Storm Water Pollution Prevention Plan

For:

Edgewater Beach Resort
5598 Ogden Canyon
Huntsville, UT 84317

Operator(s):

HWL Edgewater, LLC
1178 W. Legacy Crossing Blvd. Ste. 400
Centerville, UT 84014
801-518-6550

SWPPP Contact(s):

HWL Edgewater, LLC
Chad Bessinger
Project Manager
801-518-6550
chad@jfcapital.com

Emergency Contact:

Dan Ross
801-361-5555

SWPPP Prepared By:

accenaGroup

SWPPP Active Date:

09/2015

Estimated Project Dates

Start of Construction: 09/2015
Anticipated Completion Date: 04/2019

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SECTION 1: CERTIFICATION AND NOTIFICATION

This SWPPP will be certified by responsible parties outlined in the governing UPDES general storm water permit regulations. Permit Applicability and Coverage are outlined in Section 2. Signatures of authorized agents (See Signatory Requirements in Section 2.2) will be provided below in order to validate this SWPPP under the required certification statement.

For SWPPPs that are being managed on compliance|**GO** the certification pages and delegation letters will be located in the documents/permits tab of compliance|**GO**.

Please notify either the contact person for the operator found on the NOI or compliance|**GO** in order to access this information if needed.

801-701-6188
compliance|**GO**

1.1 SWPPP Owner Certification

Owner 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.

Name: Chad Bessinger Title: Project Manager

Signature:  Date: 2/17/16

Company: HWL Edgewater, LLC

Site: Edgewater Beach Resort Phase 2

1.2 SWPPP Operator/Contractor Certification

Operator/Contractor 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.

Name: Chad Bessinger Title: Project Manager

Signature:  Date: 2/17/16

Company: HWL Edgewater, LLC

Site: Edgewater Beach Resort Phase 2

1.3 SWPPP Professional Certification

Professional 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.

Name: **accena**Group[tm] Date: 09/2015

This plan has been prepared according to the Clean Water Act and represents a planning tool to assist the contractor to comply with environmental regulations during the project construction. This SWPPP has been prepared by **accena**Group for this site/project. The decisions on how to operate the construction site rest solely with the contractor and not with **accena**Group. **accena**Group is not liable for the operational decisions of the contractor or the failure of the contractor to follow the recommendations in this SWPPP.

Unless otherwise noted, referenced standards and specifications for BMPs included in this document follow recommendations by the U.S. Environmental Protection Agency. If the BMP details are not sufficient, pose a threat to public health or property, or a threat to safety is perceived to exist by using the recommended BMPs, please contact **accena**Group.

The owner/operator agrees not to hold **accena**Group responsible for any potential violations the contractor may receive for operational violations from regulatory agencies, including but not limited to, city governments, local ms4's, the State, or the EPA. **accena**Group will answer questions on how the SWPPP was prepared, and defend recommendations made with any requesting regulating authority. By accepting this SWPPP, the owner/operator accepts this disclaimer and its conditions.

SECTION 2: Permit Eligibility, Applicability and Coverage

2.1 Permit Regulations-Applicable Federal, Tribal, State, or Local Programs

Federal law prohibits the discharge of pollutants, including the discharge of storm water associated with large or small construction activities pursuant to 40 CFR Part 122 and as defined in Part 1 of the permit, to waters of the United States without a federal National Pollutant Discharge Elimination System permit. The Utah Pollutant Discharge Elimination System (UPDES) Permit is the required permit for construction activities in most areas in the state of Utah-excluding Indian Lands which are covered by a federal NPDES permit.

This Project is also governed by the local MS4 storm water ordinance contained in Section 8 of this SWPPP. Specific requirements that are different or unique from the State of Utah UPDES permit are outlined below.

Weber County Requirements:

A SWPPP review is required prior to construction activities beginning.

2.2 Delegation Letters

Inspector Delegation Letter

Department of Environmental Quality
Division of Water Quality
PO Box 144870
Salt Lake City, Utah 84114-4870

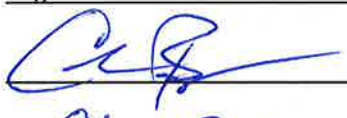
Attention Executive Secretary:

Our company is designating a qualified storm water inspector with Silver Leaf SWPPP and accenaGroup as a specifically described position to be an authorized representative for signing reports and performing certain activities, including, where contracted, securing and terminating the required permits as requested by the Executive Secretary or required by UPDES General Permit No. UTRC00000 until further notice is provided in writing.

"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."

Company Name: HWL Edgewater, LLC

Project or Site: Edgewater Beach Resort Phase 2

Signature: 

Printed Name: Chad Bessinger

Title: Manager

Date: 2/17/16

Company Delegation Letter

Utah Department of Environmental Quality
Division of Water Quality
P.O. Box 144870
Salt Lake City, UT 84114-4870

Attention Executive Secretary:

Our company is designating the position of site superintendent and project manager as a specifically described position to be an authorized representative for certifying NOIs, SWPPPs, amendments, inspections, corrective action log maintenance and sign-off, map updating, NOT filing and performing certain activities requested by the Executive Secretary or required by UPDES General Permit UTRC00000 until further notice is provided in writing.

"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."

Company Name: HWL Edgewater, LLC

Project or Site: Edgewater Beach Resort Phase 2

Signature: 

Printed Name: Chad Bessinger

Title: Manager

Date: 2/17/16

2.3 Certification of Compliance with Federal, State, Tribal and Local Regulations

The Storm Water Pollution Prevention Plan reflects requirements for storm water management and erosion and sediment controls, as established in Utah. To ensure compliance, this plan was prepared in accordance with the UPDES Storm Water General Permit for Construction Activities and with US EPA General permit for Storm Water Discharges from Construction Activities. This project is also eligible for permit coverage since it meets the definition of construction activities as defined in UAC R317-8-3.9(6)(d)10. (construction activity which grades five acres per common plan), UAC R317-8-3.9(6)(e)1 (construction activity which grades 1acre and <five acres per common plan), and those construction site discharges designated by the Executive Secretary as needing a storm water permit under UAC R317-8-3.9(6)(e)2., except for discharges identified under Part 1.6. There are no other discharges authorized under a separate UPDES permit, or unauthorized discharges present at this site. A professional certification of this plan is included in section 1.3.

Permittees which discharge storm water associated with construction activities must ensure their storm water plan is consistent with requirements specified in applicable sediment and erosion site plans or site permits, or storm water management site plans or site permits approved by state, tribal, and local officials.

Some local MS4's, city governments, and counties have existing ordinances and practices that require permits for construction activities and a regulatory process for reviewing plans, approving permits and inspecting construction sites. The erosion and sediment control plans for temporary and permanent structures must be approved to obtain the grading and building permits. This SWPPP presumed to be in compliance with all applicable state/tribal and/or local regulations concerning storm water runoff. Copies of any applicable regulations are included in Section 8 of this SWPPP.

