UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Interagency Agreement Shared Service Center

Interagency Agreement Shared Service Center IASSC
Customer Centered, Service Oriented

EAST
Ariel Rios Building
1200 Pennsylvania Avenue, N.W.
Mail Code: 3903R
Washington, D.C. 20460

WEST
Park Place Building
1200 Sixth Avenue, Suite 900
Mail Stop: OMP-145
Seattle, WA 98101

APR 23 2012

EPA Reference: RW-69-92358101-0

Dear Interagency Agreement (IA) Recipient:

Attached is an electronically signed pdf of a new or amended IA between EPA and your Federal Agency. **Please note a signature is needed from your authorizing official in box 41 of the EPA 1610 form for this IA to be obligated and legally binding.**

If you wish to accept the agreement, please have your authorizing official sign box 41 of the EPA 1610-1 form and return to us, a signed copy within 3 weeks of this date.

Please return the signed IA using one of the following methods:

- Pdf scan to IA specialist hairston.lakeyshia@epa.gov
- Fax to 202-565-2470 (Attn: Lakeyshia Hairston)
- Mail to: Lakeyshia Hairston (Mailcode 3903R), US EPA, 1200 Pennsylvania Avenue NW, Washington DC 20460

If you have questions, please contact the EPA Project Officer listed in box 14 or the IA Specialist listed in box 6 of the attached EPA 1610 form.

Sincerely,
Frank Roth, Chief
IASSC EAST
FISB/GIAMD

Enclosure

cc: Earl Liverman (Region 10)

United States Environmental Protection Agency
Washington, DC 20460

Interagency Agreement/ Amendment

Part 1 - General Information

1. EPA IA Identification Number: RW-69-92358101 - 0	2. Funding Location by Region: EPA R10
3. Other Agency IA ID Number (if known): ID PFH 509	4. Awarding Office: IASSC East
5. Type of Action: New	6. IA Specialist: Lakeyshia Hairston, 202-564-5322, Hairston.Lakeyshia@epa.gov

7. Name and Address of EPA Organization
US Environmental Protection Agency
IASSC East
1200 Pennsylvania Avenue, NW Mail code 3903R
Washington, DC 20460

8. Name and Address of Other Agency
Department of Transportation-FHWA
Western Federal Lands Highway Division
WFLHD - 610 East Fifth Street
Vancouver, WA 98661-3801

9. DUNS: 029128894	10. BETC: COLL	11. DUNS: 139768597	12. BETC: DISB

13. Project Title and Description
Avery Landing site, St. Joe River Road Avery, Idaho

Avery Landing Removal Action

14. EPA Project Officer (Name, Address, Telephone Number)
Earl Liverman
1910 Northwest Boulevard, Suite 208 (Coeur d'Alene Office)
Coeur d'Alene, ID 83814
208-664-4858
E-Mail: Liverman.Earl@epamail.epa.gov
FAX: 208-664-5829

15. Other Agency Project Officer (Name, Address, Telephone)
Michael Traffalis
WFLHD - 610 East Fifth Street
Vancouver, WA 98661-3801
360-619-7787
E-Mail: Michael.Traffalis@fhwa.dot.gov
FAX: 360-619-7845

16. Project Period: 04/01/2012 to 12/31/2013	17. Budget Period: 04/01/2012 to 12/31/2013

18. Scope of Work (See Attachment)
See attach Scope of Work

19. Employer/Tax ID No. 520852695	20. CAGE No: 347A4	21. ALC: 68-01-0727

22. Statutory Authority for Transfer of Funds and Interagency Agreement
CERCLA: Secs. 105(a)(4) & 115 and Executive Order 12580

23. Other Agency Type
Federal Agency

24. Revise Reimbursable Funds and Direct Fund Cites (only complete if applicable)

	Previous Funding	This Action	Amended Total
Revise Reimbursable (in-house)			0
Direct Fund Cite (contractor)			0
Total			0

Funds	Previous Amount	Amount This Action	Total Amount
25. EPA Amount			$0
26. EPA In-Kind Amount			$0
27. Other Agency Amount		$3,000,000	$3,000,000
28. Other Agency In-Kind Amount			$0
29. Total Project Cost		$3,000,000	$3,000,000

30. Fiscal Information

Treas. Symbol	DCN	FY	Appropriation	Budget Org	PRC	Object Class	Site/Project	Cost Org	Ob/De-Ob Amt
68X8145		12	TR	10N0XD2	303DC6	0	10FTRV00	C001	3,000,000
									3,000,000

Part II - Approved Budget				EPA IAG Identification Number RW-69-92358101 - 0
31. Budget Categories	**Itemization of All Previous Actions**	**Itemization of This Action**	**In-Kind Itemization of This Action**	**Itemization of Total Project Cost to Date**
(a) Personnel		$36,000		$36,000
(b) Fringe Benefits				$0
(c) Travel		$64,000		$64,000
(d) Equipment				$0
(e) Supplies				$0
(f) Procurement / Assistance		$2,896,472		$2,896,472
(g) Construction				$0
(h) Other				$0
(i) Total Direct Charges	$0	$2,996,472	$0	$2,996,472
(j) Indirect Costs:	$0	$3,528		$3,528
Charged - Amount Rate: 9.8% Base: $ Not Charged: Funds-In: Not charged by EPA Amount $				
(k) Total (EPA Share 0.00 %) (Other Agency Share 100.00 %)	$0	$3,000,000	$0	$3,000,000

32. How was the IDC Base calculated?

33. Is equipment authorized to be furnished by EPA or leased, purchased, or rented with EPA funds? ☒ Yes ☐ No
(Identify all equipment costing $1,000 or more)

34. Are any of these funds being used on extramural agreements? ☒ Yes ☐ No

Type of Extramural Agreement Contract

Contractor/Recipient Name (if known)	Total Extramural Amount Under This Project	Percent Funded by EPA (if known)
Various	2896472 Total $ 2,896,472.00	0

Part III - Funding Methods and Billing Instructions

35. **(Note: EPA Agency Location Code (ALC) - 68010727)**

☐ Disbursement Agreement	Request for repayment of actual costs must be itemized on SF 1080 and submitted to the Financial Management Office, Cincinnati, OH 45268-7002:
☐ Repayment	☐ Monthly ☐ Quarterly ☐ Upon Completion of Work
☐ Advance	Only available for use by Federal agencies on working capital fund or with appropriate justification of need for this type of payment method. Unexpended funds at completion of work will be returned to EPA. Quarterly cost reports will be forwarded to the Financial Management Center, EPA, Cincinnati, OH 45268-7002.
☐ Allocation Transfer-Out	Used to transfer obligational authority or transfer of function between Federal agencies. Must receive prior approval by the Office of Comptroller, Budget Division, Budget Formulation and Control Branch, EPA Hdqtrs. Forward appropriate reports to the Financial Reports and Analysis Branch, Financial Management Division, PM-226F, EPA, Washington, DC 20460.

36. ☒ Reimbursement Agreement ☒ Repayment ☐ Advance
☐ Allocation Transfer-In

Other Agency's Billing Address (include ALC or Station Symbol Number)	Other Agency's Billing Instructions and Frequency
69-005-0001	IPAC (weekly)

Part IV - Acceptance Conditions	EPA Identification Number RW-69-92358101 - 0

37. Terms and Conditions, when included, are located at the end of the 1610-1, or as an attachment.

Part V - Offer and Acceptance

Note: A) For Fund-out actions, the agreement/amendment must be signed by the other agency official in duplicate and one original returned to the Grants and IA Management Division for Headquarters agreements or to the appropriate EPA Regional IA administration office within 3 calendar weeks after receipt or within any extension of time that may be granted by EPA. The agreement/amendment must be forwarded to the address cited in item 29 after acceptance signature.

Failure to return the properly executed document within the prescribed time may result in the withdrawal of offer by EPA. Any change to the agreement/amendment by the other agency after the document is signed by the EPA Award Official, which the Award Official determines to materially alter the agreement/amendment, shall void the agreement/amendment.

B) For Funds-In actions, the other agency will initiate the action and forward two original agreements/amendments to the appropriate EPA program office for signature. The agreements/amendments will then be forwarded to the appropriate EPA IA administration office for signature on behalf of the EPA. EPA will return one original copy after acceptance returned to the other agency after acceptance.

EPA IA Administration Office (for administrative assistance)	EPA Program Office (for technical assistance)
38. Organization/Address U.S. Environmental Protection Agency IASSC East 1200 Pennsylvania Avenue, NW Mail code 3903R Washington, DC 20460	**39. Organization/Address** US Environmental Protection Agency R10 - Region 10 1910 Northwest Boulevard, Suite 208 Coeur d'Alene, ID 83814

Award Official on Behalf of the Environment Protection Agency

40. Digital signature applied by EPA Award Official | FOR Frank N. Roth - Chief Fellowship IA & SEE Branch Michelle Messick - AO delegate	Date 04/23/2012

Authorizing Official on Behalf of the Other Agency

41. Signature	Typed Name and Title	Date
	Marlene M. Marcellay, Contracting Officer	

IA Terms and Conditions

1. Should disagreements arise on the interpretation of the provisions of this agreement or amendments and/or revisions thereto, that cannot be resolved at the operating level, the area(s) of disagreement shall be stated in writing by each party and presented to the other party for consideration. If agreement or interpretation is not reached within 30 days, the parties shall forward the written presentation of the disagreement to respective higher officials for appropriate resolution.

If a dispute related to funding remains unresolved for more than 30 calendar days after the parties have engaged in an escalation of the dispute, disputes will be resolved in accordance with instructions provided in the Treasury Financial Manual (TFM) Volume I, Part 2, Chapter 4700, Appendix 10, available at http://www.fms.treas.gov/tfm/index.html.

2. If the Department of Transportation- FHWA (DOT) cancels the order, the Environmental Protection Agency (EPA) is authorized to collect costs incurred prior to cancellation of the order plus termination costs, up to the total payment amount provided for under the agreement.

