COLORADO
Department of Public Health & Environment

Mr. Andrew Keim
Rocky Flats Site Manager
Office of Legacy Management
U.S. Department of Energy
11035 Dover Street, Suite 600
Westminster, CO 80021

Sent via email to Andrew.Keim@lm.doe.gov; ryan.wisniewski@lm.doe.gov; Dana.Santi@lm.doe.gov

September 2, 2021

RE: ***Contact Record 2021-01: Rock Crossings and Drainage Channel Installation***

Dear Mr. Keim:

The Colorado Department of Public Health and Environment (CDPHE) has reviewed proposed Contact Record 2021-01: Rock Crossings and Drainage Channel Installation as part of the 2021 Site Roads Maintenance Project, in coordination with U.S. Environmental Protection Agency (EPA) Region 8. CDPHE has also consulted with the U.S. Department of Energy (DOE) regarding this proposed contact record and work.

This Contact Record describes the installation of two rock crossings on a site access road and installation of a lined roadside ditch to the east of the Original Landfill. These projects are intended to limit surface water detention and improve runoff, in addition to reducing the need for road maintenance. DOE notified U.S. Fish and Wildlife Service (FWS) of the proposed project on August 6, 2021. FWS had no questions or concerns.

Based on the information provided, CDPHE approves the attached Contact Record 2021-01, dated September 2, 2021. You may contact me at lindsay.murl@state.co.us or (720) 644-6314 if you have any questions regarding this letter. Thank you.

Sincerely,

Lindsay Masters Digitally signed by Lindsay Masters Date: 2021.09.02 10:29:44 -06'00'

Lindsay Murl
Environmental Protection Specialist
Corrective Action Unit
Colorado Department of Public Health and Environment

ecc: Dana Santi, RSI
Ryan Wisniewski, RSI
Jesse Aviles, EPA
David Lucas, FWS
Robert Beierle, CDPHE
Lindsay Archibald, CDPHE
HMWMD Records

Contact Record 2021-01

Rock Crossings and Drainage Channel Installation as part of the 2021 Site Roads Maintenance Project

ROCKY FLATS SITE
REGULATORY CONTACT RECORD 2021-01

Purpose: Rock Crossing and Drainage Channel Installation as part of the 2021 Site Roads Maintenance Project

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Contact Record Approval Date: September 2, 2021

Site Contacts and Affiliations: Andy Keim, U.S. Department of Energy (DOE); Dana Santi and Ryan Wisniewski, RSI Entech (RSI)

Regulatory Contacts and Affiliations: Lindsay Murl, Colorado Department of Public Health and Environment (CDPHE); Jesse Aviles, U.S. Environmental Protection Agency (EPA)

Date of Consultation Meeting: July 21, 2021; August 30, 2021

Consultation Meeting Participants:
Lindsay Murl, CDPHE; Jesse Aviles, EPA; Andy Keim, DOE; Dana Santi, Ryan Wisniewski, Patty Gallo, John Boylan, George Squibb, Jody Nelson, April Tischer, Chris Oliver, RSI Entech

Related Contact Records: None

Introduction: As part of the 2021 Rocky Flats Site (RFS) Roads Maintenance Project, DOE is proposing to include two scope elements in addition to normal road maintenance activities. The locations of these non-routine scope elements are shown in Figure 1, and they include:

1) Installation of two rock crossings within the access road to the East Shed
2) Installation of a lined roadside ditch east of the OLF along the access road toward Woman Creek

Discussion: DOE will complete annual routine maintenance of the RFS roads this summer; these activities will be reported in the RFS Annual Report for 2021, just as previous reports have included information on roads projects in prior years. In addition to these routine activities, DOE is proposing to include non-routine scope elements to improve surface water management along specific areas of the roads.

The first non-routine scope element is the installation of two rock crossings within the access road to the East Shed. Historically, water from precipitation ponded on the south side of the road and, if deep enough, flowed north over the road surface to the South Walnut Creek drainage basin. Over the years, material has been added to the East Shed access road to strengthen and maintain the road's integrity. A consequence of these measures during precipitation events has been an increase in the volume of water that is detained and the road material becoming saturated. This combined condition of saturated road material and detained water then leads to greater degradation of the road. The photographs in Figure 2 illustrate these conditions.