2.4 Notice of Intent (NOI) and Notice of Termination (NOT) Requirements

a. Notice of Intent (NOI)

The owner/operator is required to file for permit coverage. The NOI will be signed by an appropriate officer of the permittee and electronically filed or mailed before the start of construction. If the NOI is not submitted electronically, the NOI should be mailed certified mail with a copy of the signed NOI kept with the SWPPP (section 9) to verify permit coverage. If the operator of the site changes, then the new operator will file his or her own NOI and obtain permit coverage before taking control of the site. Any and all operators, contractors, and subcontractors will sign the NOI, authorize Co-Permittee Status, or the SWPPP Certification in Section I thus making them a co-permittee.

https://secure.utah.gov/stormwater/main.html

b. Notice of Termination (NOT)

The owner/operator is required to file a NOT when terminating the NOI permit. The NOI permit can be terminated when construction activities are complete and final stabilization of the specific portion of the site is complete, or another operator takes over the site and responsibility for the site has been transferred to the new operator as described in the UTRC00000 permit. The NOT can only be filed if the new operator files for an NOI or the transfer of responsibilities are written in a contract. If responsibility of the site changes the new operator must file for an NOT. The NOT must be filed within thirty days after completion of construction activities including final stabilization or responsibility being transferred to a new operator.

Steps to file for the NOT:

1. Stabilize the site or in arid areas initiate stabilization
2. Remove the BMPs that are no longer needed
3. Contact the MS4 for a final inspection
4. File for the NOT by logging into https://secure.utah.gov/stormwater/main.html

2.5 Discharge Compliance with Water Quality Standards

The following construction activities of soil disturbing, including grubbing/clearing and mass/phase grading, utility installation, final grading, concrete or asphalt usage (footings, foundations, sidewalks, driveways) including washout waters from concrete pouring equipment, trucks, vertical construction including erection, roofing, masonry, finishing, and interior/exterior finishes, and final landscaping vegetation and stabilization of the site could produce the following violations of water quality standards:

- Total Suspended Solids (TSS)
- Biological Oxygen Demand (BOD)
- Phosphorous
- Metals
- Chemical Oxygen Demand (COD)
- Oil & Grease
- pH-(Concrete pouring/washing activities)
- Nitrogen-(from Fertilizers and landscaping)
- Pesticides/Herbicides- (from Fertilizers and landscaping)

Erosion and sediment control measures, other pollutant controls, site exit controls, designated concrete washout areas, solid waste management procedures, materials management procedures, spill response procedures, and application procedures for fertilizers, pesticides and herbicides with details, measures, and specifications found in Sections 3.8, 4, and 5 of this SWPPP will be utilized in order to protect Water Quality Standards.

SECTION 3: SITE EVALUATION, ASSESSMENT, AND PLANNING

3.1 Project/Site Information

Information for the production and development of this SWPPP was gathered, prepared, and monitored to meet SWPPP regulation standards found in UTRC00000. Refer to sections 3.3, 3.4, 3.5, 3.6, and 3.12 for specific details about the site.

Project/Site Name:	Edgewater Beach Resort	
Project Street/Location:	5598 Ogden Canyon	
City: Huntsville	State: Utah	Zip Code: 84317
County or Similar Subdivision:	Weber County	

Latitude/Longitude

Latitude: 41.250621° N

Longitude: 111.794804° W

Method for determining latitude/longitude:

☐ USGS topographic map (specify scale: _____) ☐ EPA Website ☒ GPS

☐ Other (please specify): _____

Is the project located in Indian country? ☐ Yes ☒ No

If yes, name of Reservation, or if not part of a Reservation, indicate "not applicable."

Not Applicable

Is this project considered a federal facility? ☐ Yes ☒ No

Are earth-disturbing activities in response to a public emergency? ☐ Yes ☒ No

If yes, please insert information specifying the cause, information sustaining its occurrence, and a description of construction necessary to reestablish effective public services.

UPDES project or permit tracking number: UTR373259

3.2 Contact Information and Responsible Parties

The following is a listing of responsible parties with associated areas of SWPPP control that are required by governing regulations UTRC00000 for the State of Utah under the NPDES program. Each owner, operator, contractor, subcontractor, is required to certify this SWPPP in Section 1. Any contractor signing any SWPPP consulting documents (i.e. inspections, action logs, spill response reports, written requests to the DWQ) or maintenance/stabilizing work (i.e. action logs, bmp maintenance/install/repair notification) are required by law to be identified in delegation letters (Section 2.2) sent by the owner or lead operator of this site to the DWQ as referenced in Section 2.

Storm Water Team

All operators are required to put together a storm water team and list their individual responsibilities.

Team Leader:

Responsibility: Oversees construction

Name: Chad Bessinger

Title: Project Manager

Company: HWL Edgewater, LLC

Telephone Number: 801-518-6550

Fax/Email: chad@jfcapital.com

Team Member:

Responsibility: Oversees construction; maintains BMPs

Name: Dan Ross

Title: Vertical Construction Manager

Company: HWL Edgewater, LLC

Telephone Number: 801-510-7007

Fax/Email: doug@jfcapital.com

Team Member:

Responsibility: Installs and maintains BMPs, Inspectors

Name: Mike Christofferson

Title: President

Company: Silver Leaf SWPPP

Telephone Number: 801-473-6100

Fax/Email: silverleafswppp@gmail.com

Team Member:

Responsibility:

Name:

Title:

Company:

Telephone Number:

Fax/Email:

Owner

Contact:

Name: Chad Bessinger

Title: Project Manager

Company: HWL Edgewater, LLC

Address: 1148 W. Legacy Crossing Blvd. Suite 400

City, State Zip: Centerville, UT 84014

Telephone Number: 801-335-8500

Fax/Email: chad@jfcapital.com

Contact:

Name:

Title:

Company:

Address:

City, State Zip:

Telephone Number:

Fax/Email:

Stormwater Manager and SWPPP Contact(s) if applicable:

Name:

Title:

Company:

Address:

City, State Zip:

Telephone Number:

Fax/Email:

Operator #1

Area of Control: General Contractor

Contact:

Name: Chad Bessinger

Title: Project Manager

Company: HWL Edgewater, LLC

Address: 1178 W. Legacy Crossing Blvd. Ste. 400

City, State Zip: Centerville, UT 84014

Telephone Number: 801-518-6550

Fax/Email: chad@jfcapital.com

Contact:

Name: Dan Ross

Title: Vertical Construction Manager

Company: HWL Edgewater, LLC

Address: 1178 W. Legacy Crossing Blvd. Ste. 400

City, State Zip: Centerville, UT 84014

Telephone Number: 801-361-5555

Fax/Email: Dan.Ross@JackFisherHomes.com

Stormwater Manager and SWPPP Contact(s) if applicable:

Name:

Title:

Company:

Address:

City, State Zip:

Telephone Number:

Fax/Email:

Subcontractor #1

Area of Control: Development Work

Contact:

Name: Richard Thurgood

Title: Owner

Company: Thurgood Excavating

Address: 2381 W. 1200 N.

