

# ROCKY FLATS SITE REGULATORY CONTACT RECORD

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**Purpose:** Soil Disturbance Review Plan (SDRP) for Regrading the East Perimeter Channel (EPC) and Associated Diversion Berms at the Original Landfill (OLF)

**Contact Record Approval Date:** November 22, 2013

**Site Contact(s)/Affiliation(s):** Scott Surovchak, U.S. Department of Energy (DOE); Rick DiSalvo, S.M. Stoller Corporation (Stoller); Linda Kaiser, Stoller; Jeremiah McLaughlin, Stoller

**Regulatory Contact(s)/Affiliation(s):** Carl Spreng, Colorado Department of Public Health and Environment (CDPHE); Vera Moritz, U.S. Environmental Protection Agency (EPA)

**Date of Consultation Meeting:** November 19, 2013. Continuation of consultation process that began September 18, 2013

**Consultation Meeting Participants:** Carl Spreng, CDPHE; Scott Surovchak, DOE; Rick DiSalvo, Stoller; Linda Kaiser, Stoller

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**Introduction:** Rocky Flats Legacy Management Agreement (RFLMA) Contact Record (CR) 2013-02 documents the outcome of consultation between the DOE, CDPHE and EPA (the RFLMA parties) regarding DOE's response to localized distress cracking conditions on the OLF soil cover. These conditions were noted after the heavy precipitation event along the Front Range of Colorado from September 9 through September 16, 2013. The localized distress resulted in a reportable condition under RFLMA Attachment 2, Legacy Management Requirements. CR 2013-02 provides an evaluation plan and schedule for addressing the reportable condition, which included proposed regrading of the EPC and associated diversion berm ends to reduce slope grades in this area to improve soil cover stability and adding drainage features to further minimize the potential for infiltration of precipitation.

In accordance with the evaluation plan and schedule, drawings of the proposed grading and additional drainage features and an estimate of the time needed to complete the repairs to the OLF cover are to be submitted by November 25, 2013, for CDPHE review and approval. The schedule for completing the repairs will be dependent upon CDPHE's review and any changes that are required for DOE to obtain CDPHE approval of the final design.

**Discussion:** DOE and CDPHE met on November 19, 2013, to review DOE's proposed grading plan which results primarily in raising the EPC elevations but some areas will have slightly lower elevations. Figure 1 shows the location and anticipated aerial extent of the soil disturbance. A slotted drain pipe bedded in crushed rock was installed in the eastern end of diversion berm 4 as part of the initial response to the localized distress (see CR 2013-02) and this will be left in place.

The soil disturbance, filling and grading on the OLF cover is subject to the requirements of certain RFLMA institutional controls (ICs) as discussed below. An approved SDRP is required and the RFLMA parties agree that the preliminary design provides sufficient information for the SDRP for the proposed work.

*Institutional Controls Evaluation:* The soil disturbance work is subject to ICs 3 and 6. Table 1 recaps these ICs.

*Table 1. Institutional Controls*

IC 3	No grading, excavation, digging, tilling, or other disturbance of any kind of surface soils is permitted, except in accordance with an erosion control plan (including Surface Water Protection Plans submitted to EPA under the Clean Water Act) approved by CDPHE or EPA. Soil disturbance that will not restore the soil surface to preexisting grade or higher may not be performed without prior regulatory review and approval pursuant to the Soil Disturbance Review Plan in RFLMA Attachment 2.
	<b>Objective:</b> Prevent migration of residual surface soil contamination to surface water. <b>Rationale:</b> Certain surface soil contaminants, notably plutonium-239/240, were identified in the fate and transport evaluation in the Remedial Investigation as having complete pathways to surface water if disturbed. This restriction minimizes the possibility of such disturbance and resultant impacts to surface water. Restoring the soil surface to preexisting grade maintains the current depth to subsurface contamination or contaminated structures.
IC 6	Digging, drilling, tilling, grading, excavation, construction of any sort (including construction of any structures, paths, trails or roads), and vehicular traffic are prohibited on the covers of the Present Landfill and the Original Landfill, except for authorized response actions.
	<b>Objective:</b> Ensure the continued proper functioning of the landfill covers. <b>Rationale:</b> This restriction helps ensure the integrity of the landfill covers.

