



File Code: 2160

Date: September 7, 2008

Route To:

Subject: Time Critical Removal Action Memorandum, Starting on or About September 15, 2008 at the Forest Service 3030 Road near Coffman Cove, Thorne Bay Ranger District, Tongass National Forest

To: Forest Supervisor, Tongass National Forest

TIME-CRITICAL CERCLA REMOVAL ACTION MEMORANDUM

I. PURPOSE

This Action Memorandum documents and explains the decision to commence a Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA; 42 U.S.C. 9601 *et seq.*) Time-Critical Removal Action (TCRA) at the Forest Service 3030 Road near Coffman Cove, Thorne Bay Ranger District, Tongass National Forest (*Site*). On site removal activity is expected to begin on approximately September 15, 2008 and be completed, or as much completed as possible, in the Fall (approximately December 1, 2008). This Memorandum is prepared pursuant to 42 U.S.C. 9604, 7 C.F.R. 2.60(a) (39) and Executive Order 12580.

The TCRA described herein will be integrated with additional future response actions deemed necessary at the *Site* in accordance with applicable state and federal laws, regulations, and policy. Conduct of future response actions are expected to follow the completion of further CERCLA analysis to be prepared separately and conducted concurrently with this TCRA, Coordinated planning is intended to ensure that all early actions will be consistent with any long-term action that may eventually be required.

The Forest Service is the "lead agency" for response actions occurring on lands within the National Forest System as defined in section 300.5 of the National Oil and Hazardous Substances Pollution Contingency Plan (NCP), and all response actions overseen by the Forest Service and cooperating agencies will not be inconsistent with the NCP. The Forest Service (FS) is working cooperatively with the Environmental Protection Agency (EPA), the State of Alaska Department of Environmental Conservation, Contaminated Sites Program (ADEC), and Western Federal Lands Highway Division (WFLHD) to approach the actions on a collaborative basis, ideally with consensus. These four agencies, working together are herein after called *the Agencies*.

The proposed action is a removal of contaminated material at one location and installation of on-site filter trenches at two other locations along the Forest Service 3030 Road. The actions



include removal of pyretic rock¹ that is producing acid rock drainage (ARD) from road fill near Stream 3027²; installation of a cut collection and buffering trench using limestone rock at the B5 borrow source; and installation of a site drain and limestone/carbonate reactive filter drain below the D-2 site. This removal action is expected to raise pH down stream from the three locations and reduce the concentration of copper going into solution due to the acidity of the water; based on factors set forth in the National Oil and Hazardous Substances Pollution Contingency Plan (NCP), 40 CFR 300.415. Time is of the essence, in part because of the identification of reaches of Stream 3027 which were identified as having no rearing fish this summer where there were rearing fish last summer³, high copper concentrations reported in laboratory results below the D-2 site, and visual staining along slopes below the B-5 source in Section 17. The coming of winter is another factor to affect timing. Freezing weather, snow, and short days means the effective field season ends in November for planning purposes. Winter shutdown is normally expected to extend to 5-6 months in most years. The removal action work will be conducted by Western Federal Lands Highway Division (WFLHD), Federal Highway Administration of the United States Department of Transportation.

II. SITE CONDITIONS AND BACKGROUND

A. *Site Description.*

1. Removal site evaluation

The CERCLIS ID No. is AKN001002746 and the *Site* ID No. is 10GE. This action meets the criteria for initiating a removal action under the National Contingency Plan (NCP), 40 CFR §300.415.

2. Physical Location

The Forest Service 3030 Road, the Forest Service 30 Road and the Forest Service 23 Road connect in segments to provide a road link between the State of Alaska's North Prince of Wales Highway and the City of Coffman Cove. The roads were constructed in the 1970's by the Ketchikan Pulp Company as single lane roads with turnouts providing access to logging operations on Prince of Wales Island from the then Coffman Cove Logging Camp. During the 1980's, the State of Alaska (State) selected lands near the logging camp for transfer from the United States to the State. The State subdivided the lands, sold the subdivided lots and the community of Coffman Cove developed. Coffman Cove is currently an incorporated, 2nd Class municipality with a population of approximately 200 people.