City, State Zip: Clinton, UT 84015

Telephone Number: 801-776-3601

Fax/Email:

Contact:

Name:

Title:

Company:

Address:

City, State Zip:

Telephone Number:

Fax/Email:

Stormwater Manager and SWPPP Contact(s) if applicable:

Name:

Title:

Company:

Address:

City, State Zip:

Telephone Number:

Fax/Email:

BMP Maintenance Contractor

Contact:

Name: Mike Christofferson

Title: President

Company: Silver Leaf SWPPP

Address: 274 S. 700 W.

City, State Zip: Pleasant Grove, UT 84062

Telephone Number: 801-473-6100

Fax/Email: silverleafswppp@gmail.com

Contact:

Name:

Title:

Company:

Address:

City, State Zip:

Telephone Number:

Fax/Email:

Areas of Responsibility:

Silver Leaf SWPPP will be installing BMPs prior to construction activities. AccenaGroup will be conducting storm water inspections throughout construction. Corrective action logs will be reveiwed with the site superintendent and emailed to management. Corrective action items will be taken care of by Silver Leaf SWPPP and HWL Edgewater, LLC.

Consulting Firm-SWPPP/Inspection Company

Consulting Firm:

accenaGroup

Ryan Dickson-Utah Consultant

1700 N Bluebird Rd.

Orem, UT. 84097

801-701-6188

801-221-7027 - fax

SWPPP Development, preparation, inspection monitoring, reporting, and training

Site Inspector Listing:

April Nelson, Kevin Farr, Mike Dickson, David P. Duvall, Carl Conde

accenaGroup

885 S. Orem Blvd.

Orem, UT 84097

801-701-6188

support@accenagroup.com

Area of control-erosion, sediment, bmp, SWPPP inspection documentation

Stormwater Manager and SWPPP Contact(s):

Don Reynolds

accenaGroup

1700 N. Bluebird Rd.

Orem, UT. 84097

801-701-6188

801-221-7027 – fax

3.3 Nature and Sequence of Construction Activity

Nature of Construction Activity

Nature of Construction: HWL Edgewater, LLC and Thurgood Excavation will be doing construction activities at Edgewater Beach Resort Phase 2.

Development: Grading, installation of utilities, installation of a road, curbs, gutters, and sidewalks.

Residential/Lots owned: Grading of individual lots, excavation for foundations, vertical construction of residential homes, and landscaping for final stabilization.

03/06/2017 - Phase 3 added, all lots inclusive (30-53), for development and vertical construction. Includes demolition of some utility structures, installation of utilities, roads, curbs, gutters, and sidewalks; excavation for foundations, residential home construction, and landscaping for final stabilization.

What is the function of the construction activity?

☒ Residential ☐ Commercial ☐ Industrial ☐ Road Construction

☒ Development

☐ Other (specify): _____

An UPDES NOI permit is required for the site because more than an acre will be disturbed. BMPs for all the above activities will be applied to the site when necessary and monitored by the on-site inspector. Additional BMPs will be added if needed.

For residential construction BMPs for each lot will be installed prior to grading or the foundation being dug on that lot. The BMPs will be removed for each lot when that lot is stabilized or sold.

Start of Construction: 09/2015
Anticipated Completion Date: 04/2019

Emergency Related Projects:

Is this an emergency related project? ☐ Yes ☒ No

If yes describe:

Off-Site Construction Support Activities (if applicable)

Are there any off-site construction support activities for this project: ☐ Yes ☒ No

Activity:

Location:

Contact Name:

Title:

Company:

Telephone Number:

Fax/Email:

Describe the BMPs that will be used in the area:

SEQUENCE OF CONSTRUCTION ACTIVITY

General Schedule of Construction Activities

	Development Construction Activity
1.	Perimeter boundary sediment controls installed
2.	Grading the site to prepare for construction activities
3.	Demolition of some utility structures in Phase 3, and Installation of utilities
4.	Construction of curb, gutters, sidewalks, and a trail
5.	Construction of the roads
6.	Final preparations for vertical construction

	Residential Construction Activity
1.	Perimeter boundary sediment controls installed
2.	Grading the site to prepare for construction activities
3.	Excavation for the home
4.	Vertical construction of the home
5.	Final grading
6.	Final stabilization and landscaping

- Refer to the inspections in section 7.1 and the maps in section 3.12 for details of current construction activities.

3.4 Construction Site Estimates

Note: The disturbed acreage listed on the NOI may be different from the disturbed acreage in the SWPPP. This may occur if the NOI is renewed during the project, where portions of the project have been completed. The correct acreage should be reflected on the NOI. If there is a large discrepancy, the SWPPP or NOI will need to be amended. The NOI can be amended by sending the changes to the Department of Environmental Quality Division of Water Quality.

The following are estimates of the construction site:

Construction site area to be disturbed	4 Acres
Maximum area to be disturbed at any one time	4 Acres
Total project area	9 Acres
Percentage impervious area before construction	0 %
Runoff coefficient before construction	0.15
Percentage impervious area after construction	60 %
Runoff coefficient after construction	0.57
Rainfall Erosivity Factor R=	17.95

http://water.epa.gov/polwaste/npdes/stormwater/Welcome-to-the-Rainfall-Erosivity-Factor-Calculator.cfm

The following are estimates of Phase 3 of the Site:

Construction site area to be disturbed	4.79 Acres
Maximum area to be disturbed at any one time	4.79 Acres
Total project area	9 Acres
Percentage impervious area before construction	0 %
Runoff coefficient before construction	0.15
Percentage impervious area after construction	60 %
Runoff coefficient after construction	0.57
Rainfall Erosivity Factor R=	17.95

http://water.epa.gov/polwaste/npdes/stormwater/Welcome-to-the-Rainfall-Erosivity-Factor-Calculator.cfm

3.5 Soils, Slopes, Vegetation, and Current Drainage Patterns

Soil type(s):

The soils on site were obtained from the US Department of Agriculture. The soils shown on the map below include the area for the Edgewater Beach Resort Phase 2 and some of the surrounding areas. The full Soil Report may be found in Appendix E.

Map Unit Legend

Morgan Area, Utah - Morgan County and Part of Weber County (UT609)			
Map Unit Symbol	**Map Unit Name**	**Acres in AOI**	**Percent of AOI**
HbD	Hawkins silty clay, 6 to 15 percent slopes	8.1	66.3%
NrA	Nebeker clay loam, 0 to 3 percent slopes	3.7	30.1%
NrB	Nebeker clay loam, 3 to 6 percent slopes	0.4	3.2%
W	Water	0.0	0.4%
Totals for Area of Interest		**12.2**	**100.0%**

The information about the soils were obtained from the USDA Web Soil Survey http://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx

Slopes:

The current slopes and the potential erosion/sediment runoff areas with the approximate slope percentages:

Prior to Construction: The site slopes to the north and to the east. Slopes prior to construction do exceed 3% and will need to be monitored for erosion throughout construction.

During Construction: The site will be graded and slopes changed.

After Construction: The site will be graded so that storm water will be directed to storm drains on site, to a retention basin (Phase 3), and to surrounding streets.

The directional flows on the site with the contour lines are found on the map in Section 3.12.

Drainage Patterns:

The current drainage patterns, noting any significant changes due to grading or fill activities:

Prior to Construction: The site drains to Pineview Reservoir

During Construction: A storm drain system will be installed onsite.