The required SDRP is in Attachment 1. The *Erosion Control Plan for Rocky Flats Property Central Operable Unit*, which has been approved by CDPHE and EPA, provides erosion control best management practices that meet the IC 3 requirements.

**Resolution:** CDPHE has reviewed information regarding the proposed soil disturbance and excavation and, after consultation with EPA, has approved the proposed activity and the proposed grading plan. CDPHE has determined that the proposed activity will not compromise or impair the function of the remedy or result in an unacceptable release or exposure to residual subsurface contamination. CDPHE has also determined that the proposed project meets the rationale and objectives of ICs 3 and 6.

The work will be conducted after CDPHE approval of the final grading design, but DOE will not conduct the approved soil disturbance until 10 calendar days after this CR is posted on the Rocky Flats website and stakeholders are notified of the posting in accordance with the RFLMA Public Involvement Plan. The work is planned to be conducted and completed in mid-December, 2013.

CDPHE approval of the final grading design, progress and the completion of the work will be reported by DOE in RFLMA quarterly and annual reports of surveillance and maintenance activities for the period(s) in which these activities occur.

**Closeout of Contact Record:** This Contact Record will be closed when the work is completed, post construction reseeding has been performed, and post construction erosion controls are in place.

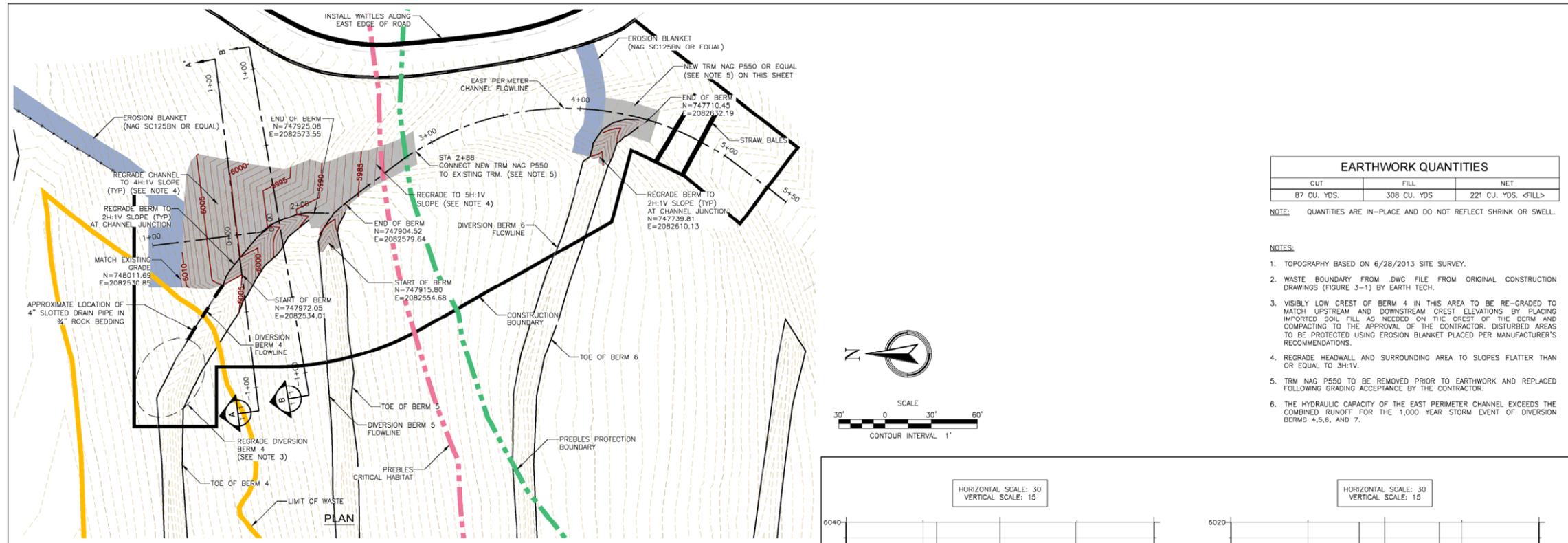
**Approval:** Carl Spreng, CDPHE, approved this contact record.