¹ A term to describe rock with iron pyrite and sulfide compounds which can generate acid rock drainage. Much of the rock from the B5 pit can be described with this term.

² This stream is Cataloged by the Alaska Department of Fish and Game as an anadromous stream. Full database identifier is 106-30-10670-2004-3027.

³ Personal communications with Mark Minnillo, Alaska Department of Fish and Game, Habitat Division Biologist on Prince of Wales Island June 2008 teleconference.

The FS 3030 Road is located within the Tongass National Forest on Prince of Wales Island in southeast Alaska. The road is a rural arterial connector between the community and the main north / south route on the northerly portion of the island, the North Prince of Wales Highway and the FS 20 Road to the City of Coffman Cove. The economic mainstays of the economy are construction, logging, fishing, and tourism.

The FS 3030 Road is located in an area used primarily for general forest activities including timber harvest, subsistence gathering, wildlife and fish production, and dispersed recreation.

WFLHD has been reconstructing logging roads to double lane paved roads on Prince of Wales Island for approximately 30 years. The current effort has been the road reconstruction between the junction with the North Prince of Wales Highway and the Community of Coffman Cove. The environmental analysis for the entire road was performed by WFLHD with an Environmental Assessment signed December 21, 2000 (amended July 2001) and a Finding of No Significant Impact (FONSI) signed July 27, 2001. The reconstruction of the single lane road was segmented into three segments constructed with separate contracts. A single additional phase was planned to pave the entire road. With the environmental analysis WFLHD applied for and received a Corps of Engineers Permit to discharge approximately 787,500 cubic yards (602,054 cubic meters) of fill into 20.05 acres of wetlands and water as a part of the entire proposed road reconstruction. The environmental analysis estimated that the effects on water and habitat would be limited to the reconstruction within the clearing limits and short term sediment effects from installation of culverts mitigated by implementing best management practices. The environmental analysis disclosed an expectation that the project would meet the Standards and Guidelines of the Tongass Land Management Plan as amended.

The final segment of WFLHD reconstruction was along the Forest Service 3030 Road between the termini at the junction with the 30 Road at Hatchery Y generally north and eastward to the Coffman Creek bridge. WFLHD performed preconstruction work, including survey and design and awarded a construction contract for the reconstruction May 18, 2006.

3. *Site* characteristics

The FS 3030 Road crosses several streams, including Trumpeter Creek and Coffman Creek. There are no known threatened or endangered species in the *Site* area. The majority of the streams drain northerly to Sweetwater Lake and the area is considered a primary salmon production area by the Alaska Department of Fish and Game (ADF&G) and the Forest Service. National Marine Fisheries Service classifies the area as essential fish habitat. Several salmonid species inhabit the streams in the *Site* area, including Sockeye Salmon (*Oncorhynchus nerka*), Coho Salmon (*Oncorhynchus kisutch*), Chum Salmon (*Oncorhynchus keta*), Pink Salmon (*Oncorhynchus gorbuscha*), Steelhead (*Oncorhynchus mykiss*), Cutthroat Trout (*Oncorhynchus clarki*), and Dolly Varden (*Salvelinus malma*).

The FS 3030 Road reconstruction design included using the end of a ridge crossed by the new road alignment as a borrow source. This borrow source, designated on design drawings as "B5", includes a massive shear zone with the rock being highly fractured across approximately 150 foot of width. The shear zone resulted in the rock breaking into small stones with relatively uniform size, which was substantially different than the rock from other borrow sites along the road.

Design drawings called for extensive excavation of deep peat accumulations and other materials that provided an unsuitable base for the rigid pavement design. WFLHD's contractor used approximately 80-100,000 cubic meters of rock from the B5 borrow source.(referred to as B-5 material) which was placed intermittently along an approximately 4.9 mile (7.84-kilometer) segment of FS Road 3030.