After Construction: The site will drain to storm drains on site.

Please see site map in section 3.12 for additional slope and drainage information and locations.

Vegetation:

The current vegetation; vegetation to be preserved; and vegetation following construction:

Prior to Construction: There are grasses and weeds on site.

During Construction (What vegetation will be preserved and protected): Much of the vegetation will be removed for construction purposes.

After Construction: The site will be landscaped for final stabilization.

3.6 Receiving Waters

Description of receiving waters:

The receiving water is Pineview Reservoir and tributaries going to Pineview Reservoir.

Please specify which tier your state or tribe has designated the receiving waters:

☐ Category 1 ☐ Category 2 ☒ Category 3 ☐ Not Designated

Distance to receiving waters:

The site is 450 feet from Pineview Reservoir.

Description of impaired waters or waters subject to TMDLs:

Is Pineview Reservoir impaired? ☒ Yes ☐ No

If yes, complete the following:

Pollutants causing the impairment: Dissolved Oxygen, Phosphorus, and Water Temperature. (If impairment is sediment (TSS or turbidity) and/or nutrients (e.g. nitrogen or phosphorus) then there are additional stabilization and site inspection requirements)

Has a TMDL been completed? ☐ Yes ☒ No

Pollutants for which there is a TMDL:

Resources:

www.epa.gov/owow/tmdl/
http://www.waterquality.utah.gov/TMDL/index.htm#approved

Description of storm sewer systems:

The storm sewer system is owned and maintained by Weber County.

Extent of wetland acreage on site:

There are no wetlands on site according to site observations and the U.S. Fish and Wildlife website.

Resource:

http://www.fws.gov/nwi/

3.7 Site Features and Sensitive Areas to be Protected

Describe unique site features including streams, stream buffers, wetlands, specimen trees, natural vegetation, steep slopes, or highly erodible soils that are to be preserved:

Describe areas of sensitivity or that need to be protected: There is an existing drainage ditch going through the site that will be diverted with a swale on the east border and into a storm drain. The drainage ditch is privately owned and a stream alteration permit is not required. There are some steep slopes on site that will need to be monitored for erosion throughout construction.

Measures to protect these areas will be noted on the SWPPP Map in section 3.12 and identified/described in Sections 4 and 5 of this SWPPP.

3.8 Potential Sources of Pollution

The following chart listing identifies any and all potential sources of sediment and pollutants that may reasonably be expected to affect the quality of storm water discharges from this construction site. Potential Pollutant, pollutant source, whether or not it is present on site, and the location of any and all pollutants are indicated on the chart below. The SWPPP map in section 3.12 identifies pollutant sources of sediment, erosion, material storage, trash bins, concrete washout bin and waters, other washout waters, and vertical construction areas whereby building materials utilized by trades below will be present. It is understood that construction vehicles that carry pollutants such as street vehicles, forklifts, skid loaders, large trucks, and tractors will be on many parts of the working site. Best Management Practices to manage and control these pollutants are found and described with details in Sections 4-5 in this SWPPP.

Activities	**Check with an X the activities that apply**	Sediment	Nutrients	Heavy Metals	pH (acids and bases)	Pesticides & Herbicides	Oil & Grease	Bacteria & Viruses	Trash, Debris, Solids	Other Pollutants
Clearing, grading, excavating, and un-stabilized areas	☒	√							√	
Paving operations	☒	√					√		√	
Concrete washout, stucco and cement waste	☒			√	√				√	
Structure construction, painting, cleaning	☒			√	√				√	√
Demolition and debris disposal	X	√							√	
Dewatering operations	☐	√							√	
Waterline flushing	☒	√	√		√				√	√
Material Delivery and storage	☒	√	√	√	√		√		√	√
Material use during building process	☒		√	√	√		√		√	√
Solid waste disposal	☒								√	√
Hazardous Waste, contaminated spills	☐			√	√	√	√			√
Sanitary waste	☒		√		√			√		
Vehicle/equipment fueling, maintenance, use and storage	☒						√		√	√
Landscaping operations	☒	√	√			√			√	√
Describe others	☐									

3.9 Endangered Species Certification

The US Fish and Wildlife Service has available a list of endangered species by state. The list for Utah was found at the below website and is also listed on the following page.
http://criticalhabitat.fws.gov/
http://ecos.fws.gov/ecos/indexPublic.do

1. Are endangered or threatened species present on or near project.

   ☐ Yes ☒ No

   Describe:

2. Determine whether or not the construction storm water discharges or discharge related activities could negatively affect listed Threatened/ Endangered Species or Designated Critical Habitat near this project.

   Describe:

3. Determine if measures can be implemented to avoid adverse effects.

   Describe:

4. Determine if eligibility contact with the Utah Division of Wildlife or the US Fish and Wildlife is required for this project.

   Describe:

Contacts:
Utah Department of Natural Resources Division of Wildlife Resources
Habitat: 801-538-4700
US Fish and Wildlife Service: 801-975-3330 Ext.126

GARY R. HERBERT
Governor

SPENCER J. COX
Lieutenant Governor

State of Utah
DEPARTMENT OF NATURAL RESOURCES

MICHAEL R. STYLER
Executive Director

Division of Wildlife Resources
GREGORY SHEEHAN
Division Director

September 9, 2015

Whitney Haines
AccenaGroup
1700 Bluebird Road
Orem, Utah 84097

Subject: Species of Concern near the Edgewater Beach Resort Phase 2 Project

Dear Whitney Haines:

I am writing in response to your email dated September 9, 2009 regarding information on species of special concern proximal to the proposed Edgewater Beach Resort Phase 2 construction project located at 5598 Ogden Canyon, Huntsville, UT 84317.

The Utah Division of Wildlife Resources (UDWR) does not have records of occurrence for any threatened, endangered, or sensitive species within the project area noted above. However within a two-mile radius there are recent records of occurrence for greater sage-grouse, and bobolink, and historical records of occurrence for bald eagle.

The information provided in this letter is based on data existing in the Utah Division of Wildlife Resources' central database at the time of the request. It should not be regarded as a final statement on the occurrence of any species on or near the designated site, nor should it be considered a substitute for on-the-ground biological surveys. Moreover, because the Utah Division of Wildlife Resources' central database is continually updated, and because data requests are evaluated for the specific type of proposed action, any given response is only appropriate for its respective request.

In addition to the information you requested, other significant wildlife values might also be present on the designated site. Please contact UDWR's habitat manager for the northern region, Scott Walker, at (801) 476-2776 if you have any questions.

Please contact our office at (801) 538-4759 if you require further assistance.

Sincerely,

Sam Hall
GIS Technician
Utah Natural Heritage Program

cc: Scott Walker

Endangered and Threatened Species in Weber County as listed by the US Fish and Wildlife Service.

The following list is of endangered and threatened species in Weber County. The list also includes species of concern, and species receiving special management to keep them off of the federal threatened and endangered species list.

