

**BLACKTAIL CREEK RIPARIAN ACTIONS
OUTLINE**

**for the
BUTTE PRIORITY SOILS OPERABLE UNIT
of the
SILVER BOW CREEK / BUTTE AREA
SUPERFUND SITE
Butte-Silver Bow County, Montana**

**APPENDIX H
TO THE CONSENT DECREE**

Consent Decree for the Butte Priority Soils Operable Unit
Partial Remedial Design/Remedial Action and Operation and Maintenance

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1.0 INTRODUCTION

1.1 Purpose of the Outline

This Outline sets forth the procedures and requirements for implementing the BTC Riparian Actions to be implemented by the Montana Department of Environmental Quality (DEQ) on behalf of the State of Montana.

1.2 Structure of the Outline

- (a) Section 2 (Community Involvement) sets forth EPA's and DEQ's responsibilities for community involvement.
- (b) Section 3 (Remedial Design) sets forth the process for developing the RD, which includes the submission of specified primary deliverables.
- (c) Section 4 (Remedial Action) sets forth requirements regarding the completion of the RA, including primary deliverables related to completion of the RA.
- (d) Section 5 (Reporting) sets forth DEQ's reporting obligations.
- (e) Section 6 (Deliverables) describes the content of the supporting deliverables and the general requirements regarding DEQ's submission of, and EPA's review of, approval of, comment on, and/or modification of, the deliverables.
- (f) Section 7 (Settling Defendants' Participation) addresses Settling Defendants' participation.
- (g) Section 8 (Schedules) sets forth the schedule for submitting the primary deliverables, specifies the supporting deliverables that must accompany each primary deliverable, and sets forth the schedule of milestones regarding the completion of the RA.
- (h) Section 9 (References) provides a list of references, including URLs.

1.3 Scope of the Remedy

The Scope of the BTC Riparian Actions are described in Section 5 of Attachment C to the BPSOU Statement of Work (BPSOU SOW), Blacktail Creek Remediation and Contaminated Groundwater Hydraulic Control Remedial Elements (hereinafter, Section 5 of Attachment C) and restoration work integrated with the Remedy at the Confluence Area, and include only those actions delineated as DEQ responsibilities. DEQ is not obligated to attain groundwater or in-stream surface water ARAR standards, but is obligated to attain construction-related performance standards.

1.4 BPSOU Site Decision Documents

- (a) 2006 BPSOU ROD – Record of Decision, Butte Priority Soils Operable Unit, September 2006.
- (b) 2011 ESD - Explanation of Significant Differences to the 2006 Butte Priority Soils Operable Unit Record of Decision, July 2011.
- (c) 2020 ROD Amendment, February 2020.

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1.5 Definitions and Abbreviations

The terms used in this Outline that are defined in CERCLA, in regulations promulgated under CERCLA, or in the Consent Decree (CD), have the meanings assigned to them in CERCLA, in such regulations, or in the CD, except that the term “Paragraph” or “¶” used in this document means a paragraph of the Outline, and the term “Section” used in this document means a section of the Outline, unless otherwise stated.

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2.0 COMMUNITY INVOLVEMENT

2.1 Community Involvement Responsibilities

- (a) EPA has the lead responsibility for developing and implementing community involvement activities at the Butte Site. EPA developed a Community Involvement Plan (CIP) in 2003 for the Site and updated the CIP again in 2013. Pursuant to 40 C.F.R. § 300.435(c), EPA shall review the existing CIP and determine whether it should be revised to describe further public involvement activities during the BTC Riparian Actions that are not already addressed or provided for in the existing CIP. Butte Citizens Technical Environmental Committee (CTEC) has been funded by a Technical Assistance Grant since the late 1980s and its continuing role will be addressed in any revised CIP.
- (b) If requested by EPA, DEQ shall participate in community involvement activities, including participation in (1) the preparation of information regarding the BTC Riparian Actions for dissemination to the public, with consideration given to including mass media and/or internet notification, and (2) public meetings that may be held or sponsored by EPA to explain activities at or relating to the Butte Site regarding the BTC Riparian Actions. DEQ's support of EPA's community involvement activities may also include providing online access to initial submissions and updates of deliverables relating to the BTC Riparian Actions to:
 - (i) Any Community Advisory Groups,
 - (ii) Any Technical Assistance Grant recipients and their advisors, and
 - (iii) Other entities named by EPA to provide them with a reasonable opportunity for review and input. All community involvement activities conducted by DEQ at EPA's request are subject to EPA's oversight. EPA previously provided on-site administrative records for the 2006 ROD and the 2011 ESD. EPA shall maintain an on-site administrative record for the 2020 Record of Decision Amendment at the local document repository designated for that administrative record which is Montana Tech Library, 1300 W. Park Street, Butte MT 59701. That repository shall also house the ongoing record of documents generated under this Outline, and all deliverables required under this Outline shall be copied to this address. DEQ shall also send a copy of any document or record generated under this Outline to the CTEC offices in Butte, P.O. Box 593, Butte, MT 59703.
- (c) **DEQ's Community Involvement Coordinator.** If requested by EPA, DEQ shall, within 15 days of a request, designate and notify EPA of DEQ's Community Involvement Coordinator (DEQ's CI Coordinator). DEQ may hire a contractor for this purpose. DEQ's notice must include the name, title, and qualifications of the DEQ's CI Coordinator. DEQ's CI Coordinator is responsible for providing support regarding EPA's community involvement activities, including coordinating with EPA's CI Coordinator regarding responses to the public's inquiries to EPA about the BTC Riparian Actions.