2012 REMOVAL ACTION WORK PLAN

Avery Landing Site, St. Joe River Road

Avery, Idaho

Prepared for:

Western Federal Lands Highway Division
Vancouver, Washington

Prepared by:

AMEC Environment & Infrastructure, Inc.
Seattle, Washington

and:

Robert Peccia & Associates, Inc.
Helena, Montana

February 2012

Project No. SE1016011

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ACRONYMS AND ABBREVIATIONS

AMEC	AMEC Environment & Infrastructure, Inc.
ARARs	applicable or relevant and appropriate requirements
ASAOC	Administrative Settlement Agreement and Order on Consent
B.M.	Boise Meridian
BTEX	benzene, toluene, ethylbenzene, and total xylenes
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
COCs	constituents of concern
Ecology	Washington State Department of Ecology
EE/CA	Engineering Evaluation/Cost Analysis
EPA	United States Environmental Protection Agency
FH	Forest Highway
FHWA	Federal Highway Administration
IDTLs	initial default target levels
LNAPL	light nonaqueous phase-liquid
MTBE	methyl tertiary butyl ether
NCP	National Oil and Hazardous Substances Pollution Contingency Plan
PAHs	polycyclic aromatic hydrocarbons
PCBs	polychlorinated biphenyls
PID	photoionization detector
Potlatch	Potlatch Corporation
QAPP	quality assurance project plan
RPA	Robert Peccia and Associates, Inc
RSLs	EPA Regional Screening Levels
SAP	sampling and analysis plan
TPH	total petroleum hydrocarbons
VOCs	volatile organic compounds
WAC	Washington Administrative Code
WFLHD	Western Federal Lands Highway Division
Work Plan	*2012 Removal Action Work Plan*

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2012 REMOVAL ACTION WORK PLAN
Avery Landing Site, St. Joe River Road
Avery, Idaho

1.0 PURPOSE

AMEC Environment & Infrastructure, Inc. (AMEC), and Robert Peccia and Associates, Inc. (RPA), have prepared this *2012 Removal Action Work Plan* (Work Plan) on behalf of Western Federal Lands Highway Division (WFLHD) of the Federal Highway Administration (FHWA). This Work Plan describes a removal action to address petroleum hydrocarbon contamination on the highway right-of-way within the Avery Landing Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) site (site). The removal action is designed as a response to the United States Environmental Protection Agency (EPA) for FHWA to address petroleum hydrocarbons that are in the subsurface within the right-of-way on Forest Highway (FH) 50 owned by the United States of America (hereafter "Government"). This Work Plan describes removal action activities to be performed on the Government administered portion of the site (the highway right-of-way).

EPA has identified contamination of soils and groundwater in an area along the St. Joe River in Idaho historically known as the Avery Landing Railway Yard (Figure 1). Soil and groundwater at the site are known to contain petroleum hydrocarbons and other hazardous substances (primarily related to hydrocarbon impacts), apparently associated with the site's historical use as a railroad roundhouse and maintenance facility (Ecology and Environment, 2010). Petroleum hydrocarbons at the site are discharging to the St. Joe River in violation of the Clean Water Act. In addition, substances subject to the CERCLA have been found at the Railroad Yard Site. EPA is leading the CERCLA removal action for the entire site to address contamination associated with the former railroad yard. Within the site, a plume of light nonaqueous phase-liquid (LNAPL) extends from the northern edge of the site toward the St. Joe River. Releases to the St. Joe River have occurred and are still occurring as a result of migration of petroleum hydrocarbons. The petroleum constituents consist primarily of petroleum hydrocarbons in the diesel and Bunker oil range. These petroleum constituents are present on FHWA portion of the site along the original railroad grade right-of-way located along the northern edge of the Avery Landing site. This property was acquired by the Government for construction and expansion of FH 50.

EPA has completed an Engineering Evaluation/Cost Analysis (EE/CA) (Ecology and Environment, 2010) and developed a draft Action Memorandum (Action Memo) that outlines the preferred approach for cleanup of the contamination at Avery Landing (EPA, 2011). The Action Memo was approved on July 5, 2011. FHWA and EPA are proposing an agreement to address petroleum hydrocarbon

contamination on the Government portion of the site as part of a cost reimbursement agreement, in which EPA will conduct the site cleanup activities. As part of the proposed agreement, FHWA performed an additional environmental investigation to further characterize the nature and extent of contamination within the highway right-of-way (AMEC Geomatrix, Inc., 2011a, 2011b), and prepared this *Work Plan* to address the contamination.

1.1 WORK PLAN LAYOUT

This Work Plan has been prepared for EPA to use in site cleanup actions, which will be performed by the EPA as part of a reimbursement agreement with FHWA. Information obtained from the earlier Right-of-Way Investigation (AMEC Geomatrix, Inc., 2011a) was used to design the removal action to be implemented in order to address contamination under the highway right-of-way. The removal action will include excavation of contaminated soil and disposal of soil at an off-site landfill. The Work Plan package consists of two parts:

1. 2012 Removal Action Work Plan (this document), including a confirmation sampling plan; and
2. Construction Package, including design drawings and specifications.

This Work Plan contains the information necessary to explain the intent of the removal action to the EPA. As part of the Work Plan, the consultant team has also prepared design drawings and specifications for the removal action. The drawings have been developed to a level that can be utilized by EPA in completing the removal action. A Confirmation Sampling Plan is included in the Work Plan in Section 5.

1.2 REMOVAL ACTION OBJECTIVES

Objectives for this removal action include removal of petroleum-contaminated soils from the highway right-of-way and disposal of the excavated soil at an off-site landfill. The removal action is designed to meet performance criteria established in this document.

2.0 NATURE AND EXTENT OF CONTAMINATION

This section summarizes historical and recent investigations at the site in order to identify the current nature and extent of contamination on the highway right-of-way property.

2.1 LOCATION

The Avery Landing site is located in the St. Joe River Valley in the Bitterroot Mountains in northern Idaho, 1 mile west of the town of Avery in Shoshone County (Figure 1). The site is directly adjacent to the St. Joe River, which abuts the site to the south, and includes a portion of FH 50 to the north. The site is located within the northeast quarter of Section 16, Township 45 North, Range 5 East, Boise Meridian (B.M.), and the northwest corner of Section 15, Township 45 North, Range 5 East, B.M.

2.2 PREVIOUS SITE INVESTIGATIONS

Soil and groundwater characterization has been performed at the site during several historical investigations, including, most recently, an EPA Removal Assessment (Ecology and Environment, Inc., 2007) and field investigations conducted by Potlatch Corporation (Potlatch) (Golder, 2009, 2010). The results of these and former investigations are summarized in an EE/CA performed for the site by the EPA (Ecology and Environment, Inc., 2010). Field work for the EE/CA was performed by Potlatch under a 2008 Administrative Settlement Agreement and Order on Consent (ASAOC) with EPA (EPA, 2008) (Golder, 2009, 2010).

These investigations indicated that a petroleum plume consisting primarily of bunker oil and diesel is present in subsurface soil and groundwater and is migrating toward, and discharging to the St. Joe River. The oil and diesel were likely released during historical site activities when the site was occupied by a railroad roundhouse, maintenance, and fueling facility. Other contaminants at the Avery Landing site include polycyclic aromatic hydrocarbons (PAHs), volatile organic compounds (VOCs), and polychlorinated biphenyls (PCBs). These constituents, likely related to the rail yard operations and co-mingled with the LNAPL plume, have been detected in the Potlatch portion of the site. Petroleum hydrocarbons at the site are discharging to the St. Joe River in violation of the Clean Water Act. In addition, substances regulated under CERCLA have been found on the outside and down gradient from the FH 50 ROW. A plume of LNAPL extends from the northern edge of the site toward the St. Joe River. Releases to the St. Joe River have occurred and are still occurring as a result of migration of petroleum hydrocarbons.

2.3 PREVIOUS ACTIONS

Potlatch has conducted several interim remedial activities at the Avery Landing site. In the late 1980s, Potlatch removed and disposed of a former 500,000-gallon aboveground fuel tank and any remaining contents located on the northeast corner of the site (partially on the Government-owned

portion of the site). Beginning in 1994, Potlatch captured groundwater and free LNAPL in trenches installed along the St. Joe River. From 1994 until 2000, the untreated groundwater was processed through an oil/water separator and then re-injected through a re-infiltration trench running along the north side of FH 50.

2.4 CURRENT NATURE AND EXTENT OF CONTAMINATION

A data gaps investigation was performed by AMEC in September 2011 (AMEC Geomatrix, Inc., 2011a,b) to evaluate the nature and extent of petroleum hydrocarbon contamination in soil on the highway right-of-way within the Avery Landing site, to determine the presence/absence and extent of hydrocarbons requiring cleanup, and to provide data suitable to evaluate alternatives and design a final removal action for cleanup of the right-of-way. To meet these objectives, AMEC advanced 11 boreholes on the highway right-of-way at the locations shown on Figure 2. AMEC collected soil samples from the boreholes for hydrocarbon analysis, performed sheen tests, and measured the thickness of LNAPL in the boreholes. Results are reported in full in a separate data report (AMEC Geomatrix, Inc., 2011a).

During the investigation, LNAPL was measured at thicknesses of 0.05 foot and less than 0.01 foot above the water in boreholes BH-101 and BH-102, respectively. LNAPL was not observed on the water in any other boreholes. Positive sheen test results were identified on soil from boreholes BH-101, BH-102, BH-104, BH-105, and BH-106. Petroleum hydrocarbons (diesel and oil range) were detected in laboratory samples collected from at least one interval from each of the 11 borings on the highway right-of-way, except borings BH-103, BH-107, and BH-108. Field observations indicate that visual impacts of petroleum are limited to the eastern portion of the site, surrounding and just downgradient of the former fuel tank area. Sampling intervals with elevated concentrations of petroleum hydrocarbons in laboratory samples did not necessarily exhibit a positive sheen test, suggesting that petroleum hydrocarbons at these intervals are likely highly weathered and not mobile. These low-mobility hydrocarbons are unlikely to pose a risk to the St. Joe River. In general, the highest concentrations of petroleum hydrocarbons were observed in borings just downgradient of the location of the former 500,000-gallon fuel tank on the southern side of the highway right-of-way portion of the site.

Analytical data for total petroleum hydrocarbons (TPH), field observations of visual impacts, and measurements of LNAPL for boreholes advanced on the highway right-of-way during subsurface investigations are summarized in Table 1. A map of the petroleum plume has been developed based on areas where positive sheen test results or LNAPL were observed during historical investigations (Ecology and Environment, Inc., 2010) and the data gaps investigation report (AMEC Geomatrix, Inc., 2011a) (Figure 3). The identified plume represents the estimated extent of impacts of petroleum deemed to present an ongoing risk to groundwater based on EPA's criteria for hydrocarbon mobility

(see Section 3.2.1). The plume appears to be centered on the area surrounding and just downgradient of the location of the former 500,000-gallon AST. A section showing the extent of visual impacts and analytical results for TPH in soil is provided in Figure 4.

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3.0 REMOVAL ACTION SCOPE AND DESCRIPTION

The scope of the proposed removal action has been developed to prevent the discharge of petroleum product to the St. Joe River and to reduce concentrations of hazardous substances at the site to acceptable levels based on human health and ecological risk criteria. The action is being conducted as a water quality cleanup action under the Clean Water Act as amended by the Oil Pollution Act.