The objective of the new rock crossings is to limit detention of the surface water and route runoff to the drainage basin while protecting the integrity of the access road. In addition, the rock crossings will reduce the need for extra road maintenance in this area. The rock crossings will be constructed by removing road base creating an approximately 4 ft wide by 2.5 ft deep channel across the access road (Figure 3). The channel will then be lined with geo-textile and filled with riprap to create a smooth road surface. Like other rock crossings around the site, these new rock crossings will require periodic maintenance, which typically includes removal of the rip rap along with any captured sediment down to the geo-textile liner. Once the rip rap has been removed and cleaned of captured sediment, it will then be replaced to maintain function of the rock crossing.

Removed sediment will be used to fill depressions within the road or placed on the ground surface in the immediate area of the rock crossing. If sediment is removed from a rock crossing that is associated with any indication that it could be potentially hazardous or needs to be sent off-site, a waste determination will be performed to ensure proper disposal.

The second non-routine scope activity includes the installation of a lined roadside ditch along the Woman Creek access road just east of the OLF. The lined ditch will be designed to manage surface water (from Seep 1 on the OLF hillside) and runoff as it moves down the hillside toward Woman Creek. Currently, this flow is causing channeling; the objective of the designed ditch is to limit erosion on the roadside and protect the integrity of the road.

The ditch will be constructed along the west side of the Woman Creek access road with the edge of the ditch offset from the road approximately 0-3 ft. The ditch will be approximately 5 ft. wide and 8-12 inches deep (Figure 4). The bottom of the ditch will be lined with TRM (turf reinforcement mat) to limit erosion within the ditch and provide physical identification of the approved grade should the ditch ever need to be cleaned of sediment or debris. The ditch will extend south along the roadside until the Woman Creek access road turns to the east, at which point the ditch will broaden and its grade blends with that of the surrounding surface. At the point where the ditch is no longer directing the water flow, a series of erosion control measures will be installed to slow the surface water velocity and trap sediment. Water flow that exits the ditch and passes through the series of erosion controls will enter the East Perimeter Channel. This design will help to limit erosion along the road.

DOE will manage stormwater to achieve compliance with applicable or relevant and appropriate requirements (ARARs) for stormwater, listed in Table 21 of the 2006 *Corrective Action Decision/Record of Decision* ("Storm Water Permit for Construction Activities" and "General Permits"). The estimated total area of soil disturbance for this maintenance project is less than the 1-acre threshold for small construction activities found in the stormwater ARARs. Therefore, precipitation and stormwater run-on water during this project will be managed in a manner that is consistent with the then in-effect approved *Erosion Control Plan for Rocky Flats Property Central Operable Unit* (currently, DOE-LM/1497-2007).

Preble's Meadow Jumping Mouse: Part of the 2021 Roads Maintenance Project non-routine elements are within the critical habitat of the Preble's meadow jumping mouse (Preble's mouse; *Zapus hudsonius preblei*). Road maintenance was consulted on with the U.S. Fish and Wildlife Service (USFWS) and is covered under the Programmatic Biological Assessment (PBA) for the Rocky Flats Site in Part 1 as a "may affect, but not likely to adversely affect" activity. The USFWS concurred with the PBA in the Programmatic Biological Opinion for the site. As required by the PBA, a project notification was sent to the USFWS for this project on August 6,

2021. This notification stated that all activities within Preble's mouse habitat will be conducted from the road and not impact habitat beyond the road edge. The only exception to this is where the ditch will be installed along the road on the east side of the OLF. While the ditch may pass through some designated Preble's mouse habitat area at this location, it will be in a location that was disturbed by the Original Landfill Stabilization Maintenance Project which concluded in 2020. As a result, because this location was part of the OLF project and currently is still in process of revegetating and has not met success criteria outlined in the PBA, it is not considered "habitat" at this point. Therefore, any additional impacts to this location will set back the time needed for the OLF to meet the revegetation success criteria. The USFWS agreed with this approach in their response to the project notification on August 6, 2021. They acknowledged the notification and responded that there were no questions or concerns. DOE shall ensure compliance with applicable ARARs, including the Endangered Species Act, and all work will follow the best management practices described in the Programmatic Biological Opinion.