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3.0 REMEDIAL DESIGN

3.1 RD Work Plan

The obligations described below apply only to BTC Riparian Actions

- (a) DEQ shall submit Remedial Design (RD) Work Plans (RDWP) for EPA approval for BTC Riparian Actions. A copy of all RD deliverables will be provided to SDs' Project Coordinator at the same time such plans are delivered to EPA for SDs' review and comment. DEQ will consider SDs' comments, if submitted in a timely manner, and shall incorporate or attempt to resolve all comments submitted by SDs.
- (b) The RDWP must include:
 - (1) Plans for implementing all RD activities identified in this Outline, or required by EPA to be conducted to develop the RD;
 - (2) A description of the overall management strategy for performing the RD, including a proposal for phasing of design and construction, if applicable;
 - (3) A description of the proposed general approach to contracting, construction, operation, maintenance, and monitoring of the Remedial Action (RA) necessary to implement the BTC Riparian Actions;
 - (4) A description of the responsibility and authority of all organizations and key personnel involved with the development of the RD;
 - (5) Descriptions of any areas requiring clarification and/or anticipated problems (e.g., data gaps);
 - (6) Description of any proposed pre-design investigation;
 - (7) Description of any proposed treatability study (if required); and
 - (8) Appropriate reference to the following supporting deliverables described in ¶ 6.7(Supporting Deliverables): Health and Safety Plan; Emergency Response Plan; Quality Assurance Project Plans; and Interim Operation, Monitoring and Maintenance Plans.

3.2 Access

DEQ shall obtain access for any third-party properties needed for the BTC Riparian Actions.

3.3 Project Coordinator/Periodic Meetings

DEQ shall name a Project Coordinator (who represents all State party interests) with appropriate qualifications for directing BTC Riparian Actions, including actions within the Confluence Area, and shall notify EPA of the name and qualifications within 90 days of the Effective Date. During the RD process, DEQ shall meet regularly with EPA to discuss design issues as necessary, as directed or determined by EPA. SDs Project Coordinator will receive notice of meetings other than day to day phone calls or informal consultation, provided by EPA, and may participate.

3.4 Pre-Design Investigations

The purpose of the Pre-Design Investigation (PDI) is to address data gaps by conducting additional field investigations. Several investigations are identified in

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Section 5 of Attachment C and will be identified in the RDWP, and it is anticipated that additional data gaps may be identified during design that require investigation. The following presents general requirements for pre-design investigations.

- (a) **PDI Work Plan.** DEQ shall submit a PDI Work Plan (PDIWP) for EPA approval. The PDIWP must include:
 - (1) An evaluation and summary of existing data and description of data gaps;
 - (2) A sampling plan including media to be sampled, contaminants or parameters for which sampling will be conducted, location (areal extent and depths), and number of samples; and
 - (3) Cross references to quality assurance/quality control (QA/QC) requirements set forth in the approved Quality Assurance Project Plan QAPP.
- (b) Following the PDI, DEQ shall submit a PDI Evaluation Report, for EPA approval. This report must include:
 - (1) Summary of the investigations performed;
 - (2) Summary of investigation results;
 - (3) Summary of validated data (i.e., tables and graphics);
 - (4) Data validation reports and laboratory data reports;
 - (5) Narrative interpretation of data and results;
 - (6) Results of statistical and modeling analyses;
 - (7) Photographs documenting the actions conducted; and
 - (8) Conclusions and recommendations for RD, including design parameters and criteria, and including an acceptable repository provided by the SDs as a disposal location.
 - (9) EPA may require DEQ to supplement the PDI Evaluation Report and/or to perform additional pre-design studies.

3.5 Preliminary (30%) RDs

DEQ shall submit a Preliminary (30%) RD for EPA's comment. The Preliminary RD must include:

- (a) A design criteria report, as described in the *Remedial Design/Remedial Action Handbook*, EPA 540/R-95/059 (June 1995);
- (b) Preliminary *drawings* and specifications;
- (c) A description of how the RA will be implemented in a manner that minimizes environmental impacts in accordance with EPA's *Principles for Greener Cleanups* (Aug. 2009);
- (d) A description of monitoring and control measures to protect human health and the environment, such as air monitoring and dust suppression, and a dewatering plan, during the RA;
- (e) Any proposed revisions to the RA Schedule that is set forth in ¶ 7.3 (RA Schedule);
- (f) A preliminary monitoring and maintenance manual that describes procedures for monitoring and repair, as necessary, of vegetation to attain construction performance standards and certify remedy work is operational and functional

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as to construction-related performance standards, including quantitative measures of vegetation performance; and

- (g) Updates of all supporting deliverables required to accompany the RDWP.

3.6 Intermediate (60%) RDs

DEQ shall submit the Intermediate (60%) RD for EPA's comment. The Intermediate RD must:

- (a) Be a continuation and expansion of the Preliminary RD;
- (b) Address EPA's comments regarding the Preliminary RD; and
- (c) Include the same elements as are required for the Preliminary (30%) RD.