The scope of the removal action corresponds to the following removal factors identified in the National Oil and Hazardous Substances Pollution Contingency Plan (NCP):

- 40 CFR 300.415(b)(2)(i), which identifies "actual or potential exposure to nearby human populations, animals, or the food chain from hazardous substances or pollutants or contaminants;" and
- 40 CFR 300.415(b)(2)(ii), which identifies "actual or potential contamination of drinking water supplies or sensitive ecosystems."

Based on the scope of the removal action, the following removal action objectives have been developed for the site:

- Remove, treat, and/or manage petroleum free product that is present as LNAPL on surface water or groundwater;
- Remove, treat, and/or manage soil contaminated by the petroleum free product to prevent human and ecological exposures to risk-based concentrations by direct contact and incidental ingestion; and
- Dispose of waste streams (contaminated soil and other waste generated during cleanup) in accordance with EPA requirements.

Contaminated soils present on the highway right-of-way are anticipated to be removed during the removal action and replaced with clean fill material, such that the potential for human health exposure and migration of contaminants to the St. Joe River is prevented. Performance criteria for the removal action are described in this section.

3.1 DESCRIPTION OF PROPOSED ACTION

Excavation and off-site disposal has been selected as the recommended removal action alternative by the EPA (Ecology and Environment, Inc., 2010). Contaminated soil not meeting cleanup criteria will be excavated, loaded into haul trucks, and transported to an off-site disposal facility licensed to accept the material. Excavation is an effective method for physically removing contaminated subsurface material from the site, involves the use of standard construction equipment, and imposes few limitations on the types of waste that can be excavated and removed.

Plans and specifications for construction are provided in full in the FHWA construction package [ID PFH 50(9)]. The clean overburden present above the zone of contamination would be excavated, stockpiled on site, and subsequently used for backfill operations upon completion of excavation. Based on existing data, it is assumed that excavation would extend to a maximum depth of 20 feet below ground surface (bgs). Excavation of the contaminated soils should be initiated in the upgradient portion of the LNAPL plume area and completed in the downgradient portion to prevent recontamination of backfilled soils.

Prior to backfilling, confirmation soil samples will be collected in accordance with the confirmation sampling plan provided in Section 5.0. Results from the confirmation samples will be used to evaluate compliance with the cleanup objectives and to assess whether additional soil removal would be necessary. Excavated areas will then be backfilled with stockpiled overburden and/or clean backfill pending results of confirmation soil testing. The highway portion of the right-of-way will be restored to the existing line and grade once final grading is complete. Excavated areas will be backfilled with clean fill material. Rock borrow will be placed below the groundwater surface and fill material will be placed above the rock borrow to allow for proper compaction in areas under the highway. FH 50 will be rebuilt to the plans and specifications provided in the construction package [ID PFH 50(9)] prepared by FHWA.

3.1.1 Excavation Rationale

Soil that does not meet site performance criteria will be removed from the site to make the site suitable for unrestricted use. Performance criteria, including applicable or relevant and appropriate requirements (ARARs), are provided in Section 3.2.

3.1.2 Quantity of Material for Removal

The LNAPL plume within the highway right-of-way has an estimated area of approximately 1 acre. Soil contaminated with LNAPL and TPH is encountered at depths ranging from 3 to 20 feet bgs. Detailed cross sections, provided in the construction package, were developed. Using the data presented in the construction package, the volume of contaminated soil expected to be removed and disposed of was calculated to be approximately 17,000 cubic yards (in place). In addition, approximately 12,000 cubic yards (in place) of clean soil are anticipated to be excavated and replaced during the removal action.

It should be noted that the volumes for removal should be considered approximate based on road construction as-built plans and profiles. The actual quantities removed are expected to vary because of such variables as actual water table, bedrock depth, and conditions encountered in the field, including the presence or absence of visible petroleum impacts.

3.2 PERFORMANCE CRITERIA

Performance criteria for the removal action are described in this section. This section focuses on performance criteria necessary for the determination of the final extent of the excavation area. This section defines criteria to delineate those soils that must be removed from the site. Additional performance criteria for construction and site restoration are defined in the construction package.

3.2.1 ARARs

The Clean Water Act, as amended by the Oil Pollution Act, prohibits the discharge of oil affecting natural resources belonging to the United States in such quantities as are determined by the EPA to be harmful. The EPA has determined that a "harmful quantity" of oil is defined as follows (40 CFR § 110.3):

> *For the purposes of section 311(b)(4) of the Act, discharges of oil in such quantities that the Administrator has determined may be harmful to the public health or welfare or the environment of the United States include discharges of oil that:*
>
> *(a) Violate applicable water quality standards; or*
>
> *(b) Cause a film or sheen upon or discoloration of the surface of the water or adjoining shorelines or cause a sludge or emulsion to be deposited beneath the surface of the water or upon adjoining shorelines.*

Idaho state regulations do not provide specific soil screening levels for TPH. For the purposes of this removal action, the presence of hydrocarbons at quantities sufficient to produce a sheen, sludge, or measurable LNAPL is considered to be a likely ongoing source of impacts to down-gradient groundwater and potentially to the St. Joe River. Therefore, based on EPA requirements, quantities of oil producing a sheen, sludge, or measurable LNAPL are considered to be a harmful quantity, as oil in these quantities is likely to represent an ongoing source to down-gradient groundwater and the St. Joe River. Soil that does not contain visible impacts and that does not fail the sheen test is unlikely to pose a risk to the river and could be left in place based on federal and state regulations.

In addition, the following ARARs for soil cleanup are consistent with federal and Idaho state law and will be applied to the FHWA portion of the site:

- The *Idaho Risk Evaluation Manual* (Idaho Department of Environmental Quality, 2004) provides standards for soil in the State of Idaho, including initial default target levels (IDTLs) in soil for constituents other than petroleum. IDTLs are the most conservative medium-specific levels, and meeting these levels allows unrestricted (residential) use of the property. Since exposure to these low levels of contaminants does not pose a threat to human health, their application does not require the evaluation of site-specific exposure pathways, the development of a site conceptual model, or any land-use restrictions. These IDTLs will be used as screening levels for soil excavation on the highway right-of-way, except when the IDTL is higher than the applicable federal standard; and

- EPA Regional Screening Levels (RSLs): No RSLs specific to Region 10 are available. EPA RSLs have been harmonized for Regions 3, 6, and 9 and will be applied as screening levels for the FHWA right-of-way (http://www.epa.gov/region9/superfund/prg/).

Residential and industrial soil screening levels consistent with these federal and Idaho state regulations are provided in Table 2.

Excavation is planned to proceed to remove hydrocarbon contamination from the right-of-way upon which time confirmation samples will be collected. The purpose of these samples is to confirm that contaminants are removed to the point that the risk of exposure to human health or the environment is at an acceptable level as determined by EPA under the Removal Action.

No constituents other than petroleum have been measured at levels exceeding site screening levels in samples collected from historical borings (BH-1 through BH-5) advanced on the highway right-of-way (Ecology and Environment, 2010). During a 2009 field investigation conducted by Potlatch and summarized in the EE/CA, concentrations of PCBs were found to be below the laboratory detection limit. Concentrations of carcinogenic and non-carcinogenic PAHs were measured at concentrations below site screening levels and frequently below detection, in samples from these borings (Golder, 2009; Ecology and Environment, 2010).

The results of confirmation sampling will be presented in an As-Built Report to document that the cleanup is complete.

4.0 REMOVAL ACTION IMPLEMENTATION

The implementation of the removal action on the highway right-of-way will be performed by EPA in accordance with the specifications provided in the accompanying construction package. The EPA will manage stormwater, erosion control, and dewatering on a site-wide basis, including treatment, testing and discharge of all site stormwater and groundwater. The EPA will additionally manage disposal of contaminated site soils at a licensed landfill permitted to accept these contaminated soils. EPA will also manage excavated soil including stockpiles. Confirmation sampling will be conducted by the EPA in accordance with the accompanying construction package and the confirmation sampling plan included in Section 5.0. EPA will produce an As-Built Report for the highway right-of-way portion of the site that documents volumes of soil excavated, volumes of soil disposed of including documentation of landfill (bills of lading), and all confirmation sampling results.

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5.0 CONFIRMATION SAMPLING PLAN

Confirmation soil samples will be collected from the bottom and sides of the excavation. EPA will perform all confirmation sampling, including submitting confirmation samples to an accredited laboratory and performing field screening during excavation activities. Confirmation sampling will be conducted consistent with a sampling and analysis plan (SAP) and quality assurance project plan (QAPP) to be developed by the EPA for the EPA-led CERCLA project. EPA will report results of confirmation sampling and field screening to FHWA based on the requirements and schedule outlined in Section 6.0.

The condition of excavated soils will be assessed visually for discoloration and odor and screened in the field for volatile organic vapors using a photoionization detector (PID). The field screening results will be documented in field notes. After completion of the removal activities, soil conditions in the excavations will be assessed. Based upon the volume of the excavated soils, confirmation soil samples will be collected from the sidewalls and the bases of each excavation and from stockpiled soils. Sidewall samples will be collected from the depth level where previous analytical results had identified the presence of constituents of concern (COCs). If that information is not available, then the samples will be collected from near the middle of the sidewall.

Confirmation soil samples will be collected from the bottom of the excavation at a density of one sample every 5,000 square feet, and from the sidewalls at a rate of one sample per 300 linear feet of sidewall. Sidewall samples will be collected from the depth level where previous analytical results had identified the presence of COCs. If that information is not available, then the samples will be collected from a depth near the midpoint between the base of the excavation and the ground surface. Since the excavation of the rest of the Removal Action Site will continue southward beyond the right-of-way, side wall confirmation samples will not be collected from the downgradient side wall (southern sidewall).

Confirmation soil samples will be submitted by EPA for testing for indicator hazardous substances. Soil samples will be collected from undisturbed soil as much as possible using the excavator bucket to safely access soils where necessary. The sample containers will be filled using decontaminated spoons, except for soil samples for analyses of benzene, toluene, ethylbenzene, and total xylenes (BTEX), which will be collected in accordance with EPA 5035A sample collection methods.

Samples will be analyzed for the following constituents using the following analytical methods:

- TPH-O and TPH-D using Washington State Department of Ecology (Ecology) Method NWTPH-Dx (Ecology, 1997). The samples will undergo silica-gel/acid cleanup in order to remove biogenic interferences that may cause a high analytical bias;
- VOCs, including BTEX and methyl tertiary butyl ether (MTBE), by EPA Method 8260B;

- Semivolatile organic compounds, including low-level polycyclic aromatic hydrocarbons (PAHs), by EPA Method 8270D SIM; and
- PCBs by EPA Method 8082.