**Contact Record Prepared By:** Rick DiSalvo

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**Distribution:**

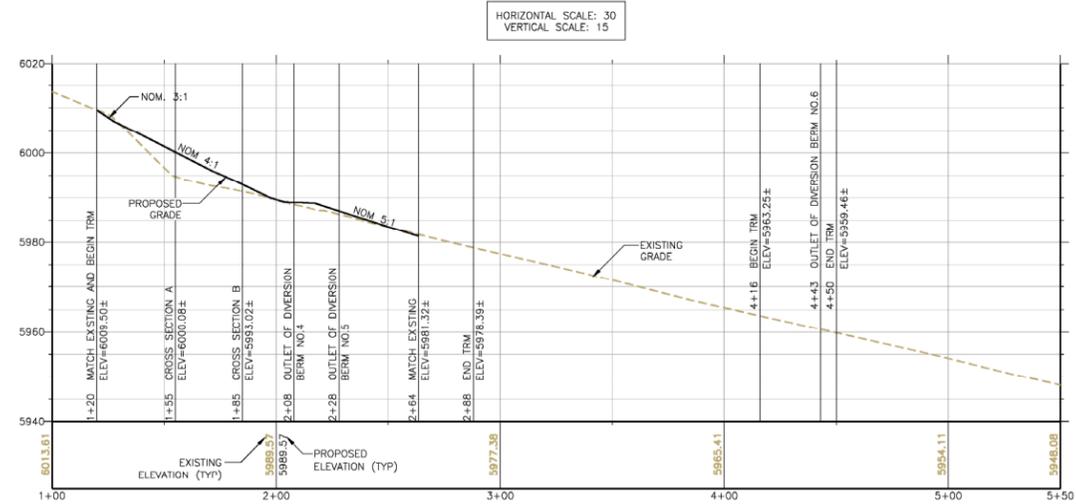
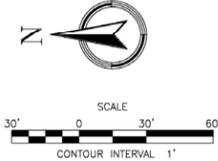
Carl Spreng, CDPHE  
Scott Surovchak, DOE  
Linda Kaiser, Stoller  
Rocky Flats Contact Record File



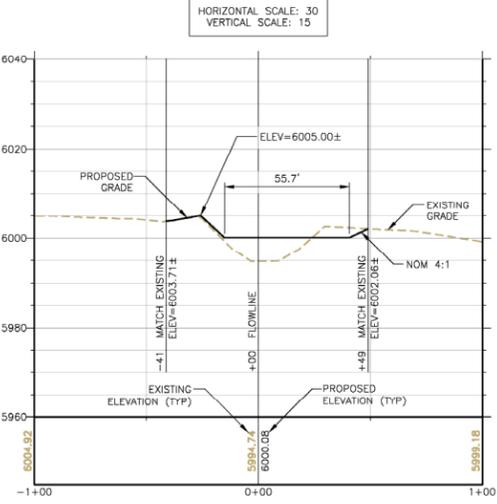
EARTHWORK QUANTITIES		
CUT	FILL	NET
87 CU. YDS.	308 CU. YDS	221 CU. YDS. <FILL>

NOTE: QUANTITIES ARE IN-PLACE AND DO NOT REFLECT SHRINK OR SWELL.