During the week of July 18, 2008, WFLHD, FS, EPA, ADEC, and ADF&G met on Prince of Wales Island to tour the impacted portion of the road alignment and to discuss a path forward. At the meeting, the following conditions were observed and it was concluded:

- The B-5 rock appears to be resulting in potential and confirmed releases of ARD, resulting in the water quality problems in creeks along the road.
- The water quality problems occur where areas of the peat soils were excavated to depth and are less apparent in other portions of the road.
- The water quality in several creeks has apparently disrupted aquatic life including impaired fish spawning and rearing in the affected creeks.
- There is sufficient information available for decision making. That information includes the ecological effects of disrupting fish spawning and rearing in the creeks. A TCRA is an appropriate step in an attempt to control the source of the ARD release of toxic constituents to the environment for three impacted locations reviewed in the field during Fall 2008.
- Data gaps exist for many portions of the impacted area and need to be filled before decisions on further response actions can be completed for the entire area of impacted alignment. These data gaps and subsequent actions should be evaluated and potentially completed as a part of any additional future response actions deemed necessary at the *Site*
- There are currently no identified pathways and it is unlikely that the potential and/or confirmed releases are a threat to human health through direct contact or consumption of aquatic organisms, but further evaluation is necessary for confirmation.

4. Release or threatened release into the environment of a hazardous substance, or pollutant or contaminant

During the 2007 construction season, WFLHD recognized an issue with excessive culvert corrosion at Stream 3027. Galvanized steel culverts used as temporary stream crossings were highly corroded with holes apparent in the bottoms of the pipes after being in place for approximately eight months. Subsequent evaluation identified the accelerated corrosion and

culvert failure as being consistent with ARD. Water quality monitoring was initiated on 13 June 2007 at the problem culverts. The stream pH value was 2.3 units, immediately downstream of the culvert on cataloged stream 3027. The low pH reading did not meet Alaska *Water Quality Standards*⁴ and prompted WFLHD to measure water quality at 15 culverts along the roadway. Water quality data collected in 2007 revealed four culvert locations at documented fish-bearing streams where low pH⁵ readings did not meet Alaska *Water Quality Standards*. Dissolved oxygen⁶ (DO) levels did not meet Water Quality Standards at Station 22+196. In addition to field measurement of pH, conductivity/resistance, oxidation-reduction potential, and total dissolved solids (TDS), WFLHD collected water samples upstream and downstream at the four culverts in November 2007 for laboratory testing of total hardness, conductivity, alkalinity, total copper, total iron, sulfate, and total dissolved solids. Data indicated that sulfate, total dissolved solids, conductivity, copper, and iron increased near the road embankment where the B5 fill was placed. In May of 2008 WFLHD submitted a report to the National Response Center (NRC) reporting a release of a CERCLA regulated substance for pH levels reaching levels as low as 2.0. The NRC confirmed the release of a hazardous substance.

Copper⁷ in the concentrations reported in the DEA Report⁸ constitutes a release of a hazardous substance.

5. NPL status

The *Site* is not listed on the National Priority List (NPL).

B. Other Actions to Date

1. State and Local Actions to Date

There have been no government or private actions that have been undertaken in the past at the *Site*. In January, 2008, the Alaska Department of Environmental Conservation (ADEC) sent a compliance letter to WFLHD, directing WFLHD to provide information, including a Site Characterization Plan. Subsequent investigations in the spring of 2008 indicated that surface

⁴ *Water Quality Standards Amended as of July 1, 2008 (18 AAC 70)* provides statewide regulations for water quality for beneficial uses, including "Growth and propagation of fish, shellfish, other aquatic life and wildlife". *Water Quality Standards* also references *Water Quality Criteria Manual for Toxic and Other Deleterious Organic and Inorganic Substances Amended May 15, 2000*.

⁵ Applicable standard for pH is "May not vary more than 0.5 pH unit from natural conditions".

⁶ DO standard for growth and propagation of fish... is 7 mg per liter for streams with fish and must be 5 mg/l or greater in waters not used by fish.

⁷ Aquatic Life Criteria for Fresh Water is hardness dependent. For chronic conditions, For the hardness range of 25-400 mg/l CaCO₃ the total recoverable criteria range from 2.9 to 30 micro grams per liter.