6.0 LONG-TERM MONITORING

No long-term monitoring is expected to be necessary following the removal action on the highway right-of-way, as impacted material likely to pose an exposure risk to human health or the environment is anticipated to be removed from the site. Confirmation sampling (Section 5.0) will be conducted as specified in this document to confirm that no contamination remains on site above removal action objectives following the removal action.

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7.0 REPORTING AND PROJECT SCHEDULE

The removal action is anticipated to be initiated and completed during 2012. All reporting is anticipated to be completed by January 2013.

A final construction report will be completed and submitted to FHWA by EPA once the removal action is complete. The construction report will include as-builts of the action and a photo log of construction activities. The report will include all confirmation sampling results in order to certify that performance specifications described in this document and in the construction package have been met.

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8.0 REFERENCES

AMEC Geomatrix, Inc., 2011a, Data Report, Avery Landing, Avery, Idaho: Prepared for Western Federal Lands Highway Division, Vancouver, Washington, August.

AMEC Geomatrix, Inc., 2011b, FHWA Right-of-Way Investigation Work Plan, Avery Landing, Avery, Idaho: Prepared for Western Federal Lands Highway Division, Vancouver, Washington, August.

Washington State Department of Ecology (Ecology), 1997, Analytical Methods for Petroleum Hydrocarbons, Publication No. ECY 97-602, June.

Ecology and Environment, Inc., 2007, Removal Assessment Report, Avery Landing Site, Avery, Idaho: Prepared for the United States Environmental Protection Agency, Seattle, Washington, under Superfund Technical Assessment and Response Team contract EP-S7-06-02, Technical Direction Document 07-03-0004, July.

Ecology and Environment, Inc., 2010, Engineering Evaluation/Cost Analysis, Avery Landing Site, Avery, Idaho: Prepared for the United States Environmental Protection Agency, Seattle, Washington, Technical Direction Document 08-05-0006, December.

Golder Associates, Inc. (Golder), 2009, Final Engineering Evaluation/Cost Analysis Work Plan for the Avery Landing Site, Avery, Idaho: Prepared for Potlatch Forest Products Corporation, January.

Golder, 2010, Engineering Evaluation/Cost Analysis, Avery Landing Site, Avery, Idaho: Submitted to Potlatch Land and Lumber, LLC, January.

Idaho Department of Environmental Quality, 2004, Idaho Risk Evaluation Manual, July.

U.S. Environmental Protection Agency (EPA), 2008, Administrative Settlement Agreement and Order on Consent, Matter of Avery Landing Site, Avery, Idaho, CERCLA Docket No. CERCLA-10-2008-0135, U.S. Environmental Protection Agency, Region 10, Seattle, August 4.

EPA, 2011, Action Memorandum, July 5.

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TABLES

TABLE 1

SUMMARY OF AVAILABLE TPH DATA[1,2]

Avery Landing Site, St. Joe River Road
Avery, Idaho

AMEC, 2011, DATA GAPS INVESTIGATION[3]

Boring ID	Sample Depth (feet bgs)	TPH-Diesel	TPH-Motor Oil	Depth to Wet Soil (feet bgs)	Depth(s) of Positive Sheen Test (feet bgs)	Thickness of LNAPL on Borehole Water (feet bgs)
BH-101	6.0	**584**	**2,510**	12.2	12, 12.5	0.05
	12.2	**388 J**	84.7 U			
	DUP [4]	**907 J**	71.5 U			
BH-102	6.0	**132**	72.7 U	8.5	9, 12, 14.5, 16.5	Less than 0.01
	9.0	**437**	**144**			
	13.5	**1,850**	**581**			
BH-104	5.0	**539**	**1,870**	11.9	12, 12.5, 16.5	None
	12	**55.1**	71.1 U			
	16.5	**296**	**112**			
BH-105	5.0	**605**	**2,870**	13	12.5	None
	12.5	**40.5**	72.6 U			
	16.5	17.4 U	69.5 U			
BH-106	5.0	**127**	**558**	10.3	12.5	None
	11.0	**8,350**	**2,690**			
	14.5	**763**	**188**			
BH-110	5.0	**127**	**446**	16	None	None
	16.5	19.0 U	76.1 U			
BH-111	5.0	**42.0**	**85.7**	15.7	None	None
	15.5	17.7 U	70.9 U			

HISTORICAL DATA[5]

Boring ID	Sample Depth (feet bgs)	TPH-Diesel	PH-Motor O	Water Table (feet bgs)	Visible TPH Depth (feet bgs)	Field Observations from Borehole Logs
BH-1	--	--	--	16	13-20	LNAPL in soil at 13 and 15-20 ft bgs. LNAPL on GW.
BH-2	--	--	--	15	15-20	Oil in sand 15-20 ft bgs. LNAPL on GW.
BH-3	--	--	--	15	7.5-15	Petroleum odor and sheen 10-11.5 ft bgs. LNAPL on GW.
BH-4	--	--	--	14.5	7.5-15	Petroleum odor and sheen 7.5 to 15 ft bgs.

TABLE 1

SUMMARY OF AVAILABLE TPH DATA[1,2]

Avery Landing Site, St. Joe River Road
Avery, Idaho

HISTORICAL DATA[5]						
Boring ID	Sample Depth (feet bgs)	TPH-Diesel	PH-Motor O	Water Table (feet bgs)	Visible TPH Depth (feet bgs)	Field Observations from Borehole Logs
BH-5	--	--	--	10	5-17	Petroleum odor and sheen 5-15 ft bgs. Sheen on GW.

Notes

1. Detected concentrations shown in **bold** type.
2. Data qualifiers are as follows:
   J = value is an estimate.
   U = not detected at the reporting limit listed.
3. Data are provided only for borings where visual evidence of TPH/LNAPL was observed or where TPH was detected above the laboratory detection limit.
4. Duplicate sample collected with BH-101 at depth of 12.2 feet.
5. Data obtained from Ecology and Environment, 2010.

Abbreviations

-- = not analyzed
bgs = below ground surface
GW = groundwater
LNAPL = light nonaqueous phase-liquid
mg/kg = milligrams per kilogram
TPH = total petroleum hydrocarbon

TABLE 2

SOIL SCREENING LEVELS

Avery Landing Site, St. Joe River Road
Avery, Idaho

Constituent	Idaho IDTL (mg/kg)	EPA RSL	
		Resident Soil (mg/kg)	Industrial Soil (mg/kg)
SVOCs			
1,2,4-Trichlorobenzene	0.692	22	99
1,2-Dichlorobenzene	5.25	1,900	9,800
1,3-Dichlorobenzene	0.229	--	--
1,4-Dichlorobenzene	0.0755	2.4	12
1-Methylnaphthalene	--	22	99
2,4,5-Trichlorophenol	7.38	6,100	62,000
2,4,6-Trichlorophenol	0.00436	44	160
2,4-Dichlorophenol	0.0978	180	1,800
2,4-Dimethylphenol	0.819	1,200	12,000
2,4-Dinitrophenol	0.0384	120	1,200
2,4-Dinitrotoluene	0.00029	1.6	5.5
2,6-Dinitrotoluene	0.000212	61	620
2-Chloronaphthalene	128	--	--
2-Chlorophenol	0.365	390	5,100
2-Methylnaphthalene	3.31	310	4,100
2-Methylphenol	1.8	--	--
2-Nitroaniline	0.0725	610	6,000
2-Nitrophenol	--	--	--
3- and 4-Methylphenol	0.141	61	620
3,3'-Dichlorobenzidine	0.00183	1.1	3.8
3-Nitroaniline	0.00318	--	--
4,6-Dinitro-2-methylphenol	--	6.1	62
4-Bromophenyl phenyl ether	0.00545	--	--
4-Chloro-3-methylphenol	--	--	--
4-Chloroaniline	0.126	--	--
4-Chlorophenyl phenyl ether	--	--	--
4-Nitroaniline	--	--	--
4-Nitrophenol	0.226	--	--
Acenaphthene	52.3	3,400	33,000
Acenaphthylene	78	--	--
Anthracene	1040	17,000	170,000
Benzo[a]anthracene	0.422	0.15	2.1
Benzo[a]pyrene	0.0422	0.015	0.21
Benzo[b]fluoranthene	0.422	0.15	2.1
Benzo[g,h,i]perylene	1180	--	--
Benzo[k]fluoranthene	4.22	1.5	21
Benzoic acid	77.1	240,000	2,500,000
Benzyl alcohol	6.43	6,100	62,000
Bis(2-chloroethoxy)methane		180	1,800
Bis(2-chloroethyl)ether	0.000108	0.21	1
Bis(2-chloroisopropyl) ether	3.11	--	--

TABLE 2

SOIL SCREENING LEVELS

Avery Landing Site, St. Joe River Road
Avery, Idaho

Constituent	Idaho IDTL (mg/kg)	EPA RSL	
		Resident Soil (mg/kg)	Industrial Soil (mg/kg)
SVOCs (Continued)			
Bis(2-ethylhexyl) phthalate	11.8	35	120
Butyl benzyl phthalate	511	260	910
Carbazole	--	--	--
Chrysene	33.4	15	210
Dibenz[a,h]anthracene	0.0422	0.015	0.21
Dibenzofuran	6.1	78	1,000
Diethyl phthalate	27.5	49,000	490,000
Dimethyl phthalate	271	--	--
Di-n-butyl phthalate	31	6,100	62,000
Di-n-octyl phthalate	1830	--	--
Fluoranthene	364	2,300	22,000
Fluorene	54.8	2,300	22,000
Hexachlorobenzene	0.0427	0.3	1.1
Hexachlorobutadiene	0.0378	6.2	22
Hexachlorocyclopentadiene	0.0116	370	3,700
Hexachloroethane	0.138	12	43
Indeno[1,2,3-cd]pyrene	0.422	0.15	2.1
Isophorone	0.14	510	1,800
Naphthalene	1.14	3.6	18
Nitrobenzene	0.0218	4.8	24
N-Nitrosodi-n-propylamine	1.81E-05	0.069	0.25
N-Nitrosodiphenylamine	0.088	99	350
Pentachlorophenol	0.00907	0.89	2.7
Phenanthrene	79	--	--
Phenol	7.36	18,000	180,000
Pyrene	359	1,700	17,000
VOCs			
1,1,1-Trichloroethane	2	8,700	38,000
1,1,2,2-Tetrachloroethane	0.000915	0.56	2.8
1,1,2-Trichloroethane	0.0141	1.1	5.3
1,1-Dichloroethane	3.48	3.3	17
1,1-Dichloroethene	0.0388	240	1,100
1,2-Dichloroethane	0.00767	0.43	2.2
cis-1,2-Dichloroethene	--	700	9,200
trans-1,2-Dichloroethene	--	700	9,200
1,2-Dichloropropane	0.0089	0.94	4.7
cis-1,3-Dichloropropene	--	--	--
trans-1,3-Dichloropropene	--	--	--
2-Butanone	11.8	28,000	200,000
2-Hexanone	--	210	1,400
4-Methyl-2-pentanone	17.6	5,300	53,000