Wetlands: Most of the road maintenance will have no impacts to wetlands or waters of the U.S. However, in the ditch installed along the west side of the road at the OLF there may be a few square feet of existing wetland or reestablishing wetland that may be impacted where a seep exits on the hill just west of the road. Steps will be taken to avoid or minimize impacts to the wetland areas at this location. However, the area is already being monitored as part of the wetland mitigation monitoring being conducted as a result of the OLF stabilization project detailed in CR 2019-02. It is expected that given the flow of water from the seep the wetland will reestablish quickly, and no loss of wetland habitat will occur. This activity shall be performed in accordance with Nationwide Permit 14: Linear Transportation Projects. DOE shall comply with applicable regulatory requirements for wetlands and waters of the United States.

Migratory Bird Treaty Act: The migratory bird nesting season along the Front Range of Colorado extends from April 1 to August 31. Given that the roads project is scheduled to begin on or after September 7, 2021, there is little likelihood of impacts to nesting migratory birds, first because the work will be conducted later than the typical end of the nesting season, and second because the roadside edges are typically disturbed areas with less vegetation that would not serve well as a nesting site. Should a bird nest be found adjacent to the road where work activities would impact the nest, the site ecologist will be contacted immediately. DOE shall comply with applicable requirements of the Migratory Bird Treaty Act.

Institutional Control (IC) Evaluation: The *Corrective Action Decision/Record of Decision Amendment for Rocky Flats Plant (USDOE 2006) Central Operable Unit* requires specific institutional controls to ensure the protectiveness of the remedy at Rocky Flats. These institutional controls are required by and enforceable through the 2017 Restrictive Notice for Rocky Flats, recorded with Jefferson County. RFLMA Attachment 2, Table 4 lists the Restrictive Notice's institutional controls for the Central Operable Unit, including requirements for soil disturbance evaluation.

The soil disturbance work is subject to IC 3, which is shown in Table 1. The required Soil Disturbance Review Plan (SDRP) for IC 3 is included as Attachment 1.

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.
	Objective: Prevent migration of residual surface soil contamination to surface water. **Rationale:** 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.

Resolution: CDPHE, after consultation with EPA, has approved the activities described in this Contact Record (CR). CDPHE has determined that the proposed activities will not result in an unacceptable release or exposure to residual subsurface contamination and will not damage any component of the remedy. CDPHE has also determined that the proposed activities meet the rationale and objectives of IC 3. Please see attached CDPHE approval letter.

The work will be conducted after approval of this CR, but DOE will not conduct the approved soil disturbance until 10 calendar days after this CR is posted on the Rocky Flats Site website and stakeholders are notified of the posting in accordance with the RFLMA Public Involvement Plan.

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 periods in which these activities occur.

Action Complete: The activities approved in this CR will be complete when the identified non-routine scope elements of the 2021 RFS Roads Maintenance Project have been installed and post-disturbance soil erosion controls as identified in the approved *Erosion Control Plan for Rocky Flats Property Central Operable Unit* (currently, DOE-LM/1497-2007) are in place with the exception of the continued routine maintenance required for the rock crossings as detailed above.

Contact Record Prepared by: Ryan Wisniewski, RSI

Distribution:

Andy Keim, DOE
Lindsay Murl, CDPHE
Jesse Aviles, EPA
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Rocky Flats Contact Record File