3.7 Pre-Final (95%) RDs

DEQ shall submit the Pre-final (95%) RD for EPA's comment. The Pre-final RD must be a continuation and expansion of the previous design submittal and must address EPA's comments regarding the Intermediate RD. The Pre-final RD will serve as the approved Final (100%) RD if EPA approves the Pre-final RD without comments. The Pre-final RD must include:

- (a) A complete set of construction drawings and specifications that are:
 - (1) Certified by a registered professional engineer;
 - (2) Suitable for procurement; and
 - (3) Follow the most current edition of the Construction Specifications Institute's Master Format;
- (b) A survey and engineering drawings showing existing BTC Riparian Area features, such as elements, property borders, easements, and Site conditions;
- (c) Pre-Final versions of the same elements and deliverables as are required for the Preliminary/Intermediate RD;
- (d) A specification for photographic documentation of the RA; and
- (e) Updates of all supporting deliverables required to accompany the Preliminary (30%) RD.

3.8 Final (100%) RDs

DEQ shall submit the Final (100%) RD for EPA approval. The Final RD must address EPA and SD comments on the Pre-final RD and must include final versions of all Pre-final RD deliverables.

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4.0 REMEDIAL ACTION

4.1 RA Work Plans

The obligations described in Section 4.0 apply to BTC Riparian Actions only.

- (a) DEQ shall submit a BTC Riparian Action Remedial Action Work Plan (BTC RARAWP) for EPA approval. DEQ may provide the BTC RARAWP to EPA concurrently with DEQ's Final (100%) RD. A copy of all RA deliverables will be provided to SDs' Project Coordinator at the same time such plans are delivered to EPA for SD's review and comment. DEQ will consider SDs' input, if submitted in a timely manner, and DEQ shall incorporate or attempt to resolve all comments submitted by SDs.
- (b) The RARA WP must include:
 - (1) A proposed RA Construction Schedule in a Gantt chart;
 - (2) DEQ's designation under Subparagraph 20.g(i) of the Consent Decree of the approved repository for BTC Waste Materials (Exhibit 1);
 - (3) Proposed dewatering plans, and proposed use of BTL for management of construction water, haul routes and timing for repository access for coordination with SDs project work;
 - (4) If necessary, an updated health and safety plan that covers activities during the RA; and
 - (5) Plans for satisfying the substantive requirements of permits for on-site activity.

4.2 Implementation and Construction of elements included in the Remedial Designs

DEQ shall perform and implement all activities included in the approved Final (100%) Remedial Designs and as described in the BTC RARAWP. Requests for Changes (RFCs) describing proposed changes that are necessary from the Final Remedial Designs and/or the BTC RARAWP will be submitted by DEQ for EPA approval, with a copy provided concurrently to the SDs' Project Coordinator.

4.3 Meetings and Inspections

- (a) **Preconstruction Conference.** Before performing any BTC Riparian Actions required of DEQ in Section 5 of Attachment C, DEQ shall hold a preconstruction conference with EPA and others as directed or approved by EPA and as described in the *Remedial Design/Remedial Action Handbook*, EPA 540/R-95/059 (June 1995). DEQ shall provide SDs representatives notice of the preconstruction conference and SDs may participate. DEQ shall prepare an agenda and minutes of the conference and shall distribute an agenda prior to the conference and the minutes after the conference to all Parties.
- (b) **Periodic Meetings.** During the construction portion of the RA (RA Construction), DEQ shall meet weekly with EPA and others as directed or determined by EPA, to discuss construction issues. DEQ shall meet with the SDs during the construction portion as needed to discuss construction issues,

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including construction schedules. DEQ shall distribute an agenda and list of attendees to all participants prior to each meeting. DEQ shall prepare minutes of the meetings and shall distribute the minutes to all participants.

(c) Inspections.

- (1) EPA or its contractor shall conduct periodic inspections of the BTC Riparian Actions. At EPA's request, the Supervising Contractor or other designee shall accompany EPA or its contractor during inspections.
- (2) If needed: DEQ shall provide personal protective equipment needed for EPA personnel and any oversight officials to perform their oversight duties.
- (3) Upon notification by EPA of any deficiencies in the RA Construction, DEQ shall take all necessary steps to correct the deficiencies and/or bring the RA Construction into compliance with the approved Final RD, any approved design changes, and/or the approved BTC RARAWP. If applicable, DEQ shall comply with any schedule provided by EPA in its notice of deficiency.

4.4 Emergency Response and Reporting

- (a) **Emergency Response and Reporting.** If any event occurs during performance of the BTC Riparian Actions that causes or threatens to cause a release of Waste Material on, at, or from the BTC Area and that either constitutes an emergency situation or that may present an immediate threat to public health or welfare or the environment, DEQ shall:
 - (1) Immediately take all appropriate action to prevent, abate, or minimize such release or threat of release;
 - (2) Immediately notify the authorized EPA officer (as specified in ¶) orally; and
 - (3) Take such actions in consultation with the authorized EPA officer and in accordance with all applicable provisions of the applicable Health and Safety Plan, the applicable Emergency Response Plan, and any other deliverable approved by EPA under the WP.
- (b) **Release Reporting.** Upon the occurrence of any event during performance of the BTC Riparian Actions that DEQ is required to report pursuant to Section 103 of CERCLA, 42 U.S.C. § 9603, or Section 304 of the Emergency Planning and Community Right-to-know Act (EPCRA), 42 U.S.C. § 11004, DEQ shall immediately notify the authorized EPA officer orally.
- (c) The "authorized EPA Remedial Project Manager (RPM)" for purposes of immediate oral notifications and consultations under ¶ 4.4 is the EPA RPM, the EPA Alternate RPM (if the EPA RPM is unavailable), or the EPA Emergency Response Unit, Region 8 (if neither EPA RPM is available).
- (d) For any event covered by ¶ 4.4, DEQ shall:
 - (1) Within 14 days after the onset of such event, submit a report to EPA describing the actions or events that occurred and the measures taken, and to be taken, in response thereto; and
 - (2) Within 30 days after the conclusion of such event, submit a report to EPA describing all actions taken in response to such event.

