

Office of Environmental Management – Grand Junction



Moab UMTRA Project
Moab Site Storm Water Pollution
Prevention Plan

Revision 5

November 2018



U.S. Department
of Energy

Office of Environmental Management

**Moab UMTRA Project
Moab Site Storm Water Pollution Prevention Plan**

Revision 5

November 2018

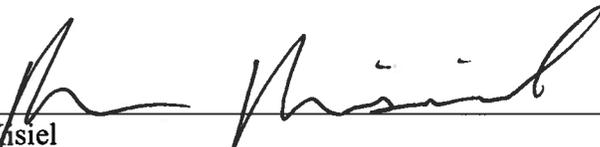
**Moab UMTRA Project
Moab Site Storm Water Pollution Prevention Plan**

Revision 5

Review and Approval



Darren Green
RAC Operations Support
11/7/18
Date



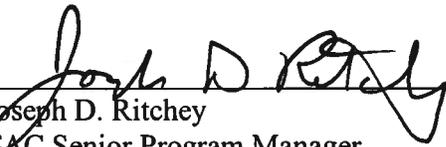
Ken Kisiel
RAC Moab Operations/Site Manager
11/7/18
Date



Matthew J. Udovitsch
TAC Quality Assurance and Environmental Compliance Manager
11-7-18
Date



Greg D. Church
RAC Project Manager
11/6/18
Date



Joseph D. Ritchey
TAC Senior Program Manager
11/6/18
Date

Revision History

Revision	Date	Reason for Revision
0	November 2010	Initial issue.
1	May 2011	Annual update.
2	January 2012	Annual update and response to December 2011 state inspection.
3	March 2015	Revision includes update of contact information, site drawing, and current Permit.
4	December 2012	Revision includes updates of figures and of Sections 5.2.1 and 5.2.2.
5	November 2018	Revision includes updates to the entire document, insertion of active Permit, Notice of Intent, and document designation to reflect change to a joint document.

Contents

<i>Section</i>	<i>Page</i>
Acronyms and Abbreviations	vi
1.0 Introduction.....	1
1.1 Purpose.....	1
1.2 Project/Site Information.....	5
1.3 Contact Information/Responsible Parties	5
1.4 Storm Water Team.....	6
1.5 Site Location.....	7
1.6 Site History	7
1.7 Project Status	9
1.8 Construction and Remedial Activity Sequence	9
2.0 Environmental Site Conditions.....	10
2.1 Climate.....	10
2.2 Site Geology.....	10
2.3 Native Soil Types.....	10
2.4 Site Drainage Description	11
2.5 Unique Site Features or Sensitive Areas.....	14
2.5.1 Colorado River.....	14
2.5.2 Endangered Fish Species Habitat.....	16
2.5.3 Jurisdictional Wetlands.....	16
2.5.4 Native Vegetation	16
3.0 Construction, Remediation, and Stabilization Activity Descriptions	17
3.1 Construction Activities	17
3.2 Remediation Activities.....	18
3.2.1 Tailings Pile Removal.....	18
3.2.2 Off-pile Area Remediation	19
3.2.3 Moab Wash Realignment.....	19
3.3 Stabilization Activities.....	20
3.3.1 Stabilization Requirements	20
3.3.2 Final Stabilization	21
4.0 Erosion and Sediment Control Descriptions	22
4.1 Compliance Alternatives for Surface Waters within 50 feet of Earth Disturbances on the Moab Site	22
4.1.1 Colorado River Compliance Alternative No. 1 – Natural Buffer	22
4.1.2 Moab Wash Compliance Alternative No. 3 – Erosion and Sediment Controls.....	22
4.2 Perimeter Controls	23
4.3 Sediment Basins.....	24
4.4 Sediment Track-out.....	24
4.5 Control Discharges from Stockpiled Materials.....	25
4.6 Minimize Dust	25
4.7 Storm Water Inlet and Outlet Protection	25
4.8 Slope Protection	26
4.9 Soil Stabilization.....	27

Contents (continued)

<i>Section</i>	<i>Page</i>
5.0 Pollution Prevention	27
5.1 Pollutant-generating Activities	28
5.1.1 Fueling and Maintenance of Equipment and Vehicles	28
5.1.2 Decontamination of Equipment, Vehicles, and Lidded RRM Containers	28
5.1.3 Storage, Handling, and Disposal of Building Products, Materials, and Wastes	29
5.1.4 Spill Response and Reporting.....	30
5.1.5 Fertilizer Discharge Restrictions.....	30
5.2 Waste Management.....	31
5.2.1 Management of RRM, Non-RRM, and IDW	31
5.2.2 Universal Waste	32
5.3 Approved Non-Storm Water Discharges	33
6.0 Inspections, Corrective Actions, SWPPP Modifications, and Training	33
6.1 Inspections	33
6.1.1 Inspection Frequency	34
6.1.2 Inspection Frequency Reduction.....	34
6.1.3 Areas Requiring Inspection.....	35
6.1.4 Inspection Requirements.....	35
6.1.5 Inspection Reports	36
6.1.6 Inspection by DWQ	36
6.2 Corrective Actions	37
6.3 SWPPP Modifications	37
6.4 Training.....	38
7.0 Records.....	38
8.0 References.....	39

Figures

<i>Figure</i>	<i>Page</i>
Figure 1. Location of the Moab Site in Grand County, Utah.....	2
Figure 2. Moab Site Features	3

Plates

- Plate 1. Moab Site Topography and Drainage
 Plate 2. Moab Site Storm Water, Erosion, and Sediment Control BMPs
Plates available upon request.

Tables

<i>Table</i>	<i>Page</i>
Table 1. Moab Site Storm Water Team	6
Table 2. Construction and Disturbance Estimates	11
Table 3. UDEQ Final 2016 Integrated Report: Rivers, Streams, Springs, Seeps, and Canals 305(b) and 303(d)	15
Table 4. Colorado River Designated Uses and Associated Selenium Standards.....	16
Table 5. Oil Storage Containers and Containment Features.....	30

Contents (*continued*)

Attachments

- Attachment 1. UPDES General Permit for Discharges from Construction Activities (UPDES Permit No. UTRC00000) and Notice of Intent for Storm Water Discharges Associated with Construction Activity under the UPDES Permit No. UTR359185
- Attachment 2. Sample Storm Water Inspection Forms and Corrective Action Log

Acronyms and Abbreviations

amsl	above mean sea level
AU	Assessment Unit
BA	Biological Assessment
BMP	Best Management Practice
BO	Biological Opinion
CA	Contamination Area
CFR	Code of Federal Regulations
CGP	construction general permit
CWA	Clean Water Act
DOE	U.S. Department of Energy
DWQ	Utah Department of Water Quality
EPA	U.S. Environmental Protection Agency
ESA	Endangered Species Act
ft	foot or feet
gal	gallon or gallon
FWS	U. S. Fish and Wildlife Service
IDW	investigation-derived waste
in.	inch or inches
IR	integrated report
NOI	Notice of Intent
NRC	Nuclear Regulatory Commission
NRCS	U.S. Department of Agriculture Natural Resources Conservation Service
PPE	Personal Protective Equipment
pCi/g	picocuries per gram
MET	meteorological monitoring station
RAC	Remedial Action Contractor
RRM	residual radioactive material
SPCC	Spill Prevention, Control, and Countermeasure Plan
SR-279	State Route 279
SWPPP	Storm Water Pollution Prevention Plan
TAC	Technical Assistance Contractor
TMDL	total maximum daily load
UAC	Utah Administrative Code
UDEQ	Utah Department of Environmental Quality
UMTRA	Uranium Mill Tailings Remedial Action
UMTRCA	Uranium Mill Tailings Radiation Control Act
UPDES	Utah Pollutant Discharge Elimination System
US-191	US Highway 191
USC	United States Code
WAC	waste acceptance criteria

1.0 Introduction

The state of Utah Pollutant Discharge Elimination System (UPDES) General Permit for Discharges from Construction Activities, UPDES Permit No. UTRC00000, referred to in this *Storm Water Pollution Prevention Plan (SWPPP)* as “the Permit,” was designed to regulate and control pollutants from storm water discharges under the provisions of Title 33 United States Code Section 1251 (33 USC 1251), the Clean Water Act.

The Permit (see Attachment 1), applies to facilities that perform construction activities, including clearing, grading, and excavation, that result in a land disturbance of one or more acres. Coverage under the Permit is required for each facility, from the commencement of earth-disturbing activities until final stabilization. The intent of the Permit requirements is to prevent erosion, sediment transport, and pollutants from disturbed areas at construction sites from entering receiving waters of the state. Typical storm water discharges associated with construction activities present a risk of carrying contaminants into receiving waters, including pollutants such as soil nutrients, heavy metals, pesticides and herbicides, oil and grease, fuels, trash, debris, treatment polymers, and other toxic chemicals..

Utah Administrative Code (UAC) Rule 317-8-3.9, “UPDES Storm Water Discharges,” prohibits point source discharges of storm water from construction activities into a water body of the state without a UPDES Permit. The U.S. Department of Energy (DOE) filed a Notice of Intent (NOI) and was assigned the unique state of Utah identifier UPDES Permit No. UTR359185 for the Moab site (see Attachment 1).

1.1 Purpose

This SWPPP meets the Permit requirements for controlling erosion, preventing off-site movement of sediment, and controlling storm water discharges associated with construction and remedial activities at the Moab site of the Moab Uranium Mill Tailings Remedial Action (UMTRA) Project. The ultimate goal of the SWPPP is to prevent adverse impacts to water quality downgradient of the site. In accordance with the Permit, a copy of this SWPPP is maintained on site and made available on request to the Executive Secretary (or authorized representative) of the Utah Water Quality Board, interested members of the public, and local government officials. This SWPPP is also posted on the Project’s public website.

This SWPPP identifies potential pollution problem areas associated with site features and lists the selected best management practices (BMPs) implemented by the Project to control storm water, erosion, sediment transport on disturbed portions of the Moab site due to construction and remediation activities; and BMPs associated with pollution prevention measures.

Attachment 1 includes the Utah General Construction Permit UPDES Permit No. UTRC00000, and the current Moab site NOI for storm water discharges associated with construction activities under the UPDES Permit No. UTR359185. Attachment 2 includes sample inspection forms and a corrective action log. Figure 1 depicts the general location of the Moab site, and Figure 2 depicts a detailed map of the Moab site features. Plate 1 depicts topography, natural site drainages, surface water drainage patterns at the Moab site, and areas of construction. Plate 2 depicts the erosion, sediment, and pollution prevention BMP controls currently installed and maintained on the Moab site.

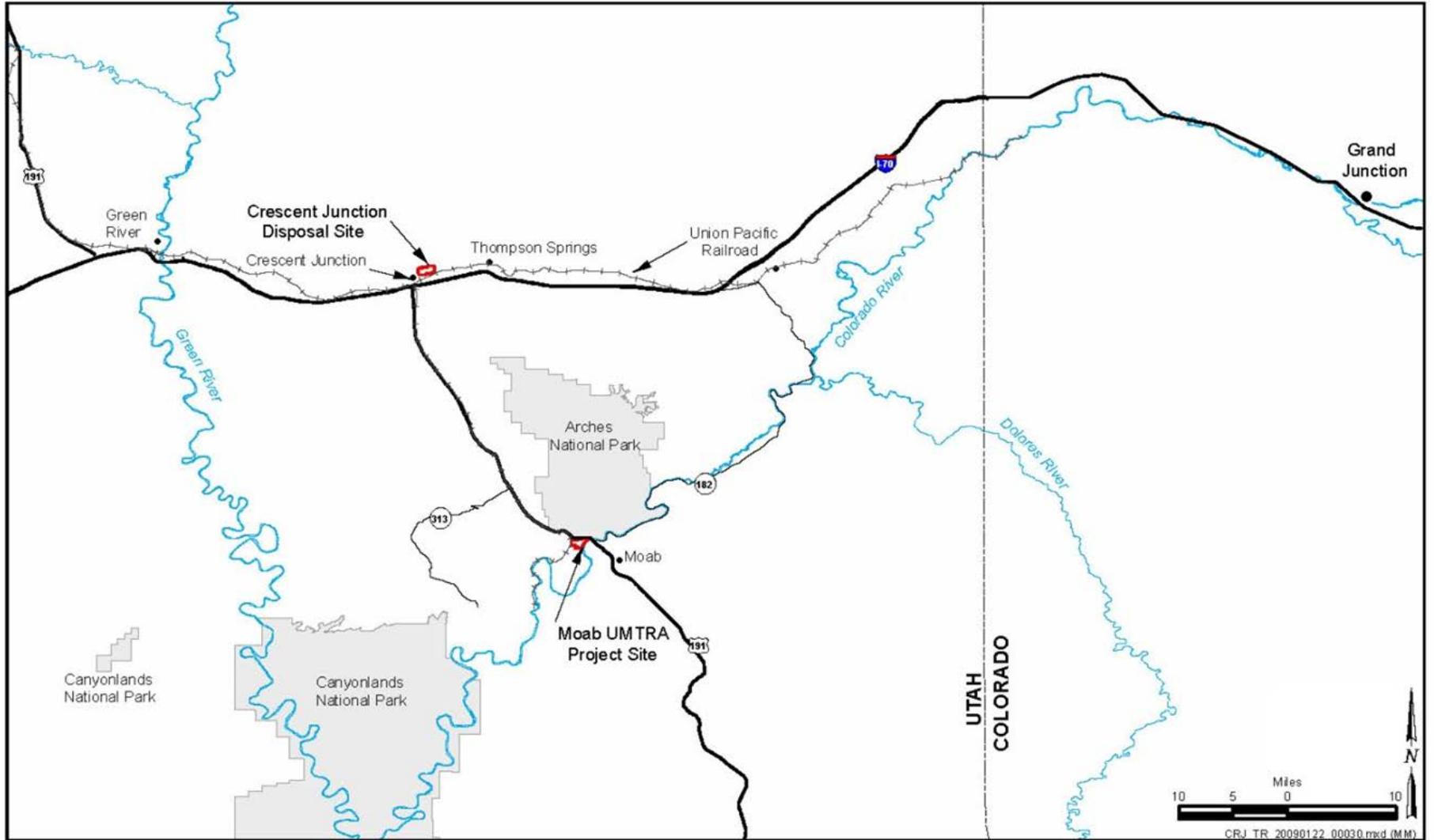


Figure 1. Location of the Moab Site in Grand County, Utah

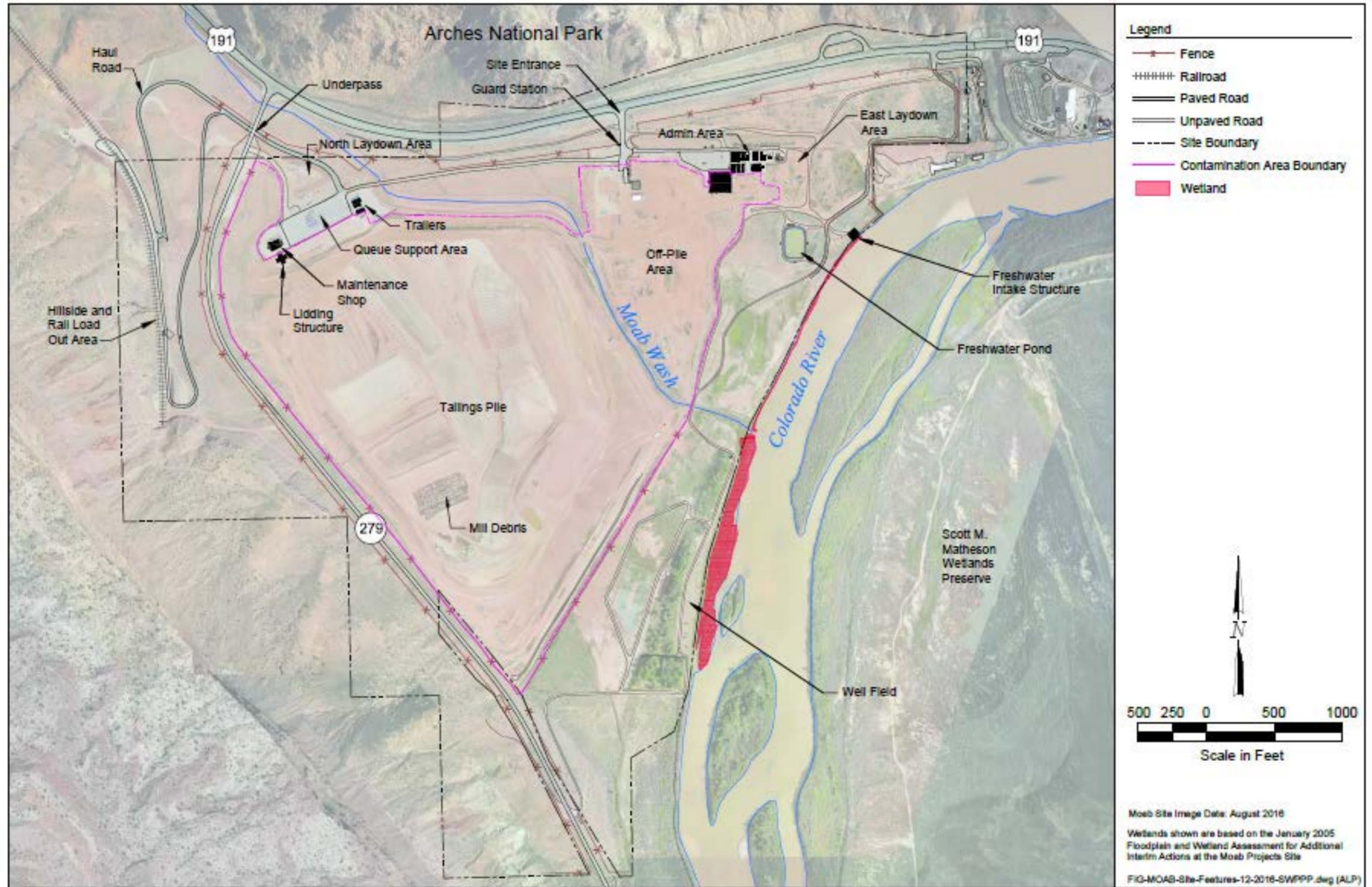


Figure 2. Moab Site Features

1.2 Project/Site Information

Name of Operation

Moab UMTRA Project: Moab Site
UPDES Project or Permit Tracking Number: UTR359185
Facility Type: Federal

Physical Address of Operation

2021 North U.S. Highway 191 (US-191), Moab, Grand County, Utah 84532

Longitude/Latitude of Operation (Site Entrance)

Latitude: 38 ° 36' 19" N (degrees, minutes, seconds)
Longitude: 109 ° 35' 36" W (degrees, minutes, seconds)
Reference: Esri ArcGIS for Desktop, version 10.5

1.3 Contact Information/Responsible Parties

Owner

U.S. Department of Energy, Grand Junction office
200 Grand Avenue, Suite 500
Grand Junction, Colorado 81501
DOE Federal Cleanup Director: (970) 257-2115

Operations

Remedial Action Contractor (RAC)
North Wind Portage
200 Grand Avenue, Suite 319
Grand Junction, Colorado 81501
Project Manager: (970) 257-2117

North Wind Portage
2021 North US-191
Moab, Utah 84532
Moab Operations/Site Manager: (435) 719-2805
Operations Support (RAC designee responsible for SWPPP compliance): (435) 719-2861

Technical Oversight

Technical Assistance Contractor (TAC)
S&K Logistics Services
200 Grand Avenue, Suite 500
Grand Junction, Colorado 81501
Senior Program Manager: (970) 257-2120
Quality Assurance & Environmental Compliance Manager: (970) 257-2161
Environmental Compliance Specialist: (970) 257-2116

Emergency 24-Hour Contact

On-call Manager: (970) 361-8335

1.4 Storm Water Team

The Moab site Storm Water Team is comprised of Project personnel from both Operations and Technical Oversight (see Table 1).

Table 1. Moab Site Storm Water Team

Organization	Title	Contact Information (Office Location)
Operations	Operations Support	435-719-2861 (Moab)
Operations	Operations Support/Special Projects Manager	435-719-2856 (Moab)
Operations	Laborer, Equipment Operator	435-719-2800 (Moab)
Technical Oversight	Quality Assurance	970-257-2161 (Grand Junction)
Technical Oversight	Environmental Compliance	435-719-2809 (Moab)

Each member of the Moab site Storm Water Team will have ready access to either an electronic or paper copy of the SWPPP and the Permit. The on-site paper copy is located in the Operations Support office in the Administrative Area of the Moab site.

Roles and Responsibilities

The Operations Storm Water Team members are responsible for inspecting, installing, maintaining, and repairing storm water, erosion, sediment, and pollution-prevention control BMPs utilized at the Moab site. Responsibilities also include identifying and taking corrective actions when required. The results of storm water and pollution prevention inspections will be documented by Operations personnel on Form 1093, SWPPP Inspection Form – Moab Site. Corrective actions will be documented by Operations personnel on Form 1063, Storm Water Controls Corrective Action Log (Remedial Action Contractor). See Attachment 2 for sample forms. Forms are available to Project personnel on the Project’s SharePoint website.

Operations Support is responsible for filing the annual NOI (including payment of associated fees) to maintain the UPDES Permit for the Moab site and documenting field changes to be included in SWPPP modifications. This ensures regulatory compliance is maintained during all phases of construction and remedial activities performed at the Moab site.

The Technical Oversight Storm Water Team members are responsible for completing SWPPP modifications, and for conducting oversight of Operation’s compliance with this SWPPP and the Permit. Technical oversight includes reviewing storm water inspection forms and corrective actions logs completed by Operations, performing periodic field inspections to ensure erosion and sediment controls are functioning as designed, and completing oversight reports.

Results of the oversight storm water and pollution prevention field inspections conducted by Technical Oversight personnel will be documented on the TAC Storm Water Oversight Inspection Form 1050 (see Attachment 2) and incorporated into an oversight report.

1.5 Site Location

The Moab site is located about 3 miles northwest of Moab in Grand County, Utah (see Figure 1). This 480-acre former millsite is located on the western bank of the Colorado River at the confluence with the Moab Wash. The Moab site is bordered on the north and southwest by steep sandstone cliffs. US-191 parallels the northern site boundary, and State Route 279 (SR-279) transects the western portion of the property. The Colorado River forms the eastern boundary of the site. The Moab Wash is an ephemeral stream that runs northwest to southeast through the site and discharges into the Colorado River.

The Cane Creek branch of the Union Pacific Railroad traverses a small section of the site just west of SR-279, then enters a tunnel and emerges about 1.5 miles to the southwest. Arches National Park has a common property boundary with the Moab site on the northern side of US-191, and the park entrance is located less than 1 mile northwest of the site. The Scott M. Matheson Wetlands Preserve lies southeast of the site directly across the Colorado River (see Figure 2).

1.6 Site History

The Moab site is a former uranium ore-processing facility constructed in 1956 by the Uranium Reduction Company, which operated the mill until 1962, when the assets were sold to the Atlas Minerals Corporation (Atlas). The Uranium Reduction Company and Atlas processed uranium ore under a license issued by the Nuclear Regulatory Commission (NRC). Atlas ceased operations in 1984. Following the shutdown of operations, all structures related to the milling process were dismantled, except for one building (referred to in this SWPPP as the Atlas building) that DOE currently uses as a mechanic's shop, soils lab, and storage space.

During the years of operation, uranium mill tailings (naturally radioactive residue) were generated from processing uranium ore. Uranium mill tailings consist of fine-grained, sand-like material that is highly susceptible to wind and water erosion. The tailings created by the milling process were pumped to an approximately 130-acre unlined impoundment (tailings pile) located on the southwestern portion of the Moab site.

The tailings pile was constructed with five terraces and consisted of an outer embankment of coarse tailings, an inner impoundment of both coarse and fine tailings, and an interim cover of soils taken from the milling site outside the tailings pile area. Debris from dismantling the millsite buildings and associated processing structures was placed in an area at the southern end of the pile and covered with contaminated soils. During off-pile remediation additional contaminated soils were added to the southern portion of the tailings pile to create containment berms to retain runoff water.

The tailings pile consists of both uranium mill tailings and other contaminated materials and debris (including ponds used during ore-processing activities, disposal trenches, locations used for waste management during mill operation, and buried septic tanks), collectively referred to as residual radioactive material (RRM) as shown in the *Moab UMTRA Project Final Remedial Action Plan and Site Design for Stabilization of Moab Title I Uranium Mill Tailings at the Crescent Junction, Utah, Disposal Site* (DOE-EM/GJ1547).

DOE estimates total RRM at the Moab site and vicinity properties has an estimated weight of approximately 16 million tons and a volume of approximately 12 million cubic yards. The average depth of the tailings pile is about 90 feet (ft), with approximately 60 percent of the RRM removed, leaving a concave topography. The toe of the tailings pile is approximately 750 ft from the Colorado River. Approximately 350 acres of the 480-acre Moab site have previously been disturbed by on-site activities.

In October 2000, Congress enacted the Floyd D. Spence National Defense Authorization Act for Fiscal Year 2001 (Public Law 106-398), amending Uranium Mill Tailings Radiation Control Act of 1978 (UMTRCA). In October 2001, remedial action responsibilities for the Moab site and nearby vicinity properties were transferred to DOE. Legislation stipulated that the Moab site undergo remediation, including groundwater restoration, in accordance with Title I of the UMTRCA under 42 USC 7901, “Uranium Mill Tailings Radiation Control, Congressional findings and purposes.”

To minimize potential adverse effects to human health and the environment, DOE instituted environmental controls and interim actions at the Moab site. Environmental controls have included storm water management, dust suppression, and placement of an interim cover on the tailings to limit movement of contaminated windblown materials from the pile. Interim actions have included restricting site access, monitoring groundwater and surface water, and managing and disposing legacy chemicals to minimize the potential for releases to the environment, as shown in the *Record of Decision for the Remediation of the Moab Uranium Mill Tailings, Grand and San Juan Counties, Utah* (6450-01-P) (Record of Decision).

A pilot-scale groundwater extraction system was implemented in summer 2003; it continues to reduce the mass of ammonia and uranium concentrations discharging into the Colorado River. In 2012, eight new wells were installed to extract groundwater closer to the tailings pile, and wells along the river were used for freshwater injection.

In July 2005, DOE published the *Remediation of the Moab Uranium Mill Tailings, Grand and San Juan Counties, Utah, Final Environmental Impact Statement* (DOE/EIS-0355), which included DOE’s Biological Assessment (BA), and the U.S. Fish and Wildlife Service (FWS) Biological Opinion (BO) with an Incidental Take Statement granted for 10 years. The BA was prepared in accordance with requirements in Section 7 of the Endangered Species Act (ESA) (16 USC 1531) and complied with the requirements established in FWS regulations 50 Code of Federal Regulations Part 402 (50 CFR 402), and DOE’s National Environmental Policy Act regulations (10 CFR 1021, “National Environmental Policy Act Implementing Procedures”).

The original BO identified five reasonable and prudent measures to minimize the impacts of incidental take of the endangered Colorado River fish species. The Moab UMTRA Project has addressed these measures through the development of a biota monitoring plan, implementation of surface water diversion, development of data quality objectives, a water quality study plan, monitoring and reporting water quality on the southern side of the Colorado River, and screening all pump intakes used to withdraw water from the river.

In September 2005, DOE issued the Record of Decision, which detailed the selected alternative for surface remediation as removal of RRM from the Moab milling site and nearby off-site vicinity properties and subsequent relocation to an off-site engineered disposal cell to be constructed near Crescent Junction, Utah. Rail was selected as the primary mode of transportation for movement of RRM from the Moab site to the Crescent Junction disposal site.

Class I and Class III cultural resource inventories were conducted on the Moab site as required by 16 USC 470, the National Historic Preservation Act.

In January 2006, DOE completed the Section 106 consultation process and developed a Memorandum of Agreement with the Utah State Historic Preservation Office and the Department of Transportation regarding cultural resources. Cultural sites associated with the uranium mill (Atlas building and water inlet) were avoided or impacts mitigated per the consultation process.

In May 2009, the first shipment of RRM was transported by rail from the Moab site to the Crescent Junction disposal site. In addition to excavating and conditioning mill tailings, the Project has excavated and sorted a portion of the mill building debris that was buried in the southern end of the tailings pile. Some debris has been shipped in containers modified to carry this type of material.

1.7 Project Status

As of August 2018, a total of more than 9,260,000 tons of RRM have been excavated and transported by rail from the Moab site and placed inside the Crescent Junction disposal cell.

BMPs are implemented and actively managed at the Moab site to control access to contaminated areas, minimize worker and public exposures to contaminated materials, minimize the extent of surface disturbance, prevent off-site transport of windblown RRM from the tailings pile, restrict contamination of public waterways resulting from discharges of storm water runoff or suspended sediment from the Moab site, and reclaim and revegetate disturbed lands.

Storm water management at the Moab site complies with the Permit requirements to mitigate and control surface water run-on from off-site properties and on-site storm water runoff utilizing erosion and sediment controls, pollution prevention measures, and BMPs.

1.8 Construction and Remedial Activity Sequence

The RAC sequences construction and remedial activities at the Moab site to meet objectives identified in the Project lifecycle baseline. Approximately 380 acres of the 480-acre Moab site have been disturbed due to various activities including the former millsite operations, construction activities, and remedial activities.

DOE continues to ensure controls are in place and working as intended at the Moab site as necessary to protect human health and the environment. As the Project progresses, various new storm water and pollution prevention BMPs will be implemented as necessary to protect the Moab Wash and the Colorado River from receiving contaminated storm water runoff or sediment discharges.

2.0 Environmental Site Conditions

2.1 Climate

The arid desert climate of the Moab site is characterized by hot summers and mild to cold winters. The average annual temperature is approximately 57°F. January is the coldest month of the year, with low temperatures averaging 20°F. July is generally the warmest month of the year, with high temperatures averaging 99°F. Temperature extremes have ranged from -24°F in January 1930 to 114°F in July 1989. The relative humidity is low, often less than 20 percent during daytime hours.

The 12-year precipitation average for the Moab site is 8 inches (in.) per year. Evaporation greatly exceeds annual precipitation, thus contributing to the likelihood of fugitive dust. Thunderstorms occur about 40 days per year. Prevailing winds in the Moab region are from the southwest.

The Moab site is located adjacent to the Colorado River. In recent decades, multiple dams have been constructed upriver, reducing the frequency and severity of flood events; however, in 2011, the site was partially flooded, and some operations were impacted. A river monitoring system was implemented to better anticipate flood events and proactively respond in accordance with the *Moab UMTRA Project Climate Change Vulnerabilities and Adaptation Plan* (DOE-EM/GJ2193).

2.2 Site Geology

The Moab site overlies Quaternary-age sedimentary deposits derived mainly from the Colorado River, Moab and Courthouse Washes, and from the steep sandstone cliffs located west of the site. The deposits include alluvium, colluvium, talus, and eolian sediments. The shallow alluvium consists of sandy sediments (i.e., lenticular deposits of fine-grained, well-graded sands and silts with some gravels and clays, ranging in thickness from 8 to 30 ft.).

The deeper alluvium consists of gravelly sediments (interbedded sandy gravel and gravelly sands with occasional clay and silt-rich intervals) ranging in thickness from 28 to more than 400 ft. At different depths, various bedrock units believed to be of the Triassic Glen Canyon Group and older units underlie the unconsolidated sediments.

2.3 Native Soil Types

The United States Department of Agriculture Natural Resources Conservation Service (NRCS) conducted a soil survey of the central part of Grand County, Utah, Arches National Park, Utah, and Canyonlands Area, Utah (parts of Grand and San Juan County), in September 2017.

According to the NRCS Web Soil Survey Tool website (<https://websoilsurvey.sc.egov.usda.gov/App/WebSoilSurvey.aspx>), the Moab site is comprised of three native soils types, including the Myton family-Rock outcrop complex, the Nakai fine, sandy loam, and the Redbank-Flatnose families association.

The mapped areas of the Moab site depicted as the Myton family rock outcrop complex (Map Unit No. 39) includes the tailings pile and areas west of SR-279 along the hillside and rail load-out area. The Myton family rock outcrop complex soils were deposited at elevations ranging from 4,000 to 5,700 ft above mean sea level (amsl) in mountain slopes.

The parent material for this soil class is colluvium derived from sandstone and/or residuum weathered from sandstone. The typical soil profile includes extremely stony, sandy loam and deep, unweathered bedrock. This rock outcrop occurs on 50 to 70 percent slopes. The soils are well drained, non-saline to very slightly saline, and have very low water storage capacities, high runoff, and erosion potential.

The mapped areas of the Moab site depicted as the Nakai fine, sandy loam (Map Unit No. 40) includes the western and southern Contamination Area (CA), the Queue Support Area, north laydown area, areas north of the Moab Wash and south of US-191, the Administrative Area, and the east laydown area. The Nakai fine, sandy loam (3 to 10 percent slopes) soils were deposited at elevations ranging from 4,000 to 5,000 ft amsl in structural benches.

The parent material for this soil class is alluvium derived from sandstone, eolian deposits derived from sandstone, or residuum weathered from sandstone. The typical soil profile includes fine, sandy loams with deep, unweathered bedrock.

The soils are well drained, non-saline to very slightly saline, with moderate water storage capacities and low runoff potential. These soils are prone to gully formation in areas where runoff is concentrated.

The mapped areas of the Moab site depicted as the Redbank-Flatnose families association (Map Unit No. 47) include the well field and the entire eastern boundary of the site along the Colorado River. The Redbank-Flatnose families' association (0 to 3 percent slopes) soils were deposited at elevations ranging from 4,000 to 6,500 ft amsl in floodplains. The parent material consists of alluvium derived from sandstone and shale. The typical soil profile includes layers of fine, sandy loams and gravely coarse sands. This soil family is well drained, non-saline to very slightly saline, low water storage capacity, and very low runoff potential. These soils are prone to gully formation in areas where runoff is concentrated.

2.4 Site Drainage Description

Plate 1 depicts drainage basin boundaries using topographic data from a 2018 flyover survey. The boundaries of seven drainage basins (A, B, C, D, E, F, and G) are based on topography and include road and berm construction to enable tailings shipments. Construction and disturbance areas and drainage parameters are summarized in Table 2.

Table 2. Construction and Disturbance Estimates

Construction Area (CA, north laydown area, and Queue Support Area)	200 acres
Previous Construction Areas (rail load-out and hillside areas, north off-pile area, Administrative Area, and well field area)	183 acres
Site-wide percentage of impervious areas before earth-disturbing activities	5%
Runoff coefficient before earth-disturbing activities began	0.3
Site-wide percentage of impervious areas after completion of earth-disturbing activities	4%
Runoff coefficient after construction	0.1

Drainage Basin A

Drainage Basin A captures surface water run-on from an upland area west of SR-279 and storm water runoff associated with the tailings pile. This basin has been divided into three smaller sub-basins A1, A2, and A3 (see Plate 1).

Sub-basin A1 is comprised of approximately 34 acres. A diversion berm and 11 sediment basins parallel the outer slope of the tailings pile to isolate storm water from the Moab Wash, which ultimately empties into the Colorado River. Sub-basin A2 is comprised of approximately 86 acres and includes the tailings pile, which is maintained through ongoing excavation activities to retain an internal drainage structure in which all surface water run-on and storm water runoff is directed to the base of the excavation.

Sub-basins A1 and A2 are characterized as Nakai fine sandy loam and uranium mill tailings. There is poor vegetative cover in some areas and no vegetation on the tailings pile. The tailings pile is where most on-site, earth-disturbing activities occur on a routine basis. Because the native soils and uranium mill tailings consist of sand-like materials, both are easily eroded.

Sub-basin A3 is comprised of approximately 163 acres and includes an upland area west of SR-279 and the westernmost and southernmost portions of the CA. Surface water run-on from the upland area west of SR-279 is captured in drainage ditches that direct flow into 24- and 36-in. diameter culverts underneath SR-279.

This surface water run-on is then channeled southeasterly towards a series of five excavated sediment basins with overflows located west of the tailings pile within the CA. In addition, three large sediment basins with associated diversion berms were built south of the tailings pile, isolating surface water run-on and/or storm water runoff with potential suspended RRM and sediment, and preventing this material from exiting the southern CA boundary (see Plates 1 and 2). Sub-basin A3 is steeply sloped and is characterized by the NRCS as the Myton family-rock outcrop complex.

Drainage Basin B

Drainage Basin B is comprised of approximately 70 acres of land and includes portions of the hillside and rail load-out areas, the Queue Support Area immediately north of the CA boundary, the north laydown area, and a portion of SR-279 (see Plates 1 and 2). Surface water run-on from upland areas is collected in drainage ditches adjacent to the rail load-out area and haul roads and directed into culverts that empty into the Moab Wash. Run-on water that empties into the Moab Wash is segregated from site storm water runoff and passes through the Project site. The western portion of Drainage Basin B consists of steep slopes and is characterized by the NRCS as the Myton family-rock outcrop complex. The eastern portion of Drainage Basin B including the Queue Support Area north laydown area, and SR-279 is characterized by the NRCS as the Nakai fine sandy loam with 3 to 10 percent slopes.

Drainage Basin C

Drainage Basin C is comprised of approximately 40.7 acres and includes the north-central portion of the Moab site, portions of US-191, the main site entrance, Moab Wash, and off-site areas including portions of the Arches National Park (see Plates 1 and 2).

Five large-diameter (three 24-in. and two 30-in.) culverts maintained by the Utah Department of Transportation channel surface water run-on under US-191 and onto the Moab site. Surface water run-on from the eastern four culverts is diverted through a riprapped drainage west of the guard station, where it flows across the access road and into the northeastern portion of the CA; there it is arrested by the containment berm between the Moab Wash and the decon pad.

The northern upland areas including portions of Arches National Park are steep and rocky. These portions of Drainage Basin C are characterized by the NRCS as rock outcrop-Arches complex with 2 to 15 percent slopes and the Chedeski family with 15 to 60 percent slopes. Portions of Drainage Basin C located primarily south of US-191 are characterized as the Nakai fine sandy loam with 3 to 10 percent slopes. Remediated portions of Drainage Basin C have been stabilized with native vegetation.

Drainage Basin D

Drainage Basin D is comprised of approximately 149 acres and includes the northeastern portion of the Moab site, the Administrative Area, the Atlas building, the east laydown area, and portions of US-191. Drainage Basin D extends northward into the Arches National Park (see Plate 1).

Drainage Basin D is bounded on the eastern side by Courthouse Wash. Four large-diameter culverts (two 24-in., one 42-in., and one 54-in.) channel surface water run-on under US-191 and onto the Moab site. Rock riprap or concrete-reinforced riprap and erosion-control matting or blankets were installed downgradient of the culvert outlets to prevent undercutting and help disperse runoff as it flows onto the Moab site (see Plate 2).

The areas north of US-191 are generally steep and rocky and are characterized by the NRCS as the Bowington-Radnik-Patterfield complex with zero to six percent slopes and the Chedeski family with 15 to 60 percent slopes. The majority of the Moab site within Drainage Basin D is characterized by the NRCS as Nakai fine sandy loam with 3 to 10 percent slopes. This portion of the Moab site has been remediated, revegetated primarily with native perennial species, and stabilized.

Drainage Basin E

Drainage Basin E is comprised of approximately 140 acres and includes the northeastern portion of the CA, the decon pad, one fabric-covered maintenance structure, and run-on flow from Arches National Park. A diversion berm parallels the perimeter boundary of the CA, capturing storm water runoff with potential suspended RRM and sediment and preventing it from exiting the eastern CA boundary (see Plates 1 and 2).

Drainage Basin E is characterized as Nakai fine sandy loam and uranium mill tailings. Earth-disturbing support activities occur on a routine basis. Both the native soils and uranium mill tailings consist of sand-like materials that are easily eroded. The northern area is described in Basin C.

Drainage Basin F

Drainage Basin F is comprised of approximately 26 acres and includes the north off-pile area, the freshwater pond, and a small undisturbed vegetative cover area. Drainage Basin F is characterized by the NRCS as consisting of both the Nakai fine sandy loam with 3 to 10 percent slopes and the Redbank-Flatnose families association with 0 to 3 percent slopes.

The north off-pile area was remediated under a Joint 404 Permit and revegetated with a mixture of native grasses and shrubs. Drainage was established to flow southward along the natural direction of the Colorado River to prevent flooding of the Moab site during high spring runoff events. Berms were constructed to reduce the velocity of floodwaters.

Drainage Basin G

Drainage Basin G consists of upland areas located west of SR-279, a portion of SR-279, Moab site areas southeast of the tailings pile, and the well field area. The upland areas of Drainage Basin G are characterized by the NRCS as the Myton family-rock outcrop complex. Portions of Drainage Basin G located immediately west and east of SR-279 are characterized as Nakai fine sandy loam with 3 to 10 percent slopes; and the remainder of Drainage Basin G is characterized as the Redbank-Flatnose families association with 0 to 3 percent slopes.

Surface water runoff from the northern and eastern portions of Drainage Basin G flow southward towards the Colorado River along a natural side channel. Surface water run-on from upland areas west of SR-279 drain southeast underneath SR-279 through one 24-in. diameter culvert unto the southern portion of the Moab site.

Moab Wash

The Moab Wash is a common boundary for Drainage Basins A, B, C, E, F, and G. It is a major ephemeral, surface water feature that bisects the center of the Moab site from northwest to southeast (see Plate 1), and is a tributary of the Colorado River. The Moab Wash transports surface water run-on and suspended sediment from large upgradient off-site areas and empties into the Colorado River. The wash flows only during and after major rainfall events or snowmelt discharges.

The state of Utah Division of Water Quality (DWQ) has designated the water quality of Moab Wash as anti-degradation Category 3 (<http://mapserv.utah.gov/surfacewaterquality/>). The southernmost 500 feet of the wash is located within the boundary of Assessment Unit (AU) Colorado River-4 (see Plate 2). AU Colorado River-4 and portions of tributaries located within this AU boundary are classified as impaired waters with an established Total Maximum Daily Load (TMDL) for selenium (see Section 2.5.1 below for additional information).

DOE has installed erosion and sediment controls including containment berms, diversion berms, and sediment basins adjacent to the outer banks of the Moab Wash, to isolate storm water runoff and prevent discharges from entering the Moab Wash.

2.5 Unique Site Features or Sensitive Areas

Unique site features or sensitive areas protected at the Moab site include: the southernmost 500 feet of the Moab Wash (as described in the previous section), the Colorado River, endangered fish species habitat, jurisdictional wetlands, and vegetation.

2.5.1 Colorado River

The Colorado River is located adjacent to the Moab site and could potentially receive storm water runoff or sediment discharges from remediated areas and/or from vegetated undisturbed areas of the Moab site (see Plate 1).

The Utah DWQ 2016 Final Integrated Report (IR), lists the segment of the Colorado River located adjacent to the Moab site as AU Colorado River-4, which is designated as an impaired water body with an approved TMDL for selenium (as shown below in Table 3).

*Table 3. UDEQ Final 2016 Integrated Report:
Rivers, Streams, Springs, Seeps, and Canals 305(b) and 303(d)*

Watershed Management Unit	Colorado River Southeast
Assessment Unit ID	UT14030005-004_00
Assessment Unit Name	Colorado River-4
Assessment Unit Description	Colorado River from Moab to HUC unit (14030005) boundary
Assessment Unit Category	4A
Category Description	TMDL Approved
Impaired Parameter	Selenium, Dissolved
Impaired Beneficial Uses	3B
TMDL Development Priority	Not listed
IR Cycle First Listed	2006
Perennial Stream Miles	36
Reference: UDEQ Final 2016 Integrated Report, Chapter 3 pg.6: Rivers and Stream Assessments	

UDEQ = Utah Department of Environmental Quality

The rules and regulations of the federal Clean Water Act (CWA) require the Utah DWQ to report the condition or health of all Utah surface waters to U.S. Congress every other year. The 2016 Final IR contains two key reporting elements defined by the CWA:

1. Statewide reporting under CWA Section 305(b) which summarizes the overall condition of Utah’s surface waters and estimates the relative importance of key water quality concerns. These concerns can include pollutants, habitat alteration, and sources of water quality problems.
2. Water quality assessments under CWA Section 303(d) which requires states to identify waters that are not attaining beneficial uses according to state water quality standards (UAC R317-2.7, “Water Quality Standards”). The Utah Section 303(d) List also prioritizes the TMDL required for each listed waterbody and the cause of nonattainment. This list includes waters impaired as a result of the non-point sources, point source discharges, natural sources, or a combination of sources.

In accordance with the Utah Department of Environmental Quality (UDEQ) Water Quality Report, *TMDL for Selenium in the Colorado River Watershed*, dated 2013; TMDLs specify the maximum amount of a pollutant a waterbody can assimilate and still meet water quality standards. Based upon calculation of the total load that can be assimilated, TMDLs allocate pollutant loads to sources and a margin of safety. Allowable limits for pollutant loading to meet the water quality standard and designated uses for the Colorado River from the confluence with the Green River upstream to the Utah/Colorado state line are listed below in Table 4.

Table 4. Colorado River Designated Uses and Associated Selenium Standards

Designated Use	Description	Selenium
1C	Protected for domestic purposes with prior treatment by treatment processes as required by the Utah Division of Drinking Water.	50 µg/L (max)
2B	Protected for infrequent primary contact recreation. Also protected for secondary contact recreation where there is a low likelihood of ingestion of water or a low degree of bodily contact with the water. Examples include, but are not limited to, wading, hunting, and fishing.	Not Applicable
3B	Protected for warm water species of game fish and other warm water aquatic life including the necessary aquatic organisms in their food chain.	4-day average: 4.6 µg/L 1-hour max: 18.4 µg/L
4	Protected for agricultural uses including irrigation of crops and stock watering.	50 µg/L (max)
Reference: <i>TMDL for Selenium in the Colorado River Watershed</i> , UDEQ Division of Water Quality, 2013, Page No. 8. Also see Utah Administrative Code R317-2-6.		

µg/L = micrograms per liter

There are no high-quality (Category 1 or Category 2) surface waters that could receive storm water discharges from the Moab site. The water quality designation for the Colorado River is anti-degradation Category 3. If a discharge from the Moab site entered the Colorado River or the portion of the Moab Wash within AU Colorado River-4, effluent limitations for the site would also include a TMDL for selenium. The Moab UMTRA Project's SWPPP is designed to contain and control surface water run-on and storm water runoff, as it was previously determined discharges would not meet effluent limitations for total suspended solids or other parameters.

