA permit) and those accidentally discovered.

NAGPRA also requires federal agencies and museums to inventory their holdings of any human remains and/or funerary objects associated with Native people. Once the inventories are completed, the agencies and museums will notify the appropriate tribes of the remains and other objects in their collections. The remains and associated funerary objects will be returned (repatriated) at the request of the lineal descendant(s) or tribe. The same requirement applies to unassociated funerary objects, sacred objects, and objects of cultural patrimony for which a cultural affiliation can be demonstrated. Exceptions to the repatriation requirement are objects that are “indispensable for completion of a specific scientific study, the outcome of which would be of major benefit to the United States.”

The implementing regulations are 43 CFR Part 10, which largely expand on the elements of the statute. The regulations detail:

¹ Cultural affiliation is defined in the implementing regulations [43 CFR 10.2(e)] and refers to a relationship of shared group identity, which can be reasonably traced historically or prehistorically between a present day tribe or Native Hawaiian organization and an identifiable earlier group.

- The process of consultation with tribes to address either intentional excavation of human remains or inadvertent discovery of human remains;
- How agencies and museums will inventory their collections; and
- The repatriation process.

When human remains, funerary objects, sacred objects, and objects of cultural patrimony are inadvertently discovered on federal lands the following steps will be followed:

1. Ongoing activity in the area of the find must cease and a reasonable effort will be made to protect the find, and,
2. The federal land agency (i.e., federal agency on whose lands the remains or objects were found) must be immediately notified by telephone, with written confirmation.

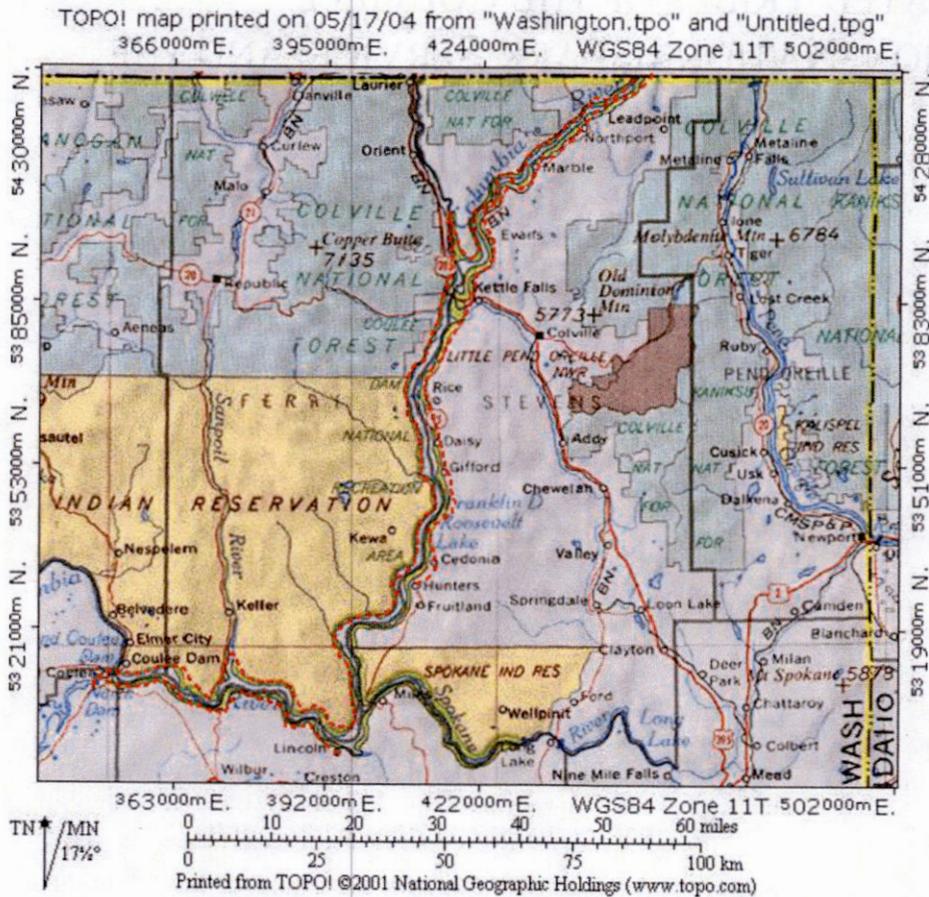
The federal land agency must then notify the appropriate tribe(s) and further secure and protect the discovery. The activity may be halted for up to 30 days while an appropriate response to the find is negotiated by the federal agency and the appropriate tribe(s). Please see the attachment for the communication protocol and contact names and numbers in the event of inadvertent excavation and/or discovery of human remains.