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- (e) The reporting requirements under ¶ 4.4 are in addition to the reporting required by CERCLA § 103 or EPCRA § 304.

4.5 Off-Site Shipments

- (a) DEQ may ship hazardous substances, pollutants, and contaminants from the Site to an off-Site facility only if they comply with Section 121(d)(3) of CERCLA, 42 U.S.C. § 9621(d)(3), and 40 C.F.R. § 300.440. DEQ will be deemed to be in compliance with CERCLA § 121(d)(3) and 40 C.F.R. § 300.440 regarding a shipment if DEQ obtains a prior determination from EPA that the proposed receiving facility for such shipment is acceptable under the criteria of 40 C.F.R. § 300.440(b).
- (b) DEQ may ship Waste Material from the BTC Area to an out-of-state waste management facility only if, prior to any shipment, they provide notice to the appropriate state environmental official in the receiving facility's state and to the EPA Project Coordinator. This notice requirement will not apply to any off-Site shipments when the total quantity of all such shipments does not exceed 10 cubic yards. The notice must include the following information, if available:
 - (1) The name and location of the receiving facility;
 - (2) The type and quantity of Waste Material to be shipped;
 - (3) The schedule for the shipment; and
 - (4) The method of transportation. DEQ also shall notify the state environmental official referenced above and the EPA Project Coordinator of any major changes in the shipment plan, such as a decision to ship the Waste Material to a different out-of-state facility. DEQ shall provide the notice after the award of the contract for RA construction and before the Waste Material is shipped.
- (5) DEQ may ship Investigation Derived Waste (IDW) from the Site to an off-Site facility only if they comply with Section 121(d)(3) of CERCLA, 42 U.S.C. § 9621(d)(3), 40 C.F.R. § 300.440, EPA's Guide to Management of Investigation Derived Waste, OSWER 9345.3-03FS (Jan. 1992), and any IDW-specific requirements contained in the ROD. Wastes shipped off-Site to a laboratory for characterization, and RCRA hazardous wastes that meet the requirements for an exemption from RCRA under 40 CFR § 261.4(e) shipped off-site for treatability studies, are not subject to 40 C.F.R. § 300.440.

4.6 RA Completion

DEQ shall complete a draft Certification of Completion for the BTC Riparian Actions, in accordance with EPA regulations and guidance, upon completion of all construction and upon attaining all BTC Riparian Actions Performance Standards (which do not include groundwater ARAR or in-stream surface water ARAR standards but do include reclamation and revegetation ARARs, including quantitative measures of vegetation performance) for a period of at least 1 year. DEQ may submit, and EPA and DEQ may jointly approve, the Certification of Completion for the BTC Riparian Actions before SDs issue or EPA approves the KRECCR. The draft certification shall be subject to review and comment by EPA.

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DEQ shall provide a copy of the draft certification to SDs and SDs may review and timely provide comments to EPA and DEQ.

- (a) DEQ shall attempt to incorporate or resolve all EPA's and SDs' comments, and shall notify EPA and SDs of the disposition of their comments prior to completing the final document. As outlined in ¶6.6 below, any disputes between DEQ and EPA concerning EPA comments, requests for additional response actions, or approvals are subject to the dispute resolution procedures as provided for in the Butte Site SMOA. Any disputes between DEQ, EPA and SDs concerning EPA comments, requests for additional response actions, or approvals are subject to the dispute resolution provisions of the Consent Decree found at Paragraphs 72 through 75.
- (b) If EPA and DEQ jointly determine that the BTC Riparian Actions have been completed in conformity with the Consent Decree, the Outline and the Butte Site SMOA (including obtaining BTC Riparian Actions Performance Standards for reclamation and revegetation), then EPA and the State shall jointly issue the final Certification of Completion of the BTC Riparian Actions. As outlined in ¶ 6.6 below, if EPA disagrees with DEQ assertion that the BTC Riparian Actions have been completed in conformity with the Consent Decree, the Outline and the Butte Site SMOA, such a determination is subject to the dispute resolution provisions of the Butte Site SMOA. If SDs disagree with EPA's and/or DEQ's assertion that the BTC Riparian Actions have been completed in conformity with the Consent Decree, including the Outline, such a determination is subject to the dispute resolution provisions of the Consent Decree found at Paragraphs 72 through 75.