2.5.2 Endangered Fish Species Habitat

During periods of high river flow, a side channel located parallel to the Colorado River and the mouth of the Moab Wash are inundated and may be used as preferred habitat by endangered fish species including the Colorado pikeminnow and the razorback sucker. As discussed in Section 1.6, the Project has taken prudent measures to minimize the impacts of incidental take of endangered fish species in the Colorado River.

2.5.3 Jurisdictional Wetlands

In accordance with the *Moab, Utah, UMTRA Project Floodplain and Wetlands Assessment for Additional Interim Actions at the Moab Project Site* (DOE-EM/GJ805-2005), approximately 4.7 acres of jurisdictional wetlands regulated by the U.S. Army Corps of Engineers exist along the southeastern boundary of the Moab site along the Colorado River (see Figure 2). These wetlands were formally delineated in December 2004 and are classified as palustrine.

2.5.4 Native Vegetation

Existing areas of native vegetation are preserved and protected at the Moab site. Native vegetation provides a valuable buffer that helps maximize soil stabilization, infiltration, and reduction of pollutant discharges. Nearly the entire length of the eastern site boundary adjacent to the Colorado River contains a moderately dense growth of willows, cottonwoods, grasses, and other riparian vegetation that provide a vegetative buffer and serve as an efficient filter of storm water and sediment.

This native vegetation is an effective barrier between the disturbed portions of the Moab site and the nearby Colorado River. DOE will make every attempt to preserve and re-establish the native vegetation along the Colorado River to ensure soils, contaminants, and runoff are contained on site.

3.0 Construction, Remediation, and Stabilization Activity Descriptions

3.1 Construction Activities

Construction of the site infrastructure needed to transport and dispose of the RRM and other contaminated debris in the tailings pile was performed between 2006 and 2009 and included construction of the following areas and structures.

- Decon pad
- Administrative area
- Freshwater pond
- Queue Support Area
- Hillside construction area and rail load-out bench
- Moab Wash crossings

An on-site sewer septic system with leach field was also constructed on the Moab site. There are no sewer effluent discharge points or industrial waste water associated with Moab site operations. Details of previous construction activities are discussed below and depicted on Plate 1.

Decon pad

In 2006, a concrete decon pad was constructed near the main site entrance. The pad is used to decontaminate vehicles and heavy equipment prior to off-site release. This BMP minimizes off-site tracking of sediment or RRM.

Administrative Area

The Project utilizes temporary facilities at the Moab site Administrative Area, including relocatable trailers that provide office space, restrooms, showering facilities, break rooms, the radiological access control, and conference rooms.

Only one permanent historical building (referred to in this SWPPP as the Atlas building) remains on site, and approximately 30 percent of the building is utilized. Potentially, every structure will be demolished or removed at Project completion.

Freshwater Pond

In 2006, a 2-acre freshwater pond was constructed southeast of the Administrative Area to replace the former pond to the east. Fresh water is pumped from the Colorado River through an inlet structure to the pond, and subsequently fed to irrigation pumps, freshwater injection wells, and a water truck fill station. The pump inlet structure is situated along the Colorado River, approximately 1,200 ft northeast of the Moab Wash.

Queue Support Area

In 2007 and 2008, contaminated soils were removed from a 24 acre area north of the tailings pile. From 2008 to 2009, the Queue Support Area and container load-out area were constructed. This area is used for trans-loading containers from the Moab site CA to the clean area and for transporting containers to the rail load-out area. Facilities constructed included a lidding/delidding structure, a vehicle and equipment maintenance shop, a container rinse system, support offices, and the north laydown area.

Moab Wash Crossings

In 2007 and 2008, three crossings were upgraded on the Moab site to ensure safe crossing of the Moab Wash by employees and equipment. An open, rock-lined overflow was constructed at the upper crossing, five 48-in. culverts were installed at the middle crossing, and an open, concrete, rock-lined overflow was constructed at the lower crossing. The top of the middle crossing is weir-shaped to handle large discharges and was stabilized with grouted rock for safe vehicle travel.

Hillside Construction Area

In 2008 and 2009, major construction activities were performed on the hillside west of SR-279 to prepare for rail transport of the tailings. Activities included constructing a rail load-out bench, haul roads (separate uphill and downhill routes), and an underpass of SR-279. More than 30 acres of land were disturbed during the hillside construction.

3.2 Remediation Activities

In 2009, the first shipment of RRM was transported by rail from the Moab site to the NRC-approved disposal cell near Crescent Junction, Utah. Currently, the Project ships two trains per week.

Ongoing site remediation work for remedial activities at the Moab site includes excavating and conditioning uranium mill tailings, excavating and sorting contaminated millsite building debris and structures formerly buried in the southern end of the tailings pile, and transportation and shipment of all RRM to the Crescent Junction site.

3.2.1 Tailings Pile Removal

Operations personnel manage the tailings pile removal activities. Excavation is managed to control surface water run-on and storm water runoff as the landscape evolves. In accordance with the *Moab UMTRA Project Tailings Pile Management Plan* (DOE-EM/GJRAC1891), the term “excavation” refers to all activities involving the manual removal of RRM from the tailings pile, drying beds, or stockpiles for placement onto other stockpiles or into trucks for transport. These activities may include pushing tailings pile material with tracked dozers (sloping) and digging or loading material with tracked excavators and wheeled loaders.

Tailings pile management operations at the Moab site are in part controlled by seasonal climate considerations. When hot, dry weather prevails in the Moab area, higher moisture content RRM is placed in drying beds during the summer months for moisture conditioning. Material moisture conditioning and drying bed construction are primary operation goals during spring, summer, and fall months when the climate is favorable. The moisture-conditioned material is then ready for shipment to the Crescent Junction disposal cell during the cooler winter months.

During the winter months, shipments of RRM to the Crescent Junction disposal cell are maintained by a process of direct loading of lower moisture content granular RRM. Direct loading of material is currently an effective method for making up the balance of annual material shipment during winter months. From a tailings pile management perspective, it is also desirable to create as much area as possible (floor space) for material conditioning. This helps ensure a sufficient quantity of material is available for shipment when needed.

Control of surface water run-on is achieved with standard construction practices, including sediment basins, berms, and ditches (see Plate 2). Berms may also be used near the face of the excavation to minimize the impacts of larger quantities of water on the floor of the excavation and future drying beds. Berms are used to direct water on the excavation floor to sumps positioned so they do not interfere with tailings pile removal operations. When significant quantities of water are accumulated, a determination is made to manage the water in place, pump it to a temporary holding pond, or haul it to remote tailings locations for spreading, depending on current site conditions (see *Tailings Pile Management Plan*).

3.2.2 Off-pile Area Remediation

In 2003, DOE began cleaning up radiologically contaminated soil in off-pile areas of the Moab site. The material was staged on top of the tailings pile until cleanup of the pile began in April 2009. This off-pile soils remediation has resulted in a reduction of the contaminated footprint by about 135 acres, primarily along the eastern portion of the Moab site outside of the CA, as documented in the *Moab UMTRA Project Site Revegetation and Weed Control Plan* (DOE-EM/GJTAC1655).

In 2008 and 2009, approximately 5 acres of RRM-contaminated soils were removed east of the Moab Wash on the north-central portion of the Moab site. In 2010 and 2011, DOE remediated approximately 31 acres of contaminated soil south of the tailings pile, below the lower crossing Moab Wash, and an area northwest of Moab Wash.

Radiologically contaminated soils remain in other off-pile areas, mainly east, northeast, and west of the tailings pile. These areas will be remediated following removal of the tailings pile. Soil or sediment will be removed until the U.S. Environmental Protection Agency (EPA) cleanup standards codified in 40 CFR 192, "Health and Environmental Protection Standards for Uranium and Thorium Mill Tailings," of 5 picocuries per gram (pCi/g) above background in the top 15 centimeters of native soil is achieved or 15 pCi/g above background more than 15 centimeters in depth is achieved.

3.2.3 Moab Wash Realignment

To reduce the potential for contaminated storm water or sediment loads to be discharged into the Moab Wash and Colorado River, DOE obtained appropriate Permits and realigned the Moab Wash from the upper crossing to the middle crossing in 2008.

Re-alignment activities included increasing the capacity of the channel to accommodate a 100-year storm event and stabilizing channel banks with erosion matting, rock armoring, and native vegetation. Upland vegetation species were planted along the upper banks and channel apron, and riparian species were planted along the lower banks. Grading, contouring, and ditching were also completed to minimize the potential for contamination to enter the Moab Wash.

These vegetative and non-vegetative stabilization controls greatly reduce the erosion potential within this reach of the Wash. Following removal of the tailings pile, the remainder of contaminated soils within and adjacent to the Moab Wash will be remediated.

3.3 Stabilization Activities

3.3.1 Stabilization Requirements

Soil stabilization measures will be initiated at the Moab site within 14 calendar days of permanent cessation of earth-disturbing activities to stabilize any exposed portions of the site. Earth-disturbing activities have permanently ceased when clearing and excavation within any area of the construction site has been completed. This timing schedule is required to limit sediment transport to within the boundaries of the Moab site for storms with intensities of 0.5-in. per hour or more precipitation. Stabilization tactics employed at the Moab site will be effective at minimizing erosion and sediment transport.

Initial stabilization measures at the Moab site will include either preparation of the exposed soils for vegetative stabilization (watering until fall or early spring) and/or non-vegetative stabilization. Non-vegetative stabilization of exposed soils may include (but is not limited to) the installation of sediment and erosion controls, such as containment structures (diversion ditches, dikes, sediment basins), and temporary BMPs, including straw wattles and erosion blankets or matting.

To meet Permit requirements, initial installation of one of the following BMPs is required.

1. Preparation for seeding and/or planting (during the fall or early spring season or with irrigation).
2. For steeper slopes (25 percent grade or more):
 - Geotextile blankets staked as necessary with or without seeding (possibly with mulch under the blanket), fiber rolls staked on the contours every 10 ft apart (or less) with mulch applied to the surface between.
3. For moderate slopes (15 percent to 25 percent):
 - Surface preparation and roughening, seeding with hydromulch or erosion blanket.
4. For shallower slopes (15 percent grade or less):
 - Cat tracking over straw mulch (moist).
 - Surface roughening in loose soil or cat tracking (depending on soil, mulch may have to be applied) with fiber rolls staked not more than 15 ft apart on the contours, on very shallow slopes and less distance apart for steep slopes (add mulch on the steep ends).
5. For flat areas:
 - At a minimum, loosened soil, surface roughening with larger depression areas to collect storm water, and peripheral controls. The surface will be reworked if the soil becomes hardened or compacted.
6. Storm Water Conveyances:
 - Piped slope drains, check dams, riprap, geotextile channel protection, or other velocity control and channel protection for all storm water conveyances will be deployed on a slope.

3.3.2 Final Stabilization

Plate 1 depicts the areas of the Moab site where previous construction or remediation activities have occurred, and final stabilization has been achieved.

Vegetative Stabilization

Vegetative stabilization has included seeding and/or pole planting, watering, removal of noxious weeds, monitoring, and/or application of irrigation water. Remediated off-pile areas on the eastern and southern portions of the Moab site have been stabilized with a variety of native plant species and include both upland and riparian species. Riparian species have included saltgrass, streambank wheatgrass, alkali sacaton, and Fremont cottonwood.

Disturbed slopes of the hillside area were seeded and mulched. Upland species planted along the hillside area include the yellow bee plant, Indian ricegrass, needlegrass, and sand dropseed. The US-191 rights-of-way vegetation has been stabilized with desert grasses and shrubs that need no irrigation. Revegetation of disturbed soils has minimized the production of fugitive dust and eliminated off-site transport of sediment.

The southern area of the site has been predominantly stabilized with riparian plant species. There are several areas southeast of the tailings pile that have persisted to be poorly performing revegetated areas due to high salt content soils. Watering irrigation plots is performed throughout the growing season in accordance with the *Moab UMTRA Project Site Revegetation and Weed Control Plan* (DOE-EM/GJTAC1655). Methods include flooding, drip systems, and sprinklers (fixed pipe and hose reels).

Periodic thinning of mature cottonwood and willow trees is performed to improve overall growth and avoid creating a safety hazard. Tree trimmings from the pruning and thinning activities are shredded in a chipper and spread or composted.

Composted materials and wood chips are used to create a soil amendment for underperforming areas on the Moab site and to promote moisture retention. To ensure continued success with vegetative stabilization, areas of the Moab site previously planted with only limited success are revegetated. Active irrigation areas are located along the northeastern and eastern portions of the Moab site.

Non-vegetative Stabilization

Non-vegetative stabilization for exposed soil of the Moab site has included installation of erosion-control matting, natural or synthetic blankets, turf-reinforcement mats, and straw and rock wattles. Erosion-control matting and blankets provide improved microclimate conditions that have enhanced the establishment of vegetation.

Following completion of the previous construction activities on the hillside and rail-load out area, extensive erosion-control matting, blankets, and logs were installed to minimize sediment loss and provide long-term soil stabilization.

Impervious areas, including the uphill and downhill haul roads, site entrance road, rail load-out bench, the majority of the Queue Support Area, and employee parking lots were paved with asphalt or concrete. Site access roads were surfaced with either asphalt pavement or gravel (see Plate 2).

4.0 Erosion and Sediment Control Descriptions

DOE's primary objective in storm water pollution prevention is to contain all on-site storm water runoff and sediment and prevent discharges of contaminated materials and pollutants into waters of the state. Erosion and sediment control BMPs implemented at the Moab site to manage storm water are discussed in Sections 4.1 through 4.9 (see Plate 2). These controls are frequently inspected, maintained, and/or repaired as needed to ensure they are working as designed.

4.1 Compliance Alternatives for Surface Waters within 50 Feet of Earth Disturbances on the Moab Site

DOE selected two compliance alternatives to meet the requirements of Part 2.1.2 of the Permit and protect the Colorado River and Moab Wash from discharges of contaminated storm water. To protect the Colorado River, Compliance Alternative No. 1 was selected. Compliance Alternative No. 1 requires that DOE provide and maintain a 50-ft buffer between the Colorado River and earth-disturbing areas of the Moab site.

To protect the Moab Wash, Compliance Alternative No. 3 was selected. Compliance Alternative No. 3 requires that DOE implement erosion and sediment controls that achieve sediment load reduction equivalent to a 50-foot undisturbed natural buffer when it is infeasible to provide and maintain an undisturbed natural buffer of any size.

4.1.1 Colorado River Compliance Alternative No. 1 – Natural Buffer

The outflow of the Moab Wash and north off-pile areas extending northward were remediated and revegetated under a Joint 404 Permit and are therefore exempt from Part 2.1.2 of the Permit.

A native vegetative buffer area more than 50 ft wide is located south of the Moab Wash and extends southward along the eastern property boundary. The buffer consists of various native grasses, willows, and cottonwoods. This buffer area was not contaminated or disturbed by former millsite activities and therefore, has provided effective erosion and sediment control through efficient filtering of storm water runoff from the Moab site.

Stake and rope fencing, including site postings, are installed in buffer areas with high potential for unwanted vehicle or foot traffic access. If fencing has been damaged, it is repaired or replaced. In addition, to ensure water quality protection benefits of the native vegetative buffer are retained during construction activities, Project personnel are prohibited from conducting any earth-disturbing activities within the buffer area.

Before beginning earth-disturbing activities on the eastern portion of the Moab site, Operations or Technical Oversight personnel will delineate and clearly mark off the buffer areas with flags, tape, or a similar marking device. The purpose of this requirement is to make the buffer area clearly visible to Project personnel working in the area, so that unintended disturbances are avoided.

4.1.2 Moab Wash Compliance Alternative No. 3 –Erosion and Sediment Controls

To protect the Moab Wash from receiving discharges of contaminated storm water runoff and suspended RRM or sediment from the tailings pile, erosion and sediment controls including sediment basins, ditches, and earthen containment and diversion berms have been installed parallel to the northern, eastern, and southern boundaries of the tailings pile.

An earthen containment berm has also been installed along the CA boundary on the eastern bank of the Moab Wash between the Middle and Lower Crossings. The southernmost 500 ft of the Moab Wash (located between Drainage Basin F and Drainage Basin G) is protected from direct storm water runoff from the tailings pile or CA by diversion berms (see Plate 2).

The sediment removal efficiency of 78 percent has been selected for the Moab site from Table D-5, "Estimated 50-ft Buffer Performance in Arid Areas" (UPDES Permit No. UTRC0000, Appendix D, pg. D-17). This sediment removal efficiency is representative of a 50-ft natural buffer for an arid geographical area with the vegetative buffer cover type of medium-density weeds and a soil type of loams, silt sandy loam, or silt loam.

The sediment basins work as velocity dissipation devices capturing storm water runoff and suspended sediment or RRM. Eleven sediment basins (Sub-basin A1) located on the north and east sides of the tailings pile have been estimated to hold a cumulative volume of 2,000,000 gallons (gal), of water/sediment. This compares to a required volume of 990,000 gal based on the two-year 24-hour design storm.

4.2 Perimeter Controls

Perimeter controls are used at the Moab site to intercept surface water run-on from slopes and storm water runoff from areas of the site where earth-disturbing activities are being performed. Perimeter controls remove sediment and other contaminants through ponding, settling, and physical filtration, preventing contaminants from leaving the Moab site, reducing the flow velocity, and preventing downgradient erosion of sediment. Perimeter controls, including diversion berms, containment berms, and ditches, have been installed inside the CA boundary and along the hillside area directing flow into sediment basins.

Diversion and/or containment berms have been constructed immediately south, east, and north of the tailings pile to capture storm water runoff from the side slopes of the tailings pile. The berms are sized to prevent storm water runoff from exiting the CA and act as containment structures to isolate runoff and sediment from the Moab Wash. Grading, contouring, and ditching were also completed to minimize contamination from entering the Moab Wash from the eastern portion of the CA. In addition, the surface of the tailings pile is sloped to capture most of the storm water in a central location.

Selected perimeter controls on the Moab site may include the following:

- Containment berm
- Diversion berm
- Diversion ditch
- Fiber logs
- Silt fence
- Straw bale barrier
- Straw or rock wattles

4.3 Sediment Basins

In addition to the sediment basins discussed in Section 4.1.2 of this SWPPP, a series of five connected sediment basins with overflows were built west of the tailings pile in the CA. These basins work as velocity dissipation devices, collecting surface water run-on and suspended sediment that enters the CA from upper reaches of Drainage Sub-basin A3. These five sediment basins have been estimated to hold a cumulative volume of 1,010,000 gal, of water/sediment.

Three large sediment basins and containment berms were built adjacent to the southern portion of the tailings pile, capturing surface water run-on and storm water runoff including from the five basins above, and preventing it from exiting the CA. These sediment basins have been estimated to hold a cumulative volume of 8,000,000 gal of water/sediment for a total of 9,010,000. This compares to a required volume of 4,800,000 based on the two-year 24-hour design storm.

One sediment basin is located near the juncture of the uphill and downhill haul roads. This basin captures surface water and suspended sediment from a portion of the hillside and haul roads. The basin slows the velocity of runoff, reducing erosion of soil. This sediment basin has been estimated to hold a volume of 100,000 gal of water/sediment.

To ensure effective operating condition of all sediment basins, sediment or RRM will be removed from the basins once accumulation reaches one-half of its capacity.

4.4 Sediment Track-out

This section describes BMPs implemented at the Moab site to minimize the track-out of sediment, RRM, and/or contaminated materials onto paved site roads or off-site public roadways, due to trucks, Project vehicles, or heavy equipment.

Before heavy equipment or off-road Project vehicles are released from the CA, they are washed at a decon pad located south of the site entrance (see Plate No. 2). This practice ensures no sediment or contaminants are tracked off site onto public roadways.

All on-site traffic will be restricted to specific designated roads. Off-road travel will only be authorized on a case-by-case basis (e.g., to access remote monitoring wells or to conduct radiological assessments). Traffic speed is also restricted to an appropriate level on all designated roads.

Selected BMPs for minimizing track-out of sediment, RRM, and/or contaminated materials across the Moab site or onto off-site areas includes the following:

- Decon pad
- Reduced speed limits
- Restricted off-road travel
- Road cleaning using water trucks or street sweepers

4.5 Control Discharges from Stockpiled Materials

Stockpiled materials including road base, gravel, and concrete are located within the north laydown area to segregate stockpiled materials away from earth-disturbing activities and minimize erosion and sedimentation. Salt used to de-ice roadways during the winter months is housed in a storage structure located north of the material stockpiles in the North Laydown Area.

The application of dust suppression includes spraying or misting stockpiled materials with water. Water trucks apply dust suppression to stockpiled areas as needed to maintain adequate dust control. If emergency cover is required, stockpiled materials will be covered with plastic sheeting.

4.6 Minimize Dust

To comply with the UAC Rule R307-205-8, “Emission Standards: Fugitive Emissions and Fugitive Dust, Tailings Piles and Ponds,” DOE implements engineering and administrative controls to minimize fugitive dust resulting from grading, excavating, depositing, natural erosion, or other causes in association with site operations as defined in the *Moab UMTRA Project Moab Site Fugitive Dust Control Plan* (DOE-EM/GJ2072).

Specific regulatory standards, action limits, and response actions for control of fugitive dust are detailed in the *Moab Site Fugitive Dust Control Plan*. All site workers are responsible to report fugitive dust during work activities to their supervisor, who directs dust-control measures. Personnel from both Operations and Technical Oversight maintain credentials as trained opacity subject matter experts and are available to the Project for control guidance and direction as needed.

Work activities conducted within the CA and on the tailings pile are performed in accordance with the *Tailings Pile Management Plan*. Dust suppression is used to control emissions of fugitive dust and reduce the potential transport via air of RRM contamination from the tailings pile to other areas of the Moab site or to off-site vicinity properties.

Spraying and misting water is the primary method for applying dust suppression. Haul roads and stockpile areas are watered to ensure excessive dust is not generated. Water trucks apply water to these areas as required to maintain adequate dust control. In addition, remediation groundwater with high sodium chloride levels may be used to control dust due to its excellent dust-suppression qualities for tailings on-pile use. Drying bed dust control is performed by turning over the material with an agricultural disk to ensure wet material is present on the top of the drying bed. Water is used to supplement the cultivation process for dryer materials within the beds.

4.7 Storm Water Inlet and Outlet Protection

Storm water inlets and outlets are limited to basins and culvert pipes on the Moab site. Storm water inlet or outlet protection routinely includes concrete, riprap, or gabions. Rock outlet protection reduces the velocity and energy of concentrated flows of water and protects receiving downgradient reaches to prevent erosion of soil and/or vegetation.

Riprap used where erosion potential is high will be placed as soon as possible following earth-disturbing activities, before additional water is concentrated into the storm water system. Erosion-control materials such as filter fabric may be placed between the riprap and the underlying soil surface to prevent soil movement into and through the riprap.

Riprap consists of either graded or uniform aggregate rock. Riprap placed in drainage ditches or channels will be installed in a U-shape to ensure discharge remains in the ditch or channel and to protect side slopes. Culvert pipes will be cleaned out when filled to one-third of their available storage (discharge) capacity.

Selected BMPs for storm water inlet and outlet protection may include:

- Concrete.
- Dispersion aprons.
- Erosion-control blankets or matting.
- Filter fabric.
- Riprap.
- Rock gabion.
- Straw or rock wattles.

4.8 Slope Protection

Cut-and-fill slopes, such as those adjacent to parking areas and haul roads, are designed and constructed to minimize erosion. Slope runoff velocities are reduced by shortening the length of a continuous slope with surface contouring, terracing, and/or surface roughening. Site drainage and surface water run-on are intercepted and diverted around construction or remediation areas. Stabilization of sloped areas may include the use of erosion-control materials, particularly along the hillside area and banks of the Moab Wash. Rock is used for armoring slopes and bank stabilization, as appropriate.

Erosion-control matting or turf-reinforcement mat, natural or synthetic blankets, and straw or rock wattles will be used to provide soil stabilization after disturbance. Matting and blankets also provide improved microclimate conditions to enhance establishment of vegetation.

As various on-site areas are remediated, planting native vegetation will continue to stabilize and protect bare soil areas. Ongoing vegetation maintenance (e.g., irrigation, fertilization) and noxious weed control will continue.

A synthetic silt fence fabric will be used whenever additional sediment and erosion controls are needed to augment existing controls or wherever the above controls cannot be feasibly implemented.

Silt fencing will be deployed along the toe of exterior slopes to filter storm water runoff. Silt fencing is a structural measure that is intended to complement and enhance soil-stabilization measures (erosion control) and reduce sediment discharges from storm water runoff.

Selected BMPs for slope protection may include:

- Erosion-control blankets or matting.
- Erosion logs.
- Mulch control netting.
- Revegetation.
- Riprap.
- Silt fencing.
- Straw bales.
- Straw or rock wattles.
- Surface contouring or terracing.
- Surface roughening.

4.9 Soil Stabilization

Soil stabilization techniques are implemented across the Moab site to minimize erosion and prevent the transport of sediment loads to waters of the state. Disturbed areas resulting from removal of erosion or sediment controls or vegetation inside of the CA are temporarily stabilized as soon as possible to prevent transport of RRM and contaminated materials across the Moab site or to off-site properties. Short slopes, such as those adjacent to parking areas and access roads, are inspected and repaired regularly and re-seeded as practicable. Roadways or work areas are surfaced with asphalt, concrete, road base, or gravel. Dust generation is closely monitored, and suppression with water is employed as needed.

Selected BMPs for soil stabilization may include:

- Hydro mulch or hydro seeding.
- Dust control with water.
- Erosion-control blankets, matting, or logs.
- Seeding/revegetation.
- Mulch control netting.
- Surface roughening, contouring, or benching.
- Surfacing of roadways or work areas with asphalt, concrete, road base, or gravel.

5.0 Pollution Prevention

Pollution-prevention measures, including BMPs, engineering controls, and administrative controls, are in place at the Moab site to prevent the discharge of pollutants. BMPs and controls include (but are not limited to): double-walled tanks, secondary containment, spill kits, and/or covered chemical storage areas.

All pollution-prevention controls will remain in operating condition and be protected from activities that would reduce their effectiveness. All pollutant-generating activities and pollution prevention controls will be regularly inspected (see Section 6.1) to avoid situations that may result in leaks, spills, or other releases of pollutants in storm water runoff discharges.

In accordance with Part 2.3.1 of the Permit, the Moab site is prohibited from discharging: wastewater from concrete work; fuel, oils, or other pollutants used in vehicle or equipment operation or maintenance; soaps, solvents, or detergents used in vehicle and equipment washing; and toxic or hazardous substances from a spill or other release.

5.1 Pollutant-generating Activities

In accordance with Part 2.3.3 of the Permit, the Moab site will comply with pollution-prevention standards for the following on-site activities:

- Fueling and maintenance of equipment and vehicles
- Decontamination of equipment and vehicles
- Storage, handling, and disposal of construction products, materials, and wastes

5.1.1 Fueling and Maintenance of Equipment and Vehicles

The Moab site uses diesel fuel for tailings handling and excavation equipment and gasoline for vehicles. Fuel, lubricants, and used oil are handled on site in above-ground containers in accordance with the *Moab UMTRA Site Spill Prevention, Control, and Countermeasure (SPCC) Plan* (DOE-EM/GJ1477).

Equipment and vehicle maintenance operations are conducted within the CA inside a fabric-covered shade structure and the Atlas building (see Plate 2). A maintenance bay located within the Atlas building is periodically used to work on equipment and vehicles. This bay contains parts, equipment, and chemicals to support maintenance activities. One 150-gal used oil storage container is located inside the maintenance shop and used during routine maintenance. Maintenance and repair of larger equipment utilized in the CA are performed under the shade structure, which is located south of the decon pad. A fabric-covered equipment maintenance tent is located outside of the CA in the Queue Support Area.

A large-volume fuel and lubricant service truck operates within the Moab site CA. Perimeter berms have been installed inside the CA to prevent releases outside the CA boundary.

Leaks that result in a loss of fuel, oil, or lubricants from container seams, gaskets, rivets, and bolts will be promptly corrected, and any materials contaminated from such leaks will be promptly removed. Spill response kits are available and used for minor spills outside secondary containment areas. If a spill occurs during transfer or in a manner that cannot be contained by secondary containment, absorbent pads and logs will be used in a timely manner.

5.1.2 Decontamination of Equipment, Vehicles, and Lidded RRM Containers

Decontamination of equipment or vehicles is performed by Operations personnel on the decon pad located in the northeast portion of the CA within a radiologically controlled area (see Plate 2). Decontamination operations will be conducted in accordance with the Integrated Work Planning Job Safety Analysis No. MB-IWP/JSA-012, “Decontamination Operations.”

Decontamination operations are performed away from any surface waters or potential storm water discharges. Colorado River water is used to clean vehicles and equipment. Wash water from the decontamination activities is directed into a lined catch basin for evaporation or appropriate reuse within the CA. A container rinse system located in the Queue Support Area is used to clean the outside of lidded RRM containers before transfer to radiological survey racks. The rinse system consists of a reinforced concrete pad, high-pressure spray bars, and a sump. Colorado River water is used to wash down the containers. The sump drains the wash water to a ditch and retention pond within the CA (see Plate 2).

5.1.3 Storage, Handling, and Disposal of Building Products, Materials, and Wastes

Building Products

Building products used by Operations are stored inside the Atlas building to prevent these products from coming into contact with rainwater.

Pesticides, Herbicides, Insecticides, Fertilizers, and Landscape Materials

Pesticides, herbicides, insecticides, fertilizers, and landscape materials used by Technical Oversight personnel to perform revegetation and weed-control activities on the Moab site are stored inside a fabric-covered storage structure located in the east laydown area. This covered storage structure prevents the chemicals and materials from coming into contact with rainwater.

For application, handling, or disposal of herbicides, pesticides, insecticides, or fertilizers, Technical Oversight personnel will comply with application and disposal requirements included on the registered pesticide, herbicide, insecticide, and fertilizer labels. In addition, personnel will follow the requirements identified within the associated Safety Data Sheets and will use proper personal protective equipment (PPE) for protection from identified hazards in accordance with the work planning and control procedures.

Diesel Fuel, Petroleum Products, Lubricants, and Used Oil

Diesel fuel, petroleum products, lubricants, and used oil are stored on site in above-ground containers in accordance with the SPCC.

The Moab site meets the EPA criteria stipulated in Title 40 Code of Federal Regulations Part 112 (40 CFR 112), “Oil Pollution Prevention;” which states:

A facility is subject to spill prevention, control, and countermeasure regulations if the total aboveground oil storage capacity exceeds 1,320 gallons (gal) in containers of 55 gal or more, or the underground oil storage capacity exceeds 42,000 gal, and if, due to its location, the facility could reasonably be expected to discharge oil into or on the navigable waters of the United States.

As defined in 40 CFR 112, oil includes oil of any kind or in any form including, but not limited to, petroleum, petroleum-refined products, fuel oil, sludge, oil refuse, and oil mixed with wastes other than dredged spoil. Fuel, lubricants, and used oil are stored on the Moab site in aboveground tanks and containers as listed below in Table 4 and depicted on Plate 2.

In accordance with the SPCC, secondary containment at the Moab site includes the following:

Oil storage containers whose containment collects rainfall are required to have 100 percent secondary containment plus precipitation. The 10-year, 24-hour precipitation event for the Moab area is 1.6 in. as reported in the National Oceanic and Atmospheric Administration Atlas 14 Point Precipitation Frequency Estimates. Several containers on site are double-walled to provide secondary containment. Those that are single-walled have been placed in containment basins. Containment dikes and basins were sized to contain the volume of the container or the largest container in the case where multiple containers were placed in a single containment structure, plus 2 in. of rainwater.

Table 5. Oil Storage Containers and Containment Features

Storage Area Designation	Container Contents	Capacity (gal)	Locations	Containment Method
M1	Used oil	2,000	East of Atlas building	Double walled tank
M2	Used oil	215	Inside Atlas building	Steel basin
M3	Used oil	215	Inside Atlas building	Steel basin
M4	Fuel (diesel)	12,000	East of maintenance shop	Double walled tanks
M5	Lubricants	3 x 350	North of maintenance shop	Double walled tanks
M6	Used oil	500	North of maintenance shop	Double walled tanks
M7	Fuel (gasoline)	500	East of decon pad	Polyvinyl chloride stock tank
M8	Lubricants	4 x 500	West of Atlas building	HDPE-lined dike
M9	Lubricants	7 x 55	Inside Atlas building	HDPE pallet
M10	Used oil	150	Inside maintenance shop	Floor drain to sump
	Mobile fuel and lubricants	200 (fuel) 1200 (fuel) 4 x 100 (oil) 200 (used oil) 55 (grease)	Variable inside CA	Not applicable

5.1.4 Spill Response and Reporting

In the event of a spill or release of contaminated materials, the spilled materials are immediately contained and cleaned up according to emergency spill response actions outlined in the *Moab UMTRA Project Emergency/Incident Response Plan* (DOE-EM/GJ1520). Spill response kits containing absorbent pads, materials, and PPE needed for spill cleanup are available on site and are used for minor spills that occur outside secondary containment areas.

Project personnel are to report all spills more than 0.25 gal to the Moab Operations/Site Manager or Technical Group/Field Manager and to the Environmental Compliance Manager for the contractor managing the area where the spill occurs. Spills more than 5 gal are reported to DOE.

As specified in 40 CFR 112.4, if either of the following thresholds is exceeded:

- The facility discharges more than 1,000 gal of oil into or on navigable waters of the United States or adjoining shorelines in a single event.
- The facility discharges oil more than 42 gal in two spill events within any 12-month period.

The Moab Operations/Site Manager or Technical Group/Field Manager, with DOE concurrence, will report the spill to the National Response Center and the UDEQ.

5.1.5 Fertilizer Discharge Restrictions

To minimize discharges of fertilizers containing nitrogen or phosphorus, Moab site personnel who apply fertilizers will comply with the following requirements as listed in Part 2.3.5 of the Permit:

- Apply the fertilizer at a rate and in amounts consistent with manufacturer's specifications or document departures from manufacturer specifications in a field logbook.
- Apply fertilizer during the early spring and summer or as closely as possible to the period of maximum vegetation uptake and growth.
- Avoid applying before heavy rains that could cause excess nutrients to be discharged.

- Never apply to frozen ground.
- Never apply to storm water conveyance channels with flowing water.
- Follow all other state and local requirements regarding fertilizer application.

5.2 Waste Management

The types of wastes that may be generated on the Moab site include RRM, non-RRM, investigation-derived waste (IDW), and universal waste. Handling, management, and disposal processes for these waste types are conducted in accordance with active Project plans and procedures referenced below in Sections 5.2.1 and 5.2.2.

5.2.1 Management of RRM, Non-RRM, and IDW

RRM, non-RRM, and IDW generated on the Moab site are managed in accordance with the *Moab UMTRA Project Waste Management Plan* (DOE-EM/GJ1633) and applicable federal, state, and local requirements.

RRM

RRM waste is generated inside the CA and consists of uranium mill tailings, radioactively contaminated soil, mill debris, and other process related materials. RRM is excavated and handled using standard remediation and construction methods. Health and safety procedures for controlling radiological contamination are used to protect site workers, the public, and the environment. RRM that meets the NRC-approved waste acceptance criteria (WAC) will be transported by rail and disposed of at the Crescent Junction disposal site.

Reusable equipment contaminated with RRM may be decontaminated if warranted, feasible, and cost effective. If it is not feasible or cost effective to decontaminate reusable equipment or materials, they may be disposed of at the Crescent Junction disposal site. The *Moab UMTRA Project Radiological Release of Materials and Equipment Plan* (DOE-EM/GJRAC2091) contains procedures for decontaminating radioactively contaminated equipment and materials, including release limits for radioactivity.

Non-RRM

Non-RRM may be generated inside or outside of the CA, and consists of construction and domestic waste. Non-RRM waste shall be managed in accordance with federal, state, and local requirements and regulations pertinent to the waste. These solid waste materials are accumulated using standard practices and disposed of at the local municipal landfill.

As a BMP, efforts to minimize the generation of non-RRM wastes and to recycle non-RRM wastes and materials per DOE Order 436.1, “Departmental Sustainability” are conducted. Recycling bins for paper, aluminum, plastic, and flattened cardboard are provided in the Administrative Area and Queue Support Area.

Proper management of non-RRM waste also requires evaluation to determine if it contains hazardous or toxic components. Non-RRM waste that contains other hazardous components may consist of used oil or other spent petroleum products generated from vehicle and equipment maintenance or repairs.

Non-RRM waste that contains hazardous or toxic components shall be managed in accordance with 40 CFR 261, “Identification and Listing of Hazardous Waste,” 40 CFR 273, “Standards for Universal Waste Management,” and the corresponding state of Utah hazardous waste and universal waste regulations at UAC R315. These management requirements encompass proper tracking, containerization, labeling, storage, treatment, transportation, disposal, and record keeping.

IDW

IDW generated in the field during site investigation and monitoring activities associated with groundwater or soils includes PPE, disposable sampling equipment, excess soil (e.g., well-drilling cuttings, trenching leftovers), excess groundwater (e.g., well development, purge water), or miscellaneous trash (e.g., empty containers, plastic, packaging materials). IDW shall be managed in accordance with the requirements of the *Moab UMTRA Project Waste Management Plan* for RRM and non-RRM waste.

5.2.2 Universal Waste

In accordance with the *Moab UMTRA Project Universal Waste Management Plan* (DOE-EM/GJRAC1920), hazardous waste from the Moab site handled as universal waste includes:

- Spent batteries found in many common items, including electronic equipment, hand tools, mobile telephones, cameras, computers, and emergency backup lighting. The battery chemistry determines its regulatory status. Lead acid (automotive), nickel cadmium, silver, mercury, or lithium batteries are regulated as universal waste and will be recycled. Storage is provided in boxes at maintenance sheds or in the box provided at the Moab Environmental Compliance office.
- Mercury-containing devices, including thermostats, thermometers, manometers, barometers, relays, and switches.
- Lighting wastes including lamps, bulbs, or tubes with small amounts of mercury and possibly cadmium. Lamps regulated as universal waste can be fluorescent, high-intensity discharge, neon, mercury vapor, high-pressure sodium, and metal halide lamps.
- Unused pesticides that have been recalled or for which use has been suspended are universal wastes.

DOE manages universal waste at the Moab site as a “small quantity handler,” which does not accumulate 5,000 kilograms (11,000 pounds) or more total universal wastes, calculated collectively, at any time. Small quantity handlers are prohibited from disposing universal waste and will ensure waste is recycled or delivered to a Permitted facility. The small quantity handler facility is prohibited from diluting or treating universal wastes.

Universal waste stored on the Moab site will be labeled or marked to identify the type of universal waste (e.g., “Universal Waste Batteries,” “Universal Waste – Lamps”). Universal waste will be managed in a way that prevents a release of any component of the waste. Containers will remain closed, be structurally sound, compatible with contents, and show no evidence of leakage, spillage, or damage that could cause leakage. If stored outside, containers will be covered to prevent precipitation from coming into contact with the waste. Universal waste stored on the Moab site can accumulate for no longer than 1 year from the date the waste is generated, unless accumulation activity is solely for the purpose of accumulating quantities sufficient to facilitate proper recycling or disposal.

Although small quantity handlers of universal waste are not required to keep records of shipments of universal waste per UAC R315-16-2, “Standards for Small Quantity Handlers of Universal Waste,” BMPs at the Moab site include maintaining the following records: (1) destination facility, (2) quantity of each type of universal waste, and (3) date of shipment. Mechanics, maintenance personnel, or responsible employees will provide the required records or manifest information to Operations Environmental Compliance personnel for filing in the Project records system.

5.3 Approved Non-Storm Water Discharges

The following non-storm water discharges are pertinent to the Moab site and allowed under Section 1.3.4 of the Permit for construction activities:

- Properly managed landscape irrigation.
- Water used to wash vehicles and equipment, provided there is no discharge of soaps, solvents, or detergents used for such purposes.
- Water used to control dust.
- Potable water, including uncontaminated water line flushing.
- Pavement wash waters provided spills or leaks of toxic or hazardous materials have not occurred (unless all spill material has been removed) and where detergents (including biodegradable detergents) are not used. It is prohibited to direct pavement wash waters directly into any surface water, storm drain inlet, or storm water conveyance.

6.0 Inspections, Corrective Actions, SWPPP Modifications, and Training

In accordance with the Permit, site inspections and corrective actions will be conducted and performed at the Moab site as listed below in Sections 6.1 and 6.2. To track precipitation events and help determine the occurrence of storm events that generate 0.5 in. or more rain, the Project operates two meteorological monitoring stations (MET) at the Moab site (see Plate 2).

These stations enable DOE to monitor site-specific climatic conditions and events. Meteorological parameters monitored include air temperature, relative humidity, solar radiation, wind speed, wind direction, and precipitation.

6.1 Inspections

In accordance with Part 4.1.1 of the Permit, Operations personnel who conduct inspections associated with storm water control and pollution prevention at the Moab site will meet the below-listed definition of a “qualified person,” and maintain current certification.

A “qualified person” is a person knowledgeable in the principles and practice of erosion and sediment controls and pollution prevention, who possesses the skills to assess conditions at the construction site that could impact storm water quality, and the skills to assess the effectiveness of any storm water controls selected and installed to meet the requirements of this Permit, such as but not limited to the following:

- *Utah Registered Storm Water Inspector*
- *Certified Professional in Erosion and Sediment Control*
- *Certified Professional in Storm Water Quality*

- *Certified Erosion, Sediment, and Storm Water Inspector*
- *Certified Inspector of Sediment and Erosion Control*
- *National Institute for Certification in Engineering Technologies, Erosion and Sediment Control, Level 3*
- *Utah Department of Transportation Erosion Control Supervisor*

In addition, Operations personnel conducting site inspections of storm water and pollution prevention BMPs will be trained to Project-specific training requirements as outlined in Section 6.4 of this SWPPP.

6.1.1 Inspection Frequency

In accordance with Section 4.1.2 of the Permit, site inspections will be conducted at the Moab site in accordance with the following schedule.

- Once every 14 calendar days.
- Within 24 hours of the occurrence of a storm event that produces 0.5 in. or more rain.

To determine if a storm event of 0.5 in. or more has occurred at the Moab site, a reading will be collected from a properly maintained rain gauge from the on-site MET station.

For any day when rainfall measures 0.5 in. or more, the total rainfall measured for that day will be recorded on the Moab Site SWPPP Inspection Form 1093. If a storm event occurs at the Moab site for multiple days, and the storm produces 0.5 in. or more rain each day, an inspection will be conducted within 24 hours of the first day of the storm and within 24 hours after the end of the storm.

Site inspections are required during the Project's normal work hours; however, if a rainfall event occurs after business hours on Thursday, the inspection does not have to be completed until Monday.

6.1.2 Inspection Frequency Reduction

In accordance with Part 4.1.4 of the Permit, three conditions exist that allow for a reduction in site inspection frequencies:

1. **Temporarily Stabilized Areas** – The inspection frequency may be reduced to once per month in any area of the Moab site where initial stabilization steps have been completed in accordance with Section 3.3.1 of this SWPPP. If construction activities resume at a later date in temporarily stabilized portions of the Moab site, the site inspection frequency will immediately increase to the schedule listed in Sections 6.1.1 of this SWPPP. Operations personnel conducting storm water and pollution-prevention inspections will document the beginning and ending dates of this period and provide the documentation to Technical Oversight and to Project Records.
2. **Permanently Stabilized Areas** – Portions of the Moab site that are permanently stabilized no longer require inspections, except in the case of inlet protection for drainage received from surrounding non-stabilized areas.

3. **Frozen Conditions** – Earth-disturbing activities will continue at the Moab site during frozen conditions. Inspection frequency will remain as scheduled under the existing criteria as listed above in Sections 6.1.1 and 6.1.2. If snow accumulates during frozen conditions in excess of 0.5 in. of water equivalent, any subsequent melt event that generates runoff will trigger a 24-hour inspection conducted by Operations personnel.

6.1.3 Areas Requiring Inspection

In accordance with Part 4.1.5 of the Permit, at a minimum, the following areas at the Moab site will be inspected.

- a. All areas that have been cleared, graded, or excavated and have not yet completed stabilization.
- b. All storm-water controls (including pollution-prevention measures) installed at the Moab site to comply with the Permit.
- c. Materials, waste, borrow, or equipment storage and maintenance areas covered by the Permit.
- d. All areas where storm water typically flows within the Moab site, including drainage ways designed to divert, convey, and/or treat storm water.
- e. All points of discharge from the Moab site.
- f. All locations where stabilization measures have been implemented.

If on-site areas are not safe for entry by personnel either on foot, by vehicle, or via an alternative method, those areas need not be inspected until conditions once again become safe; should this scenario occur, a note will be made on the inspection report documenting the locations that cannot be inspected and describing the reason that conditions are unsafe.

6.1.4 Inspection Requirements

At a minimum, Operations personnel conducting inspections at the Moab site will:

- a. Check whether all erosion and sediment controls and pollutant-prevention controls are installed, appear operational, and are working as intended to minimize pollutant discharges.
- b. Determine if any controls need to be replaced, repaired, or maintained.
- c. Check for the presence of conditions that could lead to spills, leaks, or other accumulations of pollutants on the Moab site.
- d. Identify any locations where new or modified storm water controls are necessary to meet effluent limitations applicable to all discharges from the construction site (including support activities), effluent limitations to meet applicable water quality standards, and discharge limitations for impaired waters as required in of Parts 2 and 3 of the Permit.
- e. At point of discharge and if applicable, the banks of any surface waters flowing within the Moab site boundary or immediately adjacent to the Moab site. Check for signs of visible erosion and sedimentation (i.e., sediment deposits) that have occurred and are attributable to discharges from the Moab site.
- f. Identify any and all incidents of noncompliance observed.
- g. If a discharge is occurring during the site inspection, Operations personnel will:
 - Identify all points of the Moab site from which there is a discharge.
 - Observe and document the visual quality of the discharge and take note of the characteristics of the storm water discharge, including color, odor, floating, settled, or suspended solids, foam, oil sheen, and other obvious indicators of storm water pollutants (see Appendix J of the Permit).