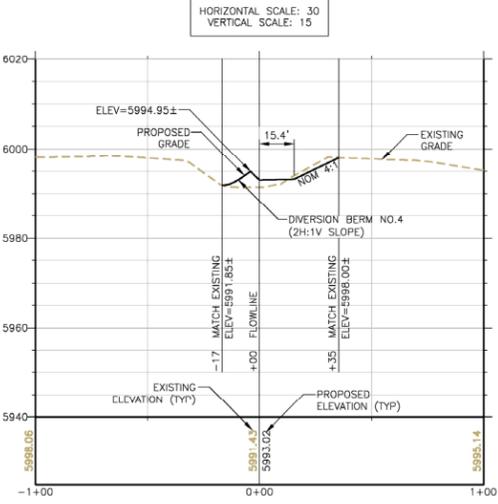
- NOTES:
- TOPOGRAPHY BASED ON 6/28/2013 SITE SURVEY.
  - WASTE BOUNDARY FROM DWG FILE FROM ORIGINAL CONSTRUCTION DRAWINGS (FIGURE 3-1) BY EARTH TECH.
  - VISIBLY LOW CREST OF BERM 4 IN THIS AREA TO BE RE-GRADED TO MATCH UPSTREAM AND DOWNSTREAM CREST ELEVATIONS BY PLACING IMPROVED SOIL FILL AS NEEDED ON THE CREST OF THE BERM AND COMPACTING TO THE APPROVAL OF THE CONTRACTOR. DISTURBED AREAS TO BE PROTECTED USING EROSION BLANKET PLACED PER MANUFACTURER'S RECOMMENDATIONS.
  - REGRADE HEADWALL AND SURROUNDING AREA TO SLOPES FLATTER THAN OR EQUAL TO 3H:1V.
  - TRM NAG P550 TO BE REMOVED PRIOR TO EARTHWORK AND REPLACED FOLLOWING GRADING ACCEPTANCE BY THE CONTRACTOR.
  - THE HYDRAULIC CAPACITY OF THE EAST PERIMETER CHANNEL EXCEEDS THE COMBINED RUNOFF FOR THE 1,000 YEAR STORM EVENT OF DIVERSION BERMS 4,5,6, AND 7.



EAST PERIMETER CHANNEL FLOWLINE PROFILE



CROSS SECTION A



CROSS SECTION B

GENERAL PROJECT NOTES:  
 PLOTTING OR PRINTING OF THESE DRAWINGS TO ANY SHEET SIZE OTHER THAN 24x36 OR BY USING FORMATS OTHER THAN AutoCAD PLOT FILES WILL RESULT IN INCORRECT SCALES AND HATCH PATTERN DISTORTIONS. THE USER IS CAUTIONED AND SHOULD EITHER OBTAIN A HARD COPY PRINT-OUT FROM THE CONTRACTOR OR APPROPRIATELY SCALE ALL MEASUREMENTS FROM THE BAR-SCALES PROVIDED.

REVISION NO.	DATE	DESCRIPTION	DRAWN BY	DESIGNED BY	PROJECT A.C.	APPROVAL												
<p>U.S. DEPARTMENT OF ENERGY            GRAND JUNCTION, COLORADO</p> <p>Work Performed by:  <b>S.M. Stoller Corporation</b>            Under DOE Contract            No. DE-AM01-DTUM0080</p> <p>PROJECT LOCATION:  <b>ROCKY FLATS SITE</b>            JEFFERSON COUNTY, CO.</p> <p>APPROVALS:</p> <table border="1"> <tr> <td>OWNER BY: DANIEL MONTEZ</td> <td>11/22/13</td> </tr> <tr> <td>DESIGNER: TOM CHAPEL</td> <td>11/22/13</td> </tr> <tr> <td>PROJECT ENGINEER: STEPHEN PITTON</td> <td>11/22/13</td> </tr> <tr> <td>ENGINEER IN CHARGE: MELVIN MADRILL</td> <td>11/22/13</td> </tr> <tr> <td>PROJECT CUST: RICK DISALVO</td> <td>11/22/13</td> </tr> <tr> <td>FILE NUMBER: LINDA KAISER</td> <td>11/22/13</td> </tr> </table> <p>ORIGINAL LANDFILL:  <b>OLF SOIL DISTURBANCE FILLING AND GRADING LOCATION</b></p> <p>PROJECT NO.: <b>11-111-0056-07-001H</b> SHEET: <b>1</b> OF <b>1</b>            DRAWING NO.: <b>S10850-C01-ROO-D+</b></p>							OWNER BY: DANIEL MONTEZ	11/22/13	DESIGNER: TOM CHAPEL	11/22/13	PROJECT ENGINEER: STEPHEN PITTON	11/22/13	ENGINEER IN CHARGE: MELVIN MADRILL	11/22/13	PROJECT CUST: RICK DISALVO	11/22/13	FILE NUMBER: LINDA KAISER	11/22/13
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Montez, Daniel - X:\181750 - Rocky Flats\CAD\2013 Design\Sheet Files\10-08-13\PROFILE SHEET-FIGURE.dwg - 11/22/2013 4:49 PM