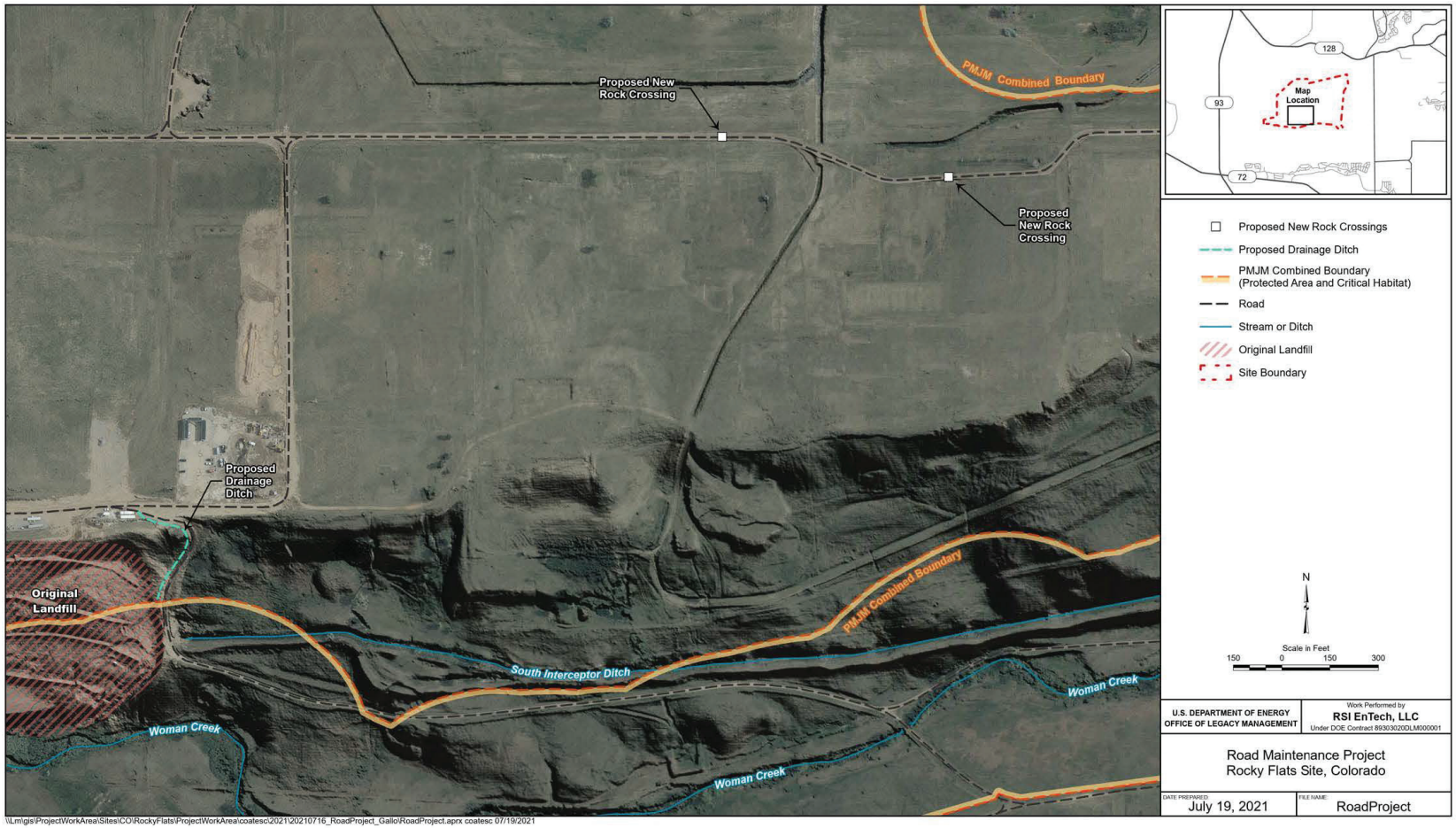


Figure 1. Site Map Identifying locations of described scopes of work