Group	Name	Status
Birds	Yellow-billed Cuckoo (Coccyzus americanus)	Threatened
	Greater sage-grouse (Centrocercus urophasianus)	Candidate
Mammals	Gray wolf (Canis lupus)	Recovery
	Canada Lynx (Lynx canadensis)	Threatened

3.10 Historic Preservation

Are there any historic sites on or near the construction site?

☐ Yes ☒ No

Describe how this determination was made:

The map below shows registered historic properties marked with a purple circle.

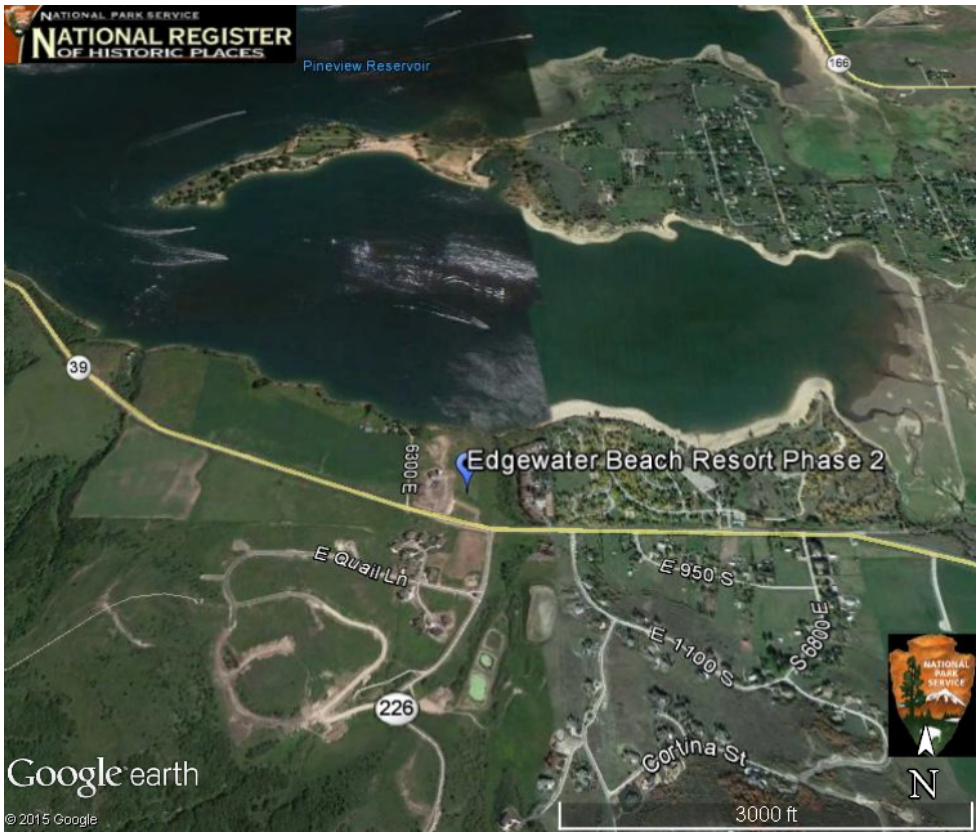
There are no historic properties on or near the site.

This project will not have a negative environmental impact on a federally listed historic site as certified in the Historic Preservation Report. A list of State and Nationally Registered Historic Sites is included as part of this section. See the following websites:

http://history.utah.gov/historic_buildings/index.html

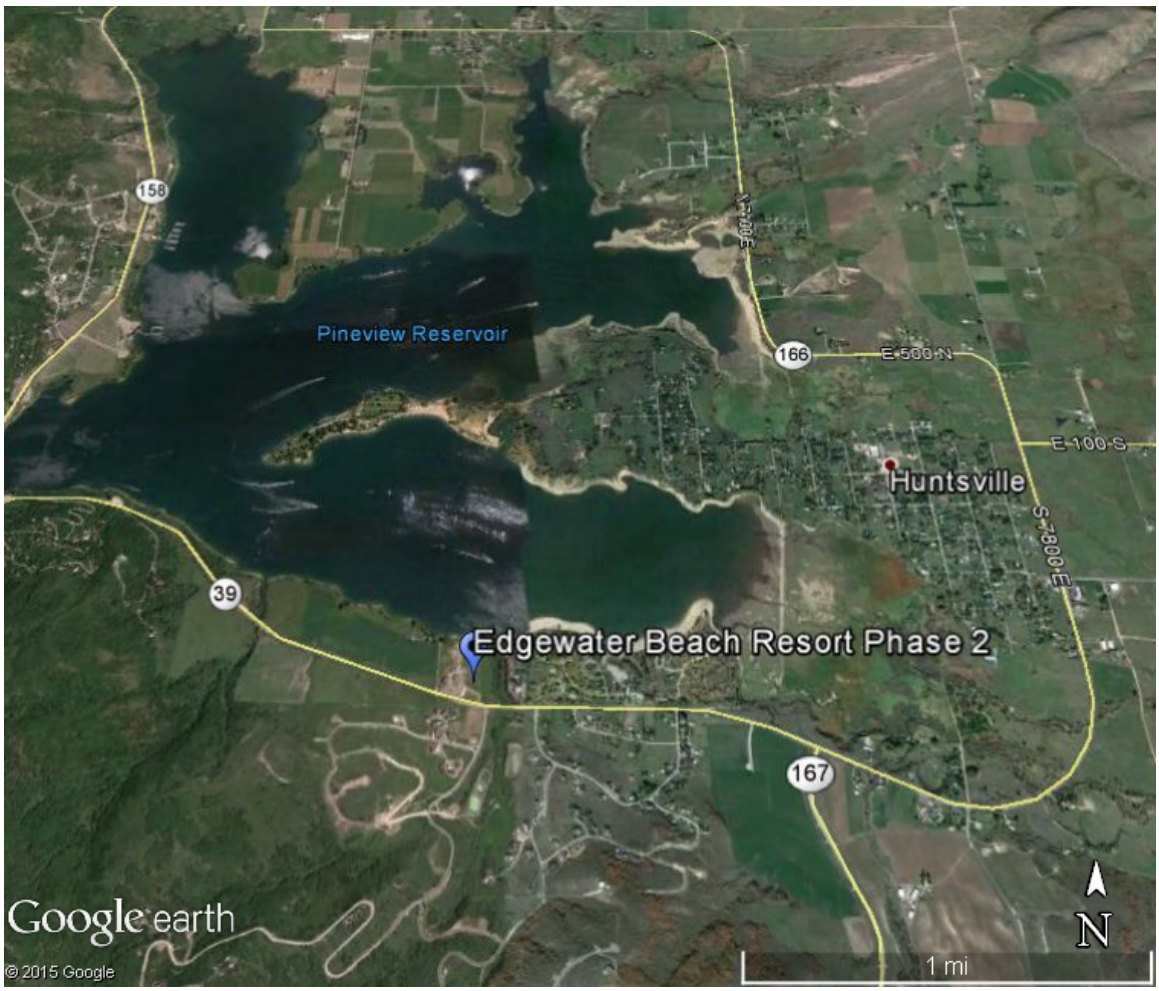
http://nrhp.focus.nps.gov/natreg/docs/Download.html