TABLE 2

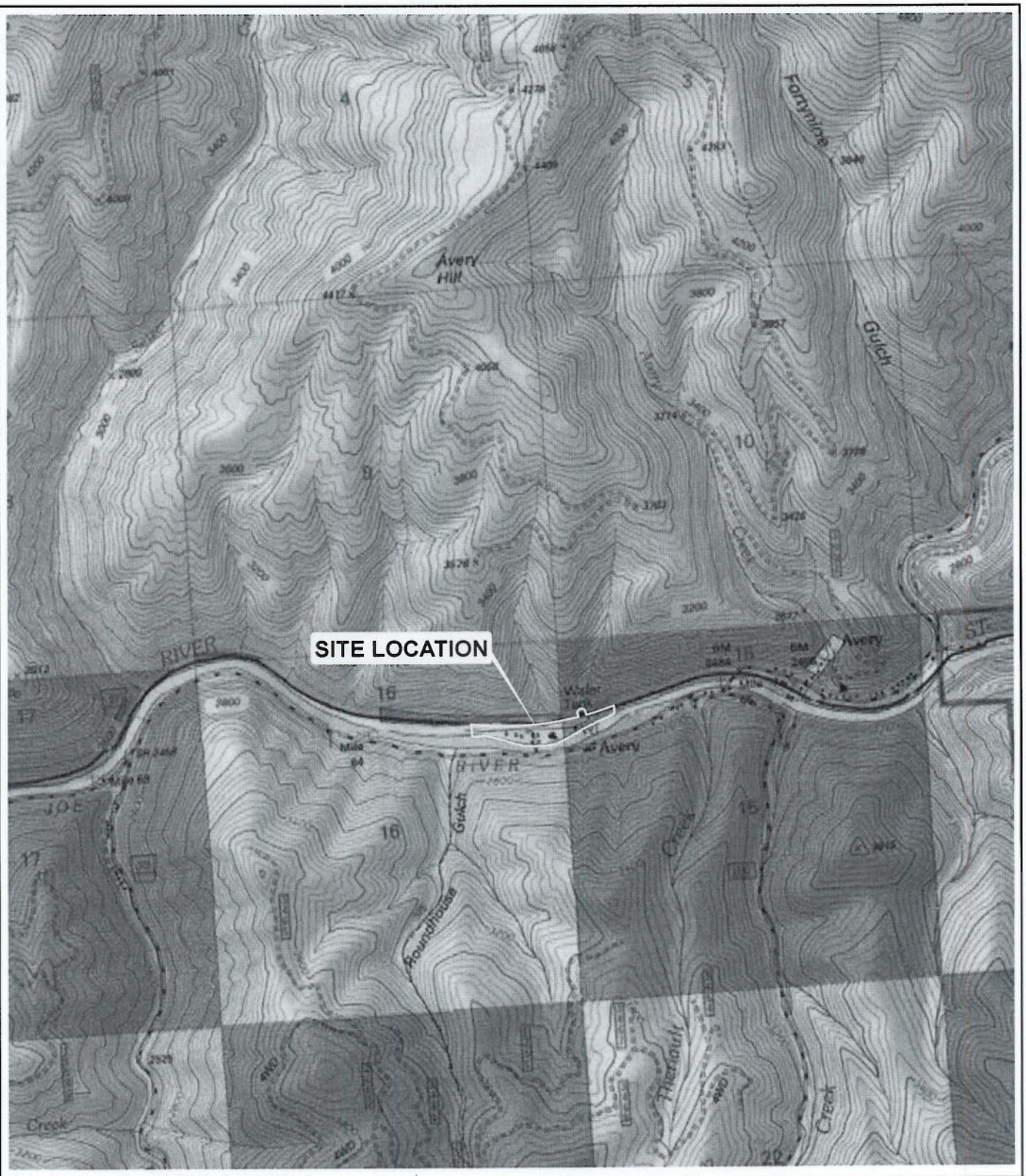
SOIL SCREENING LEVELS

Avery Landing Site, St. Joe River Road
Avery, Idaho

Constituent	Idaho IDTL (mg/kg)	EPA RSL	
		Resident Soil (mg/kg)	Industrial Soil (mg/kg)
VOCs (Continued)			
Acetone	17.4	61,000	630,000
Benzene	0.0178	1.1	5.4
Bromodichloromethane	0.00268	0.27	1.4
Bromoform	0.0292	62	220
Bromomethane	0.0501	7.3	32
Carbon disulfide	5.97	820	3,700
Carbon tetrachloride	0.0114	0.61	3
Chlorobenzene	0.618	--	--
Chloroethane	0.0533	--	--
Chloroform	0.00564	0.29	1.5
Chloromethane	0.0231	120	500
Dibromochloromethane	0.00202	0.68	3.3
Dichlorodifluoromethane	2.96	94	400
Ethylbenzene	10.2	5.4	27
Methylene chloride	0.0169	11	53
Styrene	1.83	6,300	36,000
Tetrachloroethene	0.0288	0.55	2.6
Toluene	4.89	5,000	45,000
Trichloroethene	0.00288	0.91	6.4
Trichlorofluoromethane	10.4	790	3,400
Vinyl chloride	0.00963	0.06	1.7
Xylenes (total)	1.67	630	2,700
m,p-Xylene	--	590	2,500
o-Xylene	--	690	3,000
PCBs			
Aroclor 1016	2.33	3.9	21
Aroclor 1221	0.00294	0.14	0.54
Aroclor 1232	--	0.14	0.54
Aroclor 1242	0.00318	0.22	0.74
Aroclor 1248	0.137	0.22	0.74
Aroclor 1254	0.74	0.22	0.74
Aroclor 1260	0.147	0.22	0.74

Abbreviations
-- = not established
EPA = U.S. Environmental Protection Agency
IDTL = Idaho Default Target Level
mg/kg = milligram per kilogram
PCBs = polychlorinated biphenyls
RSL = regional screening level
SVOCs = semivolatile organic compounds
VOCs = volatile organic compounds

FIGURES



Note: Base map from U.S.G.S. Avery and Fishhook Creek, Idaho Quadrangles (7.5' Map Series)