⁸ "*Draft Site Characterization Plan and Preliminary Report-- Coffman Cove Road Water Quality Assessment*" Coffman Cove Road AK PFH 44-1(4), Water Quality Assessment, Prepared for Western Western Federal Lands Highways Division Federal Highway Administration, Submitted by David Evans and Associates, Inc, and Travis/Peterson Environmental Consulting Inc, May 2008

waters adjacent to road areas known to be associated with B-5 material tended to contain high concentrations of iron and copper and had pH values lower than local background conditions. Iron⁹, copper, and pH were found not to meet ADEC water quality standards. David Evans and Associates conducted sampling and analysis for WFLHD and prepared the DEA Report. The DEA report also notes turbidity did not meet standards.

The DEA report documented the findings of a fish and macro invertebrate survey at Stream 3027 (referred to as Stream 3 in the DEA report). A subsequent evaluation by a then Alaska Department of Natural Resources (ADNR) biologist¹⁰ was devoid of both fish and macro invertebrates downstream of the road where fish had been observed a year earlier. Fish avoidance is documented in the affected creeks. The B-5 material was tested and found to have the potential to be acid producing in many of the samples reported in the DEA report, and was believed by the various regulatory agencies to be the likely source of the exceedences of Alaska *Water Quality Standards*.

In June 2008, ADEC sent a general notice letter to FS and WFLHD.

2. Potential for continued State/local response

The three proposed TCRA sites and all the impacts from those sites are on National Forest Systems land included in the Tongass National Forest. The Forest Service, WFLHD and EPA are cooperatively addressing these sites under CERCLA authorities. There has been and will continue to be coordination and cooperation between the Federal Agencies and the State, as contemplated by 40 C.F.R. Part 300, Subpart F. The Alaska Department of Environmental Conservation, Contaminated Sites Program is recognized as the State of Alaska lead agency working with the project.

III. THREATS TO PUBLIC HEALTH OR WELFARE AND THE ENVIRONMENT, AND STATUTORY AND REGULATORY AUTHORITIES

The Agencies have determined the current conditions at the three sites along FS Road 3030 meet the following factors which indicate that the *Site* is a threat to the environment, and a removal action is appropriate under factors set forth in the NCP, 40 CFR § 300.415(b)(2), and that site conditions pose a potential threat to the welfare of the United States or the environment. Specifically, factors (i), (ii) and (v) compel the United States to proceed with a time-critical removal action at three locations. These factors and pertinent site evidence are as follows:

A. Threats to Public Health or Welfare

⁹ Aquatic Life Criteria for Fresh Water chronic standard is 1000 micrograms per liter.

¹⁰ The State of Alaska moved the Department of Natural Resources Office of Habit and Permitting to the Department of Fish and Game Habitat Division on July 1, 2008

There are no known or suspected threats to public health or welfare as they relate to the factors found in section 300.415(b)(2) of the NCP.

B. Threats to the Environment

Exposure to nearby human populations, animals, or the food chain from hazardous substances, pollutants or contaminants (300.415[b][2][i])

Ecological receptors could become exposed to site contaminants through direct contact with hazardous substances, pollutants, and other contaminated materials and with water contaminated by hazardous substances; ingestion of materials contaminated by hazardous substances; and ingestion of contaminated food (e.g., sediment- or soil-dwelling insects, vegetation). The DEA report notes that copper concentrations exceed lethal levels (LD50) for rearing salmonids. Iron precipitates are accumulating on the stream bottoms. Iron precipitates commonly cause cementing of aggregates and the filling of voids resulting in a loss of habitat function and biological capacity within the streams. Cementing of stream bottoms in spawning areas decreases the ability of spawning gravels (redds) to function for propagation of salmonids.

Actual or potential contamination of drinking water supplies or sensitive ecosystems (300.415[b][2][ii])

Geochemical data demonstrates that the B-5 rock material placed along sections of FS Road 3030 is resulting in ARD and dissolved metals. Additionally, the drainage from the fill material at some locations is low for DO and pH, both important physical parameters for stream biology. Based upon the geochemical data to date, this situation will likely deteriorate over time. As the pH falls within the fill material, the mobilization potential of the actinides (i.e., environmental radioactivity) will increase and eventually actinides may be released in the drainage from the fill.