Figure 1. OLF Soil Disturbance, Filling and Grading Location

**Rocky Flats Legacy Management Agreement (RFLMA)  
Soil Disturbance Review Plan**

**Proposed Project:** Soil Disturbance Review Plan (SDRP) for Regrading the East Perimeter Channel (EPC) and Associated Diversion Berms at the Original Landfill (OLF)

This Soil Disturbance Review Plan provides information required by RFLMA Attachment 2, "Legacy Management Requirements," Section 4.1, "Soil Disturbance Review Plan," regarding the work proposed by DOE.

Description of the proposed project, including the purpose, the location, and the lateral and vertical extent of excavation.

The purpose of the proposed project is regrading of the EPC and associated diversion berm ends to reduce slope grades in this area to improve soil cover stability, and adding drainage features to further minimize the potential for infiltration of precipitation.

Contact Record 2013-03 Figure 1 shows the location and the lateral and vertical extent of the excavation and soil disturbance. The material (Rocky Flats Alluvium) (RFA) excavated from the cut areas will be used as fill in the fill areas. Additional clean RFA fill will be needed to complete the regrading. The additional clean RFA fill material will come from the Bestway, Inc. commercial gravel pit located directly west of the Central Operable Unit.

Information about any remaining subsurface structures in the vicinity of the proposed project.

There are no remaining subsurface structures in the vicinity of the proposed project. A buried natural gas line operated by Xcel Energy is in the utility easement corridor north of the OLF. The location and alignment of the natural gas line is well known and marked with signs. It is well outside of the soil disturbance area.

Information about any former Individual Hazardous Substance Sites (IHSSs), Potential Areas of Concern (PACs), or other known or potential soil or groundwater contamination in the vicinity of the proposed project.

The OLF is former IHSS 115. The OLF has a 2 foot thick soil cover over the location of the disposed waste materials and clean RFA fill surrounding the disposed materials for the placement and configuration of stormwater and seepwater management features. Limits of the waste area are shown in Contact Record 2013-03 Figure 1.

The project area is in the Upper Woman Drainage Exposure Unit (EU) evaluated in the Comprehensive Risk Assessment, in Appendix A of the RI/FS. The only contaminant of concern (COC) identified for this EU are benzo(a)pyrene and dioxins/furans for surface soil/surface sediment.

Dioxin/furan concentrations were converted to 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD) toxicity equivalents (TEQs) for COC screening and risk characterization. Noncancer risks for benzo(a)pyrene and 2,3,7,8-TCDD (TEQ) were not evaluated because those COCs do not have noncancer toxicity values. Risks were calculated for benzo(a)pyrene and 2,3,7,8 TCDD (TEQ). The estimated Tier 1 total

excess lifetime cancer risk to the wildlife refuge worker (WRW) at the UWOEU is  $8E-06$ , and the Tier 2 risk is  $4E-06$ . It is important to note that the samples with the highest benzo(a)pyrene concentrations are located in an area that is now several feet beneath OLF cover. There were no COCs identified for subsurface soil or subsurface sediment in this EU.

The soil disturbance, regarding and drainage feature installation work will not intrude below the 2 foot thick soil cover within the limits of the waste location. The work primarily involves filling portions of the EPC to reduce the slope grades.