- Document whether the storm water controls at the Moab site are operating effectively and describe any controls that are clearly not operating as intended or are in need of maintenance.
- h. Based upon the results of the site inspection, Operations personnel will initiate corrective action in accordance with Part 5 of the Permit and in accordance with Section 6.2 of this SWPPP.

6.1.5 Inspection Reports

Results of storm-water and pollution-prevention inspections performed by Operations personnel will be documented on the Moab Site SWPPP Inspection Form 1093 (see Attachment 2). In accordance with the Permit, inspection reports will be completed within 24 hours of completing any site inspection. Each inspection report will include, but is not limited to:

- The inspection date.
- The UPDES Construction General Permit (CGP) tracking number.
- Names and titles (or position) of personnel making the inspection.
- A summary of inspection findings, covering at a minimum the observations made in accordance with Section 6.1.4 of this SWPPP.
- If the inspection is being completed due to a storm event totaling 0.5 in. or more rainfall, include the applicable rain gauge or MET station readings that triggered the inspection.
- If it is unsafe to inspect a portion of the Moab site, describe the reason it is unsafe and specify the locations of the site that cannot be inspected.

Copies of current inspection reports will be kept on site or at an easily accessible location and made available at the time of an on-site inspection or upon request by Technical Oversight personnel or DWQ. Inspection reports will be retained for at least 3 years from the date of final site stabilization and termination of the UPDES Permit.

6.1.6 Inspections by DWQ

In accordance with Part 4.2 of the Permit, the Moab site will allow authorized representatives of DWQ to access the site and conduct the following activities at reasonable times.

- Enter onto areas of the Moab site, including any construction support activity areas covered by the UPDES permit, and onto locations where records are kept for the storm water program.
- Access and copy any records that must be kept under the conditions of the Permit.
- Inspect the construction site, including any construction support activity areas covered by the Permit and any storm-water controls installed and maintained at the Moab site.
- Sample or monitor for the purpose of compliance.
- Take photographs, videos, measurements, or other documentation to ensure or document compliance (with consideration to the permittee for legitimate confidentiality concerns, and for security concerns, including nation security issues).

If a permit violation is found during the site inspection, Operations personnel will complete any corrective action as required by DWQ.

6.2 Corrective Actions

Corrective actions are any actions taken to comply with Part 5.1 of the Utah Construction General Permit as follows:

- Repair, modify, or replace any storm water, sediment, or erosion controls used at the Moab site.
- Clean up and properly disposing spills, releases, or other deposits.
- Remedy a permit violation.

All temporary and permanent storm water, erosion, sediment, and pollution prevention controls will be maintained and repaired as needed to ensure continued performance of their intended functions.

Trapped sediment will be removed and disposed of on site, when the capacity of any sediment control device is reduced by 50 percent (e.g., sediment basins, culverts, rock check dams). Disturbed soil areas resulting from removal of temporary controls or vegetation will be stabilized as soon as possible.

Each erosion or sedimentation problem identified during field inspection, or corrective action taken (including BMP installation, removal, maintenance, or repair), will be reported to the Moab Operations/Site Manager and documented on the Storm Water Controls Corrective Action Log (RAC) Form 1063 (see Attachment 2).

To comply with Part 5.2 of the Permit, corrective actions will be immediately taken and will include taking all reasonable steps to minimize or prevent the discharge of pollutants until a permanent solution for the problem is installed and made operational.

Corrective actions will be tracked to maintain compliance with Part 5.4 of the Permit. Subsequent to each inspection or event that identifies the need for corrective action(s), Operations personnel shall generate a new Form 1063, populating the following fields at a minimum: “Corrective Action Item Number”; “BMP ID” (if available); “Specific Location”; “Description of Deficiency, Spill, or Permit Violation”; “Corrective Action or Maintenance Required”; “Identified by Party”; and “Date Issue Identified”.

The form shall be printed, signed, and dated, and an electronic version maintained. A hardcopy version shall also be maintained in the inspection logbook. Upon completion of all repairs on a given Form 1063, the remaining fields should be populated, including the “Corrective Action Completed by Lead” and “Date Corrective Action Completed” fields. The form shall again be printed, signed, and dated, and both electronic and hardcopy versions shall be filed appropriately.

6.3 SWPPP Modifications

In accordance with the Permit, the Project maintains the current Moab site SWPPP on site in both hard copy and digital format, and it is made readily available to site workers, Storm Water Team members, the Executive Secretary (or authorized representative) of the Utah Water Quality Board, interested members of the public, and local government officials.

The SWPPP, including site maps and forms, is periodically reviewed and will be revised by Technical Oversight personnel if any of the following conditions occur.

- At the request of DOE.
- Issuance of a new Utah Construction General Permit (UPDES Permit No. UTRC00000, expires June 30, 2019).
- Issuance of new NOI.
- Changes to construction plans, storm water, erosion, or sediment control BMPs, pollution-prevention measures, or other activities or controls at the Moab site that are no longer accurately reflected in the SWPPP.
- Changes made in response to corrective actions required by the Utah DWQ due to a Permit violation found during a regulatory inspection.
- To reflect any revisions to applicable federal, state, or local requirements that affect the storm water measures implemented at the Moab site.

Revisions or modifications to the SWPPP will be completed within 7 calendar days following any of the conditions listed above.

Document revisions are summarized in the front matter under Revision History (ii), and records of review are maintained to document changes from each reviewer.

6.4 Training

The Moab UMTRA Project maintains established training programs to help ensure personnel are adequately trained for the work they perform and for emergency preparedness. Personnel who regularly work on the Moab site receive the Project Site Pre-entry Briefing and are trained on the Emergency/Incident Response Plan. Operations personnel who perform storm water and pollution-prevention field inspections of the Moab site will be qualified and certified storm water inspectors, trained to this SWPPP, and to the current Utah CGP. Operations and Technical Oversight personnel involved with the application and storage of chemicals will be properly trained and follow manufacturer instructions.

Operations personnel who perform corrective actions (including installation, maintenance, or repairs) of storm water, erosion, or sediment control BMPs under the direction of Operations Support will complete site-specific training as assigned by their line managers.

Training reports for Moab site Project personnel are maintained in the Training Information System Knowledge database on a central file server.

7.0 Records

All documentation created as a result of compliance with this Plan is considered a Project record and will be managed in accordance with the *Moab UMTRA Project Records Management Manual* (DOE-EM/GJ1545), which follows DOE orders, policies, and regulations for retention and maintenance of records.

Documentation may include (but is not limited to):

- Inspection forms.
- Photographs.
- Corrective action logs.
- General correspondence related to storm water discharges or permitting.

Copies of inspection reports shall be retained for at least 3 years from the date of final site stabilization and termination of the UPDES Permit.

8.0 References

10 CFR 1021 (U.S. Code of Federal Regulations), “National Environmental Policy Act Implementing Procedures.”

40 CFR 112 (U.S. Code of Federal Regulations), “Oil Pollution Prevention.”

40 CFR 130 (U.S. Code of Federal Regulations), “Water Quality Planning and Management.”

40 CFR 192 (U.S. Code of Federal Regulations), “Health and Environmental Protection Standards for Uranium and Thorium Mill Tailings.”

40 CFR 261 (U.S. Code of Federal Regulations), “Identification and Listing of Hazardous Waste.”

40 CFR 273 (U.S. Code of Federal Regulations), “Standards for Universal Waste Management.”

16 USC 470 (United States Code), National Historic Preservation Act.

16 USC 1531 (United States Code), Endangered Species Act.

33 USC 1251 (United States Code), Clean Water Act.

42 USC 7901 (United States Code), Uranium Mill Tailings Radiation Control Act, Congressional findings and purposes.”

DOE (U.S. Department of Energy), *Moab UMTRA Project Climate Change Vulnerabilities and Adaptation Plan* (DOE-EM/GJ2193).

DOE (U.S. Department of Energy), *Moab UMTRA Project Emergency/Incident Response Plan* (DOE-EM/GJ1520).

DOE (U.S. Department of Energy), *Moab UMTRA Project Final Remedial Action Plan and Site Design for Stabilization of Moab Title I Uranium Mill Tailings at the Crescent Junction, Utah, Disposal Site* (DOE-EM/GJ1547).

DOE (U.S. Department of Energy), *Moab UMTRA Project Floodplain and Wetlands Assessment for Additional Interim Actions at the Moab Project Site* (DOE-EM/GJ805-2005).

DOE (U.S. Department of Energy), *Moab UMTRA Project Fugitive Dust Control Plan for the Moab, Utah UMTRA Project Site* (DOE-EM/GJ2072).

DOE (U.S. Department of Energy), *Moab UMTRA Project Radiological Release of Materials and Equipment* (DOE-EM/GJRAC2091).

DOE (U.S. Department of Energy), *Moab UMTRA Project Records Management Manual* (DOE-EM/GJ1545).

DOE (U.S. Department of Energy), *Moab UMTRA Project Remediation of the Moab Uranium Mill Tailings, Grand and San Juan Counties, Utah Final Environmental Impact Statement* (DOE/EIS-0355).

DOE (U.S. Department of Energy), *Moab UMTRA Project Site Revegetation and Weed Control Plan* (DOE-EM/GJTAC1655).

DOE (U.S. Department of Energy), *Moab UMTRA Project Spill Prevention, Control, and Countermeasure Plan* (DOE-EM/GJRAC1477).

DOE (U.S. Department of Energy), *Moab UMTRA Project Tailings Pile Management Plan* (DOE-EM/GJRAC1891).

DOE (U.S. Department of Energy), *Moab UMTRA Project Universal Waste Management Plan* (DOE-EM/GJRAC1920).

DOE (U.S. Department of Energy), *Moab UMTRA Project Waste Management Plan* (DOE-EM/GJ1633).

DOE (U.S. Department of Energy), Order 436.1 “Departmental Sustainability.”

DOE (U.S. Department of Energy), *Record of Decision for the Remediation of the Moab Uranium Mill Tailings, Grand and San Juan Counties, Utah* (6450-01-P).

Floyd D. Spence National Defense Authorization Act for Fiscal Year 2001 (Public Law 106-398).

UAC (Utah Administrative Code) R301-205-8, “Emission Standards: Fugitive Emissions and Fugitive Dust.”

UAC (Utah Administrative Code) 315-16-2, “Standards for Small Quantity Handlers of Universal Waste.”

UAC (Utah Administrative Code) R317-2.7.1, “Water Quality Standards, Application of Standards.”

UAC (Utah Administrative Code) R317-8-3.9, “UPDES Storm Water Discharges.”

United States Department of Agriculture Natural Resources Conservation Service Web Soil Survey Tool Website (<https://websoilsurvey.sc.egov.usda.gov/App/WebSoilSurvey.aspx>)

Utah Automated Geographic Reference Center, Beneficial Uses and Water Quality Assessment Map. <http://mapserv.utah.gov/surfacewaterquality>.

Utah Department of Environmental Quality (UDEQ) Division of Water Quality, “TMDL for Selenium in the Colorado River Watershed,” 2013.

Utah Department of Environmental Quality (UDEQ) Division of Water Quality, “2016 Final Integrated Report.”

Attachment 1.
UPDES General Permit for Discharges from Construction Activities
(UPDES Permit No. UTRC00000)
and
Notice of Intent for Storm Water Discharges Associated with Construction Activity
under the UPDES Permit No. UTR359185

STATE OF UTAH
DEPARTMENT OF ENVIRONMENTAL QUALITY
DIVISION OF WATER QUALITY
Utah Pollutant Discharge Elimination System (UPDES)
General Permit for Discharges from Construction Activities
UPDES Permit No. UTRC00000

This Permit is issued in compliance with the provisions of the Utah Water Quality Act, Title 19, Chapter 5, Utah Code Annotated 2004, as amended (the "Act") and the federal Water Pollution Control Act (33 U.S.c. §§ 1251 et. seq., as amended by the Water Quality Act of 1987, P.L. 100-4), and the rules and Regulations made pursuant to those statutes. This permit authorizes "owners/operators" of construction activities (defined in Part 1.1.1 and Appendix A) that meet the requirements of Part 1. of this Utah Pollutant Discharge Elimination System (UPDES) general permit, to discharge pollutants in accordance with the effluent limitations and conditions set forth herein. Permit coverage is required from the "commencement of earth-disturbing activities" (see Appendix A) until "final stabilization" (see Part 2.2.4).

This permit becomes effective on July1, 2014.

This permit and the authorization to discharge expire at midnight on June 30, 2019.

Signed this 18 day of June, 2014



Walter L. Baker, P.E.
Director

Table of Contents

1. **HOW TO OBTAIN PERMIT COVERAGE UNDER THE UTAH CGP.** 1
1.1. **ELIGIBILITY CONDITIONS REQUIRED OF ALL PROJECTS.**..... 1
1.2. **ELIGIBILITY CONDITIONS THAT APPLY DEPENDING ON TYPE OF PROJECT.** 3
1.3. **TYPES OF DISCHARGES AUTHORIZED UNDER THIS PERMIT.** 4
1.4. **SUBMITTING YOUR NOTICE OF INTENT (NOI) AND PERMIT FEE.** 5
1.5. **REQUIREMENT TO POST A NOTICE OF YOUR PERMIT COVERAGE.** 8
2. **EFFLUENT LIMITATIONS APPLICABLE TO ALL DISCHARGES FROM CONSTRUCTION SITES (including support activities)**..... 9
2.1. **EROSION AND SEDIMENT CONTROL REQUIREMENTS** 9
2.2. **STABILIZATION REQUIREMENTS.** 19
2.3. **POLLUTION PREVENTION REQUIREMENTS**..... 23
3. **WATER QUALITY-BASED EFFLUENT LIMITATIONS.** 29
3.1. **GENERAL EFFLUENT LIMITATION TO MEET APPLICABLE WATER QUALITY STANDARDS.** 29
3.2. **DISCHARGE LIMITATIONS FOR IMPAIRED WATERS.** 29
3.3. **DISCHARGES TO WATERS IDENTIFIED AS CATEGORY 1 or 2.** 30
4. **INSPECTIONS.** 31
4.1. **SITE INSPECTIONS.**..... 31
4.2. **INSPECTIONS BY DWQ OR MS4 OF JURISDICTION.** 35
5. **CORRECTIVE ACTIONS.** 37
5.1. **“CORRECTIVE ACTIONS” DEFINED.**..... 37
5.2. **REQUIREMENTS FOR TAKING CORRECTIVE ACTION.**..... 37
5.3. **CORRECTIVE ACTION REQUIRED BY DWQ.** 37
5.4. **CORRECTIVE ACTION REPORT.** 37
6. **STAFF TRAINING REQUIREMENTS.**..... 39
7. **STORM WATER POLLUTION PREVENTION PLAN (SWPPP).** 40
7.1. **GENERAL REQUIREMENTS.**..... 40
7.2. **SWPPP CONTENTS.**..... 40
7.3. **ON-SITE AVAILABILITY OF YOUR SWPPP.** 47
7.4. **REQUIRED SWPPP MODIFICATIONS.**..... 48
8. **HOW TO TERMINATE COVERAGE.**..... 50
8.1. **MINIMUM INFORMATION REQUIRED IN NOT.**..... 50
8.2. **CONDITIONS FOR TERMINATING PERMIT COVERAGE.**..... 51
8.3. **FINAL INSPECTION ASSOCIATED WITH TERMINATION.** 52
8.4. **HOW TO SUBMIT YOUR NOT.** 52
8.5. **DEADLINE FOR SUBMITTING NOTS.**..... 52
8.6. **EFFECTIVE DATE OF TERMINATION OF COVERAGE.**..... 52

Appendix A – Definitions and Acronyms

Appendix B – Small Construction Waivers and Instructions

Appendix C – List with Information on Utah’s Waters

Appendix D – Buffer Guidance

Appendix E – List of MS4s with Municipal Storm Water Permits

Appendix F – 2 Year, 24 Hour Storm Frequencies in Utah and Average Annual Rainfall in Utah

Appendix G – Standard Permit Conditions

Appendix H – Notice of Intent Form (NOI)

Appendix I. – Notice of Termination (NOT)

Appendix J – Visual Monitoring Form

Appendix K – Erosivity Waiver Form

Appendix L – Example Self-Inspection Form

Appendix M – Notice for New Owner/General Contractor Operations

1. HOW TO OBTAIN PERMIT COVERAGE UNDER THE UTAH CGP.

To be covered under this permit, you must meet the eligibility conditions and follow the requirements for applying for permit coverage in this Part.

Discharges referred to in this permit are discharges that are typical to construction activity, as described in the following section, that outfall to a surface water in the State of Utah. Typical discharges associated with construction activity present a risk of contaminants for soil, sediment, silt, including soil nutrients (phosphorus and possibly nitrogen), and including chemical pollutants (chemicals in the construction process, and/or oils/grease/fuels). The focus of the EPA and DWQ for the most part is risk of pollution to surface waters.

Construction activity that presents risks of fuel and other normal quantities and types of construction chemicals present a risk of pollution of surface and groundwaters.

Construction activity that presents risks of quantities and types of chemicals that are not normal to typical construction activity may need to pursue permit coverage under an individual UPDES permit.

If storm water is contained on the site (coupled with a rational containment plan with calculations to back it up) no permit is necessary because there will be no discharge from the site, excluding those sites that present a risk to groundwater as said above.

1.1. ELIGIBILITY CONDITIONS REQUIRED OF ALL PROJECTS.

Only those parties and projects that meet all of the following eligibility conditions may be covered under this permit:

- 1.1.1. Parties that must sign the NOI are the parties shown below that are involved with construction activity on a construction project.
 - a. Owner: The party that owns/leases the land on which the construction activities occur and has ultimate control over the project and the destiny of a project. The owner has control over construction plans and specifications, including the ability to make modifications at the highest level, to those plans and specifications.
 - b. Operator: The party (usually the general contractor) that has day-to-day operational control of those activities at a project that are necessary to ensure compliance with the permit conditions (e.g., they are authorized to direct workers at a site to carry out activities required by the permit).

Note: In the case of land development there may be sub-projects (such as construction of a house in a residential development) associated with the main project. In the case that the parcel of land for the subordinate project is sold to another owner, it must be covered under a separate permit and cannot be covered under the same permit for the development. If the developer is the owner of the development and owner of houses being built in the development (this would be for a house(s) built for speculation unless the prospective owner of the house has not secured ownership yet), the house building may continue to be covered under the original development permit provided the SWPPP for the main project covers the details concerning the activities of the subordinate project.

Note: *Only one NOI permit application can provide coverage for one area under one owner and one operator. If a development gets to the point where lots are sold and another party(ies) takes over control and ownership on sub-project(s) in the development, a new permit must cover the area for the new owner. The developer's original permit can no longer cover that area and the original owner/developer must submit a partial NOT for the area that is sold.*

- c. **Operators must provide information, coordination, and/or contract obligations** so that all parties involved in the project perform by SWPPP (see Part 7.) and permit requirements.

1.1.2. The Project:

- a. A project covered by this permit will **disturb 1 or more acres of land**, or will disturb less than 1 acre of land but be part of a **common plan** of development or sale that will ultimately disturb 1 or more acres of land; or
- b. **A project's discharges have been designated** by the Executive Secretary as needing a permit under UAC 317-8-3.9(1)(a)5. or UAC 317-8-3.9(6)(e)2.;

1.1.3. A project is **located within the state of Utah**, except for Indian Country (Storm water permits for Indian Country within the State must be acquired through EPA Region VIII, except for facilities on the Navajo Reservation or on the Goshute Reservation which must acquire storm water permits through EPA Region IX);

1.1.4. **Discharges** from a project area **cannot**;

- a. **already have coverage under** the UPDES CGP or an individual storm water permit for construction activity; or

Note: *There can be another UPDES wastewater permit for wastewater generated at the site in a discharge separate from the storm water discharge, and/or other industrial storm water permit coverage for industrial storm water discharged at the site. There cannot be double coverage under this CGP for the same area for construction activity.*

- b. **be in the process of having coverage** under a different UPDES permit for a storm water (from construction activities) discharge denied, terminated, or revoked.^{1,2}

1.1.5. *Endangered Species Act (ESA)*: This permit does not diminish from or alter in any way a permittees responsibility under the ESA. It is the permittees responsibility to comply with the ESA as it pertains to your project's construction activities. There are no requirements in this permit concerning the ESA.

¹ Parts 1.1.4.a. and 1.1.4.b. do not include sites currently covered under UTR100000 or UTR300000, which are in the process of obtaining coverage under this permit, and sites covered under this permit which are transferring coverage to a different operator.

² Notwithstanding a project being made ineligible for coverage under this permit because it falls under the description of Parts 1.1.4.a or 1.1.4.b, above, DWQ may waive the applicable requirement after specific review if it determines that coverage under this permit is appropriate.

1.1.6. *National Historic Preservation Act (NHPA):*

The permit does not diminish from or alter in any way a permittees responsibility under the NHPA. It is the permittees responsibility to comply with the NHPA as it pertains to your project’s construction activities. There are no requirements in this permit concerning the NHPA.

1.2. **ELIGIBILITY CONDITIONS THAT APPLY DEPENDING ON TYPE OF PROJECT.** The following conditions (Parts 1.2.1 through 1.2.4), if applicable, must also be satisfied in order to obtain coverage under this permit.

1.2.1. **Eligibility for Emergency-Related Construction Activities.** If you are conducting earth-disturbing activities in response to a public emergency (e.g., natural disaster, widespread disruption in essential public services), and the related work requires immediate authorization to avoid imminent endangerment to human health, public safety, or the environment, or to reestablish essential public services, your requirements are:

- a. If the emergency related activity is accomplished within 30-days you are waived from the normal requirements to submit an NOI and prepare a SWPPP, but you must submit a report to DWQ within 45-days and show:
 - i. the nature of the emergency work performed,
 - ii. a description of earth disturbances that occurred,
 - iii. the proximity of the work to waters of the US, and what was done (if anything) to protect water quality during the emergency work, and
 - iv. the occurrence of the public emergency must be substantiated.
- b. If the emergency activity continues longer than 30-days you are authorized to discharge on the condition that a complete and accurate NOI is submitted within 30 calendar days after commencing earth-disturbing activities establishing that you are eligible under this permit. You are also required to provide documentation in your SWPPP to substantiate the occurrence of the public emergency (see 7.2.3.).

1.2.2. **Water Quality Standards – Eligibility for New Sources.** If you are a “new source” (as defined in Appendix A), you are not eligible for coverage under this permit for discharges that have the reasonable potential to cause, or contribute to an excursion above any applicable water quality standard. Where such a determination is made, DWQ may notify you that an individual permit application is necessary in accordance with Part 1.4.5. However, your coverage under this permit will be acceptable if you have included appropriate controls and implementation procedures designed to bring your discharge into compliance with water quality standards. In the absence of information demonstrating otherwise, DWQ expects that compliance with the storm water control requirements of this permit, including the requirements applicable to such discharges in Part 3.2, will result in discharges that will not cause, have the reasonable potential to cause, or contribute to an excursion above any applicable water quality standard.

1.2.3. Discharging to Waters with High Water Quality – Eligibility for New Sources.

If you are a “new source” (as defined in Appendix A), you are eligible to discharge to a Category 1 water if your discharge is temporary and limited and where best management practices will be employed to minimize pollution effects, to a Category 2 water only if your discharge will not lower the water quality of the applicable water. In the absence of information demonstrating otherwise, DWQ expects that compliance with the storm water control requirements of this permit, including the requirements applicable to such discharges in Part 3.3.2, will result in discharges that will not lower the water quality of the applicable water. Please refer to Appendix C or look up your receiving waters for water quality information at <http://wq.deq.utah.gov/>.

Note: *Your project will be considered to discharge to a Category 1 or 2 water if the first surface water to which you discharge is identified by the state as a Category 1 or 2 water. For discharges that enter a storm sewer system prior to discharge, the first surface water to which you discharge is the water body that receives the storm water discharge from the storm sewer system.*

1.2.4. Use of Cationic Treatment Chemicals. If you plan to use cationic treatment chemicals (as defined in Appendix A), you are ineligible for coverage under this permit, unless you notify DWQ in advance and DWQ authorizes coverage under this permit (in writing) after you have included appropriate controls and implementation procedures designed to ensure that your use of cationic treatment chemicals will not lead to an impairment of the natural life cycle of any aquatic organism downstream.

1.3. TYPES OF DISCHARGES AUTHORIZED UNDER THIS PERMIT.

The following is a list of discharges that are allowed under this permit provided that appropriate storm water controls are designed, installed, and maintained:

1.3.1. **Storm water discharges**, including storm water runoff, snowmelt runoff, and surface runoff and drainage, associated with construction activity under UAC R317-8-3.9(6)(d)10. or UAC R317-8-3.9(6)(e)1.;

1.3.2. Storm water **discharges designated** by DWQ as needing a permit under UAC R317-8-3.9(1)(a)5 or UAC R317-8-3.9(6)(e)2;

1.3.3. Storm water discharges from **construction support activities** (e.g., concrete or asphalt batch plants, equipment staging yards, material storage areas, excavated material disposal areas, borrow areas) provided:

- a. The support activity is directly related to the construction site required to have permit coverage for storm water discharges;
- b. The support activity does not serve multiple unrelated construction projects;
- c. The support activity does not continue to operate beyond the completion of the construction activity at the project it supports; and
- d. Storm water controls are implemented in accordance with Part 2 and, if applicable, Part 3, for discharges from the support activity areas.

- 1.3.4. **The following non-storm water discharges** from your construction activity **are allowed** under this permit, provided that you comply with all applicable requirements for these discharges in Part 2:
- a. Discharges from emergency fire-fighting activities;
 - b. Fire hydrant flushings;
 - c. Properly managed landscape irrigation;
 - d. Water used to wash vehicles and equipment, provided that there is no discharge of soaps, solvents, or detergents used for such purposes;
 - e. Water used to control dust;
 - f. Potable water including uncontaminated water line flushings;
 - g. Routine external building washdown that does not use detergents, or that have received chemicals to alter pH;
 - h. Pavement wash waters provided spills or leaks of toxic or hazardous materials have not occurred (unless all spill material has been removed) and where detergents (including Biodegradable soy bean oils and Biodegradable detergents) are not used. You are prohibited from directing pavement wash waters directly into any surface water, storm drain inlet, or storm water conveyance;
 - i. Uncontaminated air conditioning or compressor condensate;
 - j. Uncontaminated, non-turbid discharges of ground water (from natural sources) or spring water;
 - k. Foundation or footing drains where flows are not contaminated with process materials such as solvents, contaminated ground water, or sediment from construction activity; and
- 1.3.5. Discharges of storm water listed above in Parts 1.3.1, 1.3.2, and 1.3.3, or authorized non-storm water discharges in Part 1.3.4 above, commingled with a discharge authorized by a different UPDES permit and/or a discharge that does not require UPDES permit authorization.
- a. Construction dewatering must be permitted under UTG070000 (Construction Dewatering and Hydrostatic Test Permit), and the MS4 (of jurisdiction) notified of the discharge. It does not need to be permitted under UTG070000 if the construction dewatering does not leave the site (it is percolated into the ground at some place on the project site),

1.4. SUBMITTING YOUR NOTICE OF INTENT (NOI) AND PERMIT FEE.

Except for permittees with existing permit coverage (permittees with existing coverage from a CGP that was issued earlier and that has now expired just prior to the issuance of

this permit, who are automatically covered under this permit see 1.4.3.), to be covered under this permit, you must submit to DWQ a complete and accurate NOI and the permit fee prior to commencing construction activity. The permit fee is a yearly fee. To remain covered under the permit the permit fee must be submitted again once every year on the yearly anniversary of the submission date of the NOI along with a permit fee until the project is completed.

The NOI certifies to DWQ that you are eligible for coverage according to Part 1.1 and 1.2, and provides information about your construction operation and discharge.

There is one exception to the requirement. It is for an emergency-related project. For this type of project, the NOI must be submitted within 30 calendar days after the commencement of earth disturbing activities (see Part 1.2.1).

In every case a **Storm Water Pollution Prevention Plan (SWPPP)** consistent with Part 7 **must be completed prior to submitting your NOI** for coverage under this permit. Failure to develop a SWPPP and or have a sufficient SWPPP on site can result in fines and or work stoppages.

All NOI applications and project storm water compliance plans must be coordinated with storm water regulated MS4s (municipalities with storm water jurisdiction that are regulated with a municipal storm water permit, see the list of regulated MS4s in Appendix E). MS4s that are regulated under a municipal storm water permit are required to oversee construction activity on disturbances over an acre (or less than an acre if part of a common plan of development that is over an acre) within their jurisdiction. Utah DWQ directly reviews and inspects permittees in all other areas of Utah (except “Indian country”).

- 1.4.1. **How to Submit Your NOI.** NOIs must be entered on DEQ’s electronic NOI and storm water system. This can be done on <https://secure.utah.gov/stormwater>. If you do not have access to the internet or are having continual problems with the use of the NOI (CGP permit application) system, contact the DWQ Office at 801-536-4300, and submit a hard copy of the NOI form which can be found on the DWQ construction storm water web site (<http://www.waterquality.utah.gov/UPDES/stormwatercon.htm> -- see footnote 3 next page). DWQ advises that at some point you create an account for the on-line storm water permit data base so that you can track your permit and have the options to renew and/or terminate your permit (actions that should be done on-line).
- 1.4.2. **Start and End of Permit Coverage and Deadlines.** Except for projects initiated for emergency situations (for which either the NOI requirement is waived or the NOI must be submitted within 30-days after the commencement of soil disturbing activities, see paragraph 1.2.1), the construction storm water permit must be obtained before soil disturbing activities can begin on a construction site. This permit will officially cover construction activity on a project site immediately after the NOI has been successfully entered into the storm water data base,³ and the

³ All storm water NOIs are electronically entered into the SW data base. The vast majority are entered electronically by permittees in the on-line application process. For cases where a permittee is not able to electronically enter an NOI the permittee must submitted a paper form of the NOI to DWQ where it will be entered electronically by DWQ staff.

permit fee is paid. Coverage will remain active contingent on all of the following conditions:

- a. The permittee purposely terminates the permit:
 - i. a notice of termination (NOT) is submitted electronically (preferably) or in paper form to DWQ.
 - ii. where the permitted site is within a regulated MS4 jurisdiction (see Appendix E) the permittee must contact the local MS4 to inform that the project is completed and request a final inspection,

Note: *Termination of the project is not complete without approval through a final inspection.*

- b. the yearly permit fee is kept current and renewed year by year for the period of construction activity,
- c. when this general permit (UTRC00000) expires it is assumed at this point that coverages will automatically transfer to a succeeding permit, but if not the permittee will have to apply for continued coverage under a new or reissued replacement permit,
- d. coverage under the CGP is rescinded or revoked for the project site for administrative reasons for which the permittee will be notified in writing, or
- e. in the case, if or when all storm water discharges for the site are permitted under a different general or individual UPDES permit. For which case this permit is terminated on the day the other permit coverage begins.

1.4.3. **Exception to NOI Deadline for “Existing Permits”.** Existing permits are construction activities with soil disturbances which require coverage under a UPDES construction storm water permit, and which projects had active and legitimate coverage under UTR300000 at the time of expiration of that general permit, or that received coverage before this permit was issued. Existing projects are automatically “covered” under this permit. The same permit tracking number given under UPDES general storm water permit UTR300000 will continue to identify permit coverage for an existing project under this permit. **Existing projects have 6 months** from the issuance date of this permit to update site storm water controls and the site SWPPP to meet requirements in this permit.

1.4.4. **Continuation of Coverage for ‘Existing Permits’ After this Permit Expires.** If this permit is not reissued or replaced by the expiration date of the general permit, it will be administratively extended by the Director and remain in force and effect until issuance of a comparable CGP replacement. Permit coverage will continue under this permit until the earliest of:

- a. authorization of, and an application process, is provided for coverage under a reissued or replacement version of this permit; or
- b. the permittee’s submittal of a Notice of Termination; or

- c. the issuance of an individual permit or denial of coverage (see part 1.4.5 below) for the project's discharges; or
- d. A final permit decision by DWQ not to reissue a general permit, at which time DWQ will identify a reasonable time period for covered dischargers to seek coverage under an alternative general permit or an individual permit. Coverage under this permit will terminate at the end of this time period.

DWQ reserves the right to modify or revoke and reissue this permit under UAC317-8-5.6, in which case you will be notified of any relevant changes or procedures to which you may be subject.

- 1.4.5. **Procedures for Denial of Coverage.** Following your submittal of a complete and accurate NOI, you may be notified in writing by DWQ that you are not covered, and that you must either apply for and/or obtain coverage under an individual UPDES permit or an alternate general UPDES permit. This notification will include a brief statement of the reasons for this decision and will provide application information. Any interested person may request that DWQ consider requiring an individual permit under this paragraph.

If you are already a permittee with coverage under this permit, the notice will set a deadline to file the permit application, and will include a statement that on the effective date of the individual UPDES permit or alternate general UPDES permit, as it applies to you, coverage under this general permit will terminate. DWQ may grant additional time to submit the application if requested. If you are covered under this permit and fail to submit an individual UPDES permit application or an NOI for an alternate general UPDES permit as required by DWQ, then the applicability of this permit to you is terminated at the end of the day specified by DWQ as the deadline for application submittal. DWQ may take appropriate enforcement action for any unpermitted discharge. If you submit a timely permit application, then when an individual UPDES permit is issued to you or you are provided with coverage under an alternate general UPDES permit, your coverage under this permit is terminated on the effective date of the individual permit or date of coverage under the alternate general permit.

- 1.5. **REQUIREMENT TO POST A NOTICE OF YOUR PERMIT COVERAGE.** You must post a sign or other notice conspicuously at a safe, publicly accessible location in close proximity to the project site. At a minimum, the notice must include the UPDES Permit tracking number and an operator contact name (or designee) and phone number and/or email address for obtaining additional UPDES permit, SWPPP, and/or project information. The notice must be located so that it is visible from a public access point that is nearest to the active part of the construction site, and it must use a font large enough to be readily viewed from a public right-of-way. The posted contact number must have a person available for response during business hours. An inquiry made to the posted email address must receive a response within 24-hours week days.

2. **EFFLUENT LIMITATIONS APPLICABLE TO ALL DISCHARGES FROM CONSTRUCTION SITES** (including support activities).

Note: *If your project is an “existing project” (see Part 1.4.3) or if you are a “new owner/operator of an existing project” (see Part 1.4.3), and it is infeasible for you to comply with a specific requirement in this Part because (1) the requirement was not part of the permit you were previously covered under (i.e., the 2003 or 2008 CGP), you are required to document this fact in your SWPPP and are waived from complying with that requirement. This flexibility applies only to the requirements in Parts 2.1, and 2.3.3 through 2.3.5 (except for Parts 2.3.3.a, 2.3.3.b.ii, 2.3.3.c.iii.1), and 2.3.3.d). This only applies to those portions of your site that have already commenced earth-disturbing activities or where storm water controls implemented in compliance with the previous permit have already been installed.*

This section includes the following types of requirements:

- Erosion and Sediment Control Requirements (Part 2.1)
- Stabilization Requirements (Part 2.2)
- Pollution Prevention Requirements (Part 2.3)

2.1. **EROSION AND SEDIMENT CONTROL REQUIREMENTS.**

Erosion and sediment controls must be designed, installed, and maintained to minimize the discharge of pollutants from earth-disturbing activities.

2.1.1. **General Requirements Applicable to All Construction Sites.**

- a. **Area of Disturbance.** You are required to minimize the amount of disturbed and exposed soil during construction activities.
- b. **Design Requirements.**

Note: *Although many aspects of developing a SWPPP do not require a P.E., there are significant portions or items required in the development of a SWPPP that makes it to where many if not all SWPPPs must include a P.E. in its development. It is not required for a P.E. to stamp the entire SWPPP because operators must have the flexibility to modify a SWPPP. There may be facilities in a SWPPP that need to be stamped and would require a review and to be re-stamped by a P.E. again if modifications occur. For the most part SWPPPs should be designed so that operators have the flexibility to make modifications and updates in the field as is necessary so that improvements can be made for the protection of disturbed soils and the quality of storm water runoff if SWPPP plans prove to be ineffective, or if the conditions at the site turn out to be different than expected. A P.E. knows what is not safe without a stamp.*

- i. Storm water controls must be installed to handle what is estimated as normally expected for the area including seasonal considerations. Considerations include storm water run-on and run-off, flow from impervious surfaces, slopes, infiltration potential, and site drainage features.
- ii. For temporary/permanent sediment basins and channelized flows design must consider the following factors for storm water controls.
 - 1) expected frequency, intensity, and duration of precipitation;

- 2) peak flowrates and total storm water volume to minimize downstream channel and streambank erosion in the immediate vicinity of the discharge points; and
 - 3) the range of soil particle sizes expected to be present on the site.
- iii. The permittee must **preserve naturally vegetated areas where possible** and if feasible use these areas to maximize infiltration and to reduce pollutant discharges. The use of velocity dissipation devices may be necessary to prevent erosion.
- c. **Installation Requirements.**
- i. Unless infeasible **storm water controls must be installed before commencing each phase of earth-disturbance** (e.g., buffers or equivalent sediment controls, perimeter controls, exit point controls, storm drain inlet protection) that control discharges from the initial site clearing, grading, and excavating.

Note: *Where it is infeasible to install storm water controls prior to the beginning of earth disturbing activities such controls must be installed immediately following the initial earth disturbance.*

- ii. **All storm water controls must be installed in accordance with good engineering and construction practices and manufacturer's specifications** including applicable design specifications.

Note: *Design specifications may be found in manufacturer specifications and/or in applicable erosion and sediment control manuals or ordinances. Any departures from such specifications must reflect good engineering practice, good construction practices and must be explained in your SWPPP.*

- d. **Maintenance Requirements.**
- i. All erosion and sediment controls required in this Part must remain in effective operating condition during permit coverage and be protected from activities that would reduce their effectiveness.
 - ii. All erosion and sediment controls must be inspected in accordance with the applicable requirements in Part 4.1, For problems discovered during inspections replacement, repairs, or maintenance must be done immediately following the inspection or in a timely manner as identified in the SWPPP. The permittee must maintain all preserved vegetation, erosion and sediment control measures and other protective measures identified in the SWPPP in effective operating condition for all precipitation events, or before if required by DWQ or MS4 oversight inspectors. . If maintenance prior to the next anticipated storm event is impracticable, maintenance must be scheduled and accomplished as soon as practicable.
 - iii. Maintenance needs identified by means other than inspections shall be accomplished before the next anticipated storm event, or as necessary to

maintain the continued effectiveness of storm water controls. A description of procedures to ensure the timely maintenance of these measures shall be identified in the SWPPP.

2.1.2. Erosion and Sediment Control Requirements Applicable to All Sites.

- a. **Natural Buffers or Equivalent Sediment Controls.** (These requirements only apply when a surface water is located within 50 feet of your project's earth disturbances, and in the case of intermittent waters, only to surface waters that have visible water flowing or that typically flow continuously more than two months out of the year).

Note: *Areas that you do not own or that are otherwise outside your operational control may be considered areas of undisturbed natural buffer for purposes of compliance with this part.*

You must ensure that any discharges to surface waters through the area between the disturbed portions of the property and any surface waters located within 50 feet of your site are treated by an area of undisturbed natural buffer and/or additional erosion and sediment controls in order to achieve a reduction in sediment load equivalent to that achieved by a 50-foot natural buffer. Refer to Appendix D (Buffer Guidance) for information to assist you in complying with this requirement, and to Part 2.1.2.a.v. for exceptions to this requirement.

- i. **Compliance Alternatives.** You can comply with this requirement in one of the following ways:
- 1) Provide and maintain a 50-foot undisturbed natural buffer; or

Note: *If your earth disturbances are located 50 feet or further from a surface water, then you have complied with this alternative.*

- 2) Provide and maintain an undisturbed natural buffer that is less than 50 feet that is supplemented by additional erosion and sediment controls, which in combination achieves the sediment load reduction equivalent to a 50-foot undisturbed natural buffer (see Appendix D); or
- 3) If it is infeasible to provide and maintain an undisturbed natural buffer of any size, you must implement erosion and sediment controls that achieve the sediment load reduction equivalent to a 50-foot undisturbed natural buffer (see Appendix D).

Note: *For the compliance alternatives in Parts 2.1.2.a.i.1) and 2.1.2.a.i.2), you are not required to enhance the quality of the vegetation that already exists in the buffer, or provide vegetation if none exists (e.g., arid and semi-arid areas). You only need to retain and protect from disturbance the natural buffer that existed prior to the commencement of construction. Any preexisting structures or impervious surfaces are allowed in the natural buffer provided you retain and protect from disturbance the natural buffer area outside the preexisting disturbance. Similarly, for alternatives 2.1.2.a.i.2) and 2.1.2.a.i.3), you are required to implement and maintain sediment controls that achieve the sediment load reduction equivalent to the undisturbed natural buffer*

that existed on the site prior to the commencement of construction. In determining equivalent sediment load reductions, you may consider naturally non-vegetated areas and prior disturbances. See Appendix D for a discussion of how to determine equivalent reductions.

You must document the compliance alternative you have selected in your SWPPP, and comply with the applicable additional requirements described in Parts 2.1.2.a.ii. below.

The compliance alternative selected above must be maintained throughout the duration of permit coverage, unless you select a different compliance alternative during your period of permit coverage, in which case you must modify your SWPPP to reflect this change.

- ii. **Additional Requirements for the Compliance Alternatives in Parts 2.1.2.a.i.1) and 2.1.2.a.i.2).** If you choose either of the compliance alternatives in Parts 2.1.2.a.i.1) or 2.1.2.a.i.2) above, throughout your period of coverage under this permit, you must comply with the following additional requirements:
 - 1) Where there is a concentrated storm water discharge leaving the site's disturbed area and crossing the natural buffer area (whether the buffer area is a full 50 feet (2.1.2.a.i.1) or less than 50 feet with additional BMPs (2.1.2.a.i.2)), the concentrated flow must have treatment or BMPs to minimize sediment transport, found in the area generating the flow and not just as it crosses the buffer area. Additionally, velocity dissipation devices must be used where erosion is caused by the flow as it crosses the buffer area;
 - 2) Document in your SWPPP the natural buffer width retained on the property, and show the buffer boundary on your site plan; and;
 - 3) Delineate, and clearly mark off, with flags, tape, or other similar marking device all natural buffer areas.
- iii. **Additional Requirements for the Compliance Alternatives in Parts 2.1.2.a.i.2) and 2.1.2.a.i.3).** For compliance alternatives in Parts 2.1.2.a.i.2) and 2.1.2.a.i.3), you must document in your SWPPP the erosion and sediment control(s) you will use to achieve an equivalent sediment reduction, and any information you relied upon to demonstrate the equivalency.
- iv. **Additional Requirement for the Compliance Alternative in Part 2.1.2.a.i.3).** For compliance alternative in Part 2.1.2.a.i.3), you must also include in your SWPPP a description of why it is infeasible for you to provide and maintain an undisturbed natural buffer of any size.
- v. **Exceptions.**
 - 1) If there is no discharge of storm water to surface waters through the area between your site and any surface waters located within 50 feet of your site, you are not required to comply with the requirements in this Part.

This includes situations where you have implemented control measures such as a berm or other barrier that will prevent such discharges.

- 2) Where no natural buffer exists due to preexisting development disturbances (e.g., structures, impervious surfaces) that occurred prior to the initiation of planning for the current development of the site, you are not required to comply with the requirements in this Part, unless you will remove portions of the preexisting development.

Where some natural buffer exists but portions of the area within 50 feet of the surface water are occupied by preexisting development disturbances, you are required to comply with the requirements in this Part. For the purposes of calculating the sediment load reduction for either Part 2.1.2.a.i.2) or 2.1.2.a.i.3) above, you are not expected to compensate for the reduction in buffer function from the area covered by these preexisting disturbances. See Appendix D for further information about compliance alternatives in Part 2.1.2.a.i.2) or 2.1.2.a.i.3) above.

If during your project, you will disturb any portion of these preexisting disturbances, the area disturbed will be deducted from the area treated as natural buffer.

- 3) For “linear construction projects” (see Appendix A for a definition), you are not required to comply with the requirements in this Part if site constraints (e.g., limited right-of-way) prevent you from meeting any of the compliance alternatives in Part 2.1.2.a.i, provided that, to the extent practicable, you limit disturbances within 50 feet of the surface water and/or you provide supplemental erosion and sediment controls to treat storm water discharges from earth disturbances within 50 feet of the surface water. You must also document in your SWPPP your rationale as to why it is infeasible for you to comply with the requirements in Part 2.1.2.a.i, and describe any buffer width retained and/or supplemental erosion and sediment controls installed.
- 4) For “small residential lot” construction (i.e., a lot being developed for residential purposes that will disturb less than 1 acre of land, but is part of a common plan of development or sale that will ultimately disturb greater than or equal to 1 acre), you have the option of complying with the requirements in Appendix D, Part D.2.3.
- 5) The following disturbances within 50 feet of a surface water are exempt from the requirements in this Part:
 - Construction approved under a CWA Section 404 permit; or
 - Construction of a water-dependent structure or water access area (e.g., pier, boat ramp, trail).

You must document in your SWPPP if any of the above disturbances will occur within the buffer area on your site.

b. Perimeter Controls.

- i. **Installation Requirements:** You must install sediment controls along those perimeter areas of your site that will receive storm water from areas where earth disturbing activities are occurring⁴ **For linear projects** with rights-of-way that restrict or prevent the use of such perimeter controls, you must maximize the use of these controls where practicable and document in your SWPPP why it is impracticable in other areas of the project.
 - ii. **Maintenance Requirements:** You must remove sediment before it has accumulated to the point where storm water controls becomes ineffective. Often that is one-half of the above-ground height of any perimeter control. The permittee must follow maintenance specifications for the BMP used.
- c. **Sediment Track-Out.** You must minimize the track-out of sediment onto off-site streets, other paved areas, and sidewalks from vehicles exiting your construction site. To comply with this requirement, you must:
- i. Restrict vehicle use to properly designated exit points;
 - ii. Use appropriate stabilization techniques⁵ at all points that exit onto paved roads so that sediment removal occurs prior to vehicle exit;
 - iii. Where necessary, use additional controls⁶ to remove sediment from vehicle tires prior to exit; and
 - iv. Where sediment has been tracked-out from your site onto the surface of off-site streets, other paved areas, and sidewalks, you must remove deposited sediment before it accumulates significantly and is tracked beyond the immediate vicinity of the project (that may be several times a day or once a week, whatever is required to control off site tracking). You must remove the track-out by sweeping, shoveling, or vacuuming these surfaces, or by using other similarly effective means of sediment removal. You are prohibited from hosing or sweeping tracked out sediment into any storm water conveyance, storm drain inlet, or surface water.