4.7 Certification of BTC Riparian Actions Completion

- (a) **BTC Riparian Actions Completion Inspection.** Upon completion of all BTC Riparian Actions, DEQ shall schedule an inspection for the purpose of obtaining EPA's Certification of BTC Riparian Actions Completion. The inspection must be attended by DEQ and EPA and/or their representatives. DEQ will provide SDs Project Coordinator notice of the inspection and SDs' representatives may attend.
- (b) **BTC Riparian Actions Completion Report.** Following the inspection, DEQ shall submit a report to EPA requesting EPA's Certification of BTC Riparian Actions Completion. If appropriate, DEQ may submit this request to EPA concurrent with ¶4.6(b) above. DEQ may submit the request for EPA's Certification of BTC Riparian Actions prior to SDs submittal or EPA approval the KRECCR. The report must:
 - (1) Include certifications by a registered professional engineer and by DEQ' Project Coordinator that the BTC Riparian Actions, are complete; and
 - (2) Be certified in accordance with ¶ 6.5. (Certification).
- (c) If EPA concludes that the BTC Riparian Actions are not complete, EPA shall so notify DEQ. EPA's notice must include a description of and schedule for the activities that DEQ must perform to complete the BTC Riparian Actions. EPA's notice must include specifications and a schedule for such activities or

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must require DEQ to submit specifications and a schedule for EPA approval. DEQ shall perform all activities described in the notice or in the EPA-approved specifications and schedule.

- (d) If EPA concludes, based on the initial or any subsequent report requesting Certification of BTC Riparian Actions Completion, that the BTC Riparian Actions are complete, EPA shall so certify in writing to DEQ. EPA may issue such Certification to DEQ prior to SD submittal or EPA approval of the KRECCR. Thereafter SDs shall be responsible for monitoring and maintenance of the BTC Riparian Actions per an approved O&M Plan. Disputes between DEQ and EPA concerning EPA's approval are subject to the dispute resolution procedures of the subject Butte Site SMOA. Disputes between SDs, EPA and DEQ concerning EPA's approval are subject to the dispute resolution procedures of the Consent Decree found at Paragraphs 72 through 75.

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5.0 REPORTING

5.1 Progress Reports

Commencing with the month following lodging of the CD and until EPA approves the BTC Riparian Actions RA Completion, DEQ shall submit quarterly progress reports to EPA, or as otherwise requested by EPA. The reports must cover all activities that took place during the prior reporting period, including:

- (a) The actions that have been taken toward achieving compliance with the CD;
- (b) A summary of all results of sampling, tests, and all other data received or generated by DEQ;
- (c) A description of all deliverables that DEQ submitted to EPA;
- (d) A description of all activities relating to RA Construction that are scheduled for the next six weeks;
- (e) An updated RA Construction Schedule, together with information regarding percentage of completion, delays encountered or anticipated that may affect the future schedule for implementation of the BTC Riparian Actions, and a description of efforts made to mitigate those delays or anticipated delays;
- (f) A description of any modifications to the work plans or other schedules that DEQ has proposed or that have been approved by EPA; and
- (g) A description of all activities undertaken in support of the CIP during the reporting period and those to be undertaken in the next six weeks.

5.2 Notice of Progress Report Schedule Changes.

If the schedule for any activity described in the Progress Reports, including activities required to be described under ¶ 5.1, changes, DEQ shall notify EPA of such change at least 7 days before performance of the activity.

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6.0 DELIVERABLES

6.1 Applicability

DEQ shall submit deliverables for EPA approval or for EPA and SD comment as specified in the Outline and the CD. If neither is specified, the deliverable does not require EPA's approval or comment. Paragraphs 6.2 (In Writing) through 6.4 (Technical Specifications) apply to all deliverables. Paragraph 6.5 (Certification) applies to any deliverable that is required to be certified. Paragraph 6.6 (Approval of Deliverables) applies to any deliverable that is required to be submitted for EPA approval.

6.2 In Writing

As provided in Paragraph 113 of the CD, all deliverables under this Outline must be in writing unless otherwise specified.

6.3 General Requirements for Deliverables

All deliverables must be submitted by the deadlines in the RD Schedule or RA Schedule described below in Section 8, as applicable. DEQ shall submit all deliverables to EPA in electronic form to the EPA contacts listed in Paragraph 113 of the CD. Copies of all deliverables will be transmitted concurrently to SDs' Project Coordinator at the time of submittal to EPA. SDs may provide comment to EPA and DEQ on any deliverable, and DEQ will incorporate or attempt to resolve all comments submitted by SDs that are timely received. Technical specifications for sampling and monitoring data and spatial data are addressed in ¶ 6.4. All other deliverables shall be submitted to EPA in the electronic form specified by the EPA RPM. If any deliverable includes maps, drawings, or other exhibits that are larger than 11.5" by 17" DEQ shall also provide EPA and SDs with paper copies of such exhibits.

6.4 Technical Specifications

- (a) Sampling and monitoring data should be submitted in the most recent or the current at the time of generation standard U.S. EPA Region 8 Electronic Data Deliverable (EDD) format. Other delivery methods may be allowed if electronic direct submission presents a significant burden or as technology changes.
- (b) Spatial data, including spatially-referenced data and geospatial data, should be submitted:
 - (1) In the ESRI File Geodatabase format; and
 - (2) As unprojected geographic coordinates in decimal degree format using North American Datum 1983 (NAD83) or World Geodetic System 1984 (WGS84) as the datum. If applicable, submissions should include the collection method(s). Projected coordinates may optionally be included but must be documented. Spatial data should be accompanied by metadata, and such metadata should be compliant with the Federal Geographic Data Committee (FGDC) Content Standard for Digital Geospatial Metadata and its EPA profile, the EPA Geospatial Metadata Technical Specification. An add-on metadata

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editor for ESRI software, the EPA Metadata Editor (EME), complies with these FGDC and EPA metadata requirements and is available at <https://www.epa.gov/geospatial/epa-metadata-editor>.