Weather conditions that may cause hazardous substances or pollutants or contaminants to migrate or be released; (300.415[b][2][v])

The portion of Prince of Wales Island where the Forest Service 3030 Road is located receives about 100 inches of rainfall each year and the maximum 24-hour accumulation exceeds 3 inches of rain. These high precipitation conditions with extensive peatlands (wetlands) result in water tables close to ground level and cause high volumes of ground water to flow into streams. With high volume systems and precipitation, the extensive water flows may cause the contamination to migrate. Seasonal variation in precipitation and groundwater flows into streams range from heavy fall rains and associated high flows where contaminant concentrations are diluted to high snowfall winters having higher amounts of ground water flows into streams with the greater probability of higher concentrations of metals in downstream flows.

IV. ENDANGERMENT DETERMINATION

Actual or threatened releases of hazardous substances, pollutants, or contaminants from this *Site*, if not addressed by implementing the response action selected in this Action Memorandum, may present an imminent and substantial endangerment to public health, or welfare, or the environment.

V. PROPOSED ACTIONS AND ESTIMATED COSTS

The proposed actions are integral to a comprehensive effort to address the *Site* and to continue to restore adversely effected aquatic environments adjacent to and downstream of the B-5 material.

A. Proposed Actions

1. Proposed action description

As shown in Figure 1 of the Time Critical Removal Action Workplan, the proposed action consists of the three specific activities that utilize the availability of limestone (calcium carbonate rock) in proximity of the work. The limestone provides carbonate that chemically reacts with the acid in the water resulting in raised pH levels. The DEA report provides information on the amount of calcium carbonate needed to react with the acid production potential of the B-5 rock material. The limestone rock pit, B-1 is also planned to be used as a containment area for the rock excavated in the removal action. Calcium carbonate neutralization of acid is expected to be highly effective. Practically unlimited quantities of calcium carbonate are readily available from existing borrow sources near the three removal action locations. Realizing that the weather may limit the work that can be performed this year, the work for this Fall will be performed according to the order set forth below. Work not able to be performed this year will be further evaluated to determine what should be done at a future date.

- Excavation of B-5 rock material from the Stream 3027 road crossing area

Approximately 15,000 cubic yards of B-5 rock material placed between stations 19+820¹¹ and 20+20 will be excavated and the material will be placed at the B-1 rock quarry consolidation area. The actual quantity and extent of material to be excavated will be based on construction documents and field observations. The existing galvanized culvert pipe will be replaced with a plastic culvert pipe, and the excavation will be back-filled with B-1 rock material. The B-1

¹¹ The stationing is in metric units with the interpretation being 19 kilometers plus 820 meters. The stationing was established in the drawings for the reconstruction contract and provides a reference to positions along the FS 3030 Road that can be re-established with precision along the roadway.

material is limestone containing greater than 90% calcium carbonate (CaCO_3). Placement of the B-1 material will meet pre-removal construction performance standards.

Removal of the B-5 rock material should result in restoration of baseline surface water quality. The effectiveness of this action on the improvement of surface water quality (and potentially the need for further action) will be evaluated as part of a long-term monitoring program associated with the development and implementation of any further response action deemed necessary.

The excavated B-5 rock material will be consolidated at the B-1 rock quarry on an interim basis pending further site evaluation. The excavated material will be placed on 18-inches of crushed limestone, graded for control of surface water, and overlain with low permeability geotextile material to minimize precipitation infiltrating the material.

Prior to placement of the B-5 rock material in the B-1 pit, monitoring wells or piezometers will be installed to evaluate rock type and to obtain groundwater information, as well as to monitor the long-term effectiveness of the B-1 consolidation area. A minimum of one well upgradient and two wells downgradient of the consolidation area will be installed.

Placement of the B-5 material at the B-1 rock quarry should serve as a buffering layer for any ARD leachate associated with the B-5 material. However, the long-term suitability of the B-1 rock quarry as a final consolidation area for the B-5 rock material (or other location) will be determined during additional future response actions deemed necessary at the *Site*. The effectiveness of the B-1 rock quarry (or other limestone soil location) as a long-term consolidation area will be evaluated as part of a long-term monitoring program associated development and implementation of future response actions deemed necessary.