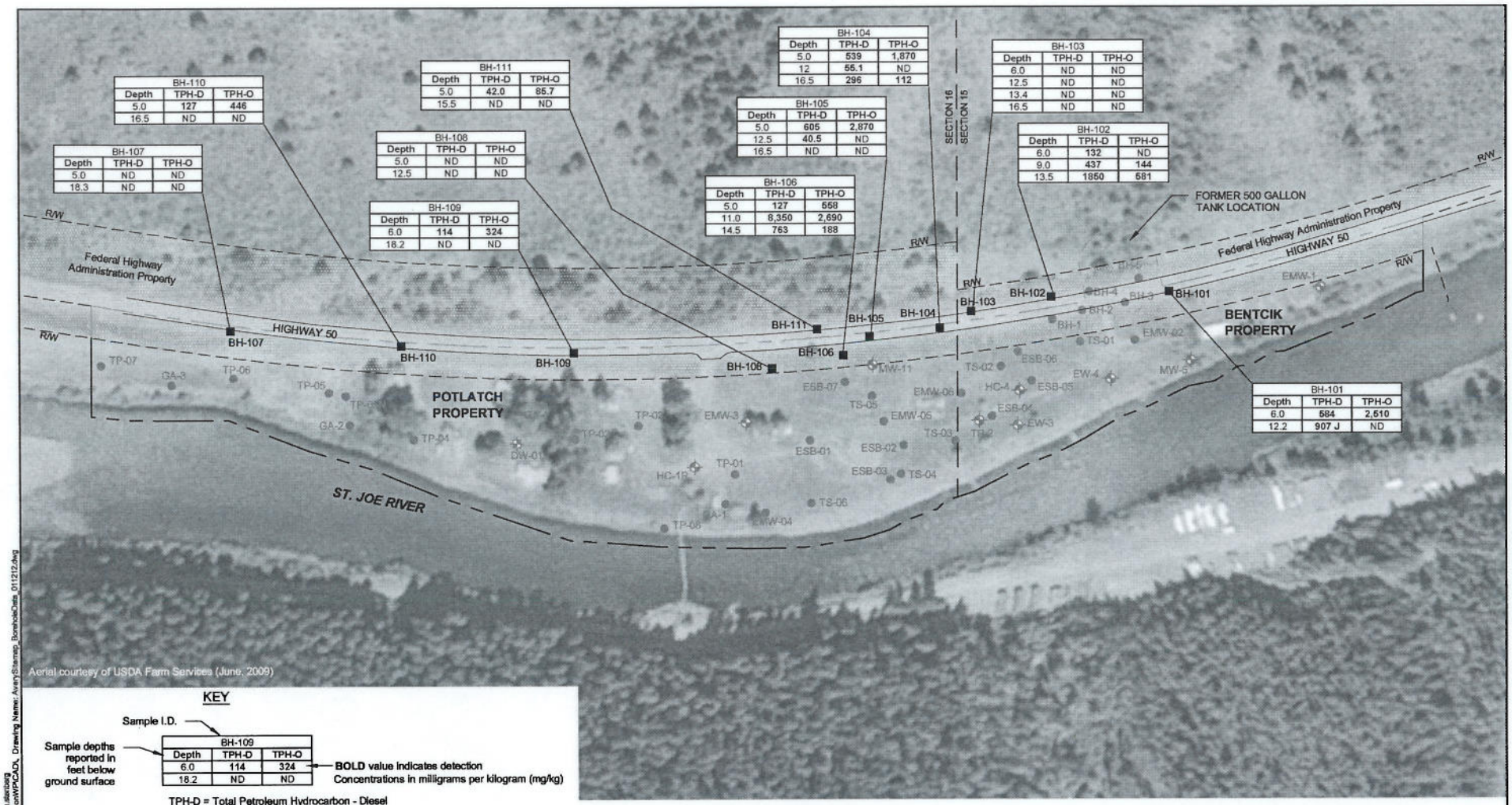
N

0 1,000 2,000 Feet

VICINITY MAP
Avery Landing Site
St. Joe River Road
Avery, Idaho

By: APS	Date: 01/12/12	Project No. 16011
amec		Figure 1

S:\16011\002_2012 RemovalActionWP\GIS\Avery_VicinityMap_011212.mxd



BH-107		
Depth	TPH-D	TPH-O
5.0	ND	ND
18.3	ND	ND

BH-110		
Depth	TPH-D	TPH-O
5.0	127	446
16.5	ND	ND

BH-109		
Depth	TPH-D	TPH-O
6.0	114	324
18.2	ND	ND

BH-108		
Depth	TPH-D	TPH-O
5.0	ND	ND
12.5	ND	ND

BH-111		
Depth	TPH-D	TPH-O
5.0	42.0	85.7
15.5	ND	ND

BH-106		
Depth	TPH-D	TPH-O
5.0	127	558
11.0	8,350	2,690
14.5	763	188

BH-105		
Depth	TPH-D	TPH-O
5.0	605	2,870
12.5	40.5	ND
16.5	ND	ND

BH-104		
Depth	TPH-D	TPH-O
5.0	539	1,870
12	55.1	ND
16.5	296	112

BH-103		
Depth	TPH-D	TPH-O
6.0	ND	ND
12.5	ND	ND
13.4	ND	ND
16.5	ND	ND

BH-102		
Depth	TPH-D	TPH-O
6.0	132	ND
9.0	437	144
13.5	1850	581

BH-101		
Depth	TPH-D	TPH-O
6.0	584	2,510
12.2	907 J	ND

KEY

Sample I.D.

Sample depths reported in feet below ground surface

BH-109		
Depth	TPH-D	TPH-O
6.0	114	324
18.2	ND	ND

BOLD value indicates detection
Concentrations in milligrams per kilogram (mg/kg)

TPH-D = Total Petroleum Hydrocarbon - Diesel
TPH-O = Total Petroleum Hydrocarbon - Oil
ND = not detected above reporting limit

NOTE:

1. Historical test locations and plume boundaries have been estimated based on the following report:
   Ecology and Environment, Inc., 2010
   DRAFT ENGINEERING EVALUATION/COST ANALYSIS
   Avery Landing Site
   Avery, Idaho
   TDD: 08-05-0006
   and should be considered a rough approximation.

EXPLANATION

- SOIL BORING LOCATION (AMEC, 2011a)
- MONITORING/RECOVERY WELL LOCATION (2007)
- SOIL BORING LOCATION (2007,2009)
- DRINKING WELL LOCATION

SITE FEATURES

- CURRENT PROPERTY BOUNDARY
- HISTORIC POTLATCH PROPERTY LINE
- FHWA RIGHT-OF-WAY BOUNDARY (R/W)
- SECTION LINE (PROPERTY DIVISION LINE BETWEEN POTLATCH AND BENTCIK)

N

0 75 150
APPROXIMATE SCALE IN FEET

ANALYTICAL DATA FOR TPH
Avery Landing Site
St. Joe River Road
Avery, Idaho

By: APS	Date: 01/20/12	Project No. 16011
amec		Figure 2

Plot Date: 01/20/12 - 3:09pm, Plotted by: adam.stenberg
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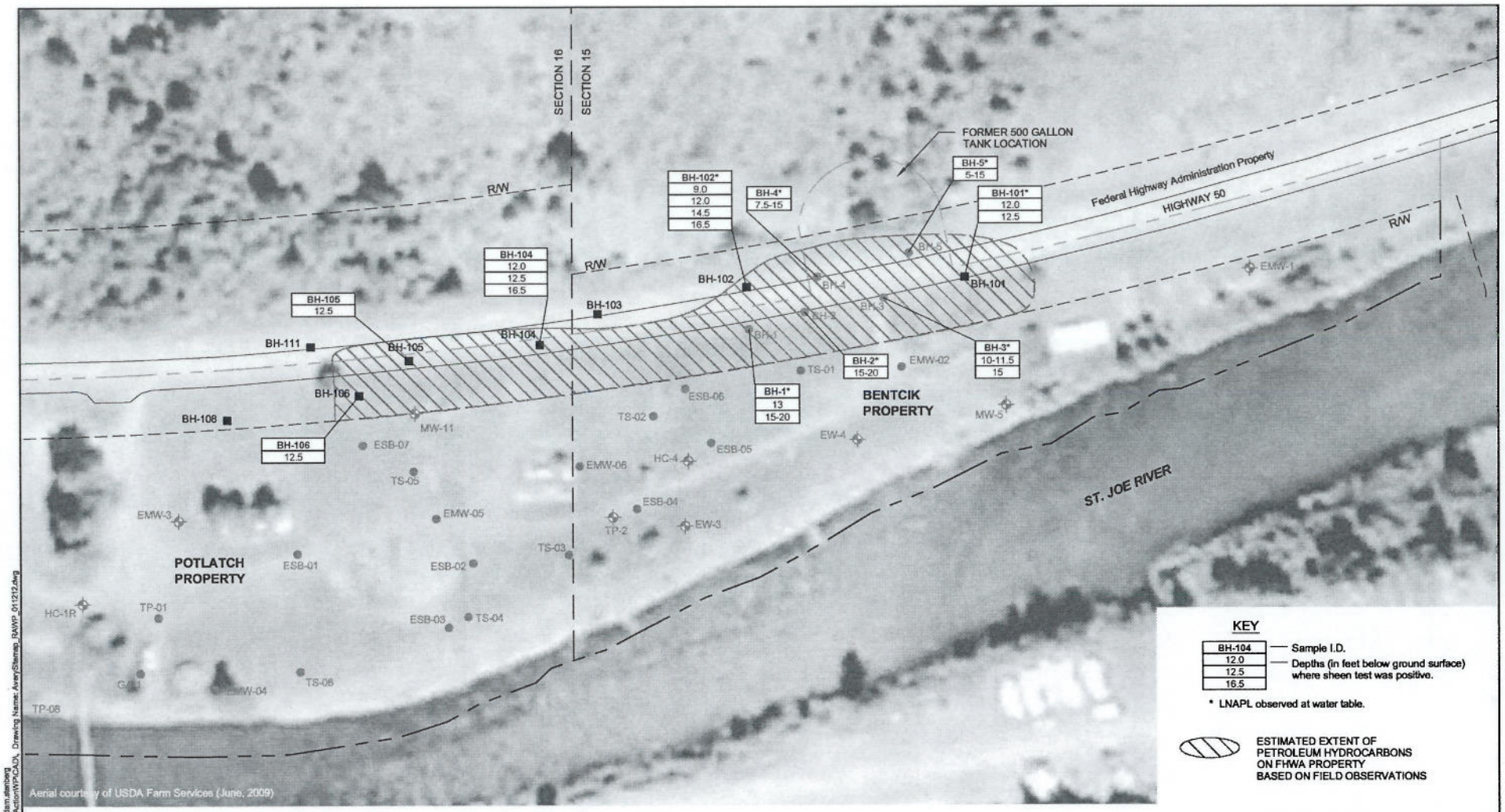

NOTE:

1. Historical test locations have been estimated based on the following report:
   Ecology and Environment, Inc, 2010
   DRAFT ENGINEERING EVALUATION/COST ANALYSIS
   Avery Landing Site
   Avery, Idaho
   TDD: 08-05-0006
   and should be considered a rough approximation.

EXPLANATION

- SOIL BORING LOCATION (AMEC, 2011a)
- MONITORING/RECOVERY WELL LOCATION (2007)
- SOIL BORING LOCATION (2007,2009)
- DRINKING WELL LOCATION

SITE FEATURES

- CURRENT PROPERTY BOUNDARY
- HISTORIC POTLATCH PROPERTY LINE
- FHWA RIGHT-OF-WAY BOUNDARY (R/W)
- SECTION LINE (PROPERTY DIVISION LINE BETWEEN POTLATCH AND BENTCIK)

N

0 40 80
APPROXIMATE SCALE IN FEET

KNOWN EXTENT OF PETROLEUM HYDROCARBON PLUME (VISUAL IMPACTS)
Avery Landing Site
St. Joe River Road
Avery, Idaho

By: APS	Date: 01/20/12	Project No. 16011
amec		Figure 3

Plot Date: 01/20/12 - 3:10pm, Plotted by: adam.stenberg
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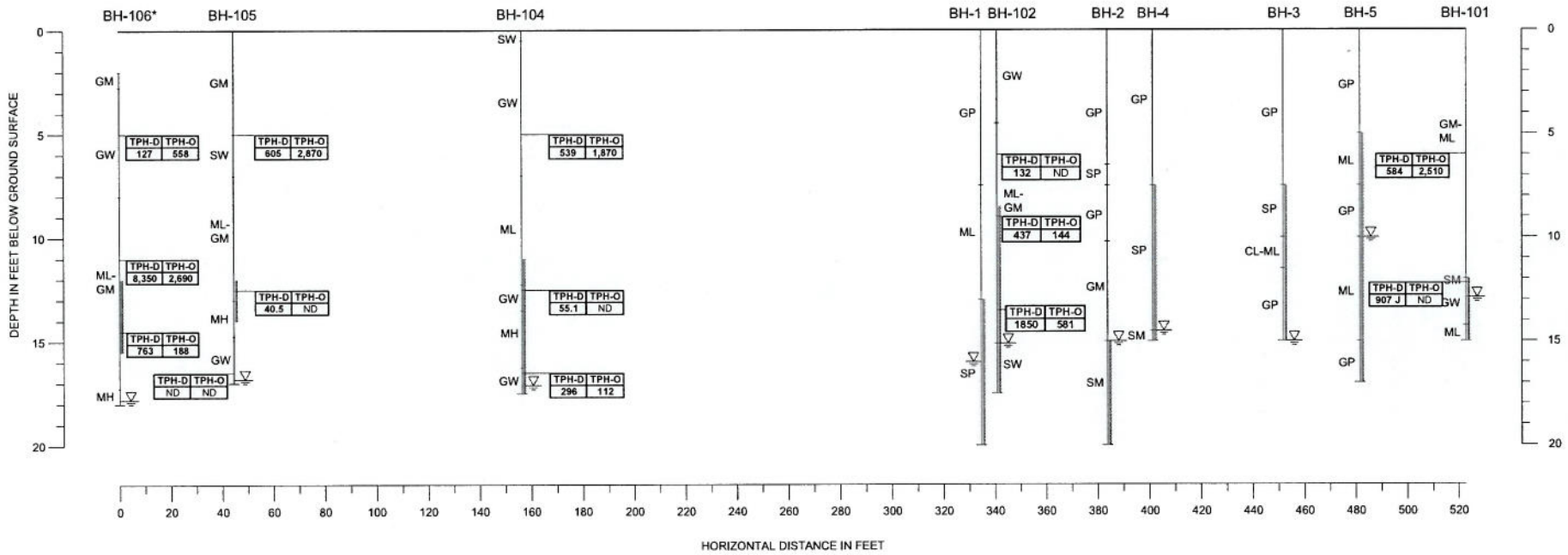

KEY TO STRATIGRAPHY

GM	SILTY GRAVEL
GW	WELL GRADED GRAVEL
GP	POORLY GRADED GRAVEL
SP	POORLY GRADED SAND
SW	WELL GRADED SAND
SM	SILTY SAND
ML	SANDY SILT
MH	ELASTIC SILT

EXPLANATION

VERTICAL RED LINE INDICATES DEPTHS OF VISUAL IMPACTS

WATER LEVEL

* BH-106 STARTS APPROX. 2FT BELOW HIGHWAY SURFACE.