Note: *DWQ recognizes that some fine grains may remain visible on the surfaces of off-site streets, other paved areas, and sidewalks even after you have implemented sediment removal practices. Such “staining” is not a violation of Part 2.1.2.c.*

- d. **Control Discharges from Stockpiled Sediment or Soil.** For any stockpiles or land clearing debris composed, in whole or in part, of sediment or soil

⁴ Examples of perimeter controls include, but are not limited to, natural buffer zones (on the site or off); vegetative filter strips; silt fences; filter berms such as staked or weighted straw wattles, other wattles (sand, gravel, or those that are of a proprietary design); and temporary diversion dikes.

⁵ Examples of appropriate stabilization techniques include the use of aggregate stone with an underlying geotextile or non-woven filter fabric, or turf mats.

⁶ Examples of additional controls to remove sediment from vehicle tires include, but are not limited to, wheel washing, rumble strips, and rattle plates.

Note: *For the purposes of this permit, sediment or soil stockpiles are defined as the storage for multiple days of soil or other sediment material to be used in the construction project. If a sediment or soil pile is used within a short period of time (e.g., a day or three days especially during dry days), it does not fall under the requirements of this part.*

You must comply with the following requirements:

- i. Stockpiles must be located outside of any natural buffers established under Part 2.1.2.a.i and physically separated from other storm water controls (such as perimeter controls or inlet protection) implemented in accordance with Part 2.1, but must be contained within the BMP protected area of the site;
- ii. Protect from contact with storm water (including run-on) using a temporary perimeter sediment barrier;⁷
- iii. Where practicable, provide cover or appropriate temporary stabilization to avoid direct contact with precipitation or to minimize sediment discharge;

Note: *For 2.1.2.d.iii. the objective is to minimize sediment discharge, the best BMP is to cover the pile; the second best BMP is to stabilize the surface of the pile, the third best is to set filter berms, silt fence, or equivalent around the bottom of the pile, maybe there should be 2 of the 3 suggested BMPs applied. The degree of effort must be commensurate to the risk of sediment loss that could affect water quality.*

- iv. Do not hose down or sweep soil or sediment accumulated on pavement or other impervious surfaces into any storm water conveyance, storm drain inlet, or surface water; and
 - v. Where practicable, contain and securely protect from wind.
- e. **Minimize Dust.** In order to avoid pollutants from being discharged into surface waters you must minimize the generation of dust through the appropriate application of water or other dust suppression techniques (as required in your air quality permit for those that are required to have air quality permits).
- i. **Minimize the Disturbance of Steep Slopes.** You must minimize the disturbance of “steep slopes” (see definition in Appendix A).

Note: *The permit does not prevent or prohibit disturbance on steep slopes. For some projects, disturbance on steep slopes may be necessary for construction (e.g., a road cut in mountainous terrain). If a disturbance to steep slopes is required for the project, DWQ would recognize that it is not economically achievable to avoid the disturbance to steep slopes. However, in cases where steep slope disturbances are required, minimizing the disturbances to steep slopes consistent with this requirement can be accomplished through the implementation of a number of standard erosion and sediment control practices, such as by phasing disturbances to these areas and using stabilization practices designed to be used on steep grades.*

- f. **Preserve Topsoil.** You must preserve native topsoil on your site, unless infeasible. Preserving topsoil is not required where the intended function of a

⁷Examples include berms, dikes, fiber rolls, silt fences, sandbag, gravel bags, or straw bale.

specific area of the site dictates that the topsoil be removed, and/or that the finished surface will be stabilized by a means other than re-vegetation.

Note: *Some projects may be designed to be highly impervious after construction, and therefore little or no vegetation is intended to remain. In these cases, preserving topsoil at the site would not be feasible. Some sites may not have space to stockpile topsoil on site for later use, in which case, it may also not be feasible to preserve topsoil.*

Note: *Stockpiling of topsoil at off-site locations, or transfer of topsoil to other locations, is an example of a practice that is consistent with the requirements in this Part.*

- g. **Minimize Soil Compaction.** In areas of your site where final vegetative stabilization will occur or where infiltration practices will be installed, you must either (minimizing soil compaction is not required where the intended function of the specific area of the site dictates that it be compacted):
 - i. **Restrict vehicle / equipment use.** Restrict vehicle and equipment use in these locations to avoid soil compaction (except for equipment used for seeding or cat tracking); or
 - ii. **Use soil conditioning techniques.** Prior to seeding or planting areas of exposed soil that have been compacted, use techniques that loosen or condition the soils to support vegetative growth, if necessary and feasible.
- h. **Protect Storm Drain Inlets.** If you discharge to any storm drain inlet that carries storm water flow from disturbed areas of your site directly to a surface water, and you have authority to access the storm drain inlet, you must:
 - i. **Installation Requirements.** Install inlet protection measures⁸ that remove sediment from your discharge prior to entry into the storm drain inlet.
 - ii. **Maintenance Requirements.** Clean, or remove and replace, storm water protection measures as sediment accumulates, the filter becomes clogged, and/or performance is compromised. Inlet protection measures should be maintained in effective working conditions at all times, but particular attention must be given to prepare inlets for a forecasted precipitation event.
 - i. **Areas of High Altitude/Heavy Snow Conditions.** You must attempt to prepare for the heavy snows by deploying storm water controls prior to the first heavy snow, and have appropriate storm water control measures designed to handle snow melt before heavy snows occur. Dates when snow is expected should be noted in the SWPPP and updated as construction commences into the snow season. Stabilization measures should be deployed at the same time (see Section 2.2.1.c.).

Note: *Inlet protection measures can be removed in the event of flood conditions or to prevent erosion.*

⁸ Examples of inlet protection measures include fabric filters, sandbags, gravel with filter fabric and concrete block barriers, weighted fiber rolls, wattles of filter fabric filled with sand/gravel, and proprietary devices designed for inlet protection.

2.1.3. **Requirements Applicable Only to Sites Using These Specific Storm Water Controls.** You are required to comply with the following requirements if you will install any of the following storm water controls at your site:

- a. **Constructed Storm Water Conveyance Channels.** Design storm water conveyance channels to avoid unstabilized areas on the site and to reduce erosion, unless infeasible. Minimize erosion of channels and their embankments, outlets, adjacent streambanks, slopes, and downstream waters during discharge conditions through the use of erosion controls and velocity dissipation devices⁹ within and along the length of any constructed storm water conveyance channel, and at any outlet to provide a non-erosive flow velocity.
- b. **Sediment Basins.** If you install a sediment basin, you must comply with the following:
 - i. **Design requirements:**
 - 1) Provide storage for either (1) the calculated volume of runoff from a 2-year, 24-hour storm (see Appendix F), or (2) 3,600 cubic feet per acre drained;
 - 2) When discharging from the sediment basin, utilize outlet structures that withdraw water from the surface in order to minimize the discharge of sediment and floatable pollutants, unless infeasible; (taking water from the top is warmer, so in a case where you have a TMDL or water sensitive to temperature it would be better to take it from the middle)

Note: *DWQ believes that the circumstances in which it is infeasible to design outlet structures in this manner are rare. Exceptions may include areas with extended cold weather, where surface outlets may not be feasible during certain time periods (although it is expected that they would be used during other periods). If you have determined that it is infeasible to meet this requirement, you must provide documentation in your SWPPP to support your determination.*

- 3) Prevent erosion of (1) the sediment basin using stabilization controls (e.g., erosion control blankets), and (2) the inlet and outlet using erosion controls and velocity dissipation devices; and
 - 4) Sediment basins must be situated outside of surface waters and any natural buffers established under Part 2.1.2.a.i, and must be designed to avoid collecting water from wetlands.
 - ii. **Maintenance requirements.** Keep basins in effective operating condition and remove accumulated sediment when the basin reaches ½ of the design capacity of the sediment basin.

⁹Examples of velocity dissipation devices include check dams, sediment traps, riprap, or grouted riprap at outlets. Although piped slope drains and geotextile reinforced channels do not control velocity they prevent erosion on slopes.

- c. **Use of Treatment Chemicals.** If you plan to use cationic polymers and/or flocculants you must have an approval letter from DWQ. Otherwise you must comply with the following minimum requirements:
- i. **Use conventional erosion and sediment controls prior to and after the application of treatment chemicals.** Use conventional erosion and sediment controls prior to chemical addition to ensure effective treatment. Chemicals may only be applied where treated storm water is directed to a sediment control (e.g., sediment basin, perimeter control) prior to discharge.
 - ii. **Select appropriate treatment chemicals.** Chemicals must be selected that are appropriately suited to the types of soils likely to be exposed during construction and discharged to locations where chemicals will be applied, and to the expected turbidity, pH, and flow rate of storm water flowing into the chemical treatment system or area. If you cannot ensure the appropriate dosage, DWQ will not approve the chemical use.
 - iii. **Minimize discharge risk from stored chemicals.** Store all treatment chemicals in leak-proof containers that are kept under storm-resistant cover and surrounded by secondary containment structures (e.g., spill berms, decks, spill containment pallets), or provide equivalent measures, designed and maintained to minimize the potential discharge of treatment chemicals in storm water or by any other means (e.g., storing chemicals in covered area or having a spill kit available on site).
 - iv. **Comply with local requirements.** Comply with relevant local requirements affecting the use of treatment chemicals.
 - v. **Use chemicals in accordance with good engineering practices and specifications of the chemical provider/supplier.** You must also use treatment chemicals and chemical treatment systems in accordance with good engineering practices, and with dosing specifications and sediment removal design specifications provided by the provider/supplier of the applicable chemicals, or document specific departures from these practices or specifications and how they reflect good engineering practice.
 - vi. **Ensure proper training.** Ensure that all persons who handle and use treatment chemicals at the construction site are provided with appropriate, product-specific training. Among other things, the training must cover proper dosing requirements.
 - vii. **Comply with additional requirements for the approved use of cationic chemicals.** If you have been authorized to use cationic chemicals at your site pursuant to Part 1.2.4, and the authorization is conditioned on your compliance with additional requirements necessary to ensure that the use of such chemicals will not impair the life cycle of aquatic organisms downstream.
 - viii. **Provide proper SWPPP documentation.** You must include documentation in your SWPPP consistent with Parts 7.2.5.h. and 7.2.9.b. on the specific

chemicals and chemical treatment systems you will use, and how you will comply with the requirements in this Part.

- d. **Dewatering Practices.** You are prohibited from discharging ground water (or any water, even storm water, see note), that is extracted from excavations, trenches, foundations, vaults, or other similar points of accumulation, unless such waters are covered by the Utah UPDES permit for Construction Dewatering/Hydrostatic Testing. No additional permit is required if the water extracted is allowed to percolate back into the ground or that is otherwise managed where it does not have a surface discharge from the site.

Note: *Water that is present at construction sites, whether it is ground water, storm water, or from where ever, if it is heavily soiled from contact with construction activity it must be covered under the Construction Dewatering/Hydrostatic Testing permit with a total suspended solids limit if it is to be discharged.*

2.2. STABILIZATION REQUIREMENTS.

You are required to stabilize exposed portions of your site for all areas with an annual precipitation of over 20 inches in accordance with the requirements of this Part. This Part also includes stabilization and/or other requirements for areas with 20 inches of rainfall per year or less.

Note: *For the purposes of this permit, “exposed portions of your site” means areas of exposed soil that are required to be stabilized. Note that DWQ does not expect that temporary or permanent stabilization measures be applied to areas that are intended to be left unvegetated or unstabilized following construction (e.g., dirt access roads, utility pole pads, areas being used for storage of vehicles, equipment, or materials). However, areas constructed for these kinds of uses should have a finished surface conditioned with placement of a sufficient layer of soil similar to road base (or another kind of structural type soil/gravel layer that is resistant to erosion), and no top soil or organic material, and with compaction (unless gravel is used) to minimize the potential for erosion.*

2.2.1. Deadlines for Initiating and Completing Stabilization for areas receiving an annual precipitation of more than 20 inches a year.

- a. **Deadline to Initiate Stabilization.** You must initiate soil stabilization measures within 14 days of whenever earth-disturbing activities have permanently or temporarily ceased on any portion of the site.

Note: *Earth-disturbing activities have permanently ceased when clearing and excavation within any area of your construction site that will not include permanent structures has been completed.*

Note: *For the purposes of this permit, DWQ will consider any of the following types of activities to constitute the initiation of stabilization:*

1. *prepping the soil for vegetative or non-vegetative stabilization;*
2. *applying mulch or other non-vegetative product to the exposed area;*
3. *seeding or planting the exposed area;*
4. *starting any of the activities in # 1 to # 3 on a portion of the area to be stabilized, but not on the entire area; and*
5. *finalizing arrangements to have a stabilization product fully installed in compliance with the applicable deadline for completing stabilization in Parts*

2.2.1.b.ii. *This list of examples is not exhaustive.*

- b. **Deadline to Complete Stabilization Activities.** Within 14 calendar days after the initiation of soil stabilization measures consistent with Part 2.2.1.a¹⁰, you are required to have completed:
 - i. For vegetative stabilization, all activities¹¹ necessary to initially seed or plant the area to be stabilized; and/or
 - ii. For non-vegetative stabilization, the installation or application of all such non-vegetative measures.

Note: *During the days (14 days before initiating the process of stabilization) that the permittee has to determine if a section of the project must be temporarily or permanently stabilized, there must be perimeter controls around the area to prevent sediment transport off the site until surface stabilization is in place.*

- c. **Stabilization Requirements for High Altitudes and Areas Receiving Heavy Snow.** You must attempt to prepare for the heavy snows by deploying stabilization measures on all disturbed areas prior to the first heavy snow, and have appropriate stabilization measures designed to handle snow melt before heavy snows occur. Dates when snow is expected should be noted in the SWPPP and updated as construction commences into the snow season. Stabilization measures should be deployed at the same time as other runoff controls in anticipation of snow (see Section 2.1.2.i.).

2.2.2. **Stabilization and/or other requirements for areas receiving an annual precipitation of 20 inches of rainfall a year or less (arid and semi-arid areas), drought areas, and areas with seasonally dry periods.**

- a. Within 14 calendar days of a temporary or permanent cessation of work in any portion of your site you must initiate installation of one of the following or equivalent. The intensity of the application must be commensurate with the conditions at the site (e.g. soil type, steepness of slopes, weather patterns and seasons, proximity to water body.). The goal is to arrest all sediment transport to within the boundaries of the site up to storms with intensities of ½ inch/hour or greater. The permittee must explain the strategy for stabilization in the SWPPP, and times when higher or lower intense BMPs will be placed and why:
 - i. Preparation for seeding and seeding or planting (which should be during a wetter season or with irrigation),

Note: *It would be good in arid and semi-arid areas to plan the installation of any irrigation system early in construction sequence so that seeding and planting efforts will be effective.*

¹⁰ DWQ may determine, based on an inspection carried out under Part 4.2 and corrective actions required under Part 5.3, that the level of sediment discharge on the site makes it necessary to require a faster schedule for completing stabilization. For instance, if sediment discharges from an area of exposed soil that is required to be stabilized are compromising the performance of existing storm water controls, DWQ may require stabilization to correct this problem.

¹¹ For example, such activities might include, but are not limited to, soil conditioning, application of seed or sod, planting of seedlings or other vegetation, application of fertilizer, and, as deemed appropriate, watering.

Note: *The lists found in 2.2.2.a.ii, iii, iv, and v. is a guideline. It is not necessary to deploy exactly as prescribed, but whatever is deployed must be effective at minimizing erosion and sediment transport from the site.*

- ii. For steeper slopes – geotextile blankets staked as necessary with or without seeding (possibly with mulch under the blanket), fiber rolls staked on the contours every 10 ‘ (or less) apart with mulch applied to the surface between,
 - iii. Shallower slopes (15% or less):
 - 1) Cat tracking over straw mulch (moist),
 - 2) surface roughening in loose soil or cat tracking (depending on soil, mulch may have to be applied) with fiber rolls staked not more than 15 feet apart on the contours, on very shallow slopes and less distance apart for steeper slopes, (add mulch on steep end),
 - 3) mulch, hydromulch, possibly with seed, with tackifier if needed,
 - iv. Flat areas:
 - 1) At minimum, loosened soil, surface roughening with larger depression areas (surface roughening should provide many small depressions to collect storm water) to collect storm water, and with peripheral controls. The surface must be reworked if the soil becomes hardened or compacted.
 - v. Storm water conveyances:
 - 1) piped slope drains, check dams, rip-rap, geotextile channel protection, or other velocity control and channel protection for all storm water conveyance must be deployed on a slope .
- b. Within 14 calendar days after the initiation of seeding/ planting, or for application of control measure to initiate surface stabilization on inactive areas of the site, you must complete all activities necessary to initially seed/ plant, stabilize, or control the area to protect from sediment transport¹².

2.2.3. Deadlines for sites discharging to sensitive waters. For any portion of the site that discharges to a sediment or nutrient-impaired water (see Part 3.2) or to a water that is identified as Category 1 or 2 for antidegradation purposes (see Part 3.3), you are required to complete the stabilization activities specified in Parts 2.2.1. and/or 2.2.2.

¹² Seed germination in the arid and semi-arid areas of Utah generally occurs in spring. Germination can occur in early fall if a wet season (if the “monsoons” come – a weather pattern that brings moist air from the southwest late summer into fall). Late fall is a good time to plant for spring germination. Germination timing is dictated by altitude, latitude, and often by dryer or wetter weather patterns. The application of seed qualifies as stabilization, however to be effective, seeding (hence stabilization) should be delayed until the spring or fall, or where irrigation can be provided.

within 7 calendar days after the temporary or permanent cessation of earth-disturbing activities.

- 2.2.4. **Criteria for Stabilization.** To be considered adequately stabilized, you must meet the criteria below depending on the type of cover you are using, either vegetative or non-vegetative.

Note: *Stabilization requirements are more difficult the more arid the area. Re-vegetation from seed in arid areas can take more than 3 years to fully develop. This permit allows termination in arid areas even if final stabilization as defined in Appendix A is not met. The terms to do this are spelled out in 2.2.4.a.ii.*

a. **Vegetative Stabilization.**

Note: *Vegetative stabilization measures for all areas, but especially in arid and semi-arid areas, is very important. Practices such as preservation of topsoil, and the use of compatible indigenous fill/borrow material pays off. Good vegetative management such as preserving existing vegetation, protecting natural buffers, and minimizing grading will prove valuable when attempting to stabilize and terminate the site and it will leave a better product.*

- i. For all sites, except those located in arid and semi-arid areas (areas with 20 inches or less of precipitation) or on agricultural lands.
 - 1) If you are vegetatively stabilizing any exposed portion of your site through the use of seed or planted vegetation, you must provide established uniform vegetation (e.g., evenly distributed without large bare areas), which provides 70 percent or more of the vegetative cover that was provided by vegetation prior to commencing earth-disturbing activities. You should avoid the use of invasive species;
 - 2) For final stabilization, vegetative cover must be perennial; and
 - 3) Immediately after seeding or planting the area to be vegetatively stabilized, to the extent necessary to prevent erosion on the seeded or planted area, you must select, design, and install non-vegetative erosion controls that provide cover (e.g., mulch, rolled erosion control products) to the area while vegetation is becoming established. Surface roughening or cat tracking perpendicular to the slope may also be used as a non-vegetative measure that can be used with seeding, but must be monitored because it may be susceptible to erosion during heavier storm events.
- ii. For sites located in arid and semi-arid areas (20 inches of precipitation or less), or drought-stricken areas, as these terms are defined in Appendix A, you are considered to have completed final stabilization if both of the following criteria are met:
 - 1) You must attempt to reestablish a vegetative cover using topsoil (topsoil preserved from the site and/or with additional (preferably local) topsoil from offsite), mulch, fertilizer, and/or other methods with seeding and planting to establish a perennial vegetative cover (preferably of an

indigenous seed mix) equivalent to the natural background cover, by design, so that permanent stabilization is expected occur by 3 to 3 and a half years after the project is completed with average precipitation; and

- 2) In addition to seeding or planting the area to be vegetatively stabilized, you must have non-vegetative erosion controls designed and installed either for permanent placement or temporary placement (of which degradation and decomposition is expected to be complete leaving no litter) that provide cover or BMP controls that are selected and designed purposely for protecting the seed and surface from erosion as much as is possible without active maintenance until the natural stabilizing effect of vegetation is established.
 - iii. For sites located on land used for agriculture. Disturbed areas on land used for agricultural purposes (e.g., pipelines across crop or range land, staging areas for highway construction) that are restored to their preconstruction agricultural use are not subject to these final stabilization criteria. Areas disturbed that were not previously used for agricultural activities, and areas that are not being returned to preconstruction agricultural use, must meet the conditions for stabilization in this Part.
- b. **Non-Vegetative Stabilization.** If you are using non-vegetative controls to stabilize exposed portions of your site, or if you are using such controls to temporarily protect areas that are being vegetatively stabilized, you must provide effective non-vegetative cover¹³ to stabilize any such exposed portions of your site.

2.3. POLLUTION PREVENTION REQUIREMENTS.

You are required to design, install, and maintain effective pollution prevention measures in order to prevent the discharge of pollutants. Consistent with this requirement, you must:

- Eliminate certain pollutant discharges from your site (see Part 2.3.1);
- Properly maintain all pollution prevention controls (see Part 2.3.2); and
- Comply with pollution prevention standards for pollutant-generating activities that occur at your site (see Part 2.3.3).

These requirements apply to all areas of your construction site and any and all support activities covered by this permit consistent with Part 1.3.3.

2.3.1. **Prohibited Discharges.** You are prohibited from discharging the following from your construction site (this list is not a comprehensive list of prohibited discharges but are listed to clarify that although they are common practices on construction sites they are unacceptable to have in a discharge):

- a. Wastewater from washout of concrete, (see Part 2.3.2.d);

¹³ For temporary stabilization, examples of temporary non-vegetative stabilization methods include, but are not limited to, hydromulch, straw mulch that is crimped in by cat-tracking or netted and staked, and erosion control blankets. For final stabilization, examples of permanent nonvegetative stabilization methods include, but are not limited to, riprap, gravel, gabions, and geotextiles.

- b. Wastewater from washout and cleanout of stucco, paint, form release oils, curing compounds and other construction materials, (see Part 2.3.1.d);
- c. Fuels, oils, or other pollutants used in vehicle and equipment operation and maintenance;
- d. Soaps, solvents, or detergents used in vehicle and equipment washing; and
- e. Toxic or hazardous substances from a spill or other release.

2.3.2. General Maintenance Requirements.

- a. You must ensure that all pollution prevention controls installed in accordance with this Part remain in effective operating condition and are protected from activities that would reduce their effectiveness. You must inspect all pollutant-generating activities and pollution prevention controls in accordance with your inspection frequency requirements in Parts 4.1.2 or 3.2.2.a. to avoid situations that may result in leaks, spills, and other releases of pollutants in storm water discharges to receiving waters, and must document your findings in accordance with Part 4.1.7. If you find that controls need to be replaced, repaired, or maintained, you must make the necessary repairs or modifications in accordance with the following:
 - i. Initiate work to fix the problem immediately after discovering the problem, and complete such work by the close of the next work day, if the problem does not require significant repair or replacement, or if the problem can be corrected through routine maintenance.
 - ii. When installation of a new pollution prevention control or a significant repair is needed, you must install the new or modified control and make it operational, or complete the repair, by no later than 7 calendar days from the time of discovery, or as directed by the DWQ, MS4, or EPA oversight inspector. If it is infeasible to complete the installation or repair within 7 calendar days, you must document in your records why it is infeasible to complete the installation or repair within the 7 calendar day timeframe and document your schedule for installing the storm water control(s) and making it operational as soon as practicable after the 7 calendar day timeframe. Where these actions result in changes to any of the pollution prevention controls or procedures documented in your SWPPP, you must modify your SWPPP accordingly within 7 calendar days of completing this work.

2.3.3. Pollution Prevention Standards. You are required to comply with the pollution prevention standards in this Part if you conduct any of the following activities at your site or at any construction support activity areas covered by this permit (see Part 1.3.3):

- Fueling and maintenance of equipment or vehicles;
- Washing of equipment and vehicles;
- Storage, handling, and disposal of construction materials, products, and wastes; and
- Washing of applicators and containers used for paint, concrete, or other materials.

The pollution prevention standards are as follows:

- a. **Fueling and Maintenance of Equipment or Vehicles.** If you conduct fueling and/or maintenance of equipment or vehicles at your site, you must provide an effective means of eliminating the discharge of spilled or leaked chemicals, including fuel, from the area where these activities will take place.¹⁴

To **comply** with the prohibition in Part 2.3.1.c, you must:

- i. If applicable, comply with the Spill Prevention Control and Countermeasures (SPCC) requirements in 40 CFR 112 and Section 311 of the CWA.
 - ii. Ensure adequate supplies are available at all times to handle spills, leaks, and disposal of used liquids;
 - iii. Use drip pans and absorbents under or around leaky vehicles;
 - iv. Dispose of or recycle oil and oily wastes in accordance with other federal, state, tribal, or local requirements;
 - v. Clean up spills or contaminated surfaces immediately, using dry clean up measures where possible, and eliminate the source of the spill to prevent a discharge or a furtherance of an ongoing discharge; and
 - vi. Do not clean surfaces by hosing the area down.
- b. **Washing of Equipment and Vehicles.**
- i. You must provide an effective means of minimizing the discharge of pollutants from equipment and vehicle washing, wheel wash water, and other types of washing;¹⁵ and
 - ii. To comply with the prohibition in Part 2.3.1.d, for storage of soaps, detergents, or solvents, you must provide either (1) cover (e.g., plastic sheeting or temporary roofs) to prevent these detergents from coming into contact with rainwater, or (2) a similarly effective means designed to prevent the discharge of pollutants from these areas (such as tightly closed containers).
- c. **Storage, Handling, and Disposal of Construction Products, Materials, and Wastes.** You must minimize the exposure to storm water of any of the products,

¹⁴Examples of effective controls include, but are not limited to, locating activities away from surface waters and storm water inlets or conveyances, providing secondary containment (e.g., spill berms, decks, spill containment pallets) and cover where appropriate, and/or having spill kits readily available.

¹⁵ Examples of effective controls include, but are not limited to, locating activities away from surface waters and storm water inlets or conveyances and directing wash waters to a sediment basin or sediment trap, using filtration devices, such as filter bags or sand filters, or using other similarly effective controls.

materials, or wastes specified below that are present at your site by complying with the requirements in this Part.

Note: *These requirements do not apply to those products, materials, or wastes that are not a source of storm water contamination or that are designed to be exposed to storm water.*

To ensure you **meet** this requirement, you must:

- i. For building products¹⁶: In storage areas, provide either (1) cover (e.g., plastic sheeting or temporary roofs) to prevent these products from coming into contact with rainwater, or (2) a similarly effective means designed to prevent the discharge of pollutants from these areas.
- ii. For pesticides, herbicides, insecticides, fertilizers, and landscape materials:
 - 1) In storage areas, provide either (1) cover (e.g., plastic sheeting or temporary roofs) to prevent these chemicals from coming into contact with rainwater, or (2) a similarly effective means designed to prevent the discharge of pollutants from these areas; and
 - 2) Comply with all application and disposal requirements included on the registered pesticide, herbicide, insecticide, and fertilizer label.
- iii. For diesel fuel, oil, hydraulic fluids, other petroleum products, and other chemicals:
 - 1) To comply with the prohibition in Part 2.3.1.c, store chemicals in water-tight containers, and provide either (1) cover (e.g., plastic sheeting or temporary roofs) to prevent these containers from coming into contact with rainwater, or (2) a similarly effective means designed to prevent the discharge of pollutants from these areas (e.g., spill kits), or provide secondary containment (e.g., spill berms, decks, spill containment pallets); and
 - 2) Clean up spills immediately, using dry clean-up methods where possible, and dispose of used materials properly. Do not clean surfaces or spills by hosing the area down. Eliminate the source of the spill to prevent a discharge or a continuation of an ongoing discharge.
- iv. For hazardous or toxic waste¹⁷:
 - 1) Separate hazardous or toxic waste from construction and domestic waste;
 - 2) Store waste in sealed containers, which are constructed of suitable materials to prevent leakage and corrosion, and which are labeled in

¹⁶ Some examples of building products that are typically stored at construction sites include, but are not limited to, asphalt sealants, copper flashing, roofing materials, adhesives, concrete admixtures.

¹⁷ Examples of hazardous or toxic waste that may be present at construction sites include, but are not limited to, paints, solvents, waste paints or solvents, petroleum-based products, wood preservatives, additives, curing compounds, acids.

- accordance with applicable Resource Conservation and Recovery Act (RCRA) requirements and all other applicable state, or local requirements;
- 3) Store all containers that will be stored outside within appropriately sized secondary containment (e.g., spill berms, decks, spill containment pallets) to prevent spills from being discharged, or provide a similarly effective means designed to prevent the discharge of pollutants from these areas (e.g., storing chemicals in covered area or having a spill kit available on site);
 - 4) Dispose of hazardous or toxic waste in accordance with the manufacturer's recommended method of disposal and in compliance with federal, state, tribal, and local requirements; and
 - 5) Clean up spills immediately, using dry clean-up methods where possible, and dispose of used materials properly. Do not clean surfaces or spills by hosing the area down. Eliminate the source of the spill to prevent a discharge or a furtherance of an ongoing discharge.
- v. For construction and domestic waste¹⁸: Provide waste containers (e.g., dumpster or trash receptacle) of sufficient size and number to contain construction and domestic wastes. In addition, you must:
- 1) On work days, clean up and dispose of waste in designated waste containers; and
 - 2) Clean up immediately if containers overflow.
- vi. For sanitary waste: Position portable toilets so that they are secure and will not be tipped or knocked over and that they will be positioned at least 10 feet from any storm water conveyance, inlet, curb or gutter; or that they will have secondary containment if tipped.
- d. **Washing of Applicators and Containers used for Paint, Concrete, or Other Materials.** To comply with the prohibition in Parts 2.3.1.a and 2.3.1.b, you must provide an effective means of eliminating the discharge of water from the washout and cleanout of stucco, paint, concrete, form release oils, curing compounds, and other construction materials. To comply with this requirement, you must:
- i. Direct all washwater into a leak-proof container or leak-proof pit. The container or pit must be designed so that no overflows can occur due to inadequate sizing or precipitation; you must segregate paint waste and oily waste from stucco/concrete washout waste and manage the proper disposal separately.

¹⁸ Examples of construction and domestic waste include, but are not limited to, packaging materials, scrap construction materials, masonry products, timber, pipe and electrical cuttings, plastics, styrofoam, concrete, and other trash or building materials.

ii. Handle washout or cleanout wastes as follows:

- 1) Do not dump liquid wastes in storm sewers;
- 2) Dispose of liquid wastes in accordance with applicable requirements in Part 2.3.3.c; and
- 3) Washout or cleanout activities may be located near the areas where concrete or stucco application takes place (and in accordance with local ordinances), but it should be at least 50 feet and possibly further (where practical) from surface waters, and to the extent practicable, designate areas to be used for these activities and require all conducting such activities to only in these areas.

e. Dispose of hardened concrete waste in ways that are consistent with Utah disposal laws for inert material.

2.3.4. **Emergency Spill Notification.** You are prohibited from discharging toxic or hazardous substances from a spill or other release, consistent with Part 2.3.1.e. Where a leak, spill, or other release containing a hazardous substance or oil in an amount equal to or in excess of a reportable quantity established under either 40 CFR Part 110, 40 CFR Part 117, or 40 CFR Part 302 occurs during a 24-hour period, you must notify the National Response Center (NRC) at (800) 424-8802 in accordance with the requirements of 40 CFR Part 110, 40 CFR Part 117, and 40 CFR Part 302 (the federal requirement), and 801-536-4123 (for State agencies), but also you must look up numbers for local health departments and MS4 spill and hazardous waste release reporting as soon as you have knowledge of the discharge. You must also, within 7 calendar days of knowledge of the release, provide a description of the release, the circumstances leading to the release, and the date of the release.

2.3.5. **Fertilizer Discharge Restrictions.** You are required to minimize discharges of fertilizers containing nitrogen or phosphorus. To meet this requirement, you must comply with the following requirements:

- a. Apply at a rate and in amounts consistent with manufacturer's specifications, or document departures from the manufacturer specifications where appropriate in Part 7.2.6.b of the SWPPP;
- b. Apply at the appropriate time of year for your location, and preferably timed to coincide as closely as possible to the period of maximum vegetation uptake and growth;
- c. Avoid applying before heavy rains that could cause excess nutrients to be discharged;
- d. Never apply to frozen ground;
- e. Never apply to storm water conveyance channels with flowing water; and
- f. Follow all other state, and local requirements regarding fertilizer application.

3. **WATER QUALITY-BASED EFFLUENT LIMITATIONS.**

3.1. **GENERAL EFFLUENT LIMITATION TO MEET APPLICABLE WATER QUALITY STANDARDS.**

Your discharge must be controlled as necessary to meet applicable water quality standards. In the absence of information demonstrating otherwise, DWQ expects that compliance with the conditions in this permit will result in storm water discharges being controlled as necessary to meet applicable water quality standards. If at any time you become aware, or DWQ (or a local inspector representing an MS4) determines, that your discharge is not being controlled as necessary to meet applicable water quality standards, you must take corrective action as required in Part 5.2.1, and document the corrective actions as required in Part 5.2.2 and Part 5.4. DWQ will also impose additional water quality-based limitations on a site-specific basis, or require you to obtain coverage under an individual permit, if information indicates that your discharges are not controlled as necessary to meet applicable water quality standards. This includes situations where additional controls are necessary to comply with a wasteload allocation in a DWQ established TMDL.

3.2. **DISCHARGE LIMITATIONS FOR IMPAIRED WATERS.**

If you discharge to a surface water that is impaired for (1) sediment or a sediment related parameter, such as total suspended solids (TSS) or turbidity, and/or (2) nutrients, including impairments for nitrogen and/or phosphorus, you are required to comply with the requirements in Part 3.2.2.

***Note:** For the purposes of this Part, “impaired waters” are waters identified as impaired on the appropriate CWA Section 303(d) list, or waters with a DWQ and EPA-approved or established TMDL. Your construction site will be considered to discharge to an impaired water if the first surface water to which you discharge is identified by DWQ or the EPA pursuant to Section 303(d) of the CWA as not meeting an applicable water quality standard, or is included in a DWQ and EPA-approved or established total maximum daily load (TMDL). In the future discharges under this permit may be required to meet the requirements of an impaired water that may be somewhere down the line from the first water body that the discharge outfalls into. That time may be when this permit is modified or after it is renewed. For discharges that enter a storm sewer system prior to discharge, the first surface water to which you discharge is the waterbody that receives the storm water discharge from the storm sewer system. If you discharge to an impaired water that is impaired for a parameter other than a sediment-related parameter or nutrients, DWQ will inform you if any additional limits or controls are necessary for your discharge to be controlled as necessary to meet water quality standards, including for it to be consistent with the assumptions of any available wasteload allocation in any applicable TMDL, or if coverage under an individual permit is necessary in accordance with Part 1.4.5. If during your coverage under a previous permit, you were required to install and maintain storm water controls specifically to meet the assumptions and requirements of a DWQ established TMDL (for any parameter) or to otherwise control your discharge to meet water quality standards, you must continue to implement such controls as part of this permit.*

3.2.1. **Identify If You Discharge To An Impaired Water.** If you discharge to an impaired water, you must provide the following information in your SWPPP:

- A list of all impaired waters to which you discharge;
- The pollutant(s) for which the surface water is impaired; and
- Whether a TMDL has been approved or established for the waters to which you

discharge.

3.2.2. **Requirements for Discharges to Sediment or Nutrient-Impaired Waters.** If you discharge to a surface water that is impaired for (1) sediment or a sediment related parameter (e.g., total suspended solids (TSS) or turbidity) and/or (2) nutrients (e.g., nitrogen and/or phosphorus), including impaired waters for which a TMDL has been approved or established for the impairment, you are required to comply with the following storm water control requirements, which supplement the requirements applicable to your site in other corresponding parts of the permit.

- a. **Frequency of Site Inspection.** You must conduct inspections at the frequency specified in Part 4.1.3.
- b. **Deadline to Complete Stabilization.** You must comply with the deadlines for completing site stabilization as specified in Part 2.2.3.

3.3. DISCHARGES TO WATERS IDENTIFIED AS CATEGORY 1 or 2.

3.3.1. **Identify if You Discharge to a Category 1 or Category 2 Water.** If you discharge to a water identified as a Category 1 or Category 2 water, you must indicate so on your NOI. See Appendix C for information on Utah waters.

Note: *For the purposes of this permit, you are considered to discharge to a Category 1 or 2 water if the first surface water to which you discharge is identified as Category 1 or 2. Category 1 or 2 refer to waters identified by the state as high quality waters. For discharges that enter a storm sewer system prior to discharge, the surface water to which you discharge is the first surface water that receives the storm water discharge from the storm sewer system.*

3.3.2. **Requirements for New Projects Discharging to Category 1 or 2 Waters.** For new projects, if you will discharge to a Category 1 or 2 water, you are required to comply with Parts 4.1.3 (inspection frequencies) and 2.2.3. (stabilization deadlines).

4. **INSPECTIONS.**

4.1. **SITE INSPECTIONS.**

4.1.1. **Person(s) Responsible for Inspecting the Site.**

The person(s) inspecting your site may be a person on your staff or a third party you hire to conduct such inspections. You are responsible for ensuring that the person who conducts inspections is a “qualified person”, and currently certified.

Note: *A “qualified person” is a person knowledgeable in the principles and practice of erosion and sediment controls and pollution prevention, who possesses the skills to assess conditions at the construction site that could impact storm water quality, and the skills to assess the effectiveness of any storm water controls selected and installed to meet the requirements of this permit, such as but not limited to the following:*

- Utah Registered Storm Water Inspector (RSI)
- Certified Professional in Erosion and Sediment Control (CPESC)
- Certified Professional in Storm Water Quality (CPSWQ)
- Certified Erosion, Sediment, and Storm Water Inspector (CESSWI)
- Certified Inspector of Sediment and Erosion Control (CISEC)
- National Institute for Certification in Engineering Technologies, Erosion and Sediment Control, Level 3 (NICET)
- Utah Department of Transportation Erosion Control Supervisor (ECS)

4.1.2. **Frequency of Inspections.** At a minimum, you must conduct a site inspection in accordance with one of the two schedules listed below, unless you are subject to Part 4.1.3 or Part 4.1.4:

- a. At least once every 7 calendar days; or
- b. Once every 14 calendar days and within 24-hours of the occurrence of a storm event of 0.5 inches or greater. To determine if a storm event of 0.5 inches or greater has occurred on your site, you must either keep a properly maintained rain gauge on your site, or obtain the storm event information from a weather station that is representative of your location. For any day of rainfall that measures 0.5 inches or greater, you must record the total rainfall measured for that day in accordance with Part 4.1.7.a.iv.

Note: *Inspections are only required during the project’s normal working hours, however a rainfall event can happen after business hours. If a rain event occurs after hours on Friday it does not need to be inspected until Monday.*

Note: *You are required to specify in your SWPPP which schedule you will be following.*

Note: *“Within 24 hours of the occurrence of a storm event” means that you are required to conduct an inspection within 24 hours once a storm event has produced 0.5 inches, even if the storm event is still continuing. Thus, if you have elected to inspect bi-weekly in accordance with Part 4.1.2.b. and there is a storm event at your site that continues for multiple days, and each day of the storm produces 0.5 inches or more of rain, you are required to conduct an inspection*

within 24 hours of the first day of the storm and within 24 hours after the end of the storm. Again, inspections are only required during the projects normal working hours.

4.1.3. Increase in Inspection Frequency for Sites Discharging to Sensitive Waters. For any portion of the site that discharges to a sediment or nutrient-impaired water (see Part 3.2) or to a water that is identified as Category 1 or 2 (see Part 3.3), instead of the inspection frequency specified in Part 4.1.2, you must conduct inspections in accordance with the following inspection frequencies:

- a. Once every 7 calendar days; and
- b. Within 24 hours of the occurrence of a storm event of 0.5 inches or greater. To determine if a storm event of 0.5 inches or greater has occurred on your site, you must either keep a properly maintained rain gauge on your site, or obtain the storm event information from a weather station that is representative of your location. For any day of rainfall that measures 0.5 inches or greater, you must record the total rainfall measured for that day in accordance with Part 4.1.7.a.v

Note: *Inspections are only required during the project's normal working hours, however a rainfall event can happen after business hours. If a rain event occurs after hours on Friday it does not need to be inspected until Monday.*

Note: *“Within 24 hours of the occurrence of a storm event” means that you are required to conduct an inspection within 24 hours once a storm event has produced 0.5 inches, even if the storm event is still continuing. Thus, if there is a storm event at your site that continues for multiple days, and each day of the storm produces 0.5 inches or more of rain, you are required to conduct an inspection within 24 hours of the first day of the storm and within 24 hours after the end of the storm. Again inspections are only required during the projects normal working hours.*

Note: *If you qualify for any of the reduced inspection frequencies in Part 4.1.4, you may conduct inspections in accordance with Part 4.1.4 for any portion of your site that discharges to a sensitive water.*

4.1.4. Reductions in Inspection Frequency. Your inspection frequency may be reduced as follows:

- a. **For Temporarily Stabilized Areas.** You may reduce the frequency of inspections to once per month in any area of your site where the stabilization steps in Parts 2.2.1.b.i, 2.2.1.b.ii, and 2.2.2.b have been completed. When construction activity resumes in this portion of the site at a later date, the inspection frequency immediately increases to that required in Parts 4.1.2 or 4.1.3, if applicable. You must document the beginning and ending dates of this period in your records.
- b. **For Permanently Stabilized Areas.** If portions of the project area are permanently stabilized before the entire project is completed, stabilized, and terminated, these permanently stabilized areas no longer require an inspection, except in the case of inlet protection for drainage received from surrounding unstabilized areas.
- c. **For Frozen Conditions.**

- i. If you are suspending earth-disturbing activities due to frozen conditions, you may temporarily suspend inspections on your site until thawing conditions (see Appendix A, “thawing conditions”) begin to occur if:
 - 1) Runoff is unlikely due to continuous frozen conditions that are likely to continue at your site for at least 30 days based on historic seasonal averages. However, if unexpected weather conditions (such as above freezing temperatures or rain or snow events) make discharges likely, you must immediately resume your regular inspection frequency as described in Parts 4.1.2 or 4.1.3;
 - 2) Land disturbances have been suspended; and
 - 3) All disturbed areas of the site have been temporarily or permanently stabilized in accordance with Part 2.2.
- ii. If you are still conducting earth-disturbing activities during frozen conditions, you may reduce your inspection frequency to once per month if:
 - 1) Runoff is unlikely due to continuous frozen conditions that are likely to continue at your site for at least 30 days based on historic seasonal averages. However, if unexpected weather conditions (such as above freezing temperatures or rain or snow events) make discharges likely, you must immediately resume your regular inspection frequency as described in Parts 4.1.2 or 4.1.3; and
 - 2) Except for areas in which you are actively conducting earth disturbing activities, disturbed areas of the site have been temporarily or permanently stabilized in accordance with Part 2.2.

You must document the beginning and ending dates of this period in your SWPPP.

4.1.5. Areas that Need to Be Inspected. During your site inspection, you must at a minimum inspect the following areas of your site:

- a. All areas that have been cleared, graded, or excavated and that have not yet completed stabilization consistent with Part 2.2;
- b. All storm water controls (including pollution prevention measures) installed at the site to comply with this permit;
- c. Material, waste, borrow, or equipment storage and maintenance areas that are covered by this permit;
- d. All areas where storm water typically flows within the site, including drainage ways designed to divert, convey, and/or treat storm water;
- e. All points of discharge from the site; and

- f. All locations where stabilization measures have been implemented.

You are not required to inspect areas that, at the time of the inspection, are considered unsafe for your inspection personnel. You are also not required to inspect areas of the project that are permanently stabilized except for management of storm water flows flowing onto the area coming from other areas that have not been permanently stabilized.

4.1.6. Requirements for Inspections. During your site inspection, you must at a minimum:

- a. Check whether all erosion and sediment controls and pollution prevention controls are installed, appear to be operational, and are working as intended to minimize pollutant discharges. Determine if any controls need to be replaced, repaired, or maintained in accordance with Parts 2.1.1.d. and 2.3.2;
- b. Check for the presence of conditions that could lead to spills, leaks, or other accumulations of pollutants on the site;
- c. Identify any locations where new or modified storm water controls are necessary to meet the requirements of Parts 2 and/or 3;
- d. At points of discharge and, if applicable, the banks of any surface waters flowing within your property boundaries or immediately adjacent to your property, check for signs of visible erosion and sedimentation (i.e., sediment deposits) that have occurred and are attributable to discharges from your site; and
- e. Identify any and all incidents of noncompliance observed.
- f. If a discharge is occurring during your inspection, you are required to:
 - i. Identify all points of the property from which there is a discharge;
 - ii. Observe and document the visual quality of the discharge, and take note of the characteristics of the storm water discharge, including color; odor; floating, settled, or suspended solids; foam; oil sheen; and other obvious indicators of storm water pollutants (see the form in Appendix J); and
 - iii. Document whether your storm water controls are operating effectively, and describe any such controls that are clearly not operating as intended or are in need of maintenance.
- g. Based on the results of your inspection, initiate corrective action under Part 5.