- B-5 Road Cut Collection and Buffering Trench

A portion of FS Road 330 was constructed through B-5 rock from approximately station 23+300 to 23+440. At this location, a 3-4 foot wide and 13 foot deep collection and reactive carbonate filter trench will be installed parallel to the up gradient side of the road to capture and treat ARD before it enters a stream. Geotextile fabric will be placed in the trench and against the road prism, and will be overlain with limestone. The trench will cross the road and enter a naturally occurring low spot, which will be used as an exfiltration detention pond. In addition to placement of the collection and reactive carbonate filter trench, all known B-5 rock will be removed between stations 23+400 and 23+440 and replaced with B-1 rock quarry material.

Construction of the reactive carbonate filter trench and excavation of the B-5 rock material should result in restoration of baseline surface water quality. The effectiveness of this action on the improvement of surface water quality (and potentially the need for further action) will be evaluated as part of a long-term monitoring program associated with the development and implementation of future response actions deemed necessary.

D-2 soil disposal site drain

Approximately 120,000 cubic yards of soil and peat unsuitable for use as road fill, and approximately 1,000 cubic yards of B-5 material used for temporary road access remain at the D-2 site. The remaining material has retained rainwater which then drains through the material to the underlying rock quarry bottom. Alternatively, rainwater may be diverted under the material through fractures in the bedrock. A rock face situated downhill from the disposal area contains a seep that is a known ARD release point. The seep drains into a small creek that flows into Stream 3021 (Stream 6), which also has evidence of an ARD release.

A limestone drain will be placed at the seep to buffer seepage at the base of the rock face. Three detention ponds will be placed in series at the end of the drain and will each have a limestone check dam.

The limestone drain and check dams should result in restoration of baseline surface water quality. The effectiveness of this action on the improvement of surface water quality (and potentially the need for further action) will be evaluated as part of a long-term monitoring program associated with the development and implementation of additional future response actions deemed necessary at the *Site*

Best management practices

Best management practices (BMPs) will be employed throughout implementation of the TCRA to ensure the short-term protection of workers and the community and to prevent or reduce any environmental impacts.

Post-removal site control

The FS will oversee long-term monitoring of the *Site* to evaluate the effectiveness of the work performed under this time-critical removal action and determine what, if any, future response actions may be necessary.

2. Contribution to remedial performance

The proposed actions may be interim or final actions; they may be the first and only action at the *Site*, or one of a series of further response actions as deemed necessary. To the extent practicable, the proposed cleanup actions will contribute to the efficient performance of any long-term action with respect to the releases or threatened releases concerned, and will not impede future responses based on available information.

3. Description of alternative technologies

The proposed response actions were determined to be the only practicable and timely actions appropriate for mitigating exposure to hazardous substances, pollutants, or contaminants from effectiveness, implementability, and cost perspectives.

4. EE/CA

An engineering evaluation/cost analysis (EE/CA) is not required for a time-critical removal action.

5. Applicable or relevant and appropriate requirements

The NCP requires that removal actions attain Applicable or Relevant and Appropriate Requirements (ARARs) under federal or state environment or facility siting laws, to the extent practicable. (40 CFR § 300.415[j]) In determining whether compliance with ARARs is practicable, the FS may consider the scope of the removal action and the urgency of the situation. (40 CFR § 300.415[j])

The applicable provisions of State of Alaska, *Water Quality Standards Amended as of July 1, 2008 (18 AAC 70)* especially for beneficial uses, including “Growth and propagation of fish, shellfish, other aquatic life and wildlife” including State of Alaska *Water Quality Standards* also references *Water Quality Criteria Manual for Toxic and Other Deleterious Organic and Inorganic Substances Amended May 15, 2003*, included by reference; are applicable requirements and will be met to the extent practicable.

The substantive provisions of Section 404 of the Clean Water Act (CWA), 33 U.S.C. §§ 1344, and the October 12, 2005 letter from the Corps of Engineers with enclosed permit issued for the Coffman Cove Road Reconstruction, are applicable requirements and will be met to the extent practicable

The substantive provisions of the State of Alaska Title 41.14.840 as detailed in permits FH05-VII-0038 through 0057 issued August 8, 2005 for the Coffman Cove Road Reconstruction, are applicable requirements and will be met to the extent practicable.