Figure 1. Photos of East Shed Access Road

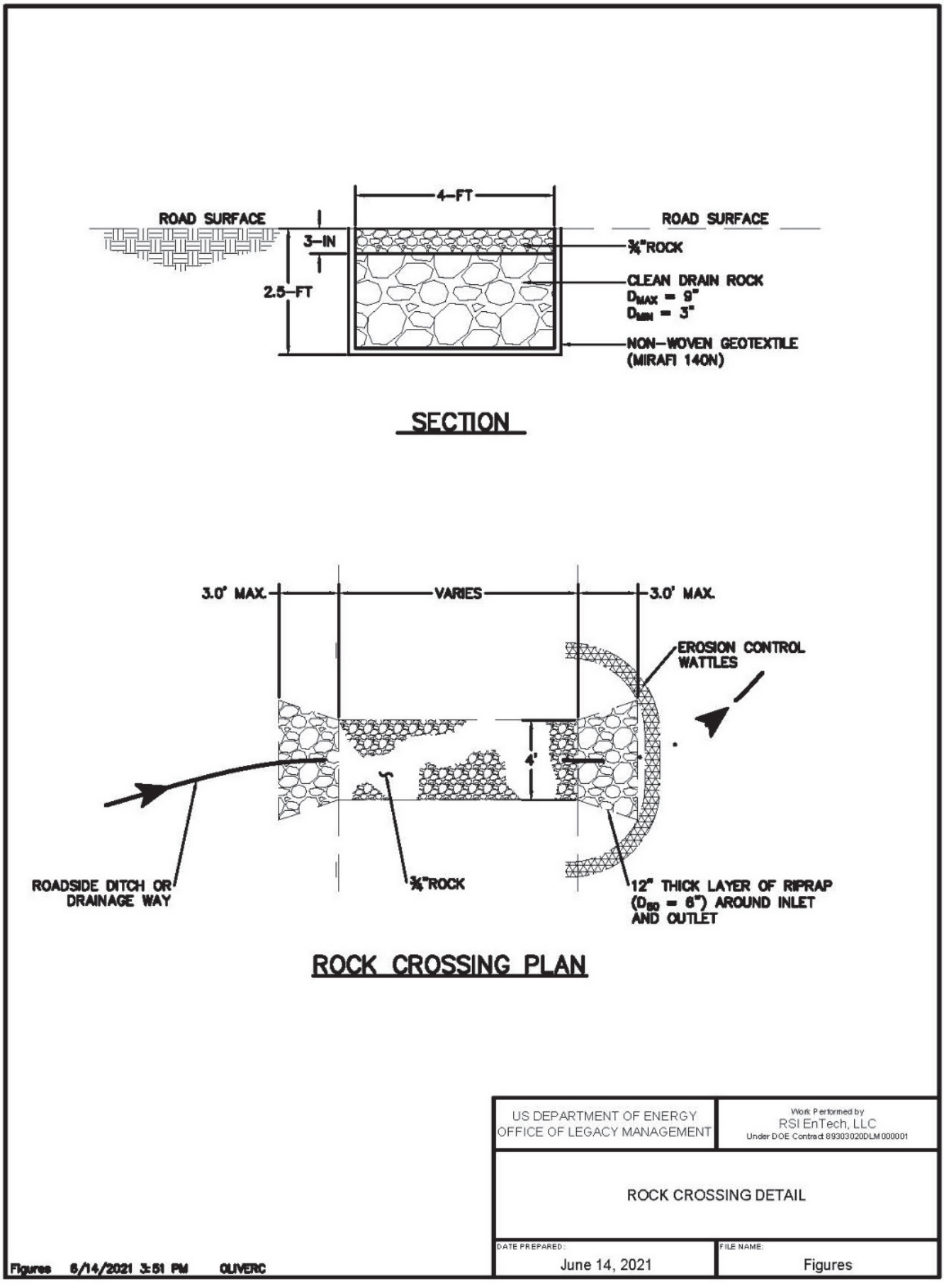
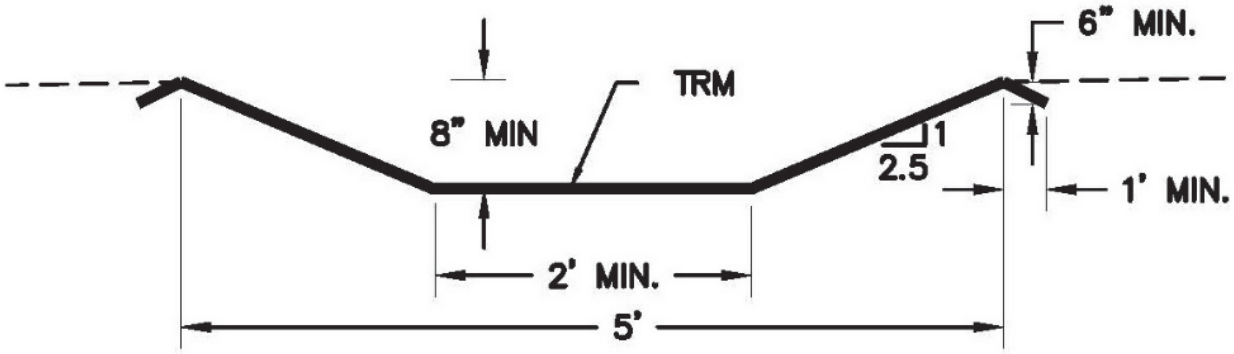