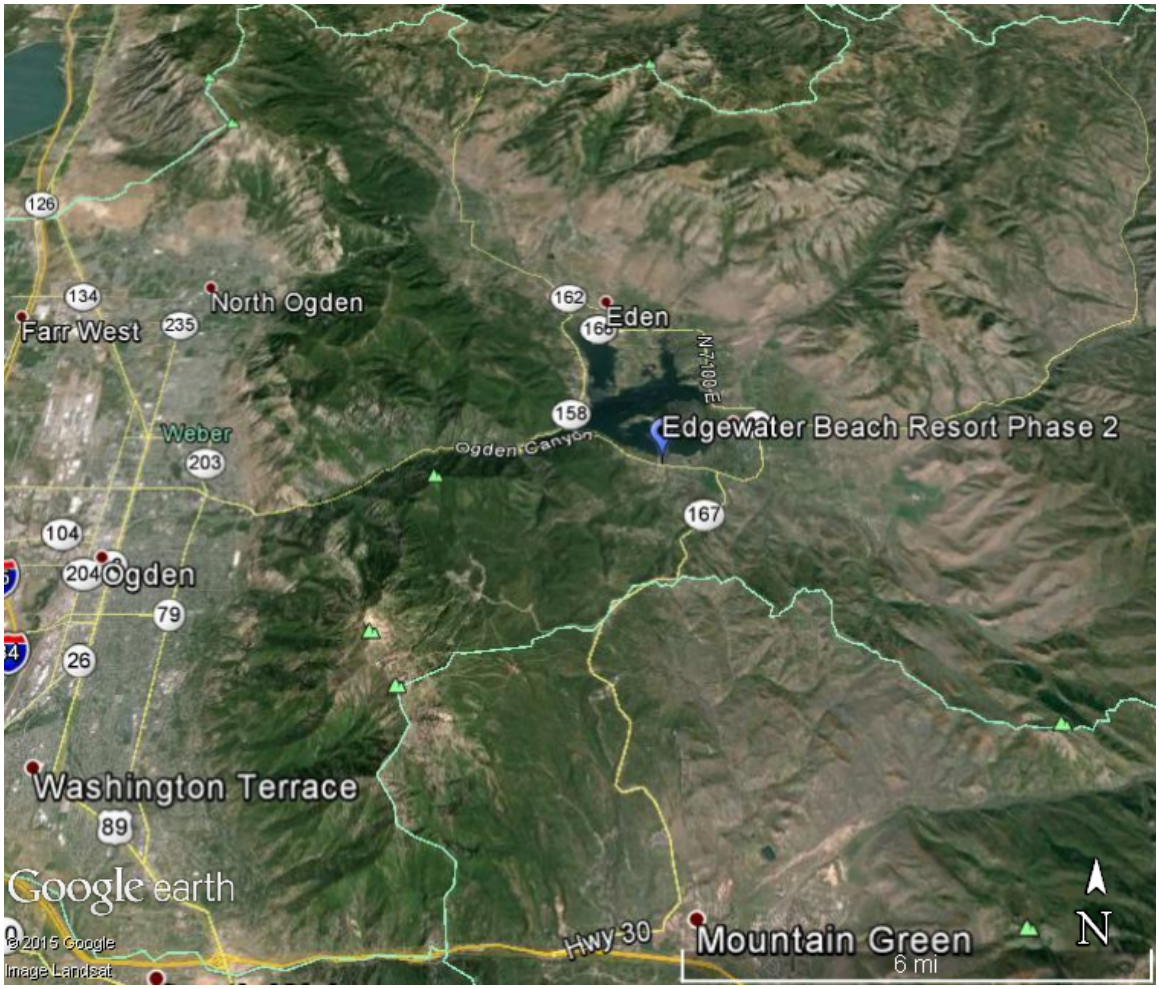
http://www.nationalregisterofhistoricplaces.com/state.html



3.11 General Location Map

In accordance with Part 3.5.1 e) – A general location map (e.g. portion of a city or county map or similar scale) is attached in this section:




126
134
North Ogden
Farr West
235
162
Eden
165
N 7100 E
158
Edgewater Beach Resort Phase 2
Weber
Ogden Canyon
203
167
104
204
Ogden
79
26
Washington Terrace
89
Google earth
© 2015 Google
Image Landsat
Hwy 30
Mountain Green
6 mi
N

3.12 SWPPP BMP Maps

For SWPPPs that are being managed on compliance|**GO** the site maps will be located in the documents/permits tab and then in the site maps tab of compliance|**GO**.

Please notify either the contact person for the operator found on the NOI or compliance|**GO** in order to access this information if needed.

801-701-6188
compliance|**GO**

- The SWPPP was created based on information provided by Reeve and Associates, Inc.

Project Location:
Latitude: 41.250621° N
Longitude: 111.794804° W
Receiving Waters: Pineview Reservoir and tributaries to.

LEGEND - [15]

- Curb/Sidewalk Cutback, once installed (3)
- Silt Fence (1)
- Stabilized Construction Exit (1)
- Dandy Bag Inlet Protection (7)
- Dandy Sack Inlet Protection, once installed (4)
- Portable Concrete Washout Container (1)
- Portable Toilet (1)
- Stockpiles (1)
- Property Boundary/Limit of Disturbance (1)
- Dumpster (1)
- Material Storage (1)
- Spill Kit (1)
- Detention Pond (1)
- Water Truck Operations Area (1)
- Street Sweeping (1)

HORROCKS ENGINEERS

WARNING

EDGEWATER PHASE 3

GRADING PLAN

CLIENT:

CG-101

*Note: This SWPPP Map is a living document subject to change based on site needs. BMPs that are no longer necessary will be de-activated and shown in gray on the maps. Please refer to the Site Maps section in complianceGO for the most up-to-date maps. For residential sites, individual lots will be updated with track out, waste collection, and materials storage BMPs as construction begins on each lot.

Drawn by: WH
Designed by: JK
Checked by: WH
Date: 4/2018

accenaGroup ™
Engineering Storm Water Compliance
885 S. Orem Blvd. * Orem, UT 84058 *
801-701-6188

HWL Edgewater, LLC
1178 W. Legacy Crossing Blvd., Ste. 400
Centerville, Utah 84014

Edgewater Beach Resort
SWPPP Development Map Phase 3
5598 Ogden Canyon
Huntsville, Utah 84317

Project Number: a17014

Sheet 1 of 1

Project Location:
Latitude: 41.250621° N
Longitude: 111.794804° W
Receiving Waters: Pineview Reservoir and tributaries to.

LEGEND - [15]

- Property Boundary/Limit of Disturbance (1)
- Silt Fence (1)
- Curb/Sidewalk Cutback (3)
- Dandy Sack Land Drain Protection (4)
- Dandy Bag Inlet Protection (7)
- Portable Concrete Washout Container (1)
- Paint/Stucco Washout (1)
- Spill Kit (1)
- Material Storage (1)
- Stockpiles (1)
- Dumpster (1)
- Portable Toilet (1)
- Street Sweeping (1)
- Water Truck Operations Area (1)
- Detention Pond (1)

HORROCKS ENGINEERS

WARNING

EDGEWATER PHASE 3

GRADING PLAN

CG-101

*Note: This SWPPP Map is a living document subject to change based on site needs. BMPs that are no longer necessary will be de-activated and shown in gray on the maps. Please refer to the Site Maps section in complianceGO for the most up-to-date maps. For residential sites, individual lots will be updated with track out, waste collection, and materials storage BMPs as construction begins on each lot.