The substantive provisions of the Tongass Land Management Plan of 1997, as amended, as detailed in Chapter 4 for Riparian, Fish, Soil and Water, and Transportation topics are applicable requirements and will be met to the extent practicable.

The substantive provisions of *Section 402 of the Clean Water Act, National Pollutant Discharge Elimination System “General Permit for the Discharges from Large and Small Construction Activities.”*; in particular the permit AKR10196 issued June 17, 2002 for the Coffman Cove Road Reconstruction are applicable requirements and will be met to the extent practicable.

The substantive provisions of *Oil and Other Hazardous Substances Pollution Control regulations* (as amended through July 1, 2008) (18 AAC 75) Table C are applicable requirements for groundwater and will be met to the extent practicable.

6. Project schedule

Cleanup activities should commence no later than 30 September 2008, and should be completed within approximately 8 weeks.

B. Estimated Costs

Costs for this proposed time-critical removal action are expected to be funded by Alaska Forest Highway Program of SAFETEA-LU which is administered by WFLHD.

Costs for conducting oversight activities by the FS are expected to be funded mostly through FS administrative funds, with some potential contribution by Alaska Forest Highway Program of SAFETEA-LU which is administered by WFLHD for consultant costs. Costs for EPA's provision of technical expertise are expected to be funded mostly by Alaska Forest Highway Program of SAFETEA-LU which is administered by WFLHD.

The estimated construction¹² costs to implement the TCRA described in this work plan are as follows.

1. Removal Action at Stream 3027 - \$520,000
2. Development of the B-1 Consolidation Area - \$110,000
3. Collection and Buffering Trench at B-5 Cut - \$200,000
4. Buffering of seep at D-2 Pit - \$70,000

The estimated total construction costs of the TCRA are \$900,000. The costs were developed on the basis of preliminary engineering estimates of the work to be accomplished and logistics.

VI. EXPECTED CHANGE IN THE SITUATION SHOULD ACTION BE DELAYED OR NOT TAKEN

If the response action should be delayed or not taken, hazardous substances are expected to continue to be contributed to waterways resulting in continued displacement of fish and loss of productive habitat for the spawning and rearing of fish. The low pH, the discharge of iron, and discharge of copper into stream will remain as ecological threats, based on direct contact, and ingestion exposure pathways for fish and wildlife..

VII. OUTSTANDING POLICY ISSUES

There are no outstanding policy issues or public concerns of which *the Agencies* are aware.

¹² Construction is based on the type of contract for work per Federal Acquisition Regulations and the definitions at 23 USC 101.

VIII. WFLHD INVOLVEMENT

It is anticipated that WFLHD, or its authorized contractors, will perform all of the work required by this Action Memorandum. *Site* work will be accomplished under terms of the Work Plan and be consistent with the NCP.

I have determined that WFLHD can and will perform the necessary removal action promptly and properly.

IX. ADMINISTRATIVE RECORD AND COMMUNITY RELATIONS

Pursuant to 40 C.F.R. 300.5 and 300.415, Ken Vaughan is designated as On-Scene Coordinator. Mr. Phil Sammon is the Spokesperson. A Draft Community Involvement Plan has been developed.

X. RECOMMENDATION

This decision document presents the selected removal action for the FS Road 3030 *Site*, Tongass National Forest, Alaska, developed in accordance with CERCLA, as amended, and is not inconsistent with the NCP.

Conditions at the *Site* meet the NCP section 300.415(b)(2) criteria for a removal action.

By this Memorandum, I find that a Time-Critical Removal Action at three locations along the Forest Service 3030 Road is warranted and appropriate. By copy of this Memorandum, I am notifying US EPA, Region 10, Western Federal Lands Highways Division, and the State of Alaska of my finding of the appropriateness of the above Time-Critical Removal Action.



SAM CARLSON, P.E.

Director, Engineering and Aviation Management

cc:

Jim Alexander, Office of the General Counsel, Portland

Louis Howard, ADEC Contaminated Sites Program

Bruce Wansall, ADEC Contaminated Sites Program

Jason Anderson, District Ranger, Thorne Bay Ranger District

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Ken Marcy, Environmental Protection Agency, R-10 (ECL-115)

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