4.1.7. Inspection Report.

- a. **Requirement to Complete Inspection Report.** You must complete an inspection report within 24 hours of completing any site inspection. Each inspection report must include the following:
 - i. The inspection date;

- ii. The UPDES CGP permit tracking number;
 - iii. Names and titles (or position) of personnel making the inspection;
 - iv. A summary of your inspection findings, covering at a minimum the observations you made in accordance with Part 4.1.6;
 - v. If you are inspecting your site at the frequency specified in Part 4.1.2.b, Part 4.1.3, or Part 4.1.4.c, and you conducted an inspection because of rainfall measuring 0.5 inches or greater, you must include the applicable rain gauge or weather station readings that triggered the inspection; and
 - vi. If you have determined that it is unsafe to inspect a portion of your site, you must describe the reason you found it to be unsafe and specify the locations that this condition applied to.
- b. **Signature Requirements.** Each inspection report must be signed in accordance with Appendix G, Part G.16 (Signatory Requirements) of this permit.
- c. **Recordkeeping Requirements.** You are required to keep a current, copy of all inspection reports at the site or at an easily accessible location, so that it can be made available at the time of an onsite inspection or upon request by DWQ. For purposes of this permit, your inspection reports may be kept electronically if the records are:
- i. In a format that can be read in a similar manner as a paper record;
 - ii. Legally defensible with no less evidentiary value than a paper equivalent; and
 - iii. Accessible to the inspector during an inspection to the same extent as a paper copy stored at the site would be, if the records were stored in paper form.

Note: *All inspection reports completed for this Part must be retained for at least 3 years from the date that your permit coverage expires or is terminated.*

4.2. INSPECTIONS BY DWQ OR MS4 OF JURISDICTION.

You must allow an authorized representative of DWQ, the MS4 of jurisdiction, or the EPA; to conduct the following activities at reasonable times:

- 4.2.1. Enter onto areas of your site, including any construction support activity areas covered by this permit (see Part 1.3.3.), and onto locations where records are kept under the conditions of this permit;
- 4.2.2. Access and copy any records that must be kept under the conditions of this permit;
- 4.2.3. Inspect your construction site, including any construction support activity areas covered by this permit (see Part 1.3.3.) and any storm water controls installed and maintained at the site; and

- 4.2.4. Sample or monitor for the purpose of ensuring compliance.
- 4.2.5. Take photographs; videos; measurements; surveying; or other documentation to ensure or document compliance (with consideration to the permittee for legitimate confidentiality concerns, and for security concerns, including national security issues, if there are any).

5. **CORRECTIVE ACTIONS.**

5.1. **“CORRECTIVE ACTIONS” DEFINED.**

Corrective actions are actions you take in compliance with this Part to:

- Repair, modify, or replace any storm water control used at the site;
- Clean up and properly dispose of spills, releases, or other deposits; or
- Remedy a permit violation.

5.2. **REQUIREMENTS FOR TAKING CORRECTIVE ACTION.**

Immediately take all reasonable steps to minimize or prevent the discharge of pollutants until a permanent solution for the problem is installed and made operational.

Note: In this context, the term “immediately” requires permittees to, on the same day a condition requiring corrective action is found (or as soon afterward as possible considering normal work schedule and task size), take all reasonable steps to minimize or prevent the discharge of pollutants until a permanent solution is installed and made operational.

- 5.2.1. Install a new or modified control, make it operational, or complete the repair expeditiously and based on urgency¹⁹ installing the storm water control(s), making them operational, or completing a repair as soon as practicable.

5.3. **CORRECTIVE ACTION REQUIRED BY DWQ, THE LOCAL MS4, OR THE EPA INSPECTORS.** You must comply with any corrective actions required by DWQ, the local MS4, or the EPA inspectors as a result of permit violations found during an inspection carried out under Part 4.2.

5.4. **TRACKING OF CORRECTIVE ACTION.** For each corrective action taken in accordance with this Part, you must make an entry in a corrective action report/log, inspection reports, or other method the permittee has devised to track corrective action, which includes the applicable information in Parts 5.4.1 and 5.4.2.

- 5.4.1. Within a day or so of discovering the occurrence of a storm water or pollution control problem at your site, you must make an entry in a report/log or other device for monitoring corrective action of the following:

- a. What condition was identified at your site that required corrective action (BMPs were not installed, installed incorrectly, were not effective, or need repairing);
- b. The date and time the condition was identified and how it was identified (inspection report, happened to notice it needed maintenance, etc.).

¹⁹ What is meant by expeditiously based on urgency is assessing the difficulty of the task, the resources available to complete the task, and the time required to complete the task while considering the urgency of performing the task. A less urgent situation would be placing a storm water control measure in a flat area during a dry season of the year with no precipitation in the forecast and that is a significant distance from a water body or inlet. An urgent situation would be placing a storm water control measure on a slope with precipitation eminent in the forecast and having a water body or inlet close by that would receive the runoff from the area. In any case corrective action should not be put off many days. Direction given during an inspection from DWQ or an MS4 inspector may determine the immediacy needed for the action.

- 5.4.2. Within 7 calendar days of discovering the occurrence of a problem with a storm water or pollution control measure at your site, you must make an entry in a corrective action report/log (or other corrective action monitoring devise) of the following:
- a. Any follow-up actions taken to repair the problem, including the dates such actions occurred;
 - b. Notice of whether SWPPP modifications are required as a result of the condition identified or corrective action.
- 5.4.3. **Recordkeeping Requirements.** You are required to keep a current copy of all corrective action entries at the site or at an easily accessible location, so that it can be made available at the time of an onsite inspection or upon request by DWQ or the local jurisdictional MS4. For purposes of this permit, your corrective action entries may be kept electronically if the records are:
- a. In a format that can be read in a similar manner as a paper record;
 - b. Legally defensible with no less evidentiary value than a paper equivalent; and
 - c. Accessible to the inspector during an inspection to the same extent as a paper copy stored at the site would be, if the records were stored in paper form.

All corrective action entries completed for this Part must be retained for at least 3 years from the date that your permit coverage expires or is terminated.

6. **STAFF TRAINING REQUIREMENTS.**

Prior to the commencement of earth-disturbing activities or pollutant-generating activities, whichever occurs first, you must ensure and document that the following personnel understand the requirements of this permit and their specific responsibilities with respect to those requirements:

- Personnel who are responsible for the design, installation, maintenance, and/or repair of storm water controls (including pollution prevention measures);
- Personnel responsible for the application and storage of treatment chemicals (if applicable);
- Personnel who are responsible for conducting inspections as required in Part 4.1.1; and
- Personnel who are responsible for taking corrective actions as required in Part 5.

Notes: (1) *If the person requiring training is a new employee, who starts after you commence earth-disturbing or pollutant-generating activities, you must ensure that this person has the proper understanding as required above prior to assuming particular responsibilities related to compliance with this permit.* (2) *For emergency-related construction activities, the requirement to train personnel prior to commencement of earth-disturbing activities does not apply, however, such personnel must have the required training prior to NOI submission.*

You are responsible for ensuring that all activities on the site comply with the requirements of this permit. Although you are not required to provide or document formal training for subcontractors or other outside service providers, you must ensure (through a contract if necessary) that such personnel understand and perform by any requirements of the permit and the SWPPP that may be affected by the work they are subcontracted to perform.

At a minimum, personnel must be trained to understand the following if related to the scope of their job duties (e.g., only personnel responsible for conducting inspections need to understand how to conduct inspections):

- The location of all storm water controls on the site required by this permit, and how they are to be maintained;
- The proper procedures to follow with respect to the permit's pollution prevention requirements; and
- When and how to conduct inspections, record applicable findings, and take corrective actions.

7. **STORM WATER POLLUTION PREVENTION PLAN (SWPPP).**

7.1. **GENERAL REQUIREMENTS.**

- 7.1.1. **Requirement to Develop a SWPPP Prior to Submitting Your NOI.** All owner/operators associated with a construction project to be covered under this permit must develop a SWPPP. You are required to develop your site's SWPPP prior to submitting your NOI. At a minimum, your SWPPP must include the information required in Part 7.2 and as specified in other parts of the permit.²⁰ You must also update the SWPPP as required in Part 7.4.

***Note:** Although many aspects of developing a SWPPP do not require a P.E., there are significant portions or items required in the development of a SWPPP that makes it to where many if not all SWPPPs must include a P.E. in its development. It is not required for a P.E. to stamp the entire SWPPP because operators must have the flexibility to modify a SWPPP. There may be facilities within a SWPPP that need to be stamped and would require a review and to be re-stamped by a P.E. again if modifications occur. For the most part SWPPPs should be designed so that operators have the flexibility to make modifications and updates in the field as is necessary so that improvements can be made for the protection of disturbed soils and the quality of storm water runoff if SWPPP plans prove to be ineffective, or if the conditions at the site turn out to be different than expected. A P.E. knows what is not safe without a stamp.*

***Note:** You may develop an electronic SWPPP that is stored on the internet as long as, 1) the SWPPP can be accessed during an inspection, and 2) site personnel know how to, and regularly access the SWPPP to manage and modify the site and SWPPP in accordance with requirements of this permit as if it were as accessible as a hard copy on the site.*

***Note:** If your project is an "existing project"²¹ or if you are a new owner and/or operator of an existing project", you are not required to meet the requirements of this permit until 6 months after this permit has been issued, however, you must meet the requirements of the previous permit (UTR300000) during that 6 month period (see permit 1.4.3).*

- 7.2. **SWPPP CONTENTS.** Your SWPPP must include the following information, at a minimum.

- 7.2.1. **Storm Water Team.** Each owner/operator, must assemble a "storm water team," which is responsible for overseeing the development of the SWPPP, any later modifications to it, and for compliance with the requirements in this permit.

The SWPPP must identify the personnel (by name or position) that are part of the storm water team, as well as their individual responsibilities. Each member of the storm water team must have ready access to an electronic or paper copy of applicable portions of this permit, the most updated copy of your SWPPP, and other relevant documents or information that must be kept with the SWPPP.

²⁰The SWPPP does not establish the effluent limits that apply to your site's discharges; these limits are established in this permit in Parts 2 and 3.

²¹Your project started before this permit was issued, and you had active and legitimate coverage under UTR300000 at the time of expiration of UTR300000.

- 7.2.2. **Nature of Construction Activities.** The SWPPP must describe the nature of your construction activities, including the size of the property (in acres) and the total area expected to be disturbed by the construction activities (in acres), construction support activity areas covered by this permit (see Part 1.3.3), and the maximum area expected to be disturbed at any one time.
- 7.2.3. **Emergency-Related Projects.** If you are conducting earth-disturbing activities in response to a public emergency (see Part 1.2.1), you must document the cause of the public emergency (e.g., natural disaster, extreme flooding conditions, etc.), provide information substantiating its occurrence (e.g., state disaster declaration or similar state or local declaration), and provide a description of the construction necessary to reestablish effected public services.
- 7.2.4. **Sequence and Estimated Dates of Construction Activities.** The SWPPP must include a description of the intended sequence of construction activities, including a schedule of the estimated start dates and the duration of the activity, for the following activities:
- a. Installation of storm water control measures, and when they will be made operational, including an explanation of how the sequence and schedule for installation of storm water control measures complies with Part 2.1.1.c.i. and of any departures from manufacturer specifications pursuant to Part 2.1.1.c.ii.;
 - b. Commencement and duration of earth-disturbing activities, including clearing and grubbing, mass grading, site preparation (i.e., excavating, cutting and filling), final grading, and creation of soil and vegetation stockpiles requiring stabilization;
 - c. Cessation, temporarily or permanently, of construction activities on the site, or in designated portions of the site;
 - d. Final or temporary stabilization of areas of exposed soil. The dates for stabilization must reflect the applicable deadlines to which you are subject in Part 2.2.1 and 2.2.2; and
 - e. Removal of temporary storm water conveyances/channels and other storm water control measures, removal of construction equipment and vehicles, and cessation of any pollutant-generating activities.

Note: *If plans change due to unforeseen circumstances or for other reasons, the requirement to describe the sequence and estimated dates of construction activities is not meant to “lock in” the permittee to meeting these projections. When departures from initial projections are necessary, this should be documented in the SWPPP itself or in associated records, as appropriate.*

- 7.2.5. **Site Map.** The SWPPP must include a legible site map, or series of maps, showing the following features of your project:

Note: *Included in the project site are any construction support activities covered by this permit (see Part 1.3.3).*

- a. Boundaries of the property and of the locations where construction activities will occur, including:
 - i. Locations where earth-disturbing activities will occur, noting any phasing of construction activities;
 - ii. Approximate slopes before and after major grading activities. Note areas of steep slopes, as defined in Appendix A;
 - iii. Locations where sediment, soil, or other construction materials will be stockpiled;
 - iv. Locations of any crossings of surface waters;
 - v. Designated points on the site where vehicles will exit onto paved roads;
 - vi. Locations of structures and other impervious surfaces upon completion of construction; and
 - vii. Locations of construction support activity areas covered by this permit (see Part 1.3.3).
- b. Locations of all surface waters, including wetlands, that exist within or in the immediate vicinity of the site. Indicate which water bodies are listed as impaired, and which are identified as Category 1 or 2 waters;
- c. The boundary lines of any natural buffers provided consistent with Part 2.1.2.a.i.
- d. Topography of the site, existing vegetative cover (e.g., forest, pasture, pavement, structures), and drainage pattern(s) of storm water and authorized non-storm water flow onto, over, and from the site property before and after major grading activities;
- e. Storm water and allowable non-storm water discharge locations, including:
 - i. Locations of any storm drain inlets on the site and in the immediate vicinity of the site; and

Note: *The requirement to show storm drain inlets in the immediate vicinity of the site on your site map only applies to those inlets that are easily identifiable from your site or from a publicly accessible area immediately adjacent to your site.*

- ii. Locations where storm water or allowable non-storm water will be discharged to surface waters (including storm sewer systems and/or wetlands) on or near the site.
- f. Locations of all potential pollutant-generating activities identified in Part 7.2.6;
- g. Locations of storm water control measures; and

- h. Locations where tackifiers, polymers, flocculants, fertilizers, or other treatment chemicals will be used and stored.

7.2.6. Construction Site Pollutants. The SWPPP must include the following:

- a. A list and description of all the pollutant-generating activities²² on your site.
- b. For each pollutant-generating activity, an inventory of pollutants or pollutant constituents (e.g., sediment, fertilizers and/or pesticides, paints, solvents, fuels) associated with that activity, which could be exposed to rainfall, or snowmelt, and could be discharged from your construction site. You must take into account where potential spills and leaks could occur that contribute pollutants to storm water discharges. You must also document any departures from the manufacturer's specifications for applying fertilizers containing nitrogen and phosphorus, as required in Part 2.3.5.a.

7.2.7. Non-Storm water Discharges. The SWPPP must also identify all sources of allowable non-storm water discharges listed in Part 1.3.4. All non-storm water discharges must be managed or treated to prevent a discharge of pollutants.

Note: Allowable discharges listed in section 1.3.4. must be managed such that they are infiltrated into the ground so sediment and any oil sheen will be filtered out into surface soils appropriately (not overloading soil capacity to degrade pollutants), or be otherwise treated so that pollutants are not discharged with storm water.

7.2.8. Buffer Documentation. If you are required to comply with Part 2.1.2.a because a surface water is located within 50 feet of your project's earth disturbances, you must describe which compliance alternative you have selected for your site, and comply with any additional requirements to provide documentation in Part 2.1.2.a.

7.2.9. Description of Storm water Control Measures.

- a. **Storm water Control Measures to be Used During Construction Activity.**
The SWPPP must describe all storm water control measures that are or will be installed and maintained at your site to meet the requirements of Part 2. For each storm water control measure, you must document:
 - i. Information on the type of storm water control measure to be installed and maintained, including design information;
 - ii. What specific sediment controls will be installed and made operational prior to conducting earth-disturbing activities in any given portion of your site to meet the requirement of Part 2.1.2.b.i.;
 - iii. For exit points on your site, document stabilization techniques you will use and any additional controls that are planned to remove sediment prior to vehicle exit consistent with Part 2.1.2.c.; and

²² Examples of pollutant-generating activities include, but are not limited to: paving operations; concrete, paint, and stucco washout and waste disposal; solid waste storage and disposal; and dewatering operations.

- iv. For projects at high altitudes that expect long seasons of heavy snow, you must document in your SWPPP when the snow season is expected so spring runoff controls can be installed before snowfall.
- v. For linear projects, where you have determined that the use of perimeter controls in portions of the site is impracticable, document why you believe this to be the case (see Part 2.1.2.b.i.).
- b. **Use of Treatment Chemicals.** If you plan to use cationic polymers and/or flocculants, you must have an approval letter from DWQ. Otherwise for treatment chemicals at your site you must include the following in your SWPPP:
 - i. A listing of all soil types²³ that are expected to be exposed during construction and that will be discharged to locations where chemicals will be applied. Also include a listing of soil types expected to be found in fill material to be used in these same areas, to the extent you have this information prior to construction.
 - ii. A listing of all treatment chemicals to be used at the site, and why the selection of these chemicals is suited to the soil characteristics of your site;
 - iii. If you have been authorized by DWQ to use cationic treatment chemicals, include the specific controls and implementation procedures designed to ensure that your use of cationic treatment chemicals will not lead to a violation of water quality standards or a fish kill;
 - iv. The dosage of all treatment chemicals you will use at the site or the methodology you will use to determine dosage;
 - v. Information from any applicable Material Safety Data Sheets (MSDS);
 - vi. Schematic drawings of any chemically-enhanced storm water controls or chemical treatment systems to be used for application of the treatment chemicals;
 - vii. A description of how chemicals will be stored consistent with Part 2.1.3.c.iii.
 - viii. References to applicable state or local requirements affecting the use of treatment chemicals, and copies of applicable manufacturer's specifications regarding the use of your specific treatment chemicals and/or chemical treatment systems; and
 - ix. A description of the training that personnel who handle and apply chemicals have received prior to permit coverage, or will receive prior to use of the treatment chemicals at your site.
- c. **Stabilization Practices.** The SWPPP must describe the specific vegetative and/or non-vegetative practices that will be used to comply with the requirements in Part 2.2, including:

²³ Information on soils may be obtained at <http://websoilsurvey.nrcs.usda.gov/app/>.

- i. If you will be complying with the stabilization deadlines specified in Part 2.2.2., you must indicate in your SWPPP the beginning and ending dates of the seasonally dry period and your site conditions; and
- ii. For projects at high altitudes that expect long seasons of heavy snow, you must document in your SWPPP when the snow season is expected and so stabilization measures for spring runoff can be installed before snowfall.

7.2.10. Pollution Prevention Procedures.

- a. **Spill Prevention and Response Procedures.** The SWPPP must describe procedures that you will follow to prevent and respond to spills and leaks consistent with Part 2.3, including:
 - i. Procedures for expeditiously stopping, containing, and cleaning up spills, leaks, and other releases. Identify the name or position of the employee(s) responsible for detection and response of spills or leaks; and
 - ii. Procedures for notification of appropriate facility personnel, emergency response agencies, and regulatory agencies where a leak, spill, or other release containing a hazardous substance or oil in an amount equal to or in excess of a reportable quantity consistent with Part 2.3.4 and established under either 40 CFR Part 110, 40 CFR Part 117, or 40 CFR Part 302, occurs during a 24-hour period. Contact information must be in locations that are readily accessible and available.

You may also reference the existence of Spill Prevention Control and Countermeasure (SPCC) plans developed for the construction activity under Part 311 of the CWA, or spill control programs otherwise required by a UPDES permit for the construction activity, provided that you keep a copy of that other plan onsite.

Note: *Even if you already have an SPCC or other spill prevention plan in existence, your plans will only be considered adequate if they meet all of the requirements of this Part, either as part of your existing plan or supplemented as part of the SWPPP.*

- b. **Waste Management Procedures.** The SWPPP must describe procedures for how you will handle and dispose of all wastes generated at your site, including, but not limited to, clearing and demolition debris, sediment removed from the site, construction and domestic waste, hazardous or toxic waste, and sanitary waste.

7.2.11. Procedures for Inspection, Maintenance, and Corrective Action. The SWPPP must describe the procedures you will follow for maintaining your storm water control measures, conducting site inspections, and, where necessary, taking corrective actions, in accordance with Part 2.1.1.d., Part 2.3.2, Part 4, and Part 5 of the permit. The following information must also be included in your SWPPP:

- a. Personnel responsible for conducting inspections;

- b. The inspection schedule you will be following, which is based on whether your site is subject to Part 4.1.2 or Part 4.1.3, and whether your site qualifies for any of the allowances for reduced inspection frequencies in Part 4.1.4. If you will be conducting inspections in accordance with the inspection schedule in Part 4.1.2.b. or Part 4.1.3, the location of the rain gauge on your site or the address of the weather station you will be using to obtain rainfall data;
- c. If you will be reducing your inspection frequency in accordance with Part 4.1.4.c., the beginning and ending dates of frozen conditions on your site; and
- d. Any inspection or maintenance checklists or other forms that will be used.
- e. for each storm water control measure you must describe the strategy and schedule you plan to employ to maintain storm water control measures in effective operating condition for each precipitation event or you will be expected to replace, repair, and/or maintain problems found with storm water control measures immediately after each inspection.

7.2.12. **Staff Training.** The SWPPP must include documentation that the required personnel were trained in accordance with Part 6, and all other relevant training be documented (including training in Section 2 for projects that use treatment chemicals).

7.2.13. **UIC Class 5 Injection Wells.**

- a. **Utah Water Quality Act Underground Injection Control (UIC) Program Requirements for Certain Subsurface Storm Water Controls.** If you are using any of the following storm water controls at your site, as they are described below, you must document any contact you have had with DWQ for implementing the requirements for underground injection wells in the Safe Drinking Water Act and DEQ's implementing regulations at UAC R317-7. In addition there may be local requirements related to such structures. Such controls (below) would generally be considered Class V UIC wells and all UIC Class V wells must be reported to DWQ for an inventory:
 - i. French drains (if storm water is directed to any bored, drilled, driven shaft or dug hole that is deeper than its widest surface dimension, or has a subsurface fluid distribution system);
 - ii. Commercially manufactured pre-cast or pre-built proprietary subsurface detention vaults, chambers, or other devices designed to capture and infiltrate storm water flow; and
 - iii. Drywells, seepage pits, or improved sinkholes (if storm water is directed to any bored, drilled, driven shaft or dug hole that is deeper than its widest surface dimension, or has a subsurface fluid distribution system).

Note: For the State UIC Contact at DWQ call 801-536-4300.

7.2.14. List of Impaired Waters that Receive a Discharge and the following information (see paragraph 3.2.1):

- a. A list of all impaired waters to which you discharge;
- b. The pollutant(s) for which the surface water is impaired; and
- c. Whether a TMDL has been approved or established for the waters to which you discharge.

7.2.15. **SWPPP Certification.** The owner/operator must sign and date your SWPPP in accordance with Appendix G, Part G.16.1.2 & 1.3.

7.2.16. **Also Included in the SWPPP.** Once you have completed the submission of your on-line NOI (or paper submission for some), you must include the following documents as part of your SWPPP:

- a. A copy of your NOI,
- b. A copy of this permit (an electronic copy easily available to the storm water team is also acceptable).

7.3. **ON-SITE AVAILABILITY OF YOUR SWPPP.**

You are required to maintain a current copy of the project SWPPP at every active construction site where this permit is required, and where construction workers and construction activity related to the project is occurring. The SW Team and/or site workers must be able to refer to SWPPP and update it as needed to manage the site according to permit requirements and as outlined in the SWPPP (it is not required that the SWPPP be on the site when construction workers leave for the day or when there is no activity occurring on the site, but at all times there must be posted contact information where the SWPPP can be obtained – see paragraph 1.5). The SWPPP must be available within 30 minutes²⁴ at the request of DWQ, MS4, or EPA inspectors during random inspections at active sites, or immediately for pre-scheduled inspections. Requests for a copy of the SWPPP by a regulatory authority (DWQ, EPA, or an MS4), must be accommodated within 72 hours, or as agreed upon by the permittee and the regulatory authority at the time. DWQ may provide access to portions of the project SWPPP to a member of the public upon request. Confidential Business Information (CBI) may be withheld from the public, but may not be withheld from DWQ, local regulating MS4, or the EPA.

Note: *Information covered by a claim of confidentiality will be disclosed by DWQ only to the extent of, and by means of, the procedures set forth in 40 CFR Part 2, Subpart B. In general, submitted information protected by a business confidentiality claim maybe disclosed to other employees, officers, or authorized representatives of DWQ and/or the EPA. The authorized*

²⁴ On several occasions for smaller projects it has been noted that the location of site plans happens to be the project manager’s vehicle. On larger sites the SWPPP may be in another location not close to the place a permitting authority may appear. Thirty minutes is provided for the case where a permitting authority shows up for an inspection and the SWPPP is on the site a distance from that exact location, or it is with the project manager who has recently left the site for a business reason, inadvertently taking the site plans (including the SWPPP) with him/her. This time allowance is for notification of the person who may have taken the SWPPP, so it can be returned, or to locate the the SWPPP on the site and provide it for the permitting authority. It is intended that SWPPPs be maintained at the site when the site is active. The 30-minutes is not for retrieving the SWPPP from another site where it should not be.

representatives, including employees of other executive branch agencies, may review CBI during the course of reviewing draft regulations. If an onsite location is unavailable to keep the SWPPP when no personnel are present, notice of the plan's location must be posted near the main entrance of your construction site.

7.4. REQUIRED SWPPP MODIFICATIONS.

- 7.4.1. List of Conditions Requiring SWPPP Modification.** You must modify your SWPPP, including the site map(s), in response to any of the following conditions:
- a. Whenever you make changes to your construction plans, storm water control measures, pollution prevention measures, or other activities at your site that are no longer accurately reflected in your SWPPP. This includes changes made in response to corrective actions triggered under Part 5;
 - b. To reflect areas on your site map where operational control has been transferred due to new ownership or a new operator (and the date of that transfer) since initiating permit coverage;
 - c. If inspections or investigations by site staff, the MS4, DWQ, or the EPA determine that SWPPP modifications are necessary for compliance with this permit;
 - d. Where DWQ, the EPA, or the MS4 determines it is necessary to impose additional requirements on your discharge, the following must be included in your SWPPP:
 - i. A copy of any correspondence describing such requirements; and
 - ii. A description of the storm water control measures that will be used to meet such requirements.
 - e. To reflect any revisions to applicable federal, state, or local requirements that affect the storm water control measures implemented at the site; and
 - f. If applicable, if a change in chemical treatment systems or chemically enhanced storm water control is made, including use of a different treatment chemical, different dosage rate, or different area of application.
- 7.4.2. Deadlines for SWPPP Modifications.** You must complete required revisions to the SWPPP within 7 calendar days following the occurrence of any of the conditions listed in Part 7.4.1.
- 7.4.3. SWPPP Modification Records.** You are required to maintain records showing the dates of all SWPPP modifications. The records must include the name of the person authorizing each change (see Part 7.2.15 above – this person can be a duly authorized representative as allowed in Appendix G.16.1.2, but should be a member of the storm water team) and a brief summary of all changes.

Note: *In most cases the date the modification was made with the initials of the person making the change is adequate.*

- 7.4.4. **Certification Requirements.** All modifications made to the SWPPP consistent with Part 7.4 must be authorized by a person identified in Appendix G, Part G.16.1.2.

8. **HOW TO TERMINATE COVERAGE.**

Until your permit coverage is terminate, you are required to comply with all conditions and effluent limitations in the permit, except that inspections can be suspended if the site has been prepared to meet the stabilization requirements found in Section 2.2. To begin the termination process, you must go to the DWQ on-line Storm Water data base and complete the steps for terminating your permit, or you must submit a complete and accurate Notice of Termination (NOT) form (that can be downloaded from the construction storm water web page for DWQ) to the DWQ and the MS4 (for all MS4s listed in Appendix E, you must submit a paper form to the MS4), which certifies that you have met the requirements for termination in Part 8. At this point the permit status changes to “unconfirmed termination”. The termination process is complete when DWQ or the MS4 (of jurisdiction) does a final inspection and the inspection is passed. At this point the status of the permit changes to “confirmed termination” and the permit is fully terminated.

8.1. **MINIMUM INFORMATION REQUIRED IN NOT.**

You will be required to provide the following in your NOT:

8.1.1. UPDES permit tracking number provided by the DWQ when you received coverage under this permit;

8.1.2. You must indicate if the termination request is:

a. **Partial Site** – If the termination request is for a portion of the total area, on area that is no longer under your ownership, you and the new owner are required to submit an Ownership Transfer Form found in Appendix M, to DWQ (and the MS4 if a regulated MS4, see Appendix E). For a partial termination you must indicate (on the NOT) how many acres (to the hundredths) that will be eliminated as a result of the transfer transaction, and you must describe (in words) the area that will be transferred. A partial termination submission does not result in a change of the permit status (the remaining area is still under your permit tracking number with an active status);

b. **Full Site** -- if the termination request is the entire area, it must be handled as follows:

i. **New Ownership.** A transfer of the entire site to a different owner. For this case you and the new owner are required to submit an Ownership Transfer Form found in Appendix M, to DWQ (and the MS4 if a regulated MS4, see Appendix E). The permit status will be changed from “active” to “unconfirmed termination”. DWQ or the MS4 of jurisdiction will change the permit status to “confirmed termination” after an inspection. Another way to transfer is described on the Ownership Transfer Form.

ii. **Project Completion.** The project is completed and stabilized according to section 2.2. The status of the project will change from “active” to “unconfirmed termination” which will change to “confirmed termination” after a final inspection by DWQ or the local MS4 has approve the termination in a final inspection.

8.1.3. Basis for submission of the NOT (see Part 8.2);

- 8.1.4. Owner/Operator contact information;
- 8.1.5. Name of project and address (or a description of location if no street address is available); and
- 8.1.6. NOT certification, and signature (in accordance with Appendix G, G.16.1.1 & 1.3).

8.2. CONDITIONS FOR TERMINATING PERMIT COVERAGE.

You must terminate permit coverage if one of the following conditions occurs at your site (either 8.2.1, 8.2.2, or 8.2.3 below):

- 8.2.1. You have completed all earth-disturbing activities at your site and, if applicable, construction support activities covered by this permit (see Part 1.3.3), and you have met the following requirements:
 - a. For any areas that (1) were disturbed during construction, (2) are not covered over by permanent structures, you have met the requirements for final vegetative or non-vegetative stabilization in Part 2.2;
 - b. You have removed and properly disposed of all construction materials, waste and waste handling devices, and have removed all equipment and vehicles that were used during construction, unless intended for long-term use following your termination of permit coverage;
 - c. You have removed all storm water controls that were installed and maintained during construction, except those that are intended for long-term use following your termination of permit coverage or those that are biodegradable to assist in areas where re-establishment of vegetation is especially difficult; and
 - d. You have removed all potential pollutants and pollutant-generating activities associated with construction, unless needed for long-term use following your termination of permit coverage; and
 - e. If within a regulated MS4 (see appendix E), you have notified the MS4 that the site is ready for a final inspection; or
- 8.2.2. For the entire site or for a part of the site, if ownership changes the portion of the site that changes ownership must be terminated.
 - a. If ownership changes for the entire site the party selling the site must terminate coverage (see paragraph 8.1.2).
 - b. If ownership changes for a portion of the site the permit holder must terminate only the portion of the site that changes ownership (see paragraph 8.1.2).
- 8.2.3. Completed homes that are occupied by home owners where at least temporary sediment and erosion controls are in place are allowed to be terminated without final stabilization. If a home owner buys a newly completed house the permit can be terminated while the property is being transferred to the home owner. The home owner should not be involved in the permit process. If a home owner builds his/her

house, they must terminate the permit when the house is approved for occupancy where temporary storm water controls are in place on the site.

8.2.4. Coverage under an individual or alternative general UPDES permit has been obtained.

8.3. FINAL INSPECTION ASSOCIATED WITH TERMINATION.

After submission of an NOT, for most cases, there will be a final inspection by the permitting authority (DWQ or the MS4 with jurisdictional authority for the area). A NOT is not complete until the permitting authority approves the site for termination unless the permitting authority does not perform the inspection within a year of the submission of the NOT after it was submitted.

8.4. HOW TO SUBMIT YOUR NOT.

8.4.1. It is preferred that the DWQ “on-line” NOI system be used to submit an electronic NOT.

Access to the DWQ on-line storm water data base is found at the DWQ webpage at <http://www.waterquality.utah.gov/UPDES/stormwatercon.htm>. A click on Online Application Process and Search for Existing Permits found on that page will take you to the “on line” storm water data base where NOIs and NOTs are submitted. You must logon to the account created when the NOI was submitted and find the terminate (or NOT) button for the permit tracking number when you wish to terminate a coverage. In the case where the permittee does not have access to the account where the NOI was submitted the permittee must either contact DWQ and request account access or fill out and submit to DWQ a paper form of the NOT which can be downloaded from the same DWQ website.

8.5. DEADLINE FOR SUBMITTING NOT.

You must submit an NOT within 30 calendar days after any one of the triggering conditions in Part 8.2 occur.

8.6. EFFECTIVE DATE OF TERMINATION OF COVERAGE.

Your authorization to discharge under this permit terminates at midnight of the calendar day that a completed NOT is processed (meaning that storm water discharged from the site is not coming from a site involved with construction activity) on the DWQ “on-line” storm water data base, unless the results of the final inspection indicate problems that need addressing.

Appendix A - Definitions and Acronyms

Definitions

“Act” – is a reference to the Utah Water Quality Act, or Utah Code Annotated Title 19, Chapter 5.

“Agricultural Land” - cropland, grassland, rangeland, pasture, and other agricultural land, on which agricultural and forest-related products or livestock are produced and resource concerns may be addressed. Agricultural lands include cropped woodland, marshes, incidental areas included in the agricultural operation, and other types of agricultural land used for the production of livestock.

“Antidegradation Policy” or “Antidegradation Requirements” - the water quality standards regulation that requires maintenance of water quality:

Waters whose existing quality is better than the established standards for the designated uses will be maintained at high quality unless it is determined by the Board, after appropriate intergovernmental coordination and public participation in concert with the Utah continuing planning process, allowing lower water quality is necessary to accommodate important economic or social development in the area in which the waters are located. However, existing instream water uses shall be maintained and protected. No water quality degradation is allowable which would interfere with or become injurious to existing instream water uses.

In those cases where potential water quality impairment associated with a thermal discharge is involved, the antidegradation policy and implementing method shall be consistent with Section 316 of the Federal Clean Water Act.

Category 1 Waters: Waters which have been determined by the Board to be of exceptional recreational or ecological significance or have been determined to be a State or National resource requiring protection, shall be maintained at existing high quality through designation, by the Board after public hearing, as Category 1 Waters. New point source discharges of wastewater, treated or otherwise, are prohibited in such segments after the effective date of designation. Protection of such segments from pathogens in diffuse, underground sources is covered in R317-5 and R317-7 and the Regulations for Individual Wastewater Disposal Systems (R317-501 through R317-515). Other diffuse sources (nonpoint sources) of wastes shall be controlled to the extent feasible through implementation of best management practices or regulatory programs.

Discharges may be allowed where pollution will be temporary and limited after consideration of the factors in R317-2-3.5.b.4., and where best management practices will be employed to minimize pollution effects.

Waters of the state designated as Category 1 Waters are listed in UAC R317-2-12.1.

Category 2 Waters: Category 2 Waters are designated surface water segments which are treated as Category 1 Waters except that a point source discharge may be permitted provided that the discharge does not degrade existing water quality. Discharges may be allowed where pollution will be temporary and limited after consideration of the factors in UAC R317-2-3.5.b.4., and where best management practices will be employed to

minimize pollution effects. Waters of the state designated as Category 2 Waters are listed in UAC R317-2-12.2.

Category 3 Waters: For all other waters of the state, point source discharges are allowed and degradation may occur, pursuant to the conditions and review procedures outlined in the paragraph below (Antidegradation Review).

Antidegradation Review (ADR): An antidegradation review will determine whether the proposed activity complies with the applicable antidegradation requirements for receiving waters that may be affected.

An antidegradation review (ADR) may consist of two parts or levels. A Level I review is conducted to insure that existing uses will be maintained and protected.

Both Level I and Level II reviews will be conducted on a parameter-by-parameter basis. A decision to move to a Level II review for one parameter does not require a Level II review for other parameters. Discussion of parameters of concern is those expected to be affected by the proposed activity.

Antidegradation reviews shall include opportunities for public participation, as described in UAC R317-2-3.5e.

“Arid Areas” – areas with an average annual rainfall of 0 to 10 inches.

“Bank” (e.g., stream bank or river bank) – the rising ground bordering the channel of a water of the State of Utah.

“Bluff” – a steep headland, promontory, riverbank, or cliff.

“Borrow Areas” – the areas where materials are dug for use as fill, either onsite or off-site.

“Bypass” – the intentional diversion of waste streams from any portion of a treatment facility. See 40 CFR 122.41(m)(1)(i).

“Category 1, 2, and/or 3 Waters” – see “Antidegradation Policy” or “Antidegradation Requirements”.

“Cationic Treatment Chemical” – polymers, flocculants, or other chemicals that contain an overall positive charge. Among other things, they are used to reduce turbidity in storm water discharges by chemically bonding to the overall negative charge of suspended silts and other soil materials and causing them to bind together and settle out. Common examples of cationic treatment chemicals are chitosan and cationic PAM.

“Commencement of Earth-Disturbing Activities” - the initial disturbance of soils (or ‘breaking ground’) associated with clearing, grading, or excavating activities or other construction-related activities (e.g., stockpiling of fill material).

“Commencement of Pollutant-Generating Activities” – at construction sites (for the purposes of this permit) occurs in any of the following circumstances:

- Clearing, grubbing, grading, and excavation has begun;

- Raw materials related to your construction activity, such as building materials or products, landscape materials, fertilizers, pesticides, herbicides, detergents, fuels, oils, or other chemicals have been placed at your site;
- Use of authorized non-storm water for washout activities, or dewatering activities, have begun; or
- Any other activity has begun that causes the generation of or the potential generation of pollutants.

“Common Plan of Development or Sale” – is a plan to subdivide a parcel of land into separate parts for separate sale. This can be for a residential, commercial, or industrial development. The plan originates as a single parcel which is separated into parts. This usually goes through an approval process by a local governmental unit, but in some cases may not require that process. The original plan is considered the “common plan of development or sale” whether phased or completed in steps. If a further plan is conceived that was not foreseen during the original plan, or the original plan is added onto but the addition was conceived later and was not included in any part of the original plan concept and/or development, and it develops after the completion of the construction of the entire original plan, it would be a separate “common plan of development or sale”. More than one owner of developable land can purposely join together and develop a single common plan of development or sale, but without a determined effort and coordinated planning, land owned by different owners would not be considered part of a single common plan of development or sale. For UPDES storm water permit purposes a common plan must have been initiated after October, 1992. A common plan of development or sale remains so until each lot or section of the development has fulfilled its planned purposes (e.g. in a residential development as homes are completed, stabilized, and sold or occupied). As lots or separated sections of the development are completed, the lot or section is stabilized, and the plan purposes are fulfilled for that area, lot, or section; it is no longer part of the common plan of development or sale (e.g. if a home is sold in a development and the owner decides to add a garage somewhere on the lot, that garage project is not part of the common plan of development or sale. In this process a common plan of development or sale may become reduced in size and/or separated by completed areas (which are no longer part of the common plan of development or sale), but all unfinished lots remain part of the same common plan development or sale until they are completed, stabilized, and fulfilled according to the purposes of the plan). Common Plans of Development or Sale can be commercial or industrial also.

“Construction Activities” – earth-disturbing activities, such as the clearing, grading, and excavation of land.

“Construction and Development Effluent Limitations and New Source Performance Standards” (C&D Rule) – as published in 40 CFR § 450 is the regulation requiring effluent limitations guidelines (ELG’s) and new source performance standards (NSPS) for controlling the discharge of pollutants from construction sites.

“Construction Site” – the land or water area where construction activities will occur and where storm water controls will be installed and maintained. The construction site includes construction support activities, which may be located at a different part of the property from where the primary construction activity will take place, or on a different piece of property altogether. The construction site is often a smaller subset of the lot or parcel within which the project is taking place.

“Construction Support Activities” – a construction-related activity that specifically supports the construction activity and involves earth disturbance or pollutant-generating activities of its own, and can include activities associated with concrete or asphalt batch plants, equipment staging yards, materials storage areas, excavated material disposal areas, and borrow areas.

“Construction Waste” – discarded material (such as packaging materials, scrap construction materials, masonry products, timber, steel, pipe, and electrical cuttings, plastics, and styrofoam).

“Conveyance Channel” – a temporary or permanent waterway designed and installed to safely convey storm water flow within and out of a construction site.

“Corrective Action” – for the purposes of the permit, any action taken to (1) repair, modify, or replace any storm water control used at the site; (2) clean up and dispose of spills, releases, or other deposits found on the site; and (3) remedy a permit violation.

“CWA” – the Clean Water Act or the Federal Water Pollution Control Act, 33 U.S.C. section 1251 et seq.

“Dewatering” – the act of draining rainwater and/or groundwater from building foundations, vaults, and trenches.

“Director” – the director of the Division of Water Quality.

“Discharge” – it can mean discharge of storm water or “discharge of a pollutant.”

“Discharge of a Pollutant” – any addition of any “pollutant” or combination of pollutants to “waters of the State” from any “point source,” or any addition of any pollutant or combination of pollutants to the waters of the State. This includes additions of pollutants into waters of the State from: surface runoff which is collected or channeled by man; discharges through pipes, sewers, or other conveyances, leading into privately owned treatment works. See 40 CFR 122.2.

“Discharge Point” – for the purposes of this permit, the location where collected and concentrated storm water flows are discharged from the construction site.

“Discharge-Related Activity” – activities that cause, contribute to, or result in storm water and allowable non-storm water point source discharges, and measures such as the siting, construction, and operation of storm water controls to control, reduce, or prevent pollutants from being discharged.

“Discharge to an Impaired Water” – for the purposes of this permit, a discharge to an impaired water occurs if the first water of the State to which you discharge is identified by DWQ or EPA pursuant to Section 303(d) of the Clean Water Act as not meeting an applicable water quality standard, or is included in an EPA-approved or DWQ established total maximum daily load (TMDL). For discharges that enter a storm sewer system prior to discharge, the water of the State to which you discharge is the first water of the State that receives the storm water discharge from the storm sewer system.

“Domestic Waste” – for the purposes of this permit, typical household trash, garbage or rubbish items generated by construction activities.

“Drainageway” – an open linear depression, whether constructed or natural, that functions for the collection and drainage of surface water.

“Drought-Stricken Area” – for the purposes of this permit, an area in which the National Oceanic and Atmospheric Administration’s U.S. Seasonal Drought Outlook indicates for the period during which the construction will occur that any of the following conditions are likely: (1) “Drought to persist or intensify”, (2) “Drought ongoing, some improvement”, (3) “Drought likely to improve, impacts ease”, or (4) “Drought development likely”. See http://www.cpc.ncep.noaa.gov/products/expert_assessment/season_drought.gif.

“Earth-Disturbing Activity” or “Land-Disturbing Activity” – actions taken to alter the existing vegetation and/or underlying soil of a site, such as clearing, grading, site preparation (e.g., excavating, cutting, and filling), soil compaction, and movement and stockpiling of top soils.

“Effective Operating Condition” – for the purposes of this permit, a storm water control is kept in effective operating condition if it has been implemented and maintained in such a manner that it is working as designed to minimize pollutant discharges.

“Effluent Limitations” – for the purposes of this permit, any of the Part 2 or Part 3 requirements.

“Effluent Limitations Guideline” (ELG) – defined in 40 CFR § 122.2 as a regulation published by the EPA Administrator under section 304(b) of CWA to adopt or revise effluent limitations.

“Electronic Notice of Intent” – DWQ’s online system for submitting electronic Construction General Permit forms.

“Eligible” – for the purposes of this permit, refers to storm water and allowable non-storm water discharges that are authorized for coverage under this general permit.

“Emergency-Related Project” – a project initiated in response to a public emergency (e.g., natural disaster, disruption in essential public services), for which the related work requires immediate authorization to avoid imminent endangerment to human health or the environment, or to reestablish essential public services.

“Excursion” – a measured value that exceeds a specified limit.

“Existing Project” – a construction project that commenced construction activities prior to the issuance date of this permit.

“Existing Permit Coverage” – means for a permittee that he/she had permit coverage under a previous permit (e.g., UTR300000), prior to the issuance of this permit.

“Exit Points” – any points of egress from the construction site to be used by vehicles and equipment during construction activities.

“Exposed Soils” – for the purposes of this permit, soils that as a result of earth-disturbing activities are disturbed and exposed to the elements of weather.

“Final Stabilization” – on areas not covered by permanent structures, either (1) vegetation has been established, or for arid or semi-arid areas, the area has been designed and prepared so that with time it is expected to be established a uniform (e.g., evenly distributed, without large bare

areas) perennial vegetative cover of 70 percent of the natural background vegetative cover, or (2) non-vegetative stabilization methods have been implemented to provide effective cover for exposed portions of the site.

“Groundwater” – water that resides in the ground, even if only temporarily for the time it is in the ground, in the voids and interstitial spaces around soil particles.

“Hazardous Materials” or “Hazardous Substances” or “Hazardous or Toxic Waste” – for the purposes of this permit, any liquid, solid, or contained gas that contain properties that are dangerous or potentially harmful to human health or the environment. See also 40 CFR §261.2.

“Impaired Water” or “Water Quality Impaired Water” or “Water Quality Limited Segment” – for the purposes of this permit, waters identified as impaired on the CWA Section 303(d) list, or waters with an EPA-approved or established TMDL. Your construction site will be considered to discharge to an impaired water if the first water of the state to which you discharge is identified by DWQ pursuant to Section 303(d) of the CWA as not meeting an applicable water quality standard, or is included in an EPA-approved or DWQ established total maximum daily load (TMDL). For discharges that enter a storm sewer system prior to discharge, the first water of the state to which you discharge is the water body that receives the storm water discharge from the storm sewer system.

“Impervious Surface” – for the purpose of this permit, any land surface with a low or no capacity for soil infiltration including, but not limited to, pavement, sidewalks, parking areas and driveways, packed gravel or soil, or rooftops.