NOTES:

1. BH-1 THROUGH BH-5 WERE COLLECTED BY POTLATCH IN 2009.
2. SAMPLES FROM BH-101 THROUGH BH-106 WERE ADVANCED BY AMEC IN 2011.

DATABOX KEY

TPH-D	TPH-O
1850	581

BOLD value indicates detection
Concentrations in milligrams per kilogram (mg/kg)

TPH-D = Total Petroleum Hydrocarbon - Diesel
TPH-O = Total Petroleum Hydrocarbon - Oil
ND = not detected above reporting limit

CROSS SECTION OF PETROLEUM HYDROCARBON PLUME
Avery Landing Site
St. Joe River Road
Avery, Idaho

By: APS	Date: 01/20/12	Project No. 16011
amec		Figure 4

Plot Date: 01/20/12 - 3:13pm, Plotted by: adam.stanberg
Drawing Path: S:\16011\600_2012 RemovalAction\WP\CAD\, Drawing Name: AverySitemap_RANP_011212.dwg

FHWA AGENCY AGREEMENT Project: EPA Avery Landing Removal Action Project ID PFH 50(9)	**FHWA Agreement No: DTFH70-12-X-30003** **Other Agency's Agreement No:**
(check one) ☑ FHWA is the Requesting Agency ☐ FHWA is the Servicing Agency	EFFECTIVE DATE: See **Block 8c**, Signature Date EXPIRATION DATE: See **Section III**, Term of Agreement **Page 1 of 7**

1. AGREEMENT. This Reimbursable Agreement (including the attached standard conditions) constitutes the entire agreement between the requesting agency and the servicing agency.

2a. AUTHORITY OF REQUESTING AGENCY: (check all that apply)

☐ 23. U.S.C. 204, Highways, Federal Lands Highway Program. (Applies when WFLHD is the requesting federal agency and Federal, state agencies, civil subdivisions of a state, or Tribes who will perform services relating to planning, research, engineering, construction of roads/bridges, or transit facilities within public lands/NPS/Indian reservations.)

☑ 31 U.S.C. 1535, The Economy Act (**Applies when 23 U.S.C. 308** does not apply. Authorizes one federal agency to secure items/services from another federal agency.)

2b. AUTHORITY FOR SERVICING AGENCY:

☐ 23. U.S.C. 308, Highways, Cooperation with Federal and State Agencies & Foreign Countries. (Applies when WFLHD is the Servicing Agency who will be performing engineering or other services to another Federal agency or to State/local government agencies.

☐ 23. U.S.C. 204, Highways, Federal Lands Highway Program. (Applies when WFLHD is the requesting federal agency and Federal, state agencies, civil subdivisions of a state, or Tribes who will perform services relating to planning, research, engineering, construction of roads/bridges, or transit facilities within public lands/NPS/Indian reservations.)

☐ 31 U.S.C. 1535, The Economy Act (**Applies when 23 U.S.C. 308** does not apply. Authorizes one federal agency to secure items/services from another federal agency.)

3a. REQUESTING AGENCY ADDRESS	3b. SERVICING AGENCY ADDRESS
Federal Highway Administration Western Federal Lands Highway Division 610 East Fifth Street Vancouver WA 98661-3801	U.S. Environmental Protection Agency 1200 Pennsylvania Avenue NW (3903R) Washington, D.C. 20460.
4a. FHWA Accounting & Appropriation Data: 1517160500009 532.CN.F15E.16 1716000000 25304 $3,000,000	4b. SERVICING AGENCY Accounting & Appropriation Data:
5. FUND AMOUNT Amount Obligated by this Action: $3,000,000.00	6. PAYMENT AND BILLING The other party to this agreement is a: (Check one) ☑ Federal Agency. Bill via Interagency Payment and Collection (IPAC) to Requesting Agency's Location Code (see block 7a or 7b, as applicable.) ☐ Other than a Federal Agency. Agencies must submit an acceptable invoice in a format and frequency designated in Section IV. See "Financial Administration" portion of this document for further details.
7a. FHWA FINANCE CONTACT 1. 8-digit Agency Location Code (ALC): 69-05-0001 2. Dunns Number: 139-768-597 3. TAS #69-8083 4. Finance Office Contact: Julie Morris 5. Finance Phone: (360) 619-7983 6. Finance FAX: (360) 619-7945 7. Finance email : julie.morris@dot.gov	7b. SERVICING AGENCY FINANCE CONTACT 1. 8-digit Agency Location Code (ALC): 68-01-0727 2. DUNS #: 029-128-894 3. Tax ID #: 52-0852695 4. Finance Office Contact: Jeffrey J. Marsala 5. Finance Phone: (513) 487-2056 6. Finance Fax: (513) 487-2545 7. Finance email : marsala.jeffrey@epa.gov

8a. FHWA APPROVAL (Name & Title - (type or print) Marlene M. Marcellay, Contracting Officer		9a. OTHER AGENCY APPROVAL (Name & Title - type or print) Francis Roth, Chief FISB/GIAMD	
b. Signature	c. Date	b. Signature Michelle Messick for	c. Date 4/23/12
d. Phone : (360) 619-7565 Email : Marlene.Marcellay@dot.gov		d. Phone: 202.564.5311 Email: roth.francis@epa.gov	

EPA AVERY LANDING REMOVAL ACTION

I. INTRODUCTION

State: Idaho

Project Name: Avery Landing Removal Action Site, ID PFH 50(9)

Project Location: This Agreement addresses the cleanup of soil contaminated by oil and hazardous substances beneath the existing United States owned right of way on a section of Forest Highway 50 near Avery Landing, Idaho. The project includes excavation and disposal of contaminated soils and reconstruction of the highway.

Purpose of this Agreement: This Agreement documents the intent of the parties and clarifies the responsibilities of each for the funding, environmental analysis, and construction award and administration for the project.

Authority: This Agreement is entered into by the undersigned parties pursuant to the provisions of 31 U.S.C. 1535.

Project Understanding: EPA has identified contamination of soils and groundwater in an area along the St. Joe River in Idaho known as the Avery Landing Site. Soil and groundwater at the Site are known to contain petroleum hydrocarbons and hazardous substances, apparently associated with the site's historical use as a railroad roundhouse and maintenance facility. Petroleum hydrocarbons and hazardous substances at the Site are discharging to the St. Joe River in violation of the Clean Water Act. In addition, substances subject to the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) have been found at the Site. A plume of light nonaqueous phase-liquid (LNAPL) extends from the northern edge of the Site toward the St. Joe River. Releases to the St. Joe River have occurred and are still occurring as a result of migration of petroleum hydrocarbons and hazardous substances. The petroleum constituents consist primarily of petroleum hydrocarbons in the diesel and Bunker oil range. The extent of contamination on United States property along Forest Highway 50 was not previously fully unknown. FHWA and EPA conducted or provided oversight of studies at the Site and determined that there were petroleum hydrocarbons on the property owned by the United States at the Site. FHWA has worked with EPA through the investigation process and is now requesting EPA to perform the clean-up of the United States property at the Site.

II. STATEMENT OF WORK

Environmental Protection Agency = EPA
Western Federal Lands Highway Division = FHWA

This statement of work covers the final packaging/advertising for contract award, administration during construction, and construction close out process for the ID PFH 50(9) Avery Landing project. FHWA has enclosed a Avery Landing - 2012 Removal Action Work Plan (ATTACHMENT 1) and a Avery Landing -FH 50 Road Reconstruction contract package (ATTACHMENT 2) (this package assumes EPA with their contractor will complete all excavation requirements for the cleanup, the FHWA package is only for rebuilding the excavated roadway) to be used as the work plan and road reconstruction requirements for the St Joe River road.

1. **Construction Contract Management (CM)**

EPA will perform all construction contract management for the project, which includes:

- Awarding contract for reconstruction of Highway 50
- Processing and payment of contractor monthly pay requests
- Ensuring all contract requirements are met, including:
  - On-Site testing and confirmation requirements that the contaminated soils have been removed and properly disposed of off-Site;
  - On-Site sampling and testing to assure roadway is constructed as specified in the contract package;
  - On-Site survey and inspection to assure roadway is constructed as specified in the contract package; and;
  - Wage rate compliance (Federal Davis Bacon Wage Rates).

2. **EPA Submittals**

EPA will prepare the following submittals for FHWA review:

- Site-specific Sampling Plan (SSSP) or EPA equivalent; and
- Removal Action Report documenting the removal operation, the actions taken, the resources committed, and the problems encountered.

3. **Construction Engineering/Construction Inspection (CE/CI)**

EPA will administer the construction of the project by providing the following:

- Inspection of the construction;
- Quality Assurance (QA) of the contractor's Quality Control (QC);
- Collection and analysis of soil samples to confirm compliance with cleanup objectives;
- Calculation or verification of quantities for bid items;
- Required quality certifications for bid items;
- Pre-construction meeting with meeting notes;
- Final acceptance of construction; and
- Final acceptance of cleanup.

4. **Regulatory Compliance**

All response actions at the Site shall be consistent with CERCLA, 42 U.S.C. § 9601 *et seq.* and the National Oil and Hazardous Substances Contingency Plan (NCP), 40 C.F.R. Part 300.