Attachment: Communication protocol and contact names and numbers in the event of inadvertent excavation and/or discovery of human remains

NAGPRA INADVERTENT DISCOVERIES OR
INTENTIONAL EXCAVATIONS:
CONFEDERATED TRIBES OF THE COLVILLE
RESERVATION, NATIONAL PARK SERVICE, AND THE
BUREAU OF RECLAMATION

**Lake Roosevelt Protocols for Native American Graves Protection and Repatriation Act (NAGPRA) Inadvertent Discoveries or Intentional Excavations:
Confederated Tribes of the Colville Reservation, National Park Service, and
the Bureau of Reclamation**

This protocol is intended to cover NAGPRA items exposed by inadvertent discoveries or intentional excavations within the boundaries of lands managed by the National Park Service (NPS)/Lake Roosevelt National Recreation Area. The term "NAGPRA items" in this document refers to human NAGPRA items, associated funerary objects, and objects of cultural patrimony as they are defined in 25 USC 3001. This document does not address inadvertent discoveries on lands within reservation boundaries or trust land outside of the reservation boundaries of the Confederated Tribes of the Colville Reservation (CCT). Funding of actions is not covered under this protocol.



Map of Lake Roosevelt National Recreation Area

This protocol covers those areas highlighted in red within the recreation area, which is the yellow highlighted portion of the Lake Roosevelt shoreline.

1. If NAGPRA items that are potentially human are encountered, any activity in the vicinity of the discovery shall cease and all reasonable efforts shall be made to protect the NAGPRA items and all appropriate effort shall be made to determine if the NAGPRA items are human. The activity shall resume only when clearance to proceed is received by the CCT Tribal Historic Preservation Officer and the National Park Service's designated official.
2. If the NAGPRA items are determined to be human, the burial or location shall not be disturbed in any way. Any discovered human NAGPRA items and associated artifacts will be treated in a respectful manner.
3. In cases where a potential crime scene exists, *personnel except those necessary to protect the location will leave the immediate vicinity in order to prevent unintentional destruction of crime scene information.* A National Park Service law enforcement officer will be immediately notified.
4. The Colville Tribal Historic Preservation Officer and the archaeologists working for the Colville Tribes and the Park Service (numbers listed below) will also be contacted immediately after law enforcement. For NAGPRA discoveries associated with the Lake Roosevelt shoreline, the Reclamation archaeologist must also be contacted. Live phone contact is required; backup staff are identified if the primary contacts are unavailable. Phone contact will be followed up by written confirmation, e-mail is acceptable. E-mail should not include detailed (site specific information) for security reasons.
5. A professional archaeologist will assist law enforcement in determining if the NAGPRA items are archaeological in origin. If the crime scene is ARPA-related (i.e., there is evidence for intentional disturbance or looting of archaeological materials), an archaeologist shall assist law enforcement as needed in the collection of archeological data to support the ARPA case.
6. Guy Moura, CCT THPO and Program Manager of the CCT History/Archaeology Program is the primary contact for the CCT. Mr. Moura's phone number at the Program is (509) 634-2695 and email is guy.moura@colvilletribes.com. After hours, Mr. Moura can be contacted at (509) 631-1705 (cell). If Mr. Moura cannot be reached, then Elizabeth Armstrong, Tribal Archaeologist is the alternate contact at (509) 634-2887 (office) or (509) 978-9351 (cell) and at elizabeth.armstrong.hsy@colvilletribes.com. In the event that neither Mr. Moura or Ms. Armstrong cannot be contacted, then Arrow Coyote, CCT Senior Archaeologist will be contacted at (509) 634-2736 (office) or (509) 634-1280 (cell) and at arrow.coyote@colvilletribes.com. Ms. Armstrong or Ms. Coyote shall participate in the NAGPRA consultation process on Mr. Moura's behalf until his return. Jackie Cook, Repatriation Specialist will also participate in the NAGPRA consultation process. Ms. Cook's contact information is (509) 634-2635 or

(509) 631-1176 (cell) and jackie.cook@colvilletribes.com. The CCT shall maintain a presence at the location of the discovery as needed until all contacts have been made and appropriate treatment of the NAGPRA items has been conducted.

jeff johnson, NPS Project Manager for the Lake Roosevelt National Recreation Area, is the primary contact for the NPS. Mr. johnson's phone number is (208) 277-6286, and internet address is jeffrey.k.johnson@nps.gov.