“Indian Country” or “Indian Country Lands” – defined at 40 CFR §122.2 as:

1. All land within the limits of any Indian reservation under the jurisdiction of the United States Government, notwithstanding the issuance of any patent, and, including rights-of-way running through the reservation;
2. All dependent Indian communities within the borders of the United States whether within the originally or subsequently acquired territory thereof; and
3. All Indian allotments, the Indian titles to which have not been extinguished, including rights-of-ways running through the same.

“Infeasible” – for the purpose of this permit, infeasible means not technologically possible or not economically practicable and achievable in light of best industry practices. DWQ notes that it does not intend for any permit requirement to conflict with state water rights law.

“Install” or “Installation” – when used in connection with storm water controls, to connect or set in position storm water controls to make them operational.

“Intermittent (or Seasonal) Stream” – one which flows at certain times of the year when groundwater provides water for stream flow, as well as during and immediately after some precipitation events or snowmelt.

“Jar test” – a test designed to simulate full-scale coagulation/flocculation/sedimentation water treatment processes by taking into account the possible conditions.

“Landward” – positioned or located away from a water body, and towards the land.

“Level Spreader” – a temporary storm water control used to spread storm water flow uniformly over the ground surface as sheet flow to prevent concentrated, erosive flows from occurring.

“Linear Construction Project” – includes the construction of roads, bridges, conduits, substructures, pipelines, sewer lines, towers, poles, cables, wires, connectors, switching, regulating and transforming equipment and associated ancillary facilities in a long, narrow area.

“Minimize” – to reduce and/or eliminate to the extent achievable using storm water controls that are technologically available and economically practicable and achievable in light of best industry practices.

“Municipal Separate Storm Sewer System” or “MS4” – defined at 40 CFR §122.26(b)(8) as a conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, manmade channels, or storm drains):

1. Owned and operated by a state, city, town, county, district, association, or other public body (created by or pursuant to State law) having jurisdiction over disposal of sewage, industrial wastes, storm water, or other wastes, including special districts under State law such as a sewer district, flood control district or drainage district, or similar entity, or a designated and approved management agency under section 208 of the CWA that discharges to waters of the State;
2. Designed or used for collecting or conveying storm water;
3. Which is not a combined sewer; and
4. Which is not part of a Publicly Owned Treatment Works (POTW) as defined at 40 CFR §122.2.

“National Pollutant Discharge Elimination System” (NPDES) – defined at 40 CFR §122.2 as the national program for issuing, modifying, revoking and reissuing, terminating, monitoring and enforcing permits, and imposing and enforcing pretreatment requirements, under sections 307, 402, 318, and 405 of CWA. The term includes an ‘approved program.’

“Native Topsoil” – the uppermost layer of naturally occurring soil for a particular area, and is often rich in organic matter, biological activity, and nutrients.

“Native Vegetation” – the species of plants that have developed for a particular region or ecosystem and are considered endemic to that region or ecosystem.

“Natural Buffer” – for the purposes of this permit, an area of undisturbed natural cover surrounding surface waters within which construction activities are restricted. Natural cover includes the vegetation, exposed rock, or barren ground that exists prior to commencement of earth-disturbing activities.

“Natural Vegetation” – vegetation that occurs spontaneously without regular management, maintenance or species introductions, removals, and that generally has a strong component of native species.

“New Operator of a New or Existing Project” – an operator that through transfer and/or operation replaces the operator of an already permitted construction project.

“New Project” – a construction project that commences construction activities on or after July 1, 2013.

“New Source” – for the purpose of this permit, a construction project that commenced construction activities on or after the issuance date of this permit.

“New Source Performance Standards (NSPS)” – for the purposes of this permit, NSPS are technology-based standards that apply to construction sites that are new sources under 40 CFR 450.24.

“Non-Storm Water Discharges” – discharges that do not originate from storm events. They can include, but are not limited to, discharges of process water, air conditioner condensate, noncontact cooling water, vehicle wash water, sanitary wastes, concrete washout water, paint wash water, irrigation water, or pipe testing water.

“Non-Turbid” – is a term used in this permit to describe water that appears visually clear and there appears to be no evidence of silt or sediment present in the water.

“Notice of Intent” (NOI) – the form (electronic or paper) required for authorization of coverage under the Construction General Permit.

“Notice of Termination” (NOT) – the form (electronic or paper) required for terminating coverage under the Construction General Permit.

“Operational” – for the purpose of this permit, storm water controls are made “operational” when they have been installed and implemented, are functioning as designed, and are properly maintained.

“Operator” – for the purpose of this permit an operator is the party that has day-to-day operational control of those activities at a project that are necessary to ensure compliance with the permit conditions (e.g., they are authorized to direct workers at a site to carry out activities required by the permit). Operator in this context is generally is considered to be the general contractor for a project.

“Ordinary High Water Mark” – the line on the shore established by fluctuations of water and indicated by physical characteristics such as a clear, natural line impressed on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, and/or the presence of litter and debris.

“Outfall” – see “Discharge Point.”

“Owner” – for the purpose of this permit an owner usually has ownership of property on which construction activity is taking place, but it also includes ownership of a project for which construction activity is occurring on property that is owned or leased. An owner is the party that has ultimate control over construction plans and specifications, including the ability at the highest level to make modifications to those plans and specifications. “Owner” in this context is the party that has ultimate control over the destiny of a project.

“Permittee” – is the owner and/or operator named in the NOI for the project.

“Permitting Authority” – for the purposes of this permit, DWQ, the Executive Secretary for the Utah Water Quality Board, or an authorized representative.

“Point(s) of Discharge” – see “Discharge Point.”

“Point Source” – any discernible, confined, and discrete conveyance, including but not limited to, any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock concentrated animal feeding operation, landfill leachate collection system, vessel or other floating craft from which pollutants are or may be discharged. This term does not include return flows from irrigated agriculture or agricultural storm water runoff.

“Pollutant” – defined at 40 CFR §122.2. A partial listing from this definition includes: dredged spoil, solid waste, sewage, garbage, sewage sludge, chemical wastes, biological materials, heat, wrecked or discarded equipment, rock, sand, cellar dirt, and industrial or municipal waste.

“Pollutant-Generating Activities” – at construction sites (for the purposes of this permit), those activities that lead to or could lead to the generation of pollutants, either as a result of earth disturbance or a related support activity. Some of the types of pollutants that are typically found at construction sites are:

- sediment;
- nutrients;
- heavy metals;
- pesticides and herbicides;
- oil and grease;
- bacteria and viruses;
- trash, debris, and solids;
- treatment polymers; and
- any other toxic chemicals.

“Pollution Prevention Measures” – storm water controls designed to reduce or eliminate the addition of pollutants to construction site discharges through analysis of pollutant sources, implementation of proper handling/disposal practices, employee education, and other actions.

“Polymers” – for the purposes of this permit, coagulants and flocculants used to control erosion on soil or to enhance the sediment removal capabilities of sediment traps or basins. Common construction site polymers include polyacrylamide (PAM), chitosan, alum, polyaluminum chloride, and gypsum.

“Prohibited Discharges” – discharges that are not allowed under this permit, including:

1. Wastewater from washout of concrete;
2. Wastewater from washout and cleanout of stucco, paint, form release oils, curing compounds and other construction materials;
3. Fuels, oils, or other pollutants used in vehicle and equipment operation and maintenance;
4. Soaps or solvents used in vehicle and equipment washing;
5. Toxic or hazardous substances from a spill or other release; and

6. Waste, garbage, floatable debris, construction debris, and sanitary waste from pollutant generating activities.

“Provisionally Covered Under this Permit” – for the purposes of this permit, DWQ provides temporary coverage under this permit for emergency-related projects prior to receipt of a complete and accurate NOI. Discharges from earth-disturbing activities associated with the emergency-related projects are subject to the terms and conditions of the permit during the period of temporary coverage.

“Receiving Water” – a “Water of the State” is as defined in Utah Administrative Code R317-1-1.34, into which the regulated storm water discharges.

“Regulatory Authority” – as it pertains to this permit means EPA, DWQ, or a local MS4 that oversees construction activity.

“Run-On” – sources of storm water that drain from land located upslope or upstream from the regulated site in question.

“Semi-Arid Areas” – areas with an average annual rainfall of over 10 to 20 inches.

“Site” – for construction activities, the land or water area where earth-disturbing activities take place, including construction support activities.

“Small Construction Activity” – defined at Utah Administrative Code R317-8-3.9(6)(e)1. and incorporated here by reference. A small construction activity includes clearing, grading, and excavating resulting in a land disturbance that will disturb equal to or greater than one (1) acre and less than five (5) acres of land or will disturb less than one (1) acre of total land area but is part of a larger common plan of development or sale that will ultimately disturb equal to or greater than one (1) acre and less than five (5) acres. Small construction activity does not include routine maintenance that is performed to maintain the original line and grade, hydraulic capacity, or original purpose of the site.

“Small Residential Lot” – for the purpose of this permit, a lot being developed for residential purposes that will disturb less than 1 acre of land, but is part of a larger residential project that will ultimately disturb greater than or equal to 1 acre.

“Snowmelt” – the conversion of snow into overland storm water and groundwater flow as a result of warmer temperatures.

“Spill” – for the purpose of this permit, the release of a hazardous or toxic substance from its container or containment.

“Stabilization” – the use of vegetative and/or non-vegetative cover to prevent erosion and sediment loss in areas of disturbed soil exposed from the construction process.

“Steep Slopes” –for this permit steep slopes are defined as those that are 15 percent or greater in grade.

“Storm Sewer System” – a conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, manmade channels, or storm drains) designed or used for collecting or conveying storm water.

“Storm Water” – storm water runoff, snow melt runoff, and surface runoff and drainage.

“Storm Water Control Measure” - refers to any storm water control, BMP, or other method (including narrative effluent limitations) used to prevent or reduce the discharge of pollutants to waters of the state.

“Storm Water Controls” – see “Storm Water Control measure.”

“Storm Water Discharge Associated with Construction Activity” – as used in this permit, a discharge of pollutants in storm water to waters of the state from areas where land disturbing activities (e.g., clearing, grading, or excavation) occur, or where construction materials or equipment storage or maintenance (e.g., fill piles, borrow area, concrete truck chute wash down, fueling), or other industrial storm water directly related to the construction process (e.g., concrete or asphalt batch plants), are located.

“Storm Water Inlet” – an entrance or opening to a storm water conveyance system, generally placed below grade so as to receive storm water drainage from the surrounding area.

“Storm Water Team” – the group of individuals responsible for oversight of the development and modifications of the SWPPP, and oversight of compliance with the permit requirements. The individuals on the “Storm water Team” must be identified in the SWPPP.

“Storm Event” – a precipitation event that results in a measurable amount of precipitation.

“Storm Sewer” – a system of pipes (separate from sanitary sewers) that carries storm water runoff from buildings and land surfaces.

“Subcontractor” – for the purposes of this permit, an individual or company that takes a portion of a contract from the general contractor or from another subcontractor.

“Surface Water” – for this permit a surface water is defined all open water bodies, streams, lakes, ponds, marshes, wetlands, watercourses, waterways, springs, drainage systems, and all other bodies or accumulations of water on the surface only. Surface water is visible water, standing or flowing, above the surface of the ground.

“SWPPP” (Storm water Pollution Prevention Plan) – a site-specific, written document that, among other things: (1) identifies potential sources of storm water pollution at the construction site; (2) describes storm water control measures to reduce or eliminate pollutants in storm water discharges from the construction site; and (3) identifies procedures the operator will implement to comply with the terms and conditions of this general permit.

“Temporary Stabilization” – a condition where exposed soils or disturbed areas are provided a temporary vegetative and/or non-vegetative protective cover to prevent erosion and sediment loss. Temporary stabilization may include temporary seeding, geotextiles, mulches, and other techniques to reduce or eliminate erosion until either final stabilization can be achieved or until further construction activities take place to re-disturb this area.

“Thawing Conditions” – for the purposes of this permit, thawing conditions are expected based on the historical likelihood of two or more days with daytime temperatures greater than 32°F. This date can be determined by looking at historical weather data.

Note: *The estimation of thawing conditions is for planning purposes only. During construction the permittee will be required to conduct site inspections based upon actual conditions (i.e., if thawing conditions occur sooner than expected, the permittee will be required to conduct inspections at the regular frequency).*

“Total Maximum Daily Load” or “TMDL” – the sum of the individual wasteload allocations (WLAs) for point sources and load allocations (LAs) for nonpoint sources and natural background. If a receiving water has only one point source discharger, the TMDL is the sum of that point source WLA plus the LAs for any nonpoint sources of pollution and natural background sources, tributaries, or adjacent segments. TMDLs can be expressed in terms of either mass per time, toxicity, or other appropriate measure.

“Toxic Waste” – see “Hazardous Materials.”

“Turbidity” – when the term is used in a narrative it means a condition of water quality characterized by the presence of cloudiness usually caused by suspended solids and/or organic material. It refers to the visual clarity in water and is measured in a test passing light through a sample of water and quantifying the amount of light passing. The measurement is not directly proportional to the quantity of sediment in the water sample it is directly related to the quantity of light that passes through the sample. Particulate size and other factors can affect the amount of light that passes through the sample. This measurement is called nephelometric turbidity units or ntu.

“Uncontaminated Discharge” – a discharge that does not cause or contribute to an exceedence of applicable water quality standards.

“Upland” - the dry land area above and ‘landward’ of the ordinary high water mark.

“Upset” – Upset means an exceptional incident in which there is unintentional and temporary noncompliance with technology based permit effluent limitations because of factors beyond your reasonable control. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation. See 40 CFR 122.41(n)(1).

“Water-Dependent Structures” – structures or facilities that are required to be located directly adjacent to a waterbody or wetland, such as a marina, pier, boat ramp, etc.

“Water Quality Standards” –are provisions of State law which consist of a designated use or uses for the waters of the United States, water quality criteria for such waters based upon such uses, and an antidegradation policy to protect highquality waters. Water quality standards protect the public health or welfare, enhance the quality of water and serve the purposes of the Utah Water Quality Act.

“Waters of the State” – means all streams, lakes, ponds, marshes, water-courses, waterways, wells, springs, irrigation systems, drainage systems, and all other bodies or accumulations of water, surface and underground, natural or artificial, public or private, which are contained within, flow through, or border upon this state or any portion thereof, except that bodies of water confined to and retained within the limits of private property, and which do not develop into or constitute a nuisance, or a public health hazard, or a menace to fish and wildlife, shall not be considered to be "waters of the state" under this definition (Section 19-5-102).

“Wetland” – those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas. On-site evaluations are typically required to confirm the presence and boundaries of wetlands.

“Work day” – for the purposes of this permit, a work day is a calendar day on which construction activities will take place.

Acronyms

C&D – Construction & Development
CGP – Construction General Permit
CFR – Code of Federal Regulations
CPoD – Common Plan of Development or Sale
CWA – Clean Water Act
DEQ – Department of Environmental Quality
DDW – Division of Drinking Water
DWQ – Division of Water Quality
DNR – Department of Natural Resources
DOG M – Department of Oil, Gas, and Mining
EPA – United States Environmental Protection Agency
ESA – Endangered Species Act
FWS – United States Fish and Wildlife Service
MS4 – Municipal Separate Storm Sewer System
MSGP – Multi-Sector General Permit
NHPA – National Historic Preservation Act
NMFS – United States National Marine Fisheries Service
NOI – Notice of Intent
NOT – Notice of Termination
NPDES – National Pollutant Discharge Elimination System
NRC – National Response Center
NRCS – National Resources Conservation Service
POTW – Publicly Owned Treatment Works
SPCC – Spill Prevention Control and Countermeasure
SW – Storm Water
SWMP – Storm Water Management Plan
SWPPP – Storm Water Pollution Prevention Plan
TMDL – Total Maximum Daily Load
UAC – Utah Administrative Code
UCA – Utah Code Annotated
UCGP – Utah Construction General Permit
UDOT – Utah Department of Transportation
USGS – United States Geological Survey
UWQA – Utah Water Quality Act
WQS – Water Quality Standard

Appendix B - Small Construction Waivers and Instructions

These waivers are only available to storm water discharges associated with small construction activities (i.e., construction activity disturbing between 1-5 acres). As the owner/operator of a small construction activity, you may be able to qualify for a waiver in lieu of needing to obtain coverage under this general permit based on a low rainfall erosivity factor. Each owner/operator, otherwise needing permit coverage, must notify DWQ of its intention to employ this waiver. It is the responsibility of those individuals wishing to obtain a waiver from coverage under this general permit to submit a complete and accurate waiver certification as described below. Where the owner/operator changes or another is added during the construction project, the new owner/operator must also submit a waiver certification to be waived.

B.1 RAINFALL EROSIIVITY WAIVER

Under this scenario the small construction project's rainfall erosivity factor calculation ("R" in the Revised Universal Soil Loss Equation) is less than 5 during the period of construction activity. The owner/operator must certify to DWQ that construction activity will occur only when the rainfall erosivity factor is less than 5. The period of construction activity begins at initial earth disturbance and ends with final stabilization. Where vegetation will be used for final stabilization, the date of installation of a stabilization practice that will provide interim non-vegetative stabilization can be used for the end of the construction period, provided the owner/operator commits (as a condition of waiver eligibility) to periodically inspect and properly maintain the area until the criteria for final stabilization as defined in the construction general permit have been met. If use of this interim stabilization eligibility condition was relied on to qualify for the waiver, signature on the waiver with its certification statement constitutes acceptance of and commitment to complete the final stabilization process. The owner/operator must submit a waiver certification to DWQ prior to commencing construction activities.

Note: *The rainfall erosivity factor "R" is determined in accordance with Chapter 2 of Agriculture Handbook Number 703, Predicting Soil Erosion by Water: A Guide to Conservation Planning With the Revised Universal Soil Loss Equation (RUSLE), pages 21–64, dated January 1997; United States Department of Agriculture (USDA), Agricultural Research Service.*

EPA has developed an online rainfall erosivity calculator to help small construction sites determine potential eligibility for the rainfall erosivity waiver. You can access the calculator from EPA's website at: www.epa.gov/npdes/stormwater/lew. The R factor can easily be calculated by using the construction site latitude/longitude or address and estimated start and end dates of construction. This calculator may also be useful in determining the time periods during which construction activity could be waived from permit coverage. You may find that moving your construction activity by a few weeks or expediting site stabilization will allow you to qualify for the waiver. Use this online calculator or the Construction Rainfall Erosivity Waiver Fact Sheet (www.epa.gov/npdes/pubs/fact3-1.pdf) to assist in determining the R Factor for your small construction site.

If you are the owner/operator of the construction activity and are eligible for a waiver based on low erosivity potential, you can submit the erosivity waiver electronically on the DWQ on-line Storm Water data base (<https://secure.utah.gov/stormwater>) or provide the following information on the waiver certification form in order to be waived from permitting requirements:

1. Name, address and telephone number of the construction site owner/operator(s);

2. Name (or other identifier), address, county, city (if within an incorporated city boundary), and latitude/longitude of the construction project or site;
3. Estimated construction start and completion (i.e., final stabilization) dates, and total acreage (to the nearest quarter acre) to be disturbed;
4. The rainfall erosivity factor calculation that applies to the active construction phase at your project site; and
5. A statement, signed and dated by an authorized representative as provided in Appendix I, Subsection I.11, which certifies that the construction activity will take place during a period when the value of the rainfall erosivity factor is less than five

You can access the waiver certification form from DWQ's website at: (<http://www.waterquality.utah.gov/UPDES/stormwatercon.htm>). Paper copies of the form must be sent to one of the addresses listed in Part B.2 of this appendix.

Note: *If the R factor is 5 or greater, you cannot apply for the rainfall erosivity waiver, and must apply for UPDES permit coverage.*

If your small construction project continues beyond the projected completion date given on the waiver certification, you must recalculate the rainfall erosivity factor for the new project duration. If the R factor is below five (5), you must update all applicable information on the waiver certification and retain a copy of the revised waiver as part of your records. The new waiver certification must be submitted prior to the projected completion date listed on the original waiver form to assure your exemption from permitting requirements is uninterrupted. If the new R factor is 5 or above, you must obtain UPDES permit coverage.

B.2 WAIVER DEADLINES AND SUBMISSIONS

1. Waiver certifications must be submitted prior to commencement of construction activities.
2. Late Notifications: Owner/Operators are not prohibited from submitting waiver certifications after initiating clearing, grading, excavation activities, or other construction activities. DWQ reserves the right to take enforcement for any unpermitted discharges that occur between the time construction commenced and waiver authorization is granted.

Submittal of a waiver certification is an optional alternative to obtaining permit coverage for discharges of storm water associated with small construction activity (construction activity disturbing 1-5 acres), provided you qualify for the waiver. Any discharge of storm water associated with small construction activity not covered by either a permit or a waiver may be considered an unpermitted discharge under the Clean Water Act. DWQ may notify any owner/operator covered by a waiver that they must apply for a permit. DWQ may notify any owner/operator who has been in non-compliance with a waiver that they may no longer use the waiver for future projects. Any member of the public may petition DWQ to take action under this provision by submitting written notice along with supporting justification. Complete and accurate Rainfall Erosivity waiver certifications not otherwise submitted electronically via DWQ's on-line Storm Water data base system (<https://secure.utah.gov/stormwater>) must be sent to the following address:

Construction Storm Water Waiver
Utah DWQ
PO Box 144870

Salt Lake City, Utah 84114-4870

Appendix C – List with Information on Utah’s Waters

The site <http://wq.deq.utah.gov/> has a map of watershed assessment units which can be used to identify waters (rivers, creeks, lakes) and water quality information about them. If you can find the place on the map of the State of Utah and click where your project will occur, information will come up in the window on the left about the watershed assessment unit.

The information available on the watershed assessment unit is:

- Name of the watershed assessment unit or water body
- Category of water
- Beneficial uses of the water body
- If the water is impaired
- If impaired, what the cause of impairment is
- A contact name and phone number to obtain more information.

Appendix D – Buffer Guidance.

The following section was taken (nearly verbatim) from the EPA CGP. The EPA covers the entire US and therefore provides information from across the US. Data and information directly about Utah are not included. DWQ does not have the resources to modify this appendix to generate and include information only for Utah. The entire section is included to provide direction and help for permittees although examples within this treatise may also include areas not similar to Utah. For purposes of the permit it will suffice for a site in Utah to use the data from areas with similar climates (Idaho or New Mexico -- whichever matches the Utah site closest) to make the prescribed calculations.

The purpose of this guidance is to assist you in complying with the requirements in Part 2.1.2.a. of the permit regarding the establishment of natural buffers or equivalent sediment controls. This guidance is organized as follows:

- D.1. SITES THAT ARE REQUIRED TO COMPLY WITH PART 2.1.2.a. D-2.
 - D.1.1. Step 1 - Determine if Your Site is Within 50 Feet of a Surface Water D-2.
 - D.1.2. Step 2 - Determine if Any Exceptions to the Requirements in Part 2.1.2.a. Apply .. D-3.
- D.2 COMPLIANCE ALTERNATIVES GUIDANCE D-4.
 - D.2.1. Guidance for Providing and Maintaining Natural Buffers D-4.
 - D.2.1.1 Buffer Width Measurement D-5.
 - D.2.1.2 Limits to Disturbance Within the Buffer. D-7.
 - D.2.1.3 Discharges to the Buffer D-7.
 - D.2.1.4 SWPPP Documentation D-8.
 - D.2.2. Guidance for Providing the Equivalent Sediment Reduction as the 50-foot Buffer .. D-8.
 - D.2.2.1 Determine Whether it is Feasible to Provide a Reduced Buffer D-8.
 - D.2.2.2 Design Controls That Provide Equivalent Sediment Reduction as 50-foot Buffer D-9.
 - a. Step 1 - Estimate the Sediment Reduction from the 50-foot Buffer D-10.
 - b. Step 2 - Design Controls That Match the Sediment Removal Efficiency of the 50-foot Buffer..... D-11.
 - c. Step 3 - Document How Site-Specific Controls Will Achieve the Sediment Removal Efficiency of the 50-foot Buffer D-12.
 - D.2.3 Small Residential Lot Compliance Alternatives D-13.
 - D.2.3.1 Step 1 – Determine if You are Eligible for the Small Residential Lot Compliance D-13.
 - D.2.3.2 Step 2 – Implement the Requirements of the Small Residential Lot Compliance Alternative Selected D-13.
 - a. Small Residential Lot Compliance Alternative 1 D-13.
 - b. Small Residential Lot Compliance Alternative 2 D-14.

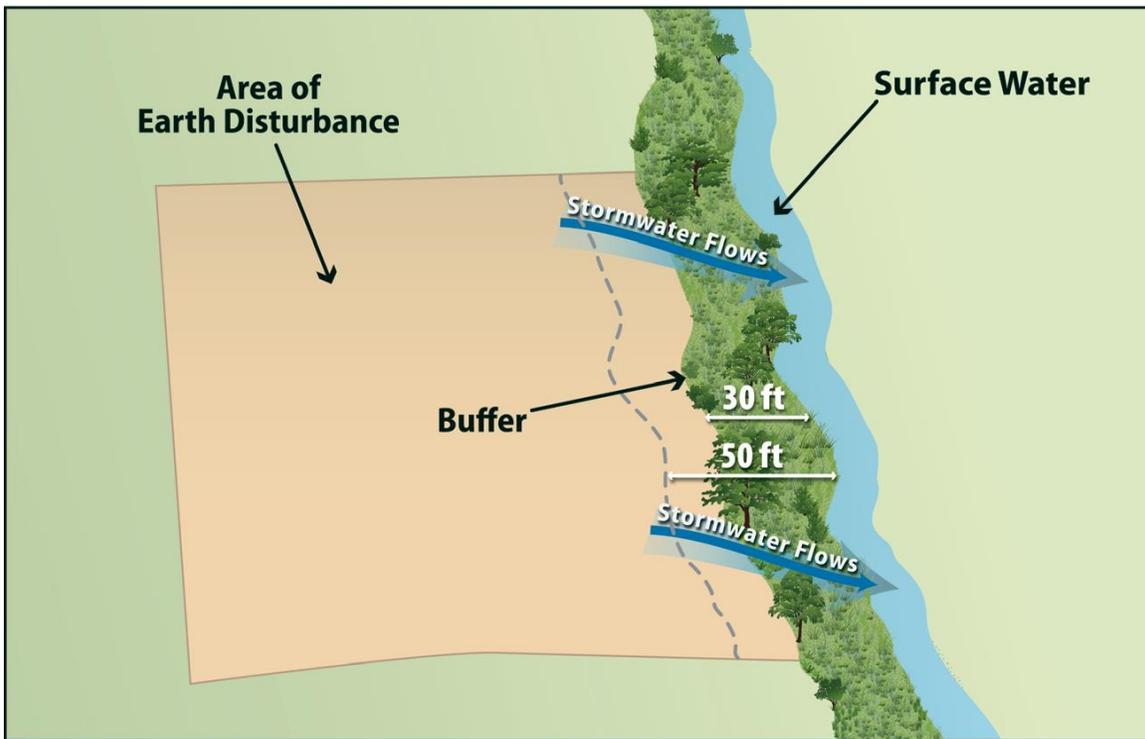
D.1 SITES THAT ARE REQUIRED TO COMPLY WITH PART 2.1.2.a.

The purpose of this part is to help you determine if the requirements in Part 2.1.2.a. apply to your site.

D.1.1 Step 1 - Determine if Your Site is Within 50 Feet of a Surface Water

Part 2.1.2.a. applies to you only if your earth-disturbing activities will occur within 50 feet of a surface water that receives storm water discharges from your site. Figure D – 1 illustrates when a site would be required to comply with the requirements in Part 2.1.2.a. due to their proximity to a surface water. If the surface water is not located within 50 feet of the earth-disturbing activities, Part 2.1.2.a. does not apply.

Figure D - 1. Example of earth-disturbing activities within 50 feet of a surface water.



If you determine that your earth-disturbing activities will occur within 50 feet of a surface water that receives storm water discharges from your site, the requirements in Part 2.1.2.a. apply, except for certain circumstances that are described in Step 2.

Note that where some natural buffer exists but portions of the area within 50 feet of the surface water are occupied by preexisting development disturbances, or if a portion of area within 50 feet of the surface water is owned by another party and is not under your control, the buffer requirements in Part 2.1.2.a. still apply, but with some allowances.

Clarity about how to implement the compliance alternatives for these situations is provided in D.2.1.2 and D.2.2.2 below.

Note that DWQ does not consider designed storm water control features (e.g., storm water conveyance channels, storm drain inlets, storm water basins) that direct storm water to surface waters more than 50 feet from the disturbance to constitute surface waters for the purposes of determining if the buffer requirements apply.

D.1.2 Step 2 - Determine if Any Exceptions to the Requirements in Part 2.1.2.a. Apply.

The following exceptions apply to the requirements in Part 2.1.2.a:

- If there is no discharge of storm water to surface waters through the area between the disturbed portions of the site and any surface waters located within 50 feet of your site, you are not required to comply with the requirements in this Part. This includes situations where you have implemented controls measures, such as a berm or other barrier that will prevent such discharges.
- Where no natural buffer exists due to preexisting development structures (e.g. parking lot, building) that occurred prior to the initiation of planning for the current development of the site, you are not required to comply with the requirements in this Part.

Where some natural buffer exists but portions of the area within 50 feet of the surface water are occupied by preexisting development structures, you are required to comply with the requirements in this Part. For the purposes of calculating the sediment load reduction for either compliance alternative 2 or 3 below, you are not expected to compensate for the reduction in buffer function that would have resulted from the area covered by these preexisting structures. Clarity about how to implement the compliance alternatives for these situations is provided in D.2.1.2 and D.2.2.2 below.

If during your project, you will disturb any portion of these preexisting structures, the area removed will be deducted from the area treated as natural buffer.

- For “linear construction projects” (see Appendix A), you are not required to comply with this requirement if site constraints (e.g., limited right-of-way) prevent you from complying with the requirements of the alternatives in Part 2.1.2.a.i. provided that, to the extent practicable, you limit disturbances within 50 feet of the surface water and/or you provide supplemental erosion and sediment controls to treat storm water discharges from earth disturbances within 50 feet of the surface water. You must also document in your SWPPP your rationale for why it is infeasible for you to comply with the requirements in Part 2.1.2.a.i., and describe any buffer width retained and/or supplemental erosion and sediment controls installed.
- For “small residential lot” construction (i.e., a lot being developed for residential purposes that will disturb less than 1 acre of land, but is part of a common plan of development or sale that will disturb greater than or equal to 1 acre), you have the option of complying with the requirements in Part D.2.3 of this appendix.

- The following disturbances within 50 feet of a surface water are exempt from the requirements in this Part:
 - Construction approved under a CWA Section 404 permit; or
 - Construction of a water-dependent structure or water access areas (e.g., pier, boat ramp, trail).

Note that you must document in your SWPPP if any disturbances related to any of the above exceptions occurs within the buffer area on your site.

D.2 COMPLIANCE ALTERNATIVES GUIDANCE.

If in Part D.1 of this guidance you determine that the buffer requirements apply to your site, you have three compliance alternatives from which you can choose:

1. Provide and maintain a 50-foot undisturbed natural buffer (Part 2.1.2.a.i.1));¹ or
2. Provide and maintain an undisturbed natural buffer that is less than 50 feet and is supplemented by additional erosion and sediment controls, which in combination achieves the sediment load reduction equivalent to a 50-foot undisturbed natural buffer (Part 2.1.2.a.i.2));¹ or
3. If it is infeasible to provide and maintain an undisturbed natural buffer of any size, you must implement erosion and sediment controls that achieve the sediment load reduction equivalent to a 50-foot undisturbed natural buffer (Part 2.1.2.a.i.3)).¹

The compliance alternative selected above must be maintained throughout the duration of permit coverage.

The following provides detailed guidance for how you can comply with each of the compliance alternatives. Part D.2.1. below provides guidance on how to provide and maintain natural buffers consistent with the alternatives 1 and 2, above. Part D.2.2. below provides guidance on how to comply with the requirement to provide a 50-foot buffer equivalent through erosion and sediment controls consistent with alternatives 2 and 3, above.

D.2.1 Guidance for Providing and Maintaining Natural Buffers.

The following guidance is intended to assist you in complying with the requirements to provide and maintain a natural buffer during construction. This part of the guidance

¹ For the compliance alternatives in 1 and 2, you are not required to enhance the quality of the vegetation that already exists in the buffer, or provide vegetation if none exists (e.g., arid and semi-arid areas). You only need to retain and protect from disturbance the natural buffer that existed prior to the commencement of construction. Any preexisting structures or impervious surfaces are allowed in the natural buffer provided you retain and protect from disturbance the natural buffer area outside the preexisting disturbance. Similarly, for alternatives 2 and 3, you are required to implement and maintain sediment controls that achieve the sediment load reduction equivalent to the undisturbed natural buffer that existed on the site prior to the commencement of construction. In determining equivalent sediment load reductions, you may consider naturally non-vegetated areas and prior disturbances. See Part D.2.2 of this Appendix for a discussion of how to determine equivalent reductions.

applies to you if you choose either alternative 1 (50-foot buffer) or alternative 2 (a buffer of < 50 feet supplemented by additional erosion and sediment controls that achieve the equivalent sediment load reduction as the 50-foot buffer), or if you are providing a buffer in compliance with one of the small residential lot compliance alternatives in Part D.2.3 below.

D.2.1.1 Buffer Width Measurement

Where you are retaining a buffer of any size, the buffer should be measured perpendicularly from any of the following points, whichever is further landward from the water:

1. The ordinary high water mark of the water body, defined as the line on the shore established by fluctuations of water and indicated by physical characteristics such as a clear, natural line impressed on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, and/or the presence of litter and debris; or
2. The edge of the stream or river bank, bluff, or cliff, whichever is applicable.

Refer to Figure D – 2 and Figure D - 3. You may find that specifically measuring these points is challenging if the flow path of the surface water changes frequently, thereby causing the measurement line for the buffer to fluctuate continuously along the path of the waterbody. Where this is the case, EPA suggests that rather than measuring each change or deviation along the water’s edge, it may be easier to select regular intervals from which to conduct your measurement. For instance, you may elect to conduct your buffer measurement every 5 to 10 feet along the length of the water.

Additionally, note that if earth-disturbing activities will take place on both sides of a surface water that flows through your site, to the extent that you are establishing a buffer around this water, it must be established on both sides. For example, if you choose alternative 1 above, and your project calls for disturbances on both sides of a small stream, you would need to retain the full 50 feet of buffer on both sides of the water. However, if your construction activities will only occur on one side of the stream, you would only need to retain the 50-foot buffer on the side of the stream where the earth disturbance will occur.

Figure D - 2. This image shows buffer measurement from the ordinary high water mark of the water body, as indicated by a clear natural line impressed on the bank, shelving, changes in the character of the soil, destruction of terrestrial vegetation, and/or the presence of litter/debris.

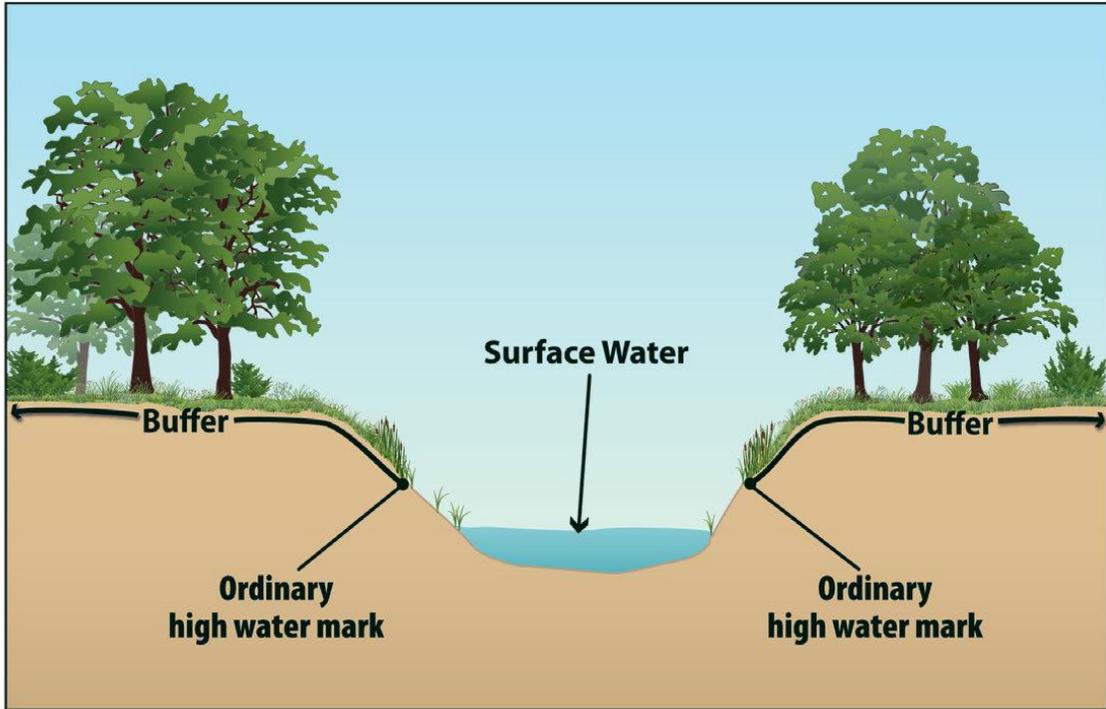
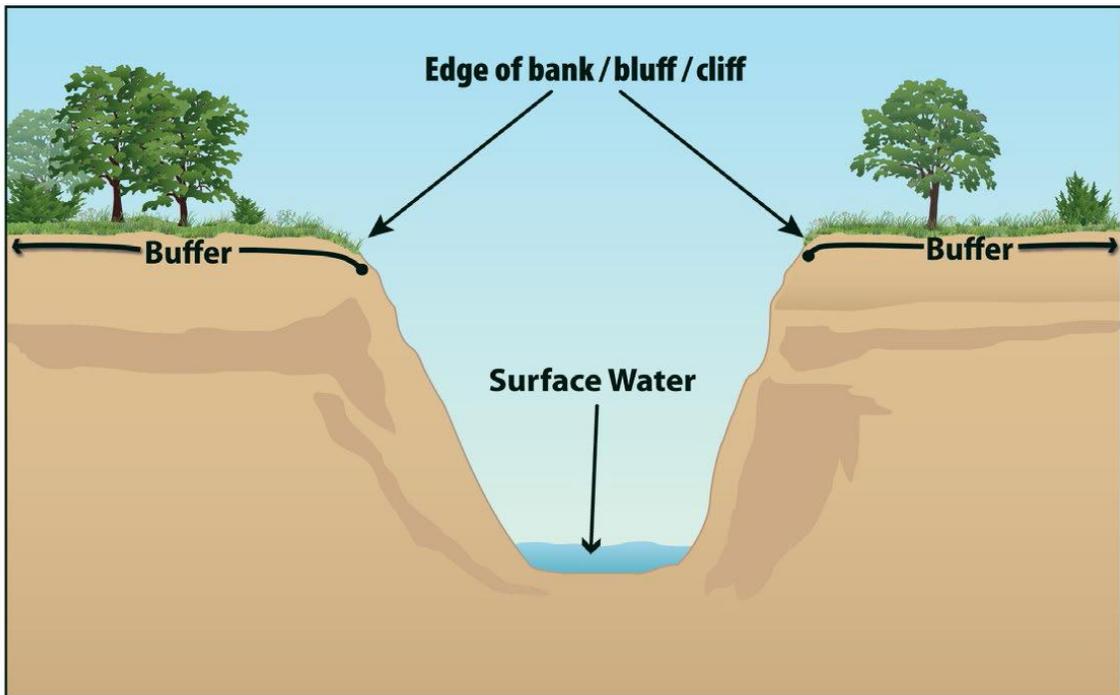


Figure D - 3. This image shows buffer measurement from the edge of the bank, bluff, or cliff, whichever is applicable.



D.2.1.2 Limits to Disturbance Within the Buffer

You are considered to be in compliance with this requirement if you retain and protect from construction activities the natural buffer that existed prior to the commencement of

construction. If the buffer area contains no vegetation prior to the commencement of construction (e.g., sand or rocky surface), you are not required to plant any additional vegetation. As noted above, any preexisting structures or impervious surfaces are allowed in the buffer provided you retain and protect from disturbance the vegetation in the buffer outside the preexisting disturbance.

To ensure that the water quality protection benefits of the buffer are retained during construction, you are prohibited from conducting any earth-disturbing activities within the buffer during permit coverage. In furtherance of this requirement, prior to commencing earth-disturbing activities on your site, you must delineate, and clearly mark off, with flags, tape, or a similar marking device, the buffer area on your site. The purpose of this requirement is to make the buffer area clearly visible to the people working on your site so that unintended disturbances are avoided.

While you are not required to enhance the quality of the vegetation that already exists within the buffer, you are encouraged to do so where such improvements will enhance the water quality protection benefits of the buffer. (Note that any disturbances within the buffer related to buffer enhancement are permitted and do not constitute construction disturbances.) For instance, you may want to consider targeted plantings where limited vegetation exists, or replacement of existing vegetation where invasive or noxious plant species (see <http://plants.usda.gov/java/noxiousDriver>) have taken over. In the case of invasive or noxious species, you may want to remove and replace them with a diversity of native trees, shrubs, and herbaceous plants that are well-adapted to the climatic, soil, and hydrologic conditions on the site. You are also encouraged to limit the removal of naturally deposited leaf litter, woody debris, and other biomass, as this material contributes to the ability of the buffer to retain water and filter pollutants.

If a portion of the buffer area adjacent to the surface water is owned by another party and is not under your control, you are only required to retain and protect from construction activities the portion of the buffer area that is under your control. For example, if you elect alternative 1 above (provide and maintain a 50-foot buffer), but 10 feet of land immediately adjacent to the surface water is owned by a different party than the land on which your construction activities are taking place and you do not have control over that land, you must only retain and protect from construction activities the 40-foot buffer area that occurs on the property on which your construction activities are taking place. DWQ would consider you to be in compliance with this requirement regardless of the activities that are taking place in the 10-foot area that is owned by a different party than the land on which your construction activities are taking place that you have no control over.

D.2.1.3. Discharges to the Buffer

You must ensure that all discharges from the area of earth disturbance to the natural buffer are first treated by the site's erosion and sediment controls (for example, you must comply with the Part 2.1.2.b. requirement to establish sediment controls around the downslope perimeter of your site disturbances), and if necessary to prevent erosion caused by storm water flows within the buffer, you must use velocity dissipation devices. The purpose of this requirement is to decrease the rate of storm water flow and encourage infiltration so that the pollutant filtering functions of the buffer will be achieved. To comply with this requirement, construction operators typically will use devices that physically dissipate storm water flows so that the discharge entering the buffer is spread out and slowed down.

D.2.1.4 SWPPP Documentation

You are required to document in your SWPPP the natural buffer width that is retained. For example, if you are complying with alternative 1, you must specify in your SWPPP that you are providing a 50-foot buffer. Or, if you will be complying with alternative 2, you must document the reduced width of the buffer you will be retaining (and you must also comply with the requirements in Part 2.1.2.a.iii. to describe the erosion and sediment controls you will use to achieve an equivalent sediment reduction, as described in Part D.2.2 below). Note that you must also show any buffers on your site plan in your SWPPP consistent with Part 7.2.6.c. Additionally, if any disturbances related to the exceptions in Part 2.1.2.a.v. occur within the buffer area, you must document this in the SWPPP.

D.2.2 Guidance for Providing the Equivalent Sediment Reduction as the 50-foot Buffer.

If you are selecting Alternative 2 (provide and maintain a buffer that is less than 50 feet that is supplemented by additional erosion and sediment controls that, together, achieve the equivalent sediment load reduction as the 50-foot buffer) or Alternative 3 (implement erosion and sediment controls that achieve the equivalent sediment load reduction as the 50-foot buffer), the following guidance is intended to assist you in demonstrating that you will achieve the equivalent sediment reduction as the 50-foot buffer.

D.2.2.1 Determine Whether it is Feasible to Provide a Reduced Buffer.

DWQ recognizes that there will be a number of situations in which it will be infeasible to provide and maintain a buffer of any width. While some of these situations may exempt you from the buffer requirement entirely (see D.1.2), if you do not qualify for one of these exemptions, there still may be conditions or circumstances at your site that make it infeasible to provide a natural buffer. For example, there may be sites where a significant portion of the property on which the earth-disturbing activities will occur is located within the buffer area, thereby precluding the retention of natural buffer areas. DWQ believes there are likely to be other examples of situations that make it infeasible to provide any buffer area.

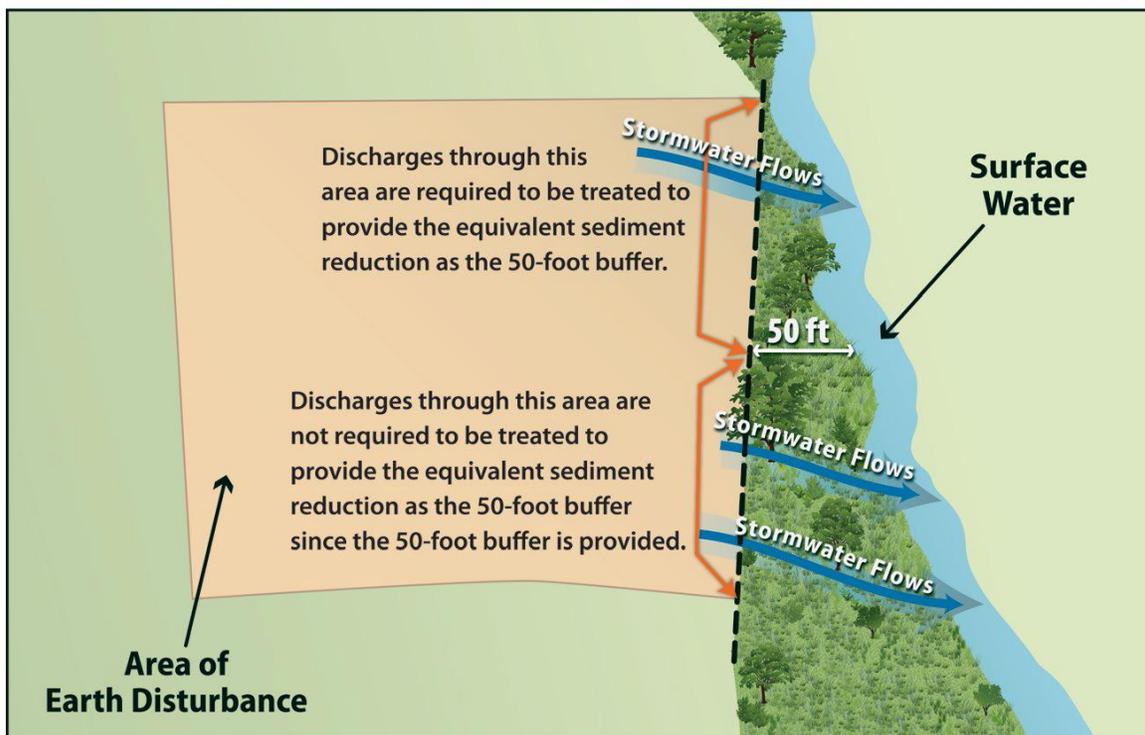
Therefore, in choosing between the 2 different compliance alternatives (Alternative 2 or 3), you should only elect to comply with Alternative 2 if it is feasible for you to retain any natural buffer on your site. (Note: For any buffer width retained, you are required to comply with the requirements in Part D.2.1, above, concerning the retention of vegetation and restricting earth disturbances.) Similarly, if you determine that it is infeasible to provide a natural buffer of any size during construction, you should elect to comply with Alternative 3. After making this determination, you should proceed to Part D.2.2.2 to determine how to provide controls that, together with any buffer areas that is being retained, if applicable, will achieve an equivalent sediment load reduction as the 50-foot buffer.