- (c) Each file must include an attribute name for each site unit or sub-unit submitted. Consult <https://www.epa.gov/geospatial/geospatial-policies-and-standards> for any further available guidance on attribute identification and naming.
- (d) Spatial data submitted by DEQ does not, and is not intended to, define the boundaries of the Butte Site.

6.5 Certification

All deliverables that require compliance with this ¶ 6.5 (i.e., that must be Certified) must be signed by the DEQ's Project Coordinator, or other responsible official of DEQ, and must contain the following statement:

I certify under penalty of law that this document and all attachments were prepared in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or who are directly responsible for authoring the relevant document, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I have no personal knowledge that the information submitted is other than true, accurate and complete. I am aware that there are significant penalties for submitting false information.

6.6 Approval of Deliverables

(a) Initial Submissions

- (1) After review of any deliverable that is required to be submitted for EPA approval under the CD or the Outline, EPA shall:
 - (i) Approve, in whole or in part, the submission;
 - (ii) Approve the submission upon specified conditions;
 - (iii) Disapprove, in whole or in part, the submission; or
 - (iv) Any combination of the foregoing.
- (2) EPA also may modify the initial submission to cure deficiencies in the submission if:
 - (i) EPA determines that disapproving the submission and awaiting a resubmission would cause substantial disruption to the BTC Riparian Actions; or
 - (ii) Previous submission(s) have been disapproved due to material defects and the deficiencies in the initial submission under consideration indicate a bad faith lack of effort to submit an acceptable deliverable.

- (b) **Resubmissions.** Upon receipt of a notice of disapproval under ¶ 6.6. (Initial Submissions), or if required by a notice of approval upon specified conditions under ¶6.6, DEQ shall, within 30 days or such longer time as specified by EPA in such notice, correct the deficiencies and resubmit the deliverable for approval. After review of the resubmitted deliverable, EPA may:

- (1) Approve, in whole or in part, the resubmission;

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- (2) Approve the resubmission upon specified conditions;
 - (3) Modify the resubmission;
 - (4) Disapprove, in whole or in part, the resubmission, requiring DEQ to correct the deficiencies; or
 - (5) Any combination of the foregoing.
- (c) **Implementation.** Upon approval, approval upon conditions, or modification by EPA under ¶ 6.6(a) (Initial Submissions) or ¶6.6(b) (Resubmissions), of any deliverable, or any portion thereof:
- (1) Such deliverable, or portion thereof, will be incorporated into and enforceable under the CD; and
 - (2) DEQ shall take any action required by such deliverable, or portion thereof.
- (d) **Dispute Resolution.** Disputes concerning any EPA approval, modification, or disapproval under this Section between EPA and DEQ are subject to the dispute resolution procedures as provided for in the Butte Site SMOA. Disputes concerning EPA approval, modification, or disapproval under this Section as between EPA, DEQ, and SDs are subject to the dispute resolution provisions of the Consent Decree found at Paragraphs 72 through 75. SDs right to seek review through the dispute resolution provisions of the CD found at CD Paragraphs 72 through 75 only apply to Paragraphs 3.8 (Final (100%) RDs), 4.1 (RA Work Plans), 4.6 (RA Completion), and 4.7 (Certification of BTC Riparian Actions Completion) of this Appendix H.

6.7 Supporting Deliverables

DEQ shall submit each of the following supporting deliverables for EPA approval except as specifically provided. DEQ shall develop the deliverables in accordance with all applicable regulations, guidances, and policies (see Section 9 (References)). DEQ shall update each of these supporting deliverables as necessary or appropriate during the course of the BTC Riparian Actions, and/or as requested by EPA.

- (a) **BTC Area Health and Safety Plan.** The BTC Area Health and Safety Plan (BTC HASP) describes all activities to be performed to protect on site personnel and area residents from physical, chemical, and all other hazards posed by the BTC Riparian Actions. DEQ shall develop the BTC HASP in accordance with EPA's Emergency Responder Health and Safety and Occupational Safety and Health Administration (OSHA) requirements under 29 C.F.R. §§ 1910 and 1926. The HASP should cover RD activities and should be, as appropriate, updated to cover activities during the RA and updated to cover activities after RA completion. EPA does **not** approve the BTC HASP, but will review it to ensure that all necessary elements are included and that the plan provides for the protection of human health and the environment.
- (b) **BTC Area Emergency Response Plan.** The BTC Area Emergency Response Plan (BTC ERP) must describe procedures to be used in the event of an accident or emergency at the BTC Area (for example, power outages, water

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impoundment failure, treatment plant failure, slope failure, etc.). The BTC ERP must include:

- (1) Name of the person or entity responsible for responding in the event of an emergency incident;
- (2) Plan and date(s) for meeting(s) with the local community, including local, State, and federal agencies involved in the cleanup, as well as local emergency squads and hospitals;
- (3) Spill Prevention, Control, and Countermeasures (SPCC) Plan (if applicable), consistent with the regulations under 40 C.F.R. Part 112, describing measures to prevent, and contingency plans for, spills and discharges;
- (4) Notification activities in accordance with ¶ 4.4(b) (Release Reporting) in the event of a release of hazardous substances requiring reporting under Section 103 of CERCLA, 42 U.S.C. § 9603, or Section 304 of the Emergency Planning and Community Right-to-know Act (EPCRA), 42 U.S.C. § 11004; and
- (5) A description of all necessary actions to ensure compliance with Paragraph 36 (Emergencies and Releases) of the CD in the event of an occurrence during the performance of the BTC Riparian Actions that causes or threatens a release of Waste Material from the BTC Area that constitutes an emergency or may present an immediate threat to public health or welfare or the environment.