5. **Administration**

EPA may track employee time spent administering the project and related costs and invoice the time and/or costs as a reimbursable expense. Reimbursable time and costs may include, but are not limited to the following:

- Managing the highway replacement contractor during construction activities
- Plans and Specifications package reviews

- Recording of documents
- Copies
- Costs of required audits
- Independent review of contract management
- Cost for A/E consultants for the Design and or Construction management/Construction Engineering/Construction Inspection of the project

EPA is performing cleanup activities and oversight of cleanup activities for the entire Avery Landing Site, which is comprised of parcels of real property owned by Larry and Ethyl Bentcik, Potlatch Land and Lumber, LLC, the United States, and the State of Idaho. For the purpose of facilitating cleanup agreements, but in a non-binding manner, EPA apportioned cost among these parties by examining the relative costs for the major phases of the cleanup such as excavation, transportation, and disposal of materials, for each parcel. EPA also estimated the relative common (or shared) costs such as project planning, design, and management for the Site. EPA will track the direct costs for each parcel, as well as apportioned percentages of common costs for the Site. Indirect costs incurred by EPA and its contractor will also be included in the total payment amounts to be made by FHWA.

6. FHWA Role

The role of the FHWA on the project is to:

- Provide oversight and verification of the bid procedures;
- Make site visits during construction to assure completeness and progress of construction;
- Review and approve any plan changes effecting the final roadway configuration;
- Conduct at least two removal action site verification reviews;
- Provide inspection and construction management assistance for the re-construction of the highway and paving operations; and
- Attend the final project walk-through.

7. Completed Construction: EPA will provide FHWA with a copy of the Removal Action Final Report which will include final acceptance to the highway replacement contractor, meeting notes from the final walk-through, photographs of the completed construction project, documentation of final quantities of materials removed, equipment hours, man hours, and direct expenses. EPA will also provide all sampling and testing results and final roadway as-built plans specified in the contract package.

8. Cost Budget

The cost of the work for this Agreement is **Not to Exceed $3,000,000** unless an amendment to the Agreement is made in writing and agreed to by both parties. FHWA will pay EPA for costs associated with the cleanup of contaminated materials from United States owned land, including direct and common costs and the associated indirect costs. EPA will submit all invoices to FHWA for these actual and reasonable costs incurred for reimbursement. **See Section IV, C. Reimbursable Payment**. Burden shall only apply to EPA labor costs only. All consultants, their subconsultants, contractors and their subcontractors, and any and all indirect costs shall be directly passed onto FHWA without overhead or burdening applied.

EPA Direct Labor, including Overhead	
120 days @ $300/day	$36,000

EPA Direct Expenses and Travel	$64,000
EPA Consultant	$500,000
EPA IDIQ Contractor	$400,000
EPA IDIQ Subcontractors	$2,000,000
Total Not to Exceed =	$3,000,000

III. TERM OF AGREEMENT – Period of Performance

The terms and conditions of this agreement shall become effective with and upon execution by FHWA Contracting Officer and shall remain in effect for the Period of Performance through December 2, 2014, unless modified in writing by mutual agreement or terminated by either party upon thirty (30) days written notice. Full credit shall be allowed for each party's reimbursable costs and all non-cancelable obligations properly incurred up to the effective date of termination.

IV. FINANCIAL ADMINISTRATION

Estimated Costs: FY 2012 $3,000,000

A. Total Agreement Amount: See block #5, cover page, for funds obligated by this agreement.
Funding Citations: See blocks 4a & 4b. of cover page.

B. IPAC: In accordance with the Debt Collection Improvement Act of 1996, all payments from FHWA to EPA must be billed via Intra-Governmental Payment and Collections (IPAC). The Agency Location Code (ALC) for FHWA is 69-05-0001. For IPAC payment by FHWA, EPA will submit billings to FHWA with supporting documentation as costs are incurred by EPA, and one final and complete billing marked **Final Invoice** for reimbursement of all eligible costs incurred not later than 180 days after satisfactory completion of the work pursuant to the provisions of Title 23 CFR 645.117.

C. Reimbursable Payment: EPA is authorized to bill as costs are incurred and authorized, and should correspond to actual IPAC payment submission. The servicing agency is **limited to recovery of "actual costs"*** only, with a progress report reflecting the progress to the date of the invoice. The report will note obstacles encountered, suggested solutions, progress to date, and identify costs and expenses as stipulated in the agreed upon cost budget for services rendered or supplies delivered, as stated in Section II, B. Cost Budget. Include back-up data with each request for payment. Back-up data includes all documents needed to support the requested IPAC reimbursement, such as record of contract payments, receipts, payrolls, and so on.

**Actual Costs = EPA staff Burden Labor (Overhead Applied) plus costs of all directs expenses without burdening. For example: housing, vehicles, consultants, sub-consultants, contractors and sub-contractors, etc (unburden).*

Submit cost support documentation and Progress Report to:

Julie Morris, Finance Technician
Western Federal Lands Highway Division
610 East Fifth Street
Vancouver WA 98661-3801

D. Administrative Fee: Unless otherwise explicitly stated in this Agreement, FHWA shall not be liable for any additional administrative fees.

V. KEY OFFICIALS

REQUESTING AGENCY – FHWA/Western Federal lands Highway Division WFLHD

Contact: Michael Traffalis, COR
Voice: (360) 619-7787
Fax: (360) 619-7845
Email: Michael.Traffalis@fhwa.dot.gov

SERVICING AGENCY- Environmental Protection Agency, USEPA Coeur d'Alene Field office

Contact: Earl Liverman, COR
Voice: (208) 664-4858
Fax: (208) 664-5829
Email: liverman.earl@epa.gov

VI. SPECIAL PROVISIONS

Any resultant contract must be issued with the Davis Bacon wage rate regulations.

VII. MODIFICATIONS

Any modifications to the Agreement must be made in writing and agreed to by both parties. Such authorizations are not binding unless they are in writing and signed by personnel authorized to bind each of the agencies.

VIII. AGREEMENT COMPLETION

When the FHWA has accepted all deliverables, EPA will provide a final Removal Action Report FHWA.

IX. TERMINATION

Either agency may terminate this agreement upon 30-calendar day (or as designated in the statement of work) prior written notification to the other agency. If this agreement is terminated by the Servicing Agency, its liability shall extend only to the release of its work products and related materials to the Requesting Agency by the effective date of termination. If this agreement should be terminated by the Requesting Agency, its liability shall extend only to pay for the actual and reasonable costs of the items/services rendered and the costs of any non-cancelable obligations incurred in accordance with the terms of this agreement prior to the effective date of termination. Otherwise, the Agreement will terminate upon the expiration date specified in Section III, Term of Agreement, unless the period of performance is extended by amendment to the agreement and as agreed by both parties.

X. Agreement Standard Conditions

Financial

1. Funding. In no case will EPA make commitments or expenditures beyond 100% of funds obligated under this Agreement as modified.

2. Additional funds. FHWA and EPA shall closely monitor funds. The agencies may increase the total obligation by modifying this Agreement.

3. Duration of the Agreement. When Agreement performance is expected to extend beyond the funding limits of FHWA's appropriation, the Agreement may be extended provided the agencies have executed a modification using new funding.

4. Agreement Closeout. Upon receipt of the final accounting of project costs, FHWA will close the EPA account. The remaining balance in the Agreement account will be de-obligated by the FHWA Finance Office upon receipt of approved close-out documentation by the Contracting Officer.

Laws

5. Compliance with Applicable Laws. Both parties agree to comply with authorities, laws and regulations cited in this document.

6. 508 Compatibility. Each Electronic & Information Technology (EIT) item/service furnished under this agreement shall comply with Section 508 of the Rehabilitation Act of 1973 (29 U.S.C. 794d), as updated in 1998.

7. Competition Requirements for Servicing Agency. All acquisitions awarded by EPA in performance of this Agreement shall comply with the Competition in Contracting Act (CICA), public law 98-369.

Administration

8. Responsibilities. The FHWA COR and the EPA designated official shall be responsible for technical oversight of the specified item/service, as set forth in the attached statement of work.

9. Third Party Liability. With respect to third-party liability for acts arising out of the performance of official duties by a government employee of EPA, EPA undertakes responsibilities for the investigation, adjudication, settlement, and payment of any claim asserted against the United States; except that, in all cases, the responsibility for the investigation, adjudication, settlement, and payment of any claim with respect to third-party liability arising out of the use, damage, or destruction of loaned personal property shall be the responsibility of the particular agency that has custody and control of the said personal property. In addition, EPA representative shall have the duty of investigating and reporting, in accordance with EPA's regulations and policies, incidents occurring on, or involving that EPA's real property, and FHWA agrees to cooperate fully in such investigations.

10. Disputes. Agency employees responsible for the administration of this Agreement will be the initial points of contact for any disputes arising under this Agreement. Disputes may be submitted in writing to either of these persons. Any disputes that are not resolved at this level may be referred to their respective agency's reviewing official for resolution. Pending the resolution or claim pursuant to this article, the parties agree that performance of all obligations shall be pursued diligently in accordance with terms and conditions of the Agreement.

Other

11. Property. Purchase of equipment required for performance of the work must be authorized by the agreement.

12. Travel. All travel under this agreement shall be in accordance with the Federal Travel Regulations, unless otherwise agreed to by both agencies.

PAYMENT INFORMATION FORM FOR IPAC TRANSFER
U.S. Environmental Protection Agency
ID PFH 50(9), EPA Avery Landing Removal Action Project

Please complete this form upon receipt of Agreement No. **DTFH70-12-X-30003** and return with along with the signed agreement to the address listed below. If your agency financial information should change, another form must be completed and mailed as soon as possible to avoid rejected IPAC payments.

Name of Agency: U. S. Environmental Protection Agency

Address of Agency: 1200 Pennsylvania Avenue, N.W.

Washington, D.C. 20460

Contact Person: Jeffrey Marsala Phone No: 513-487-2056

Tax ID Number (TIN Required): 520852695

Dunn & Bradstreet Number (9 digit Dunns # Required): 029128894

L. Hamilton IA specialist 4/10/12
Signature and Title of Person Completing this Form Date

Complete and forward this form along with signed Agreement to:

FEDERAL HIGHWAY ADMINISTRATION
ATTN: NANCIE PRUITT, ACQUISITION PROGRAM SPECIALIST
WESTERN FEDERAL LANDS HIGHWAY DIVISION
610 EAST FIFTH STREET
VANCOUVER, WA 98661-3801

FHWA Billing Information for this Agreement:

1. 8-digit Agency Location Code (ALC): 69-05-0001
2. DUNS #: 139-768-597
3. Tax ID #:22-3934584
4. Finance Office Contact: Julie Morris
5. Finance Phone: (360) 619-7983
6. Finance FAX: (360) 619-7945
7. Finance email : julie.morris@dot.gov

All requested information will be kept entirely confidential in accordance with TAM 1204.203, and CANNOT be released under Freedom of Information Act (FOIA).