D.2.2.2 Design Controls That Provide Equivalent Sediment Reduction as 50-foot Buffer

You must next determine what additional controls must be implemented on your site that, alone or in combination with any retained natural buffer, achieve a reduction in sediment equivalent to that achieved by a 50-foot buffer.

Note that if only a portion of the natural buffer is less than 50 feet, you are only required to implement erosion and sediment controls that achieve the sediment load reduction equivalent to the 50-foot buffer for discharges through that area. You would not be required to provide treatment of storm water discharges that flow through 50 feet or more of natural buffer. See Figure D - 4.

Figure D - 4 Example of how to comply with the requirement to provide the equivalent sediment reduction when only a portion of your earth-disturbances discharge to a buffer of less than 50-feet.



To comply with this requirement, you are required to do the following:

Step 1 - Estimate the sediment reduction expected from your site if you had retained a 50-foot natural buffer;

Step 2 - Design controls that alone or in combination with any width of buffer retained achieve the equivalent sediment removal efficiency as that expected from the 50-foot buffer; and

Step 3 - Document in your SWPPP how your controls will achieve the equivalent sediment removal efficiency of the 50-foot buffer.

Guidelines to help you work through these requirements are provided below.

a. Step 1 - Estimate the Sediment Reduction from the 50-foot Buffer

In order to design controls that match the sediment removal efficiency of a 50-foot buffer, you first need to know what this efficiency is for your site. The sediment removal efficiencies of natural buffers vary according to a number of site-specific factors, including precipitation, soil type, land cover, slope length, width, steepness, and the types of sediment controls used to reduce the discharge of sediment prior to the buffer. DWQ has adopted EPA calculations concerning this and DWQ has adapted it to Utah. EPA has simplified this calculation by developing buffer performance tables covering a range of vegetation and soil types for the areas in Utah. See Attachment , Tables D – 4 and D - 5. Note: buffer performance values in Tables D – 4 and D - 5 represent the percent of sediment captured through the use of perimeter controls (e.g., silt fences) and 50-foot buffers at disturbed sites of fixed proportions and slopes.²

Using Tables D – 4 and D - 5 (see Attachment 1), you can determine the sediment removal efficiency of a 50-foot buffer for your geographic area by matching the vegetative cover type that best describes your buffer area and the type of soils that predominate at your site. For example, if your site is located in moist Utah (see the 3-zone precipitation map of Utah in Appendix F), Table D - 4, and your buffer vegetation corresponds most closely with that of medium density weeds, and the soil type at your site is best typified as sand, your site's sediment removal efficiency would be 28 percent. In this step, you should choose the vegetation type

² EPA used the following when developing the buffer performance tables:

- The sediment removal efficiencies are based on the U.S. Department of Agriculture's RUSLE2 ("Revised Universal Soil Loss Equation 2") model for slope profiles using a 100-foot long denuded slopes.
- Sediment removal was defined as the annual sediment delivered at the downstream end of the 50-foot natural buffer (tons/yr/acre) divided by the annual yield from denuded area (tons/yr/acre).
- As perimeter controls are also required by the CGP, sediment removal is in part a function of the reduction due to a perimeter control (i.e., silt fence) located between the disturbed portion of the site and the upstream edge of the natural buffer and flow traveling through a 50-foot buffer of undisturbed natural vegetation.
- It was assumed that construction sites have a relatively uniform slope without topographic features that accelerate the concentration for erosive flows.
- It was assumed that vegetation has been removed from the disturbed portion of the site and a combination of cuts and fills have resulted in a smooth soil surface with limited retention of near-surface root mass

To represent the influence of soil, EPA analyzed 11 general soil texture classifications in its evaluation of buffer performance. To represent different types of buffer vegetation, EPA evaluated 4 or more common vegetative types for each state/territory covered under the permit (DWQ is using only that which is approximately what could be found in Utah or nearby areas). For each vegetation type evaluated, EPA considered only permanent, non-grazed and non-harvested vegetation, on the assumption that a natural buffer adjacent to the surface water will typically be undisturbed. EPA also evaluated slope steepness and found that sediment removal efficiencies present in Tables D -4 and D - 5 are achievable for slopes that are less than nine percent.

in the tables that most closely matches the vegetation that would exist naturally in the buffer area on your site regardless of the condition of the buffer. However, because you are not required to plant any additional vegetation in the buffer area, in determining what controls are necessary to meet this sediment removal equivalency in Step 2 below, you will be able to take credit for this area as a fully vegetated “natural buffer.” Similarly, if a portion of the buffer area adjacent to the surface water is owned by another party and is not under your control, you can treat the area of land not under control as having the equivalent vegetative cover and soil type that predominates on the portion of the property on which your construction activities are occurring.

For example, if your earth-disturbances occur within 50 feet of a surface water, but the 10 feet of land immediately adjacent to the surface water is owned by a different party than the land on which your construction activities are taking place and you do not have control over that land, you can treat the 10 foot area adjacent to the stream as having the equivalent soil and vegetation type as predominates in the 40 foot area under your control. You would then make the same assumption in Step 2 for purposes of determining the equivalent sediment removal.

Alternatively, you may do your own calculation of the effectiveness of the 50-foot buffer based upon your site-specific conditions, and may use this number as your sediment removal equivalency standard to meet instead of using Tables D – 4 and D - 5. This calculation must be documented in your SWPPP.

b. Step 2 - Design Controls That Match the Sediment Removal Efficiency of the 50-foot Buffer

Once you have determined the estimated sediment removal efficiency of a 50-foot buffer for your site in Step 1, you will be required to select storm water controls that will provide an equivalent sediment load reductions. These controls can include the installation of a single designed control, such as a sediment pond, additional perimeter controls, or other type of device. Alternatively, you may elect to install a combination of storm water controls and to retain some amount of a buffer. Whichever control(s) you select, you must demonstrate in your SWPPP that the controls will provide at a minimum the same sediment removal capabilities as the 50-foot buffer (Step 1). You are allowed to take credit for the removal efficiencies of your required perimeter controls in your calculation of equivalency, because these were included in calculating the buffer removal efficiencies in tables D – 4 and D - 5. (Note: You are reminded that the controls must be kept in effective operating condition until you have completed final stabilization on the disturbed portions of the site discharging to the surface water.)

To make the determination that your controls and/or buffer area achieve an equivalent sediment load reduction as the 50-foot buffer, you will need to use a model or other type of calculator. As mentioned above, there are a variety of models available that can be used to support your calculation, including USDA’s RUSLE-series programs and the WEPP erosion model, SEDCAD, SEDIMOT, or other models. A couple of examples are provided in Attachment 3 to help illustrate how this determination could be made. If you are retaining a buffer of less than 50 feet, you may take credit for the removal that will occur from the reduced buffer

and only need to provide additional controls to make up the difference between the removal efficiency of a 50 foot buffer and the removal efficiency of the narrower buffer. For example, if you are retaining a 30 foot buffer, you can account for the sediment removal provided by the 30-foot buffer retained, and you will only need to design controls to make up for the additional removal provided by the 20-foot of buffer that is not being provided. To do this, you would plug the width of the buffer that is retained into RUSLE or another model, along with other storm water controls that will together achieve a sediment reduction equivalent to a natural 50-foot buffer. As described in Step 1 above, you can take credit for the area you have retained as a “natural buffer” as being fully vegetated, regardless of the condition of the buffer area.

For example, if your earth-disturbances occur 30 feet from a surface water, but the 10 feet of land immediately adjacent to the surface water is owned by a different party than the land on which your construction activities are taking place and you do not have control over that land, you can treat the 10-foot area as a natural buffer, regardless of the activities that are taking place in the area. Therefore, you can assume (for purposes of your equivalency calculation) that your site is providing the sediment removal equivalent of a 30-foot buffer, and you will only need to design controls to make up for the additional removal provided by the 20-foot of buffer that is not being provided.

c. Step 3 - Document How Site-Specific Controls Will Achieve the Sediment Removal Efficiency of the 50-foot Buffer

In Steps 1 and 2, you determined both the expected sediment removal efficiency of a 50-foot buffer at your site, and you used this number as a performance standard to design controls to be installed at your site, which alone or in combination with any retained natural buffer, achieves the expected sediment removal efficiency of a 50-foot buffer at your site. The final step is to document in your SWPPP the information you relied on to calculate the equivalent sediment reduction as an undisturbed natural buffer. DWQ will consider your documentation to be sufficient if it generally meets the following:

- For Step 1, refer to the table in Attachment 1 that you used to derive your estimated 50-foot buffer sediment removal efficiency performance. Include information about the buffer vegetation and soil type that predominate at your site, which you used to select the sediment load reduction value in Tables D - 4 and D - 5. Or, if you conducted a site-specific calculation for sediment removal efficiency, provide the specific removal efficiency, and the information you relied on to make your site-specific calculation.
- For Step 2: (1) Specify the model you used to estimate sediment load reductions from your site; and (2) the results of calculations showing how your controls will meet or exceed the sediment removal efficiency from Step 1.

If you choose Alternative 3, you must also include in your SWPPP a description of why it is infeasible for you to provide and maintain an undisturbed natural buffer of any size.

D.2.3 Small Residential Lot Compliance Alternatives

In this part of Appendix D, EPA provides additional compliance alternatives for owner/operators of small residential lots. In accordance with Part 2.1.2.a.v.4), owner/operators of small residential lots who do not provide a 50-foot buffer are not required to make the demonstration outlined in Part D.2.2.2. Instead,

A small residential lot is a lot or grouping of lots being developed for residential purposes that will disturb less than 1 acre of land, but that is part of a larger residential project that will ultimately disturb greater than or equal to 1 acre.

qualifying owner/operators can comply with the buffer requirement by choosing to implement a set of traditional sediment and erosion controls from the menu of practices provided in Part D.2.3.2. DWQ allows the (EPA developed) two different alternatives for compliance. The following steps describe how a small residential lot owner/operator would achieve compliance with these 2 alternatives.

D.2.3.1 Step 1 – Determine if You are Eligible for the Small Residential Lot Compliance Alternatives

In order to be eligible for the small residential lot compliance alternatives, the following conditions must be met:

- a. The lot or grouping of lots meets the definition of “small residential lot”; and
- b. The owner/operator must comply with all other requirements in Part 2.1.2.a, including:
 - i. Ensure that all discharges from the area of earth disturbance to the natural buffer are first treated by the site’s erosion and sediment controls, and use velocity dissipation devices if necessary to prevent erosion caused by storm water within the buffer;
 - ii. Document in the SWPPP the natural buffer width retained on the property, and show the buffer boundary on your site plan; and
 - iii. Delineate, and clearly mark off, with flags, tape, or other similar marking device, all natural buffer areas.

D.2.3.2 Step 2 – Implement the Requirements of the Small Residential Lot Compliance Alternative Selected

You must next choose from one of two small residential lot compliance alternatives and implement the storm water control practices associated with that alternative.

Note: *The compliance alternatives provided below are not mandatory. Owner/Operators of small residential lots can alternatively choose to comply with the any of the options that are available to other sites in Part 2.1.2.a.i, described in Parts D.2.1 and D.2.2 in this appendix.*

a. Small Residential Lot Compliance Alternative 1

Alternative 1 is a straightforward tiered- technology approach that specifies the controls that a small residential lot must implement based on the buffer width retained. To achieve compliance with Alternative 1, you must implement the controls specified in Table D – 1 based on the buffer width to be retained. See footnote 3, below, for a description of the controls you must implement.

For example, if you are an owner/operator of a small residential lot that will be retaining a 35-foot buffer and you choose Small Residential Lot Compliance Alternative 1, you must implement double perimeter controls between earth disturbances and the surface water.

In addition to implementing the applicable control, you must also document in your SWPPP how you will comply with Alternative 1.

Table D - 1. Alternative 1 Requirements³

Retain 50-foot Buffer	Retain <50 and >30 foot Buffer	Retain ≤ 30 foot Buffer
No Additional Requirements	Double Perimeter Controls	Double Perimeter Controls and 7-Day Site Stabilization

b. Small Residential Lot Compliance Alternative 2

Alternative 2 specifies the controls that a builder of a small lot must implement based on both the buffer width retained and their risk of sediment discharge. By incorporating the sediment risk, this approach may result in the implementation of controls that are more appropriate for the site’s specific conditions.

Step 1 – Determine Your Site’s Sediment Risk Level

To meet the requirements of Alternative 2, you must first determine your site’s sediment discharge “risk level” based on the site’s slope, location, and soil type. To help you to determine your site’s sediment risk level, DWQ has adapted table D-2 for areas from moist Utah, semi-arid, or arid; soil type; and different slope conditions. On table D-2, first select the slope; then select the climate (moist, semi-arid, or arid); then select the soil type.

³ Description of Additional Controls Applicable to Small Residential Lot Compliance Alternatives 1 and 2:

- **No Additional Requirements:** If you implement a buffer of 50 feet or greater, then you are not subject to any additional requirements. Note that you are required to install perimeter controls between the disturbed portions of your site and the buffer in accordance with Part 2.1.2.b.
- **Double Perimeter Control:** In addition to the reduced buffer width retained on your site, you must provide a double row of perimeter controls between the disturbed portion of your site and the surface water spaced a minimum of 5 feet apart.
- **Double Perimeter Control and 7-Day Site Stabilization:** In addition to the reduced buffer width retained on your site and the perimeter control implemented in accordance with Part 2.1.2.b, you must provide a double row of perimeter controls between the disturbed portion of your site and the surface water spaced a minimum of 5 feet apart, and you are required to complete the stabilization activities specified in Parts 2.2.1.b.i or 2.2.2.b within 7 calendar days (in place of what is normally required) of the temporary or permanent cessation of earth-disturbing activities.

All moist and semi-arid risks are low for all soil types. The only moderate risk is arid at 9 % slope to 15 % slope for 3 categories of soil; and arid for loam, silt, sandy loam, or silt loam for all slopes over 3%. The only times for concern of a risk over “low” is when the slope is over 9%, or when the soil is loam, silt, sandy loam, or silt loam.

If you have a site in moist or semi-arid Utah, the risk will always be low. If you have a site in arid Utah where the slope is 5% and the soil is sandy, your risk is “moderate”. After you determine the “risk level” (e.g., “low”, “moderate”, or “high”) that corresponds to your site’s location and predominant soil type⁴ you determine the controls you must apply.

Table D - 2. Risk Levels for Sites Based on the 3-Zone Precipitation Map for Utah (see Appendix F)

Soil Type Location	Clay	Silty Clay, Loam, or Clay- Loam	Sand	Sandy Clay, Loam, Loamy Sand, or Silty Clay	Loam, Silt, Sandy Loam, or Silt Loam	
Moist & Semi-Arid	Low	Low	Low	Low	Low	Risk Levels for Sites with Average Slopes of ≤ 3 Percent
Arid	Low	Low	Low	Low	Low	
Moist & Semi-Arid	Low	Low	Low	Low	Low	Risk Levels for Sites with Average Slopes of > 3 Percent and ≤ 6 Percent
Arid	Low	Low	Low	Low	Moderate	
Moist & Semi-Arid	Low	Low	Low	Low	Low	Risk Levels for Sites with Average Slopes of > 6 Percent and ≤ 9 Percent
Arid	Low	Low	Low	Low	Moderate	
Moist & Semi-Arid	Low	Low	Low	Low	Low	Risk Levels for Sites with Average Slopes of > 9 Percent and ≤ 15 Percent
Arid	Low	Moderate	Low	Moderate	Moderate	

Step 2 – Determine Which Additional Controls Apply

Once you determine your site’s “risk level”, you must next determine the additional controls you need to implement on your site, based on the width of buffer you plan

⁴ One source for determining your site’s predominant soil type is the USDA’s Web Soil Survey located at <http://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx>.

to retain. Table D - 3 specifies the requirements that apply based on the “risk level” and buffer width retained. See footnote 3, above, for a description of the additional controls that are required.

For example, if you are the owner/operator of a small residential lot that falls into the “moderate” risk level, and you decide to retain a 20-foot buffer, using Table D-3 you would determine that you need to implement double perimeter controls to achieve compliance with Part 2.1.2.a.

You must also document in your SWPPP your compliance with Alternative 2.

Table D - 3. Alternative 2 Requirements²

Risk Level Based on Estimated Soil Erosion	Retain ≥ 50' Buffer	Retain <50' and >30' Buffer	Retain ≤30' and >10' Buffer	Retain ≤ 10' Buffer
Low Risk	No Additional Requirements	No Additional Requirements	Double Perimeter Control	Double Perimeter Control
Moderate Risk	No Additional Requirements	Double Perimeter Control	Double Perimeter Control	Double Perimeter Control and 7-Day Site Stabilization
High Risk	No Additional Requirements	Double Perimeter Control	Double Perimeter Control and 7-Day Site Stabilization	Double Perimeter Control and 7-Day Site Stabilization

ATTACHMENT 1

Sediment Removal Efficiency Tables⁵

EPA recognizes that very high removal efficiencies, even where theoretically achievable by a 50-foot buffer, may be very difficult to achieve in practice using alternative controls. Therefore in the tables below, EPA has limited the removal efficiencies to a maximum of 90%. Efficiencies that were calculated at greater than 90% are shown as 90%, and this is the minimum percent removal that must be achieved by alternative controls.

D-4. Estimated 50-foot Buffer Performance in Semi-Arid and Moist Areas*

Type of Buffer vegetation**	Estimated % Sediment Removal				
	Clay	Silty Clay Loam or Clay-Loam	Sand	Sandy Clay Loam , Loamy Sand or Silty Clay	Loam, Silt, Sandy Loam or Silt Loam
Tall Fescue Grass	42	52	44	48	85
Medium-density Weeds	28	30	28	26	60
Low-density Warm-season Native Bunch Grass (i.e., Grama Grass)	25	26	24	24	55
Northern Mixed Prairie Grass	28	30	28	26	50
Northern Range Cold Desert Shrubs	28	28	24	26	50

*Applicable for sites with less than nine percent slope.
 **Characterization focuses on the under-story vegetation

D-5. Estimated 50-foot Buffer Performance in Arid Areas*

Type of Buffer vegetation**	Estimated % Sediment Removal				
	Clay	Silty Clay Loam or Clay-Loam	Sand	Sandy Clay Loam , Loamy Sand or Silty Clay	Loam, Silt, Sandy Loam or Silt Loam
Tall Fescue Grass	71	85	80	86	90
Medium-density Weeds	56	73	55	66	78
Low-density Warm-season Native Bunch Grass (i.e., Grama Grass)	53	70	51	62	67
Southern Mixed Prairie Grass	53	71	52	63	50
Southern Range Cold Desert Shrubs	56	73	55	65	53

*Applicable for sites with less than nine percent slope.
 **Characterization focuses on the under-story vegetation

⁵ The buffer performances were calculated based on a denuded slope upgradient of a 50-foot buffer and perimeter controls, as perimeter controls are a standard requirement (see Part 2.1.2.b).

ATTACHMENT 2

Using the Sediment Removal Efficiency Tables – Questions and Answers

- What if my specific buffer vegetation is not represented in Tables D – 4, and D- 5. If you do not see a description of the type of vegetation present at your site, you should choose the vegetation type that most closely matches the vegetation type on your site. You can contact your local Cooperative Extension Service Office (www.csrees.usda.gov/Extension) for assistance in determining the vegetation types that most closely matches your site-specific vegetation.
- What if there is high variability in local soils? EPA recognizes that there may be a number of different soil type(s) on any given construction site. General soil information can be obtained from USDA soil survey reports (<http://websoilsurvey.nrcs.usda.gov>) or from individual site assessments performed by a certified soil expert. Tables D- 4 through D- 5 present eleven generic soil texture classes, grouping individual textures where EPA has determined that performance is similar. If your site contains different soil texture classes, you should use the soil type that best approximates the predominant soil type at your site.
- What if my site slope is greater than 9 percent after final grade is reached? As indicated in the buffer performance tables, the estimated sediment removal efficiencies are associated with disturbed slopes of up to 9 percent grade. Where your graded site has an average slope of greater than 9 percent, you should calculate a site-specific buffer performance.
- How do I calculate my own estimates for sediment reduction at my specific site? If you determine that it is necessary to calculate your own sediment removal efficiency using site specific conditions (e.g., slopes at your site are greater than 9 percent), you can do so by choosing from a range of available mathematical models that are available to facilitate this calculation, including USDA’s RUSLE-series programs and the WEPP erosion model, SEDCAD, SEDIMOT, or other equivalent models.
- What is my estimated buffer performance if my site location is not represented by Tables D-4 through D-5? If your site is located in an area not represented by Tables D-4 through D-5, you should use the table that most closely approximates conditions at your site. You may also choose to conduct a site-specific calculation of the buffer performance.
- What if only a portion of my site drains to the buffer area? If only a portion of your site drains to a surface water, where that water is within 50 feet of your construction activities, you are only required to meet the equivalency requirement for the storm water flows corresponding to those portions of the site. See Example 2 below for an example of how this is expected to work.

ATTACHMENT 3

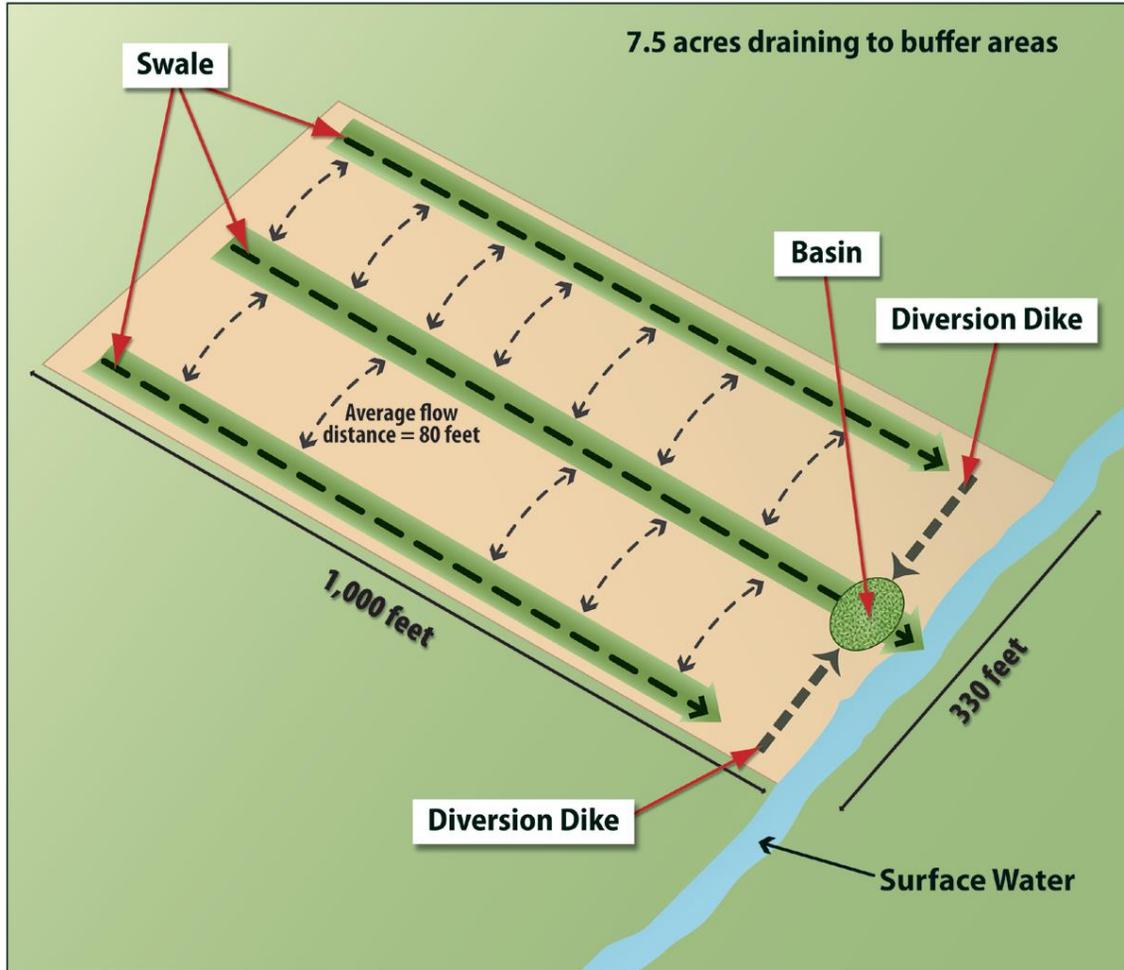
Examples of How to Use the Sediment Removal Efficiency Tables

Example 1. Comparatively Wet Location (7.5 acre site located in Moist Utah)

The operator of a 7.5-acre construction site in Moist Utah has determined that it is infeasible to establish a buffer of any size on their site, and is now required to select and install controls that will achieve an equivalent sediment load reduction as that estimated in Table D- 4 for their site conditions. The first step is to identify what percentage of eroded sediment is estimated to be retained from a 50-foot buffer. For this example, it is assumed that the site has a relatively uniform gentle slope (3 percent), so Table D- 4 can be used to estimate the 50-foot buffer sediment load reduction. If the site's buffer vegetation is best typified by northern mix prairie grass and the underlying soil is of a type best described as loamy sand, the 50-foot buffer is projected to capture 26 percent of eroded sediment from the construction site.

The second step is to determine what sediment controls can be selected and installed in combination with the perimeter controls already required to be implemented at the site (see Part 2.1.2.b), which will achieve the 26 percent sediment removal efficiency from Table D- 4. For this example, using the RUSLE2 profile model, it was determined that installing a pair of shallow sloped diversion ditches to convey runoff to a well-designed and maintained sediment basin provides 99 percent sediment removal. Because the estimated sediment reduction is greater than the required 26 percent that a 50-foot buffer provides, the operator will have met the buffer requirements. See Figure D- 5. The operator could also choose a different set of controls, as long as they achieve at least a 90 percent sediment removal efficiency.

Figure D- 5. Example 1 – Equivalent Sediment Load Reductions at a 7.5 ac Site in moist Utah.



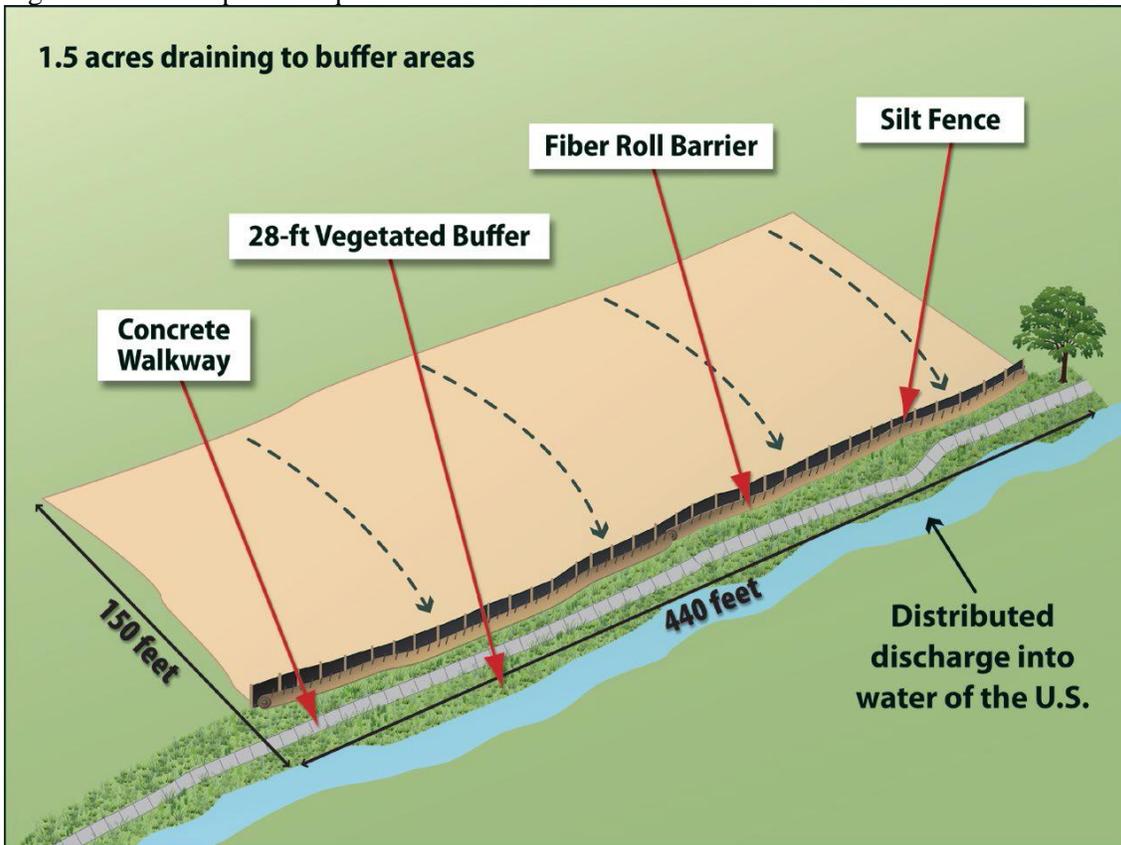
Example 2. Arid Location With Pre-existing Disturbances in the Natural Buffer (6.5 acre site located in Arid Utah)

An operator of a site in Arid Utah determines that it is not practicable to provide a 50-foot buffer, but a 28-foot buffer can be provided. Because the operator will provide a buffer that is less than 50 feet, the operator must determine which controls, in combination with the 28-foot buffer, achieve a sediment load reduction equivalent to the 50-foot buffer. In this example, the project will disturb 6.5 acres of land, but only 1.5 acres of the total disturbed area drains to the buffer area. Within the 28-foot buffer area is a preexisting concrete walkway. Similar to Example 1, the equivalence analysis starts with Step 1 (Part D.2.2.b) with a review of the Arid Utah buffer performance (Table D- 5). The operator determines that the predominate vegetation type in the

buffer area is prairie grass and the soil type is similar to silt, and that the site is of a uniform, shallow slope (e.g., 3 percent grade). Although the operator will take credit for the disturbance caused by the concrete walkway as a natural buffer in Step 2, here the operator can treat the entire buffer area as being naturally vegetated with prairie grass. Based on this information, the operator refers to Table D- 5 to estimate that the 50-foot buffer would retain 50 percent of eroded soil.

The second step is to determine, based on the 50 percent sediment removal efficiency found in Table D- 5, what sediment controls in combination with the 28-foot buffer area, can be implemented to reduce sediment loads by 50 percent or more. The operator does not have to account the reduction in buffer function caused by the preexisting walkway, and can take credit for the entire 28-foot buffer being fully vegetated in the analysis. For this example, using the RUSLE2 profile model, the operator determined that installing a fiber roll barrier between the silt fence (already required by Part 2.1.2.b) and the 28-foot buffer will achieve an estimated 84 percent sediment removal efficiency. See Figure D- 6. Note that this operator is subject to the requirement in Part 2.1.2.a.ii.1.) to ensure that discharges through the silt fence, fiber roll barrier, and 28-foot buffer do not cause erosion within the buffer. The estimated sediment reduction is greater than the required 50 percent; therefore the operator will have met the buffer alternative requirement.

Figure D- 6. Example 2 – Equivalent Sediment Load Reductions at a 6.5 ac Site in Arid Utah.



Appendix E – List of MS4s with Municipal Storm Water Permits

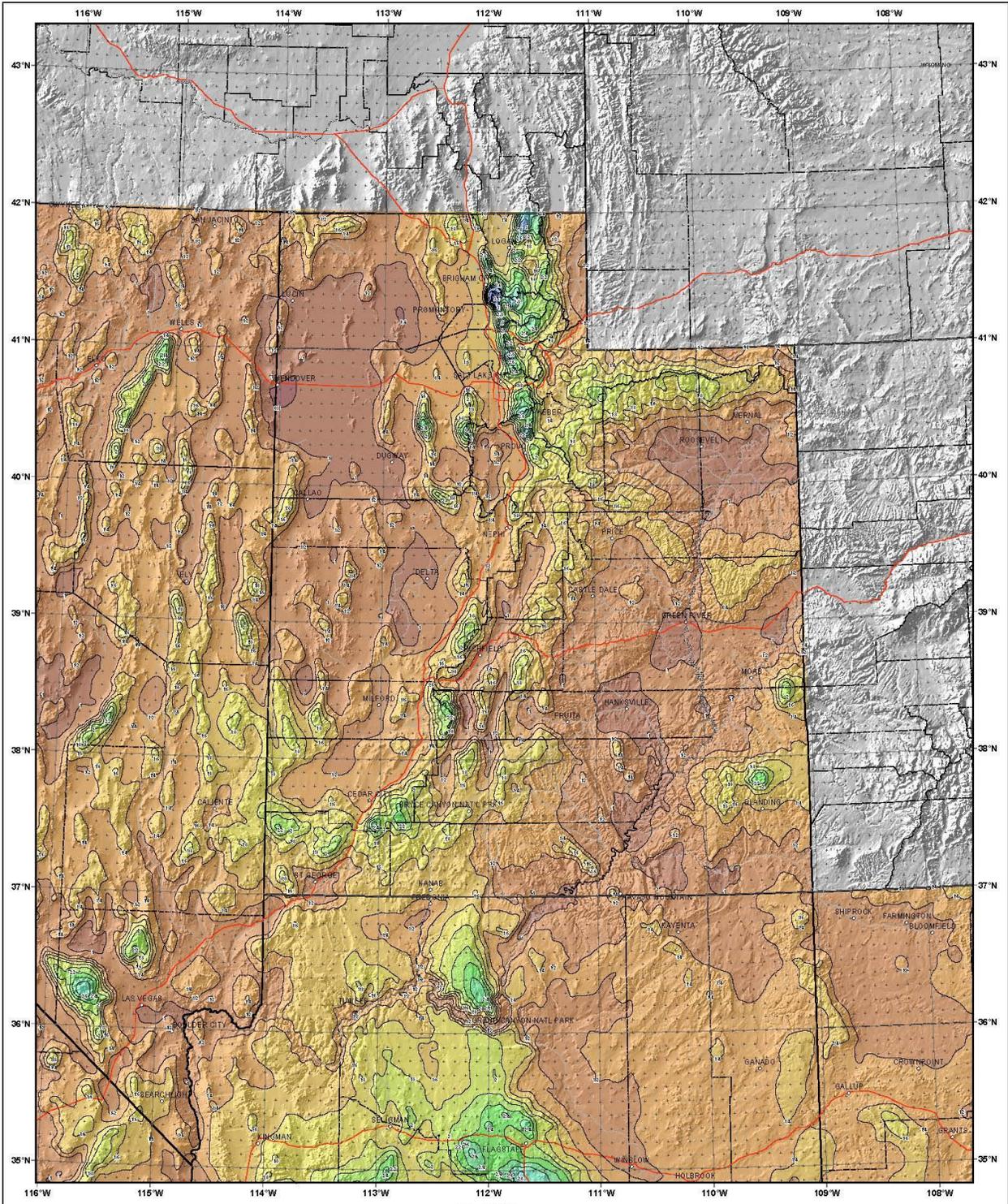
(This appendix is not included in the public notice review as it is for help and assistance to aid compliance and is not regulatory in nature. It may be modified during the term of the permit if the list of MS4s change during the permit term.) The MS4s listed below are regulated by a municipal storm water permit. Under the municipal storm water permit they are required to regulate construction activity in their areas. Areas that are not covered by the MS4s listed below are directly regulated by DWQ.

Alpine	Providence
American Fork	Provo
Bluffdale	River Heights
Bountiful	Riverdale
Cedar Hills	Riverton
Centerville	Roy
Clearfield	Salt Lake City
Clinton	Salt Lake County (unincorporated area)
Cottonwood Heights	Sandy
Davis County (unincorporated area)	Santa Clara
Draper	Smithfield
Farmington	South Jordan
Farr West City	South Ogden City
Fruit Heights	South Salt Lake
Harrisville	South Weber
Herriman	Springville
Highland	St. George
Hill Air Force	Sunset
Holladay	Syracuse
Hooper	Taylorsville
Hyde Park	UDOT
Hyrum City	Uintah City
Ivins City	University of Utah
Kaysville	Utah State Prison
Layton	Veterans Affairs Medical Center
Lehi	Washington
Lindon	Washington Terrace
Logan	Weber County (unincorporated area)
Mapleton	Weber State University
Marriott-Slaterville	Wellsville
Midvale	West Bountiful
Millville	West Haven
Murray	West Jordan
Nibley	West Point City
North Logan City	West Valley City
North Ogden	Woods Cross
North Salt Lake	
Ogden	
Orem	
Plain City	
Pleasant Grove	
Pleasant View	

Appendix F – 2-Year, 24-Hour Storm Frequencies in Utah
Average Annual Rainfall in Utah
3 Zone Precipitation Map for Utah

(See next page)

(This appendix is not included in the public notice review as it is for help and assistance to aid compliance and is not regulatory in nature. It may be modified during the term of the permit if it is found that it can be improved on.)



UTAH

NOAA Atlas 14, Volume 1, Version 5
Semi-annual Southwestern United States

Prepared by U.S. DEPARTMENT OF COMMERCE
 NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
 NATIONAL WEATHER SERVICE
 OFFICE OF HYDROLOGIC DEVELOPMENT
 HYDROMETEOROLOGICAL DESIGN STUDIES CENTER
 JUNE 2006

SCALE 1:2,000,000
 (when printed/viewed at ANSI C size)
 0 10 20 30 40 50 Miles
 0 10 20 30 40 50 Kilometers

Isopluvials of 24 hour precipitation (inches)
with Average Recurrence Interval of 2 years

See NOAA Atlas 14 documentation for factors to
 convert to Annual Exceedance Probabilities for
 all estimates below 25 years

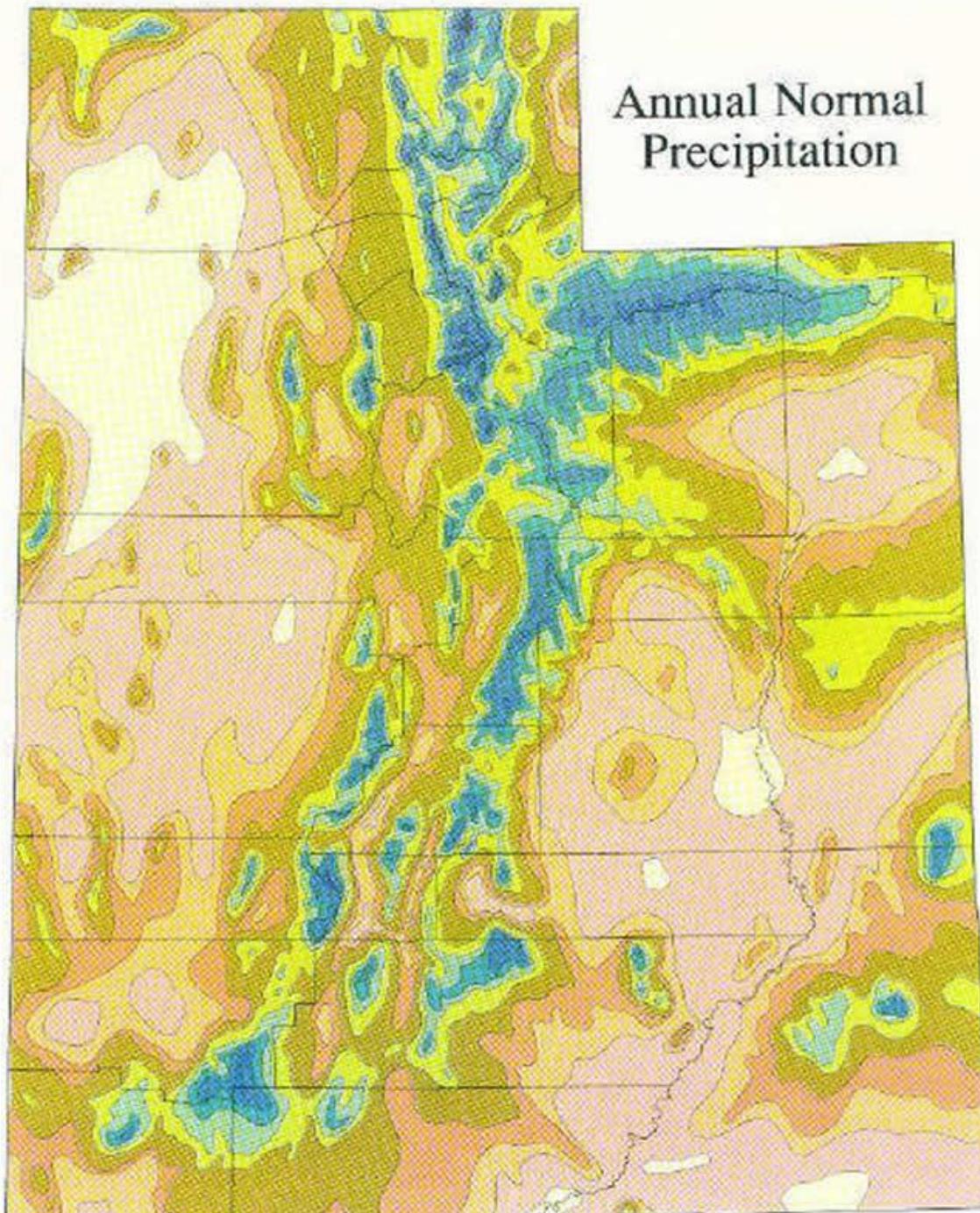


Inches

0.64 - 0.80	1.41 - 1.60	2.21 - 2.40	3.01 - 3.50	5.01 - 5.50
0.81 - 1.00	1.61 - 1.80	2.41 - 2.60	3.51 - 4.00	5.51 - 6.00
1.01 - 1.20	1.81 - 2.00	2.61 - 2.80	4.01 - 4.50	6.01 - 6.50
1.21 - 1.40	2.01 - 2.20	2.81 - 3.00	4.51 - 5.00	6.51 - 7.00

Files: \GIS\Corrib\Corrib.mxd; Date: 04/20/2006 10:30:38 AM; User: jstewart

Annual Normal Precipitation



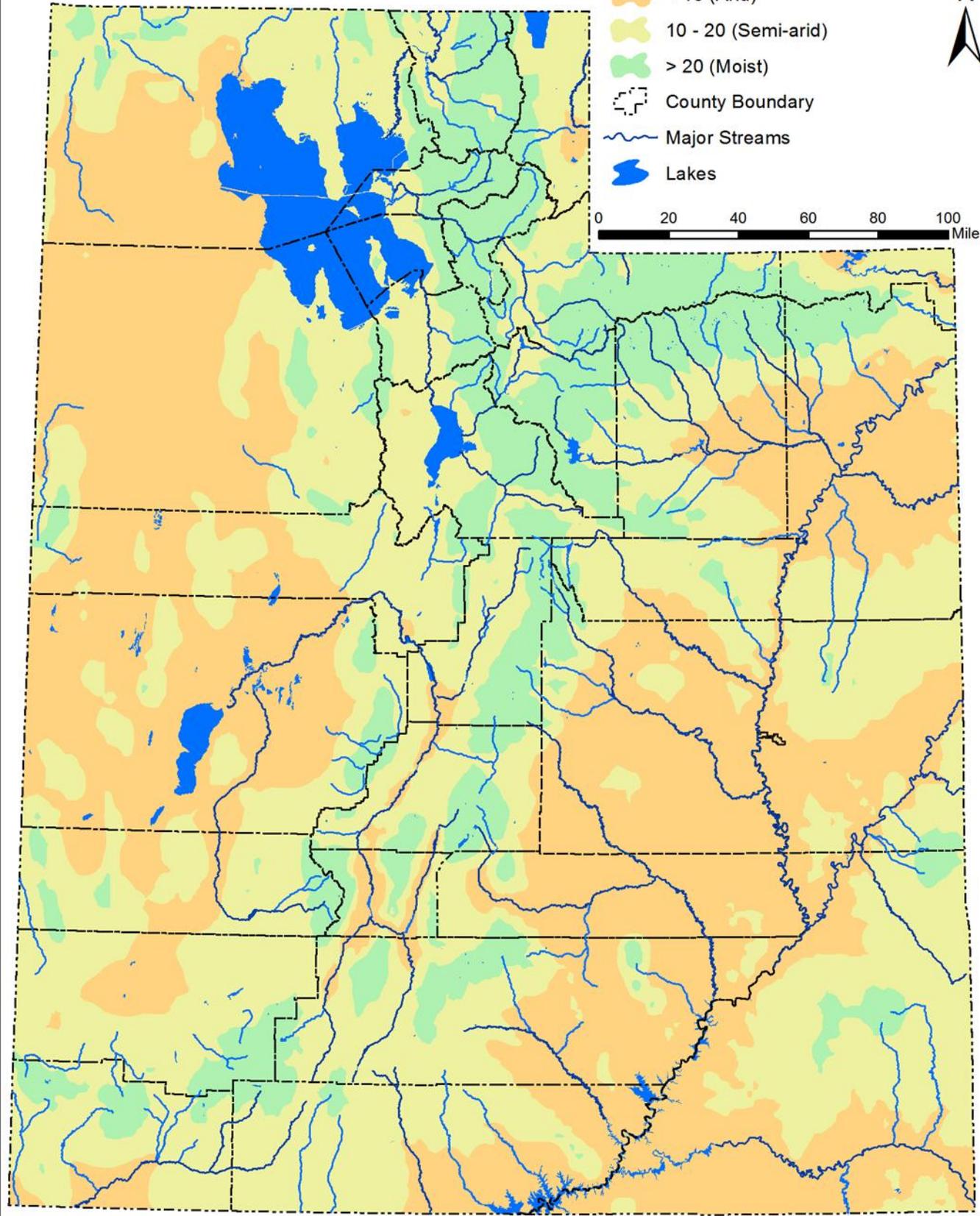
Legend
Precipitation (In inches)

more than 49.9	25.0-29.9	12.0-15.9	6.0-7.9
40.0-49.9	20.0-24.9	10.0-11.9	less than 6
30.0-39.9	16.0-19.9	8.0-9.9	

Utah: Precipitation Zones

Average Precipitation (inches)

- < 10 (Arid)
- 10 - 20 (Semi-arid)
- > 20 (Moist)
- County Boundary
- Major Streams
- Lakes



precip_arid_moist.mxd

Appendix G – Standard Permit Conditions

- G.1. Duty to Comply.
1. The permittee must comply with all conditions of the UPDES permit. Any permit noncompliance is a violation of the Utah Water Quality Act, as amended and is grounds for enforcement action; permit termination, revocation and reissuance or modification; or denial of a permit renewal application.
 2. Penalties for Violations of Permit Conditions. The Utah Water Quality Act, in 19-5-115, provides that any person who violates the Act, or any permit, rule, or order adopted under it is subject to a civil penalty not to exceed \$10,000 per day of such violation.
 3. Willful Non-Compliance or Negligence. Any person who willfully or with gross negligence violates the Act, or any permit, rule or order adopted under it is subject to a fine of not more than \$25,000 per day of violation. Any person convicted under 19-5-115 a second time shall be punished by a fine not exceeding \$50,000 per day.
 4. False Statements. The Act provides that any person who knowingly makes any false material statement, representation, or certification in any application, record, report, plan, or other document filed or required to be maintained under the Act, the rules, or this Permit, or who knowingly falsifies, tampers with, or renders inaccurate, any monitoring device or method required to be maintained under the Act shall upon conviction, be punished by a fine of not more than \$10,000 or by imprisonment for 6 months, or by both. Utah Code Ann. § 19-5-115(4).
- G.2. Duty to Reapply. If the permittee wishes to continue an activity regulated by this permit after the expiration date of the permit, the permittee shall apply for and obtain a new permit as required in R317-8-3.1
- G.3. Need to Halt or Reduce Activity Not a Defense. It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit. (Upon reduction, loss, or failure of the treatment facility, the permittee, to the extent necessary to maintain compliance with the permit, shall control production of all discharges until the facility is restored or an alternative method of treatment is provided.)
- G.4. Duty to Mitigate. The permittee shall take all reasonable steps to minimize or prevent any discharge or sludge use or disposal in violation of the UPDES permit which has a reasonable likelihood of adversely affecting human health or the environment.
- G.5. Duty to Provide Information. The permittee shall furnish to the Executive Secretary, within a reasonable time, any information which the Executive Secretary may request to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with this permit. The permittee shall also furnish to the Executive Secretary, upon request, copies of records required to be kept by the permit.
- G.6. Other Information. When the permittee becomes aware that he or she failed to submit any relevant facts or submitted incorrect information in the Notice of Intent or in any other report to the Director, he or she shall promptly submit such facts or information.