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7.0 SETTling DEFENDANTS' PARTICIPATION

7.1 Copies

DEQ shall, at any time it submits a deliverable to EPA, simultaneously send a copy of such deliverable to SDs. EPA shall, at any time it sends a notice, authorization, approval, disapproval, comments, or certification to DEQ, send a copy of such document to SDs.

7.2 Review and Comment by SDs

For any deliverable submitted by DEQ to EPA under the CD or this Appendix H (and simultaneously provided to SDs), SDs may review and timely provide comments to EPA and DEQ. DEQ shall incorporate and attempt to resolve all comments timely submitted by SDs and shall notify SDs of the disposition of comments prior to completing or revising the deliverable.

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8.0 SCHEDULES

8.1 Applicability and Revisions

All deliverables and tasks required under this Outline must be submitted or completed by the deadlines or within the time durations listed in the RD and RA Schedules set forth below. DEQ may submit proposed revised RD Schedules or RA Schedules for EPA approval. Upon EPA's approval, the revised RD and/or RA Schedules supersede the RD and RA Schedules set forth below, and any previously-approved RD and/or RA Schedules.

8.2 RD Schedule for the Further Remedial Elements

RD and RA Schedules for the BTC Riparian Actions shown in Exhibit 1 to the BPSOU SOW.

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9.0 REFERENCES

9.1 Regulations and Guidance Documents

The following regulations and guidance documents, among others, apply to the activities. Any item for which a specific URL is not provided below is available on one of the two EPA Web pages listed in ¶8.1(y):

- (a) A Compendium of Superfund Field Operations Methods, OSWER 9355.0-14, EPA/540/P-87/001a (Aug. 1987).
- (b) CERCLA Compliance with Other Laws Manual, Part I: Interim Final, OSWER 9234.1-01, EPA/540/G-89/006 (Aug. 1988).
- (c) CERCLA Compliance with Other Laws Manual, Part II, OSWER 9234.1-02, EPA/540/G-89/009 (Aug. 1989).
- (d) Guidance on EPA Oversight of Remedial Designs and Remedial Actions Performed by Potentially Responsible Parties, OSWER 9355.5-01, EPA/540/G-90/001 (Apr. 1990).
- (e) Guidance on Expediting Remedial Design and Remedial Actions, OSWER 9355.5-02, EPA/540/G-90/006 (Aug. 1990).
- (f) Guide to Management of Investigation-Derived Wastes, OSWER 9345.3-03FS (Jan. 1992).
- (g) Permits and Permit Equivalency Processes for CERCLA On-Site Response Actions, OSWER 9355.7-03 (Feb. 1992).
- (h) Guidance for Conducting Treatability Studies under CERCLA, OSWER 9380.3-10, EPA/540/R-92/071A (Nov. 1992).
- (i) National Oil and Hazardous Substances Pollution Contingency Plan; Final Rule, 40 C.F.R. Part 300 (Oct. 1994).
- (j) Guidance for Scoping the Remedial Design, OSWER 9355.0-43, EPA/540/R-95/025 (Mar. 1995).
- (k) Remedial Design/Remedial Action Handbook, OSWER 9355.0-04B, EPA/540/R-95/059 (June 1995).
- (l) EPA Guidance for Data Quality Assessment, Practical Methods for Data Analysis, QA/G-9, EPA/600/R-96/084 (July 2000).
- (m) Guidance for Quality Assurance Project Plans, QA/G-5, EPA/240/R-02/009 (Dec. 2002).
- (n) Quality management systems for environmental information and technology programs -- Requirements with guidance for use, ASQ/ANSI E4:2014 (American Society for Quality, February 2014).
- (o) Uniform Federal Policy for Quality Assurance Project Plans, Parts 1-3, EPA/505/B-04/900A through 900C (Mar. 2005).
- (p) Superfund Community Involvement Handbook, SEMS 100000070 (January 2016), <https://www.epa.gov/superfund/community-involvement-tools-and-resources>.
- (q) EPA Guidance on Systematic Planning Using the Data Quality Objectives Process, QA/G-4, EPA/240/B-06/001 (Feb. 2006).
- (r) EPA Requirements for Quality Assurance Project Plans, QA/R-5, EPA/240/B-01/003 (Mar. 2001, reissued May 2006).

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- (s) EPA Requirements for Quality Management Plans, QA/R-2, EPA/240/B-01/002 (Mar. 2001, reissued May 2006).
- (t) EPA National Geospatial Data Policy, CIO Policy Transmittal 05-002 (Aug. 2008), <https://www.epa.gov/geospatial/geospatial-policies-and-standards> and <https://www.epa.gov/geospatial/epa-national-geospatial-data-policy>.
- (u) Principles for Greener Cleanups (Aug. 2009), <https://www.epa.gov/greenercleanups/epa-principles-greener-cleanups>.
- (v) Construction Specifications Institute's Master Format, available from <https://www.csiresources.org/home>.
- (w) EPA's Emergency Responder Health and Safety Manual, OSWER 9285.3-12 (July 2005 and updates), https://www.epaossc.org/_HealthSafetyManual/manual-index.htm.
- (x) Broader Application of Remedial Design and Remedial Action Pilot Project Lessons Learned, OSWER 9200.2-129 (Feb. 2013).