Drawn by: WH
Designed by: JK
Checked by: WH
Date: 4/2018

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Engineering Storm Water Compliance
885 S. Orem Blvd. * Orem, UT 84058 *
801-701-6188

HWL Edgewater, LLC
1178 W. Legacy Crossing Blvd.,
Ste. 400
Centerville, Utah 84014

Edgewater Beach Resort
SWPPP Residential Map Phase 3
5598 Ogden Canyon
Huntsville, Utah 84317

Project Number:
a17014

Sheet
1 of 1

LEGEND

- Silt Fence
- Cutback Curb (Once Installed)
- Stabilized Construction Exit
- Washout Area
- Dumpster
- Portable Toilet
- Site Notice Posting
- Stockpiles
- Materials Storage
- Inlet Protection
- Drainage Swale
- Rip Rap

Project Location:
Latitude: 41.250621° N
Longitude: 111.794804° W
Receiving Waters: Pineview Reservoir

Drawn by: LW
Designed by: MH
Checked by: DD
Date: 09/09/2015

accenaGroup ™
Engineering Storm Water Compliance
1700 N. Bluebird Rd. * Orem, UT
84097 * 801-701-6188

JF Capital
1178 W. Legacy Crossing Blvd. Ste. 400
Centerville, UT 84014

Edgewater Beach Resort Phase 2

SWPPP Map
5598 Ogden Canyon
Hunstville, UT 84317

Project Number:
C15143

Sheet
1 of 1

SWPPP DATA:

Area affected:

1) The total project area is approximately 9 acres

2) Slopes:

- Prior to Construction: The site drains to Pineview Reservoir.
- During Construction: A storm drain system will be installed on site.
- After Construction: The site will drain to storm drains on site.

3) Drainage:

- Prior to Construction: The site slopes to the south and to the east. Slopes prior to construction exceed 3% and will need to be monitored for erosion throughout construction.
- During Construction: The site will be graded and slopes changed.
- After Construction: The site will be graded so that storm water will be directed to storm drains and detention basin (phase 3) on site, and to surrounding streets.

4) Vegetation:

- Prior to Construction: There are grasses and weeds on site.
- During Construction (What vegetation will be preserved and protected): Much of the vegetation will be removed for construction purposes.
- After Construction: The site will be landscaped for final stabilization.

5) The initial site is approximately 0% impervious.

The finished site will be approximately 60% impervious.

Construction Activities:

1) **Nature of Construction:** JF Capital and Thurgood Excavation will be doing construction activities at Edgewater Beach Resort.
Development: Grading, installation of utilities, installation of a road, curbs, gutters, and sidewalks.
Residential: Grading of individual lots, excavation for foundations, vertical construction of residential homes, and landscaping for final stabilization.
3/6/2017 Phase 3 added: all lots inclusive (30-53) for development and vertical construction. Includes demolition of some utility structures, installation of utilities, roads, curbs, gutters, and sidewalks; excavation for foundations, residential home construction, and landscaping for final stabilization.

2) Dewatering is not anticipated. If ground water is hit and dewatering is required proper dewatering measures will be put into place. The required permit will be obtained and appropriate water sampling will take place.

3) Description of areas of sensitivity or that need to be protected: There is an existing drainage ditch going through the site that will be diverted with a swale on the east border and into a storm drain. The drainage ditch is privately owned and a stream alteration permit is not required. There are some steep slopes on site that will need to be monitored for erosion throughout construction.

4) If stockpiles are placed in impervious surfaces then the stockpiles will need to have a weighted fiber roll placed around them when they are not in use, at the end of the working day, or prior to any expected rain.

5) Any tracking from the site will be cleaned up immediately. Construction waste materials will need to be contained on site and removed properly.

6) Install the BMPs according to the phase of construction, and the BMP specs found in Appendix M of the SWPPP. BMPs may change throughout construction. Any changes to the BMPs need to be shown on the site maps.

7) Installation of the BMPs will occur according to the stage of construction, and will be monitored throughout construction activities.

8) Site stabilization of areas disturbed by construction activities must be completed within 14 days of completion of construction and prior to obtaining the NOT Permit.

9) Upon project completion and obtaining NOT Permit, remove temporary measures and properly clean the site prior to release of the site to the owner.

Runoff Coefficients and Discharge:

1) The existing runoff coefficient for the project area is estimated to be 0.15. The new runoff coefficient will be approximately 0.57 for the new improvements.
2) The storm sewer system is owned and maintained by Weber County.

General Storm Water Pollution Control Notes:

1) The BMPs and site will be monitored regularly any additional BMPs that are needed will be determined during regular inspections and installed according to specifications. Any changes to project BMPs will need to be reflected on the SWPPP map(s).

2) The SWPPP Plan was compiled from information provided by Reeve & Associates, Inc.

3) The locations of the NOI permit, portable toilets, trash bins, concrete washout, and other BMPs may change throughout the duration of construction. Their location will be updated on the SWPPP map when necessary.

All information shown on the SWPPP map was taken or derived from the above stated plans. Any information not depicted was not provided as part of this project.

Site Visit Date:

Site Contact: Chad Bessinger | 801-518-6550 | chad@jfcapital.com

Inspection Frequency: At least once every 7 calendar days

MS4 Contact: Rochelle Pfeaster | 801-399-8372 | rpfeaster@co.weber.ut.us

Special Considerations for MS4: NA

Drawn by: LW
Designed by: MH
Checked by: DD
Date: 4/2018

accenaGroup ™
Engineering Storm Water Compliance
885 S Orem Blvd. * Orem, UT 84058 *
801-701-6188

JF Capital
1178 W Legacy Crossing Blvd, Ste 400
Centerville, Utah 84014

Edgewater Beach Resort
SWPPP Map Notes
5598 Ogden Canyon
Huntsville, Utah 84317

Project Number:
C15143

Map Notes

3.13 BMP Maintenance, Installation, and Site References

BMP installation and changes are being tracked on the site map in compliance|**GO**. The map includes the dates of installation of BMPs and the dates and notes of any changes to the BMPs. Updates to the Map will be made and tracked as needed throughout construction. The site maps will be updated with the appropriate BMPs. The site maps are located in the documents/permits tab of compliance|**GO** and through the site maps link on the right of the screen.

Please notify either the contact person for the operator found on the NOI or compliance|**GO** in order to access this information if needed.

801-701-6188
compliance|**GO**

SECTION 4: EROSION AND SEDIMENT CONTROL BMPs

The following categories of BMP activity are examples of BMPs that can be implemented to control pollutants in storm water discharges as details are provided in each area below from #1-24. The SWPPP –construction map will include the BMPs that are located on site. The maps will be updated according to what is on site at the current time along with the notes about the specific BMPs.