- G.7. Oil and Hazardous Substance Liability. Nothing in this Permit shall be construed to preclude the institution of any legal action or relieve the Permittee from any responsibilities, liabilities, or penalties to which the Permittee is or may be subject under the "Act".
- G.8. Property Rights. The issuance of this Permit does not convey any property rights of any sort, nor any exclusive privileges, nor does it authorize any injury to private property nor any invasion of personal rights, nor any infringement of Federal, State or local laws or regulations.
- G.9. Severability. The provisions of this Permit are severable, and if any provision of this Permit, or the application of any provision of this Permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this Permit shall not be affected thereby.
- G.10. Records Retention.
1. The Permittee shall retain copies of SWPPPs and all reports required by this Permit, and records of all data used to complete the Notice of Intent to be covered by this Permit, for a period of at least three years from the date that the site is finally stabilized. This period may be extended by request of the Director at any time.
 2. After final stabilization of the construction site is complete, the SWPPP is no longer required to be maintained on site, but may be maintained by the Permittee(s) at its primary headquarters. However, access to the SWPPP will continue as described in Part 3.2.
- G.11. Addresses. All written correspondence under this permit shall be directed to the Division of Water Quality at the following address:
- Department of Environmental Quality
Division of Water Quality
195 North 1950 West
PO Box 144870
Salt Lake City, Utah 84114-4870
- G.12. State Laws.
1. Nothing in this Permit shall be construed to preclude the institution of any legal action or relieve the Permittee from any responsibilities, liabilities, or penalties established pursuant to any applicable State law or regulation under authority preserved by Utah Code Ann. § 19-5-117.
 2. No condition of this Permit shall release the Permittee from any responsibility or requirements under other environmental statutes or regulations.
- G.13. Proper Operation and Maintenance. The Permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the Permittee to achieve compliance with the conditions of this Permit and with the requirements of SWPPPs. Proper operation and maintenance also

includes adequate laboratory controls and appropriate quality assurance procedures. Proper operation and maintenance requires the operation of backup or auxiliary facilities or similar systems, installed by a Permittee only when necessary to achieve compliance with the conditions of the Permit.

G.14. Inspection and Entry. The Permittee shall allow, upon presentation of credentials, the Director or an authorized representative:

1. To enter upon the Permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this Permit;
2. Have access to and copy at reasonable times, any records that must be kept under the conditions of this Permit;
3. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this Permit; and
4. Sample or monitor at reasonable times, for the purposes of assuring permit compliance or as otherwise authorized by law, any substances or parameters at any location.

G.15. Reopener Clause.

1. Reopener Due to Water Quality Impacts. If there is evidence indicating that the storm water discharges authorized by this Permit cause, have the reasonable potential to cause or contribute to, a violation of a water quality standard, the discharger may be required to obtain an individual permit or an alternative general permit in accordance with Part 2.3 of this Permit or the Permit may be modified to include different limitations and/or requirements.
2. Reopener Guidelines. Permit modification or revocation will be conducted according to UAC R317-8-5.6 and UAC R317-8-6.2.
3. Permit Actions. This Permit may be modified, revoked and reissued, or terminated for cause. The filing of a request by the Permittee for a Permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any Permit condition.

G.16. Signatory Requirements.

1. All Notices of Intent, SWPPPs, reports, certifications or information submitted to the Executive Secretary, or that this Permit requires to be maintained by the Permittee, shall be signed as follows:

1.1. All Notices of Intent shall be signed as follows:

- 1.1.1. For a corporation: by a responsible corporate officer. For the purpose of this section, a responsible corporate officer means: a president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation; or the manager of one or more manufacturing, production or operating facilities employing more than 250 persons or having gross

Utah Construction General Permit (UCGP)

annual sales or expenditures exceeding \$25,000,000 (in second-quarter 1980 dollars) if authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures;

- 1.1.2. For a partnership of sole proprietorship: by a general partner or the proprietor, respectively; or
- 1.1.3. For a municipality, State, Federal, or other public agency: by either a principal executive officer or ranking elected official. For purposes of this section, a principal executive officer of a Federal agency includes (1) the chief executive officer of the agency, or (2) a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g. Regional Administrators of EPA).
- 1.2. All reports required by the Permit and other information requested by the Director or by an authorized representative of the Executive Secretary shall be signed by a person described above or by a duly authorized representative of that person. A person is a duly authorized representative only if:
 - 1.2.1. The authorization is made in writing by a person described above and submitted to the Director; and
 - 1.2.2. The authorization specifies either an individual or a position having responsibility for overall operation of the regulated site, facility or activity, such as the position of manager, operator, superintendent, or position of equivalent responsibility or an individual or position having overall responsibility for environmental matters for the company. (A duly authorized representative may thus be either a named individual or any individual occupying a named position).
- 1.3. Certification. Any person signing documents under this Part G.16 shall make the following certification:

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Utah Construction General Permit (UCGP)

Appendix H – Notice of Intent Form (NOI)

Please Obtain a copy of the NOI from the DWQ web site at
<http://www.waterquality.utah.gov/UPDES/stormwatercon.htm>

Utah Construction General Permit (UCGP)

Appendix I – Notice of Termination (NOT)

Please Obtain a copy of the NOT from the DWQ web site at
<http://www.waterquality.utah.gov/UPDES/stormwatercon.htm>

Utah Construction General Permit (UCGP)

Appendix J – Visual Monitoring Form

(This appendix is not included in the public notice review as it is for help and assistance to aid compliance and is not regulatory in nature. It may be modified during the term of the permit if it is found that it can be improved on.)

VISUAL MONITORING FORM

Project Name: _____

Project Location: _____

Name of Sample Taker: _____

Date _____ Time _____

Describe the location of where the sample was taken. _____

Describe how the sample was collected:

Weather conditions at time of sample taking (circle all that apply):

Snowing Raining Sunny Cloudy Windy Warm Cold Freezing Other __

COLOR (Circle the one that apply):

Black Dark Grey Medium Grey Light Grey Dark Chocolate Brown

Medium Brown Light Brown Tan Yellow Green Other

Comments:

INTENSITY OF COLOR: Very Intense Prominent Moderately Perceptible Hardly Perceptible

Comments:

CLARITY (Circle the right one):

Totally Opaque Slightly Translucent Translucent Nearly Transparent Transparent/Clear

ODOR (Circle the ones that apply):

Diesel Gasoline Petroleum Solvent Musty Sewage Chlorine

Rotten Egg Sulfur No Odor Noxious Other _____

Comments:

FLOATING SOLIDS

Styrofoam beads sticks/leaves/grass scum film floating particles

(Description): _____

SUSPENDED AND SETTLED SOLIDS (Description)

FOAM, OIL, SHEEN OR OTHER OBVIOUS INDICATORS OF POLLUTION

Utah Construction General Permit (UCGP)

Appendix K – Erosivity Waiver Form

The EPA has a web site that automatically calculates the “R” factor that web site is:
<http://cfpub1.epa.gov/npdes/stormwater/LEW/lewCalculator.cfm>

EROSIVITY WAIVER FORM

Owner: _____
Address: _____
City: _____ State: _____ zip: _____
Contact Person: _____ Phone: _____
Email: _____

General Contractor: _____
Address: _____
City: _____ State: _____ zip: _____
Contact Person: _____ Phone: _____
Email: _____

Project Name: _____
Address: _____
City: _____ State: _____ zip: _____

Factors Needed for Calculation of R Factor

Latitude: _____
Longitude: _____
Start Date: _____
End Date: _____
“R” Factor Value: _____
Hand calculated <input type="checkbox"/> EPA calculated <input type="checkbox"/>

The Project Should not Extend Past the End Date

If the project continues beyond the end date submitted in the waiver the owner must recalculate the “R” factor using the new end date. If the new “R” factor is 5 or more the owner must immediately obtain coverage under the UPDES CGP. The waiver should only be used if the owner has confidence the project can be completed within the start and end date submitted in the waiver.

Utah Construction General Permit (UCGP)

Appendix L – Example Self-Inspection Form

(This appendix is not included in the public notice review as it is for help and assistance to aid compliance and is not regulatory in nature. It may be modified during the term of the permit if it is found that it can be improved on.)

BMP Designation	Okay	Not Okay	BMP Condition, Corrective Action Required.
Are all pollution sources controlled? Do any other problems exist?			
<i>[BMP # and Name] From SWPPP Template</i>			
<i>[BMP # and Name] From SWPPP Template</i>			
<i>[BMP # and Name] From SWPPP Template</i>			
<i>[BMP # and Name] From SWPPP Template</i>			
<i>[BMP # and Name] From SWPPP Template</i>			
<i>[BMP # and Name] From SWPPP Template</i>			
<i>[BMP # and Name] From SWPPP Template</i>			
<i>[BMP # and Name] From SWPPP Template</i>			
<i>[BMP # and Name] From SWPPP Template</i>			
<i>[BMP # and Name] From SWPPP Template</i>			
<i>[BMP # and Name] From SWPPP Template</i>			

Overall Site Conditions (These pages are suggested if the permittee chooses. They can be deleted if desired)

Concerns to be Checked	Implemented Y/N/NA	Maintained Y/N/NA	Corrective Action	Date Corrected
Are all slopes and disturbed areas not actively being worked properly stabilized?				
Are all water bodies (e.g., streams, wetlands) protected with buffers or similar BMPs?				
Are perimeter controls and sediment controls properly installed and maintained (anchored into soil)?				
Has the sediment build up been removed from BMPs designed to catch sediment?				
Are discharge points and receiving waters free of any sediment deposits?				
Is all sediment that has been deposited off site cleaned up?				
Are storm drain inlets properly protected?				
Does the construction exit have a track out pad (or other BMP)?				
Is the track out pad (or other BMP) effective in preventing sediment from being tracked into the street?				
Is trash/litter from work areas collected and placed in covered dumpsters?				
Are washout facilities (e.g., paint, stucco, concrete) available, clearly marked, and maintained?				
Are vehicle/equipment fueling, cleaning, and maintenance areas managed properly with no illicit discharges?				
Are fuels and construction materials and chemicals that are potential storm water contaminants covered or in secondary containment?				
Are non-storm water discharges (e.g., wash water, dewatering, wheel washing) properly controlled?				
Is run-on prevented or properly managed?				
Are there locations where additional BMP's are necessary?				
Are material piles protected from weather and placed on hard surfaces only day by day for placement and not for storage?				
Are all BMPs and storm water control measures accurately shown and updated on the SWPPP map?				

Signature Block

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information contained therein. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information contained is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Print Name of Inspector	Date
Signature	

Appendix M – Notice for New Owner/Operators

Ownership Transfer Form

Upon transfer of ownership or control of the subject property under this Permit (see section 8.2.2.a.) coverage under the UPDES CGP must continue until stabilization requirements are satisfied according to permit requirements. This requirement may be met by either of the following **transfer options** (this form is must be filled out and submitted to DWQ in either case):

1. Obtaining coverage under a new and independent Notice of Intent (NOI – the application process to procure coverage under the UPDES CGP). This results in a new permit tracking number for the new owner.
2. Coordinating with the previous owners and the State of Utah, Department of Environmental Quality, Division of Water Quality where ownership, other information, and signatures (including electronic certifications) contained in the NOI that is current for the property is changed to reflect the change in ownership and responsible parties for conducting construction activities (general contractor). For this step the new owner would assume the responsibilities of the original CGP coverage. This continues the original permit tracking number.

Name of Previous Owner	Telephone Number
------------------------	------------------

Address of Previous Owner	City	State	Zip
---------------------------	------	-------	-----

Signature of Previous Owner	Date
-----------------------------	------

Name of New Owner	Telephone Number
-------------------	------------------

Address of New Owner	City	State	Zip
----------------------	------	-------	-----

Signature of New Owner	Date
------------------------	------

Utah Construction General Permit (UCGP)

Name of Previous Operator Telephone Number

Address of Previous Operator City State Zip

Signature of Previous Operator Date

Name of New Operator Telephone Number

Address of New Operator City State Zip

Signature of New Operator Date

PROJECT NAME AND LOCATION

Previous Permit Number Name of Project

Address of Project City State Zip

Longitude Latitude

WHAT KIND OF TRANSFER: PARTIAL OR TOTAL?

Is this a transfer of ownership of partial or total of the permitted area? Partial
Total

If this is a transfer of part of the permitted area to a new owner, describe what part:

Will there be a new SWPPP prepared? YES NO

Please update the General Contractor Information (see transfer options 1 or 2, first page).
If this is a partial transfer the only option is 1.

This form must be submitted to the Municipality of Jurisdiction and DWQ

To submit to DWQ either email to the construction storm water coordinator or,
FAX to 801-535-4301

Or mail to DWQ
 PO Box 144870
 Salt Lake City, UT 84114-4870

Attachment 1. Notice of Intent for Storm Water Discharges Associated with Construction Activity under the UPDES Permit No. UTR359185

STATE OF UTAH, DEPARTMENT OF ENVIRONMENTAL QUALITY, DIVISION OF WATER QUALITY 195 North 1950 West, P.O. Box 144870, Salt Lake City, Utah 84114-4870 (801)536-4300	
NOI	Notice of Intent (NOI) for Storm Water Discharges Associated with Construction Activity Under the UPDES General Permit No. UTR359185 SEE REVERSE FOR INSTRUCTIONS
Submission of this Notice of Intent constitutes notice that the party(s) identified in Section I of this form intends to be authorized by UPDES General Permit No. UTR359185 issued for storm water discharges associated with construction activity in the State of Utah. Becoming a permittee obligates such discharger to comply with the terms and conditions of the permit. ALL NECESSARY INFORMATION MUST BE PROVIDED ON THIS FORM.	
Is this NOI seeking continuation for previously expired permit coverage at the same site? Y (Y or N) If yes, what is the number of the previous permit coverage? Permit No. UTR107469	
Permit Registration Date: 12/05/2011	Permit Start Date: 05/31/2018
Permit Expiration Date: 06/04/2019	
I. OPERATOR INFORMATION	
Name (Main operator): US Department of Energy Phone: 435-719-2800	
Address: 2021 North Highway 191 Status of Owner/Operator: FEDERAL	
City: MOAB State: UT	Zip: 84532
Contact Person: Russell McCallister Phone: 970-257-2100	

Name (1st Co-permittee): Portage Inc. Phone: 435-719-2800	
Address: 2021 North Highway 191 Status of Owner/Operator: PRIVATE	
City: MOAB State: UT	Zip: 84532
Contact Person: Ed Baker Phone: 970-985-6257	

Name (2nd Co-permittee): Phone:	
Address: Status of Owner/Operator:	
City: State: UT	Zip:
Contact Person: Phone:	

Name (3rd Co-permittee): _____ Phone: _____	
Address: _____ Status of Owner/Operator: _____	
City: _____ State: _____	Zip: _____
Contact Person: _____ Phone: _____	
Please copy this form if you have more co-permittees than what is allowed on this form.	
II. FACILITY SITE / LOCATION INFORMATION	
Name: Moab UMTRA Project: Moab Site Is the facility located in Indian Country? No (Y or N)	
Project No. (if any):	
Address: 2021 North Highway 191 County: GRAND	
City: MOAB State: UT	Zip: 84532
Latitude: 38.60528 Longitude: -109.59333	
Method (check one): <input type="checkbox"/> USGS Topo Map, Scale <input type="checkbox"/> EPA Web site <input type="checkbox"/> GPS <input checked="" type="checkbox"/> Other	

Attachment 1. Notice of Intent for Storm Water Discharges Associated with Construction Activities at the Moab Site, State ID No. UTR359185 (continued)

INSTRUCTIONS

Notice Of Intent (NOI) For Permit Coverage Under the UPDES General Permit For Storm Water Discharges From Construction Activities

Who Must File A Notice Of Intent (NOI) Form State law at UAC R317-8-3.9 prohibits point source discharges of storm water from construction activities to a water body(ies) of the State without a Utah Pollutant Discharge Elimination System (UPDES) permit. The operator of a construction activity that has such a storm water discharge must submit a NOI to obtain coverage under the UPDES Storm Water General Permit. If you have questions about whether you need a permit under the UPDES Storm Water program, or if you need information as to whether a particular program is administered by EPA or a state agency, contact the storm water coordinator at (801) 536-4300.

Where To File NOI Form NOIs, with fee payment(s), must be sent to the following address:

Department of Environmental Quality
Division of Water Quality
P.O. Box 144870
Salt Lake City, UT 84114-4870

(The NOI can also be completed on line at:
<http://www.waterquality.utah.gov/UPDES/stormwatercon.htm>)

Beginning of Coverage Storm Water General Permits are issued immediately after submitting an NOI with the permit fee. The permittee should be aware that though you may not have a permit in hand, if you have submitted a completed NOI with the permit fee you are covered by the conditions in the permit and will be expected to comply with permit conditions. If you wish, contact the Division of Water Quality at (801) 536-4300 to receive a copy of the permit or you can print a copy from the DWQ web site.

Permit Fees (MAKE CHECKS PAYABLE TO: DIVISION OF WATER QUALITY) The permit fee is \$110.00 per year. This fee is prorated on a yearly basis. For example if construction is scheduled for one year and one day the fee would be \$220.00 because construction went into a second year. The minimum fee is \$110.00 which gives one year of coverage. The fee must be received with the NOI before permit coverage is activated.

Length of Coverage: Construction Storm Water Permits start on the day that the NOI and fee payment is received at DWQ (on line if that is the case) and expire on the date that the fee is paid up to. The minimum fee is \$110, therefore all permits where the minimum fee is paid will automatically receive coverage for one year. When a project is completed and the permittee wishes to discontinue permit coverage, wants to be released from accountability for permit conditions, and has stabilized the site according to permit requirements the permittee must submit the a notice of termination (NOT). The site must be clean and all temporary storm water control measures must be removed. In most cases the DWQ or municipal (for the municipality of jurisdiction) storm water coordinator will perform a final inspection. If the site passes the final inspection the permit is terminated.

The Storm Water General Permit for Construction Activities UTR300000 will expire on June 30, 2013. The Clean Water Act requires that all UPDES permits be renewed every 5 years. If a project extends beyond the expiration date of the Permit it must continue coverage under the renewed permit that will subsequently be developed to continue the same or similar permit service for construction activity.

SECTION I - FACILITY OPERATOR INFORMATION Give the legal name(s) of the person(s), firm(s), public organization(s), or any other entity(ies) that conducts the construction operation at the facility or site described in this application. The name of the operator(s) may be the developer, the owner, the general contractor, the design firm, the excavation contractor and/or others (e.g. anyone that fits the definition of operator). Most often it is the general contractor. An operator is anyone that has control over site/project specifications and/or control of day to day operational activities. Do not use a colloquial name.

Enter the complete address and telephone number of the operator(s). Enter the appropriate letter to indicate the legal status of the operator of the facility.

F = Federal M = Public (other than Fed or State) S = State P = Private

SECTION II - FACILITY/SITE LOCATION INFORMATION Enter the facility name or legal name and project number (if any) of the site and complete street address, including city, state and ZIP code. The latitude and longitude of the facility must be included to the approximate centroid of the site, and the method of how the Lat/Long was obtained (USGS maps, GPS, Internet Map sites [such as Google Earth], other). The township and range is desirable but not necessary.

Indicate whether the facility is located in Indian Country. If the facility is located in Indian Country, do not complete this NOI, instead complete form 3510-6 and submit to EPA Region VIII except for facilities on the Navajo Reservation or on the Goshute Reservation which should submit EPA form 3510-6 to Region IX.

SECTION III - SITE ACTIVITY INFORMATION If the storm water discharges to a municipal separate storm sewer system (MS4), enter the name of the operator of the MS4 (e.g., municipality name, county name) and the receiving water of the discharge from the MS4 if it is known (if it is not known please estimate or guess and indicate so). (An MS4 is defined as a conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels, or storm drains) that is owned or operated by a state, city, town, county, district, association or other public body which is designed or used for collecting or conveying storm water).

SECTION IV - TYPE OF CONSTRUCTION Check each type of construction that applies to this application.

SECTION V - BEST MANAGEMENT PRACTICES Check each type of best management practice that will be used to control storm water runoff at the job site.

SECTION VI - ADDITIONAL Provide an estimate of the total number of acres of the site on which soil will be disturbed (round to the nearest acre). Indicate whether the storm water pollution prevention plan for the site is in compliance with approved state and/or local sediment and erosion plans, permits, or storm water management plans. An email address is required of the best contact associated with the project for the communication needs of DWQ.

SECTION VII - CERTIFICATION State statutes provide for severe penalties for submitting false information on this application form. State regulations require this application to be signed as follows:

For a corporation: by a responsible corporate officer, which means: (i) president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision making functions, or (ii) the manager of one or more manufacturing, production, or operating facilities employing more than 250 persons or having gross annual sales or expenditures exceeding \$25 million (in second quarter 1980 dollars), if authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures;

For a partnership or sole proprietorship: by a general partner or the proprietor, or

For a municipality, state, Federal, or other public facility: by either a principal executive officer or ranking elected official.

POLLUTION PREVENTION PLAN A storm water pollution prevention plan (SWP3) is required to be in hand before the NOI can be submitted. It is important to know SWP3 requirements (contained in the permit) even during the design portion of the project. A copy of the permit can be obtained from the Division of Water Quality's storm water construction web site. Guidance material for developing a SWP3 can be obtained from EPA (NTIS) or from the Division of Water Quality's storm water construction web site.

Attachment 1. Notice of Intent for Storm Water Discharges Associated with Construction Activities at the Moab Site, State ID No. UTR359185 (continued)

III.	SITE ACTIVITY INFORMATION	<p>Municipal Separate Storm Sewer System (MS4) Operator Name: N/A</p> <p>Receiving Water Body: Moab Wash and the Colorado River known</p> <p>How far to the nearest water body? 10 ft Is this a sensitive Water Body? Yes</p> <p>List the Number of any other UPDES permits at the site: None</p>
IV.	TYPE OF CONSTRUCTION (Check all that apply)	<p>1. <input type="checkbox"/> Residential 2. <input type="checkbox"/> Commercial 3. <input type="checkbox"/> Industrial 4. <input type="checkbox"/> Road 5. <input type="checkbox"/> Bridge 6. <input type="checkbox"/> Utility 7. <input type="checkbox"/> Contouring, Landscaping</p> <p>8. <input checked="" type="checkbox"/> Other (Please list) For details contact the DEQ Stormwater team.</p>
V.	BEST MANAGEMENT PRACTICES	<p>Identify proposed Best Management Practices (BMPs) to reduce pollutants in storm water discharges: (Check all that apply)</p> <p>1. <input checked="" type="checkbox"/> Silt Fences 2. <input checked="" type="checkbox"/> Sediment Pond 3. <input checked="" type="checkbox"/> Seeding/Preservation of Vegetation 4. <input checked="" type="checkbox"/> Mulching/Geotextiles 5. <input checked="" type="checkbox"/> Check Dams</p> <p>6. <input checked="" type="checkbox"/> Structural Controls (Berms, Ditches, etc.)</p> <p>7. <input type="checkbox"/> Other (Please list)</p>
VI.	ADDITIONAL INFORMATION REQUIRED	<p>Estimated Area to be Disturbed (in Acres): 350.00 Total Acreage: 479.00</p> <p>A storm water pollution prevention plan has been prepared for this site and is to the best of my knowledge in Compliance with State and/or Local Sediment and Erosion Plans and Requirements. Yes (Y or N) (A pollution prevention plan is required to be on hand before submittal of the NOI)</p> <p>Enter the best e-mail address for contacting the permittee: russell.mccallister@emcbc.doe.gov</p>
VII.	CERTIFICATION:	<p>I certify under penalty of law that I have read and understand the <i>Part 1</i> eligibility requirements for coverage under the general permit for storm water discharges from construction activities. I further certify that to the best of my knowledge, all discharges and BMPs that have been scheduled and detailed in a pollution prevention plan will satisfy requirements of <i>Part 1</i>, and <i>Part 3</i> of this permit. I understand that continued coverage under this storm water general permit is contingent upon maintaining eligibility as provided for in <i>Part 1</i>.</p> <p>I also certify under penalty of law that this document and all attachments were prepared under the direction or supervision of those who have placed their signature below, 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 those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.</p>
	<p>Title: Federal Cleanup Director</p> <p><i>Russell McCallister</i></p> <p>Print Name (of responsible person for the main operator from first page):</p> <p>US Department of Energy</p> <p>Signature: <i>Russell McCallister</i> 6/13/2018</p>	<p>Date:</p> <p>12/05/2011</p>
	<p>Print Name (of responsible person for the 1st co-permittee from first page):</p> <p>Portage Inc. <i>KEN KISIEL</i></p> <p>Signature: <i>Ken Kisiel</i></p>	<p>Date:</p> <p>12/05/2011</p> <p>06/13/2018</p>
	<p>Print Name (of responsible person for the 2nd co-permittee from first page):</p> <p>Signature: _____</p>	<p>Date:</p> <p>_____</p>
	<p>Print Name (of responsible person for the 3rd co-permittee from first page):</p> <p>Signature: _____</p>	<p>Date:</p> <p>_____</p>
	<p>Signature: _____</p>	<p>Amount of Permit Fee Enclosed: \$ 150.00</p>

Attachment 2.
Sample Storm Water Inspection Forms and Corrective Action Log

Attachment 2. TAC Storm Water Oversight Inspection Form 1050



TAC Storm Water Oversight Inspection Form

Site Name:		Site Location:		City, State, County:	
Owner:		Operator:		UPDES Permit #:	
RAC Site Operations Mgr.:		Phone:		Other Site Contact:	
RAC Environmental Compliance Mgr.:		Phone:		Other Site Contact:	
NOI Start Date:		NOI Expiration Date:		Weather: <input type="checkbox"/> Sunny <input type="checkbox"/> Partly Cloudy <input type="checkbox"/> Raining <input type="checkbox"/> Snowing	
				Temp. (°F)	
Date of last rainfall event:		Amount of rainfall (in.):		Cumulative Monthly Rainfall Total (in.):	
Inspector(s):			Date(s):		
Reason for Inspection: <input type="checkbox"/> Environmental Compliance			Receiving Waters:		

ENVIRONMENTAL COMPLIANCE INSPECTION OF THE STORM WATER MANAGEMENT PROGRAM	YES	NO
1. Does the Storm Water Pollution Prevention Plan (SWPPP) require any modifications due to the following: <ul style="list-style-type: none"> ● Issuance of a new Utah Construction General Permit ● Storm water, erosion, or sediment control BMPs ● Other activities at the site that are no longer adequately reflected in the SWPPP? ● Change in construction activities ● Pollution prevention measures 	<input type="checkbox"/>	<input type="checkbox"/>
2. Are on-site inspections being performed and recorded as a "quick inspection" as required by the Permit (once every 14 days and within 4-hours of the occurrence of a storm event of 0.5 inches or greater)?	<input type="checkbox"/>	<input type="checkbox"/>
3. Have any corrective actions associated with storm water, erosion, or sediment control BMPs been identified by the Remedial Action Coordinator (RAC) during recent inspections? Corrective Actions are defined as any actions taken to comply with the Utah Construction General Permit including: <ul style="list-style-type: none"> ● Install, repair, modify, or replace any storm water, erosion, or sediment control used at the site; ● Clean up and properly dispose of spills, releases, or other deposits; or ● Correct a permit violation. 	<input type="checkbox"/>	<input type="checkbox"/>
4. Have corrective actions recently been addressed to minimize or prevent a discharge of pollutants?	<input type="checkbox"/>	<input type="checkbox"/>
5. Are corrective actions tracked in accordance with Section 5 of the Utah Construction General Permit?	<input type="checkbox"/>	<input type="checkbox"/>
6. Is surface water run-on controlled, managed, or diverted around the Project site?	<input type="checkbox"/>	<input type="checkbox"/>
7. Is there evidence of storm water runoff discharging from the Project site, such as sediment deposits observed in downstream locations?	<input type="checkbox"/>	<input type="checkbox"/>
8. Is there evidence of vehicles or equipment tracking sediment off the Project site?	<input type="checkbox"/>	<input type="checkbox"/>
9. Is there sediment, construction materials, or other debris piled on impervious surfaces that could be washed with storm water into a receiving water?	<input type="checkbox"/>	<input type="checkbox"/>
10. Are all storm water, erosion and sediment controls functioning as designed?	<input type="checkbox"/>	<input type="checkbox"/>
11. Are stabilized areas onsite being protected (including natural buffers, native vegetation, or re-vegetated areas)?	<input type="checkbox"/>	<input type="checkbox"/>
12. Have new corrective actions been identified during this inspection?	<input type="checkbox"/>	<input type="checkbox"/>

Attachment 2. Sample Corrective Action Log Form 1063



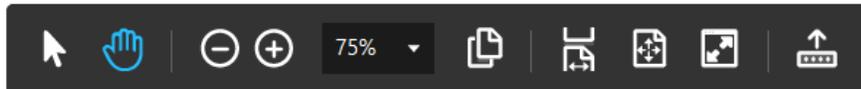
Storm Water Controls Corrective Actions Log Remedial Action Contractor

UMTRA Project Site: _____ Inspection Date: _____

Corrective Action Item Number	BMP ID	BMP Type	Specific Location	General Area	Description of Deficiency, Spill, or Permit Violation	Corrective Action or Maintenance Required	Priority Level	Status	Identified by Party	Date Issue Identified	Corr. Action Completed by Lead	Date Corr. Action Completed	SWPPP Modification Required?
<h1 style="font-size: 4em; margin: 0;">SAMPLE</h1>													

Notes: _____

Inspector or SWPPP Manager / Date _____



Attachment 2. Sample Inspection Form 1093



SWPPP Inspection Form Moab Site UPDES General Permit No. UTR359185

Post-Storm Event (≥ 0.5" of precipitation)
 Bi-Weekly

Date of last rainfall: _____

Amount of last rainfall (inches) & data source: _____

Inspector: _____
 Title/Position: _____

Date: _____

BMP Designation	BMP ID	Functioning Properly		Maintenance Required		BMP Condition, Corrective Actions, Notes
		Yes	No	Yes	No	
Administration Area (Mapbook Page 1)						
Basin, Retention						
South of East Laydown Yard	MS-Ba-001					
Culvert						
South of Access Control	MS-Cu-001					
Southeast of TAC Storage Shed	MS-Cu-002					
Drainage Ditch						
East Side of Parking Lot to CA Boundary Rip Rap	MS-DD-001					
East Side of TAC Storage Shed	MS-DD-002					
Rip Rap						
CA Boundary, South of Admin Trailers	MS-RR-001					
U.S. Hwy 191 (Mapbook Page 2)						
Culvert						
East of Main Entry Gate #1	MS-Cu-003					
East of Main Entry Gate #2	MS-Cu-004					
East of Main Entry Gate #3	MS-Cu-005					
East of Main Entry Gate #4	MS-Cu-006					
West of Main Entry Gate #1	MS-Cu-024					
West of Main Entry Gate #2	MS-Cu-025					
West of Main Entry Gate #3	MS-Cu-026					
Bike Path #1	MS-Cu-027					
Bike Path #2	MS-Cu-028					
Bike Path #3	MS-Cu-029					
Bike Path #4	MS-Cu-030					

SAMPLE

Attachment 2. Sample Inspection Form 1093 (continued)



**SWPPP Inspection Form
Moab Site**
UPDES General Permit No. UTR359185

Inspector: _____
Title/Position: _____

Date: _____

BMP Designation	BMP ID	Functioning Properly		Maintenance Required		BMP Condition, Corrective Actions, Notes
		Yes	No	Yes	No	
U.S. Hwy 191 (Cont., Mapbook Page 2)						
Culvert						
Bike Path #5	MS-Cu-031					
Bike Path #6	MS-Cu-032					
Bike Path #7	MS-Cu-033					
Erosion Matting						
East of Main Entry Gate #1	MS-EM-001					
East of Main Entry Gate #2	MS-EM-002					
East of Main Entry Gate #3	MS-EM-003					
East of Main Entry Gate #4	MS-EM-004					
Rip Rap						
East of Main Entry Gate #1	MS-RR-001					
East of Main Entry Gate #2	MS-RR-002					
East of Main Entry Gate #3	MS-RR-003					
East of Main Entry Gate #4	MS-RR-004					
Erosion Log						
Below concrete Rip Rap #3	MS-EL-001					
Moab Wash (Mapbook Page 3)						
Berm/Containment Dike						
North Side of Moab Wash, Lower Reach	MS-Be-001					
South Side of Moab Wash, Lower Reach	MS-Be-002					
Crossing, Upper						
Clear of Foreign Material	MS-Cr-001					
Level with Stream Bed	MS-Cr-002					
Native Rock Surface	MS-Cr-003					
Erosion Matting						
North/East Bank (River Left), All Reaches	MS-EM-005					
South/West (River Right), All Reaches	MS-EM-006					

SAMPLE

Attachment 2. Sample Inspection Form 1093 (continued)



**SWPPP Inspection Form
Moab Site
UPDES General Permit No. UTR359185**

Inspector: _____
Title/Position: _____

Date: _____

BMP Designation	BMP ID	Functioning Properly		Maintenance Required		BMP Condition, Corrective Actions, Notes
		Yes	No	Yes	No	
Moab Wash (Cont., Mapbook Page 3)						
Rip Rap						
North/East Bank (River Left), All Reaches	MS-RR-005					
South/West Bank (River Right), All Reaches	MS-RR-006					
Slopes on North Side of Middle Crossing	MS-RR-007					
Hillside (Mapbook Page 4)						
Basin, Retention						
Top of Hill Between Haul Roads	MS-B-002					
Culvert						
Top of Dirt Emergency Access Road	MS-Cu-007					
UP, RR Track South End, North	MS-Cu-008a					
UP, RR Track South End, South	MS-Cu-008b					
UP, RR Track Middle, North Entry	MS-Cu-009a					
UP, RR Track Middle, South Entry	MS-Cu-009b					
UP, RR Track Middle, Exit	MS-Cu-009c					
Gantry Pad, Drop Inlet Structure	MS-Cu-010a					
North of Gantry Pad	MS-Cu-010b					
Gantry Pad, Exit	MS-Cu-010c					
Opposite of Gantry Pad to Northeast	MS-Cu-011					
Confluence of Haul Roads, Upper	MS-Cu-012					
Confluence of Haul Roads, Lower	MS-Cu-013					
Underpass, North	MS-Cu-014					
Underpass, South	MS-Cu-015					
Drainage Ditch						
Uphill Haul Road (Rock-lined)	MS-DD-002					
Old Haul Road (Rock-lined)	MS-DD-003					
Downhill Haul Road (Rock-lined)	MS-DD-004					

SAMPLE

Attachment 2. Sample Inspection Form 1093 (continued)



**SWPPP Inspection Form
Moab Site**
UPDES General Permit No. UTR359185

Inspector: _____
Title/Position: _____

Date: _____

BMP Designation	BMP ID	Functioning Properly		Maintenance Required		BMP Condition, Corrective Actions, Notes
		Yes	No	Yes	No	
Hillside (Cont., Mapbook Page 4)						
Drainage Ditch						
W. of Runaway Truck Ramp (from Rail Bench)	MS-DD-005					
Rip Rap						
Rail Bench Drainage, South	MS-RR-008					
Rail Bench Drainage, Middle	MS-RR-009					
Rail Bench Drainage, North	MS-RR-010					
Rock Wattle						
West Side of Runaway Truck Ramp	MS-RW-002					
Queue Area (Mapbook Page 5)						
Culvert						
Start of Haul Road (at Junction with Queue Pad)	MS-Cu-016					
Drainage Ditch						
Across Access Road from Conference Room Trailer	MS-DD-006					
South of Access Control (Rinse System Drainage)	MS-DD-007					
Erosion Matting						
Across Access Road from Conference Room Trailer	MS-EM-007					
Contamination Area/Tailings Pile (Mapbook Page 6)						
Basin, Retention						
West Boundary of Tailings Pile, Basin #1	MS-Ba-003					
West Boundary of Tailings Pile, Basin #2	MS-Ba-004					
West Boundary of Tailings Pile, Basin #3	MS-Ba-005					
West Boundary of Tailings Pile, Basin #4	MS-Ba-006					
West Boundary of Tailings Pile, Basin #5	MS-Ba-007					
North Boundary of Tailings Pile, Basin #1	MS-Ba-008					

SAMPLE

Attachment 2. Sample Inspection Form 1093 (continued)



**SWPPP Inspection Form
Moab Site**
UPDES General Permit No. UTR359185

Inspector: _____
Title/Position: _____

Date: _____

BMP Designation	BMP ID	Functioning Properly		Maintenance Required		BMP Condition, Corrective Actions, Notes
		Yes	No	Yes	No	
Contamination Area/Tailings Pile (Cont., Mapbook Page 6)						
Basin, Retention						
North Boundary of Tailings Pile, Basin #2	MS-Ba-009					
North Boundary of Tailings Pile, Basin #3	MS-Ba-010					
North Boundary of Tailings Pile, Basin #4	MS-Ba-011					
North Boundary of Tailings Pile, Basin #5	MS-Ba-012					
North Boundary of Tailings Pile, Basin #6	MS-Ba-013					
North Boundary of Tailings Pile, Basin #7	MS-Ba-014					
East Boundary of Tailings Pile, Basin #1	MS-Ba-015					
East Boundary of Tailings Pile, Basin #2	MS-Ba-016					
East Boundary of Tailings Pile, Basin #3	MS-Ba-017					
South Boundary of Tailings Pile, Basin #1	MS-Ba-018					
South Boundary of Tailings Pile, Basin #2	MS-Ba-019					
South Boundary of Tailings Pile, Basin #3	MS-Ba-020					
Berm/Containment Dike						
Between Moab Wash and Decon Pad	MS-Be-003					
East End of Tailings Pile	MS-Be-004					
South End of Tailings Pile #1	MS-Be-005					
South End of Tailings Pile #2	MS-Be-006					
South End of Tailings Pile #3	MS-Be-007					
Culvert						
Middle Crossing, #1	MS-Cu-022a					
Middle Crossing, #2	MS-Cu-022b					
Middle Crossing, #3	MS-Cu-022c					
Middle Crossing, #4	MS-Cu-022d					
Middle Crossing, #5	MS-Cu-022e					
Container Rinse System Drainage, N. Side of Pile	MS-CU-023					
Drainage Ditch						
West Boundary of Tailings Pile	MS-DD-006					

Attachment 2. Sample Inspection Form 1093 (continued)



**SWPPP Inspection Form
Moab Site**
UPDES General Permit No. UTR359185

Inspector: _____
Title/Position: _____

Date: _____

BMP Designation	BMP ID	Functioning Properly		Maintenance Required		BMP Condition, Corrective Actions, Notes
		Yes	No	Yes	No	
Contamination Area/Tailings Pile (Cont., Mapbook Page 6)						
Drainage Ditch						
East Boundary of Tailings Pile	MS-DD-007					
North Boundary of Tailings Pile	MS-DD-008					
South End of Tailings Pile #1	MS-DD-009					
South End of Tailings Pile #2	MS-DD-010					
South End of Tailings Pile #3	MS-Be-011					
State Route 279 (Mapbook Page 7)						
Culvert						
Old Haul Road West of SR-279 at Alt. Entry Site	MS-Cu-006					
SR-279 #1	MS-Cu-007					
SR-279 #2	MS-Cu-018					
SR-279 #3	MS-Cu-019					
SR-279 #4	MS-Cu-020					
Rock Wattle						
West side of SR-279, south of Old Haul Road	MS-RW-003					
Other						

SAMPLE

Attachment 2. Sample Inspection Form 1093 (continued)



**SWPPP Inspection Form
Moab Site**
UPDES General Permit No. UTR359185

Inspector: _____
Title/Position: _____

Date: _____

General Areas Requiring Inspection	Compliant		Maintenance Required		Corrective Actions/Notes
	Yes	No	Yes	No	
All areas that have been cleared, graded, or excavated and have not yet completed stabilization.					
All storm-water controls (including pollution-prevention measures) installed at the Moab site to comply with the Permit.					
Materials, waste, borrow, or equipment storage and maintenance areas covered by the Permit.					
All areas where storm water typically flows within the Moab site, including drainage ways designed to divert, convey, and/or treat storm water.					
All points of discharge from the Moab site.					
All locations where stabilization measures have been implemented.					

SAMPLE

Attachment 2. Sample Inspection Form 1093 (continued)



**SWPPP Inspection Form
Moab Site**
UPDES General Permit No. UTR359185

Inspector: _____
Title/Position: _____

Date: _____

Inspection Requirements	Compliant		Maintenance Required		Corrective Actions/Notes
	Yes	No	Yes	No	
Check whether all erosion and sediment controls and pollutant-prevention controls are installed, appear operational, and are working as intended to minimize pollutant discharges. Determine if any controls need to be replaced, repaired, or maintained.					
Check for the presence of conditions that could lead to spills, leaks, or other accumulations of pollutants on the Moab site.					
Identify any locations where new or modified storm water controls are necessary to meet effluent limitations applicable to all discharges from the construction site (including support activities), effluent limitations to meet applicable water quality standards, and discharge limitations for impaired waters as required in of Parts 2 and 3 of the Permit.					
At point of discharge and if applicable, the bank of any surface water flowing within the Moab site boundary immediately adjacent to the Moab site. Check for signs of visible erosion and sedimentation (i.e., sediment deposits) that have occurred and are attributable to discharges from the Moab site.					
Identify any and all incidents of noncompliance observed.					
If a discharge is occurring during the site inspection, Operations personnel will: <ul style="list-style-type: none"> • Identify all points of the Moab site from which there is a discharge. • Observe and document the visual quality of the discharge and take note of the characteristics of the storm water discharge, including color, odor, floating, settled, or suspended solids, foam, oil sheen, and other obvious indicators of storm water pollutants (see Appendix J of the Permit). • Document whether the storm water controls at the Moab site are operating effectively and describe any controls that are clearly not operating as intended or are in need of maintenance. 					

SAMPLE

Attachment 2. Sample Inspection Form 1093 (continued)



SWPPP Inspection Form
Moab Site
UPDES General Permit No. UTR359185

Inspector: _____

Date: _____

Title/Position: _____

Notes: _____

I, _____, certify that the results of this inspection show that the Moab site is in compliance with the *Storm Water Pollution Prevention Plan* and the *Utah Construction General Permit*.

*Conduct routine inspection of disturbed areas at least once every 14 days and before anticipated storm events. Any required maintenance must be reported to the Site Operations Manager within 24 hours of the inspection.

SAMPLE