9.2 EPA Web Pages

A more complete list may be found on the following EPA Web pages:

- (a) Laws, Policy, and Guidance: <https://www.epa.gov/superfund/superfund-policy-guidance-and-laws>
- (b) Test Methods Collections: <https://www.epa.gov/measurements/collection-methods>

9.3 Other Regulations and Guidance

For any regulation or guidance referenced in the CD or this Outline, the reference will be read to include any subsequent modification, amendment, or replacement of such regulation or guidance. Such modifications, amendments, or replacements apply to the BTC Riparian Actions only after DEQ receives notification from EPA of the modification, amendment, or replacement.

EXHIBIT 1 TO APPENDIX H

TO THE BUTTE PRIORITY SOILS CONSENT DECREE

COST DETERMINATION FOR LOAD, HAUL, AND

DUMP OF BLACKTAIL CREEK WASTE MATERIALS

This Exhibit 1 to Appendix H (Cost Determination) describes the methodology and assumptions used to calculate a baseline unit rate to load, transport, and deposit Waste Materials removed in the BTC Riparian Actions (BTC Waste Materials) at a repository location approved by EPA, in consultation with DEQ. If more than one repository location is approved by EPA, DEQ shall select which approved repository shall be utilized for deposit of BTC Waste Materials.

DEQ and Atlantic Richfield agree that the Baseline Unit Rate (B_r) is calculated using the Key Assumptions and Variables from Table 1 described in this Exhibit 1, utilizing data exchanged in April 2020. The State and AR memorialized the agreed-upon B_r by letter dated May 13, 2020. The Baseline Unit Rate will not change for purposes of determining the Calculated Reimbursement Amount described in Paragraph 20.g of the Consent Decree. To protect the integrity of DEQ's bidding process and consistent with DEQ's procurement practices, the agreed to B_r value will be disclosed after the bid process is complete and the related contracts have been awarded.

Should the actual contract unit rate (submitted by the successful bidder for the work) exceed the baseline unit rate, AR shall reimburse DEQ for excess costs that DEQ incurs to load, transport, supply all necessary off-site traffic control and deposit up to 240,000 loose cubic yards (LCY) of BTC Waste Materials at the approved waste repository location selected by DEQ for deposit of removed BTC Waste Materials.

The Calculated Reimbursement Amount (A_{mt}) required under Consent Decree Subparagraph 20.g shall equal the actual LCY volume (V) of BTC Waste Materials that DEQ transports to and deposits at the approved repository selected by DEQ for that waste, multiplied by the difference between the Baseline Unit Rate (B_r) and the actual Contract Unit Rate (C_r) provided by the lowest responsible and responsive bidder:

$$A_{mt} = V \times (C_r - B_r)$$

To calculate the reimbursement amount, DEQ shall require the bid item for loading, transporting traffic control, and depositing BTC Waste Materials at the approved waste repository(s) to include a unit rate defined in dollars per LCY (\$/LCY). DEQ shall also provide an estimated volume of BTC Waste Materials as part of the bid.

The Contract Unit Rate shall be limited to all costs required to perform the following activities:

- Loading BTC Waste Materials from a stockpile at the BTC Riparian Actions project site (BTC Stockpile) onto a street-legal haul truck;
- Transporting BTC Waste Materials by street-legal haul trucks from the BTC Stockpile to the approved repository selected by DEQ for BTC Waste Materials, using the transportation route that EPA approves, in consultation with DEQ;
- Providing necessary traffic control along the transportation route for BTC Waste Materials;
- Depositing BTC Waste Materials at a designated deposit location at the approved repository selected by DEQ and no DEQ management will be required at the designated repository; and
- Returning the empty truck from the repository site to the BTC Riparian Actions site.

The bid item and Contract Unit Rate shall not include any other project costs or activities, including:

- BTC Waste Materials excavation activities, including, but not limited to, on-site stockpiling, BTC Riparian Area site road construction, dust control and stormwater management, and dewatering / management of construction water at the BTC Riparian Actions site;
- Incidental costs, including but not limited to mobilization, supervision, facilities, or demobilization; or
- Costs for activities that Atlantic Richfield is required to complete, including: the design, construction, management, operation, maintenance, repair and closure of the approved repository for BTC Waste Materials; maintenance, repair and dust control on the approved transportation route between the BTC Riparian Actions site and the approved waste repository; and management of BTC Waste Materials after they are deposited at the approved repository.

Methodology

This Cost Determination uses standard heavy-equipment construction cost estimation practices to determine a baseline per cubic yard rate for loading, transporting and depositing stockpiled common earth. The calculation incorporates common variables including swell factor, equipment cycle-time, equipment production rates, equipment rental rates, equipment operator rates, round-trip haul distance, truck speed, and wait time.

Key Assumptions and Variables

Table 1 provides the key assumptions and variables used to complete the Cost Determination.

Table 1. Key Assumptions and Variables

Assumption/Variable	Range
Round-Trip Haul Distance	2.90 – 3.50 miles
Travel Speed (Asphalt)	20 mph
Travel Speed (Gravel)	15 mph
Swell Factor	20%
Load/Dump Time	15 minutes
Wait Time	0 minutes
Cycle Time	23.7 – 30.5 minutes
Working Hours/Day	8 hours
Working Days/Year	230 days

References

Caterpillar Performance Handbook 46, 2016

Equipment Watch – Cost Reference Guide for Construction Equipment, 2020

Gordian Heavy Construction Costs with RSMeans Data, 33rd Ed., 2019