Figure 2. Rock Crossing Installation Detail



US DEPARTMENT OF ENERGY
OFFICE OF LEGACY MANAGEMENT

Work Performed by
RSI EnTech, LLC
Under DOE Contract 89303020DLM000001

LINED ROADSIDE DITCH DETAIL

DATE PREPARED: June 14, 2021

FILE NAME: Figures

Figures 6/14/2021 3:51 PM OLIVERC

Figure 4. Lined Roadside Ditch Detail

Attachment 1

Rocky Flats Legacy Management Agreement Soil Disturbance Review Plan

Proposed Project: 2021 Rocky Flats Site Road Maintenance Non-routine Activities

This Soil Disturbance Review Plan (SDRP) provides information required by *Rocky Flats Legacy Management Agreement* (RFLMA) Attachment 2, "Legacy Management Requirements," Section 4.1, "Soil Disturbance Review Plan," regarding the work proposed by the U.S. Department of Energy (DOE).

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

DOE will conduct routine road maintenance in 2021. Associated with this work, DOE proposes to install two rock crossings and a roadside ditch as non-routine activities. Both of these non-routine activities are proposed to address site conditions that are or have the potential to cause erosion and damage/threaten site road conditions.

The rock crossings will be installed within the East Shed access road and the lined roadside ditch will be installed along the west side of the Woman Creek access road just east of the Original Landfill. These locations are shown within Figure 1 of CR 2021-01.

Refer to Figures 3 and 4 and the descriptive text in the body of the CR for information on the designs and construction of these features.

DOE will manage stormwater to achieve compliance with applicable or relevant and appropriate requirements (ARARs) for stormwater, listed in Table 21 of the 2006 *Corrective Action Decision/Record of Decision* ("Storm Water Permit for Construction Activities" and "General Permits"). The estimated total area of soil disturbance for this maintenance project is less than the 1-acre threshold for small construction activities found in the stormwater ARARs. Precipitation and stormwater run-on water during this project shall be managed in a manner that is consistent with the approved *Erosion Control Plan for Rocky Flats Property Central Operable Unit* (currently, DOE-LM/1497-2007).

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

There are several subsurface structures in the vicinity of the proposed roadside ditch, but none in the vicinity of the rock crossings. While the roadside ditch is near the Original Landfill and traverses subsurface components such as the East Subsurface Drain and recently-installed stabilization components, the intrusive work will take place well outside of the delineated waste footprint, will not impact any part of the established cover, and will be much shallower than those subsurface components. If waste is encountered, intrusive work must immediately stop, and CDPHE and EPA shall be notified in writing within 24 hours to determine next steps.

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.

A portion of the "Industrial Area Plume," which contains groundwater contaminated with very low concentrations of volatile organic compounds (VOCs), has been mapped as extending beneath the Woman Creek access road just east of the OLF. Based on pre-closure data, this area of the plume is characterized by low (part-per-billion) concentrations of VOCs (monitoring wells 11502 and P416889). Two monitoring wells are positioned generally south of this eastern portion of the OLF, monitoring well 80205 and monitoring well 11104.In addition, surface water monitoring location GS59 monitors surface water downstream of the proposed ditch area in Woman Creek and the WOMPOC monitoring location ensures that surface water leaving the Central Operable Unit meets applicable RFLMA standards.