Derek Beery, Power Office Archaeologist, is Reclamation's contact. His phone number is (509) 633-9233 [desk], (509) 237-4477 [cell phone] FAX 633-9138, and internet address is dbeery@usbr.gov. If Derek Beery is not available, contact Sean Hess, Regional Archaeologist (208) 378-5316, FAX (208) 378-5305, and internet address is shess@usbr.gov.

7. As soon as the NAGPRA items have been determined to be human, then all effort shall be made in the field to determine whether human NAGPRA items are Native American. If yes, skip steps 8 and 9 below and proceed to step 10.
8. If the NAGPRA items are determined not to be Native American, then Washington State laws apply and shall be followed (Title 68, Chapter 68.50 RCW HUMAN NAGPRA ITEMS).
9. If the NAGPRA items' affiliation cannot be determined in the field, further non-destructive analysis of human NAGPRA items and/or associated cultural materials may be required. The CCT, NPS, and Reclamation shall coordinate regarding the types of non-destructive analysis to be conducted.
10. Provenience information will be collected as specified by the written plan of action. The Reclamation contract language for burials recovered in the shoreline of the National Recreation Area will also apply and should agree with the written plan of action and these protocols.
11. Recording of provenience may include any or all of the following: documenting the location of the burial or scattered NAGPRA items and general site conditions on a site form or on an addendum to an existing form; describing the surface visible NAGPRA items to the degree that can be accomplished without causing additional disturbance to the grave; documenting the location of the burial on a USGS 7.5' topographic sheet and with a GPS unit.
12. If it is possible to rebury or cap the NAGPRA items in place, then that decision shall be documented in the written plan of action (see below).

13. If NAGPRA items must be excavated or removed, procedures will be specified by the written plan of action. The Reclamation contract language for burials recovered in the shoreline of the NRA will also apply and should agree with the written plan of action and these protocols. If NAGPRA items are to be excavated or removed by personnel other than those employed by the CCT or the U.S. government, an ARPA permit will be required from the NPS.
14. Excavation or removal procedures may include any or all of the following: NAGPRA items will be removed using standard professional archaeological practices in a culturally sensitive manner at the direction of a CCT History/Archaeology Department representative. Such practices may include collection of horizontal provenience data referenced to a site datum point; if excavation is required, vertical provenience data shall be tracked through the use of controlled 10-cm levels within a standard grid unit, screening of all excavated fill through 1/8-inch screen mesh, and photographic and to-scale plan map documentation of excavated features. All recovered items shall be listed in the field during collection to minimize handling after recovery.
15. Inadvertent discoveries that result from activities requiring easements or other non-ARPA permits (such as access, construction, etc.) shall be dealt with by the permitting agencies, which may be Reclamation or the NPS. This protocol document will be included with documents issued to permittees.
16. The written plans of action for individual discoveries will detail exact procedures for further implementation of NAGPRA. A sample written plan of action is attached.

Template NAGPRA Plan of Action for Lake Roosevelt

This plan of action shall comply with the requirements of the Native American Graves Protection and Repatriation Act (NAGPRA) (25 USC 3001 et seq.), its implementing regulations (43 CFR Part 10) and the Archaeological Resources Protection Act (ARPA) (16 USC 470 et seq.) with its implementing regulations (43 CFR Part 7).

1. The kinds of objects to be considered as cultural items as defined in Sec. 10.2 (b):
 - ✓ Human remains
 - ✓ Associated funerary objects
 - ✓ Unassociated funerary objects
 - ✓ Objects of cultural patrimony
 - ✓ Sacred objects

These objects are cultural objects as defined under NAGPRA 43CFR Part 10.2 (d)
2. The specific information used to determine custody pursuant to Sec. 10.6:
 - ✓ Traditional association (this is where tribe's area of interest is cited with reference to Lake Roosevelt)
 - ✓ Cultural affiliation
 - ✓ Evidence: Geographical, archaeological, linguistic, folklore, oral tradition, historical
3. The planned treatment, care, and handling of human remains and other objects as defined in NAGPRA
4. The planned archaeological recording of the human remains and other objects as defined in NAGPRA
5. The kinds of analysis planned for each kind of object
6. Any steps to be followed to contact Indian tribe officials at the time of intentional excavation or inadvertent discovery of specific human remains and other objects as defined in NAGPRA
7. The kind of traditional treatment, if any, to be afforded the human remains and other objects as defined in NAGPRA by members of the Indian tribe
8. The nature of reports to be prepared
9. The planned disposition of human remains, and other objects as defined in NAGPRA.