For SWPPPs that are being managed on compliance|**GO** the site maps will be updated with the appropriate BMPs. The site maps are located in the documents/permits tab under the site maps link on compliance|**GO**.

Please notify either the contact person for the operator found on the NOI or compliance|**GO** in order to access this information if needed.

801-701-6188
compliance|**GO**

1. **Minimize Area of Disturbance**

   Describe how the area of disturbance will be minimized throughout construction:

   The majority of the site will need to be disturbed for construction purposes. Most of the disturbance will take place for development and home construction. The other areas will be left where possible and not disturbed.

2. **Minimize Exposed Soils**

   Describe how the Exposed Soils will be minimized throughout construction:

   The areas of site that are able to be left undisturbed will be. Construction will progress in this phase minimizing the exposed soils to this phase as needed.

3. **Preservation of Natural Vegetation**

   Describe how the natural vegetation that will be preserved throughout construction:

   The majority of the natural vegetation will be removed for construction purposes. The areas of vegetation will be preserved where possible around the perimeters of the site.

4. **Natural Buffers (Within 50 feet of the projects earth disturbance)**

   Are there surface waters within 50 feet of earth disturbance? ☐ Yes ☒ No

5. **Perimeter Controls**

   Perimeter controls for all areas that receive storm water

   Control Name: Cutback Curbs
   Phase of Construction/Timing of Installation: Once curbs are installed
   Location: Along any area of the site that has curb and gutter installed.
   Describe: Cutback curbs are installed to capture sediment from storm water prior to the water running into the street.
   How to Maintain: Cutback curbs need to be maintained when the cutback is filled to less than two inches.

   Control Name: Silt Fence
   Phase of Construction/Timing of Installation: Prior to construction
   Location: Areas along the perimeter of the site that will receive storm water runoff.
   Describe: Silt fence prevents sediment from leaving the site.
   How to Maintain: Silt fence needs to be maintained when it is not attached to the stakes; when it is not properly entrenched; when the capacity is over 50%; or when it is ripped.

6. Track-Out Controls

Track out controls are required to prevent tracking from the site:

Control Name: Stabilized Construction Exit
Phase of Construction/Timing of Installation: During Development of the site.
Location: On the west side of the site coming off of Edgewater Drive.
Describe: A stabilized construction exit is used to prevent vehicles from tracking out sediment when leaving the site.
How to Maintain: The stabilized construction exit needs to be maintained when the rock begins to fill in with mud or sediment.

Control Name: Stabilized Drive Approach
Phase of Construction/Timing of Installation: During vertical construction of individual lots.
Location: On the area of the individual lot that will be later paved for use as a driveway or building approach.
Describe: Gravel or road base will be placed on the appropriate area. Vehicles will not enter the lot other than on this stabilized area to prevent mud and sediment from being tracked off the lot.
How to Maintain: The stabilized area needs to be maintained when the rock begins to fill in with mud or sediment.

Control Name: Street Sweeping
Phase of Construction/Timing of Installation: Throughout construction as needed
Location: Along surrounding streets
Describe: Street sweeping is needed as construction vehicles track dirt onto the road.
How to Maintain: The streets will need to be swept as sediment is observed.

7. Slope Protection

Slope protection is required in areas of the site that have steep slopes:

Control Name: Monitor for erosion
Phase of Construction/Timing of Installation: Throughout construction activities.
Location: Along areas of the site that have steep slopes.
Describe: The site will need to be monitored for erosion.

How to Maintain: If erosion occurs then the spot will be smoothed over and cat tracked.

8. Stockpile Controls

The stockpiles must be located out site of any natural buffers. Stockpiles also should be positioned and to prevent dust. Stockpiles should be covered or vegetated where possible. Stockpiles must have perimeter controls surrounding them if they are to be left in place for over three days.

Control Name: Stockpile Containment
Phase of Construction/Timing of Installation: During excavation of the foundation
Location: Stockpile location
Describe: Stockpiles must have a sediment control around them when they are left in one location for more than three days. The stockpile contianment will include silt fence around the stockpile. Stockpiles will be watered to form a crust that prevents loose sediment from being blown off the stockpile.
How to Maintain: Maintain the silt fence. Water the stockpile to prevent dust.

9. Minimize Dust

Insert a dust plan/permit if it has been obtained.

Control Name: Water Truck
Phase of Construction/Timing of Installation: Throughout the length of the project.
Location: All exposed areas
Describe: A water truck will be kept on site and used as needed to help minimize dust on site.

10. Preserve Topsoil

Topsoil must be preserved and reused for areas that will have vegetation following construction.

Phase of Construction/Timing of Installation: Excavation for foundation during residential construction
Location: Excavated areas
Plan for preserving topsoil: Topsoil will be stockpiled and saved where possible. Where not possible topsoil will be hauled in.

11. Minimize Soil Compaction

Soil compaction must be minimize from vehicle/equipment or soil conditioning techniques must be used.

Phase of Construction/Timing of Installation: Excavation for foundation
Location: Areas to be landscaped
Plan for minimizing soil compaction: Vehicle access will be minimized. Soil conditioning will occur during landscaping. Vehicle traffic will be confined to the road areas.

12. Protect Storm Drain Inlets

All storm drain inlets that receive storm water from the construction site must have inlet protection.

Control Name: Gravel Bags
Phase of Construction/Timing of Installation: Throughout the length of the project.
Location: Inlets at various locations on site and on surrounding streets.
Describe: Inlet protection will be installed when the inlets are installed.
How to Maintain: The inlet bags need to be cleaned when sediment accumulates around them; or when the bags are run over and break.

Control Name: Dandy Bags and Dandy Sacks
Phase of Construction/Timing of Installation: Throughout the length of the project.
Location: Inlets at various locations on site and on surrounding streets.
Describe: Inlet protection will be installed when the inlets are installed. How to Maintain: The inlet bags need to be cleaned when sediment accumulates around them; or when the bags are run over and break. Dandy Sacks need to be cleaned when they are more than 1/3 of the way full.

13. High Altitude or Heavy Snow Conditions

What controls will be used for high altitude/heavy snow areas. This area also includes control to be put into place to prepare for these conditions.

Not applicable

14. Storm Water Conveyance Channels

Will this site have a storm water conveyance channel? ☒ Yes ☐ No

Control Name: Drainage Swale
Phase of Construction/Timing of Installation: Grading

Location: Located on the east border of the site. Please refer to the SWPPP Map.
Describe: Drainage swale used to divert storm water from running through the site to a storm drain onsite.
How to Maintain: Monitored for erosion throughout construction. If erosion occurs the spot will be smoothed over.

15. Sediment Basins

The sediment basin must be construction to contain a 2 year 24 hour storm or 3600 cubic feet per acre drained. The outlet for the water must be at the top layer of water. Sediment basins must be installed to prevent erosion of the basin. Sediment basins must be located outside of water conveyance, natural buffer, and not collect wetland waters.

Will a sediment basin be installed on site? ☐ Yes ☒ No

16. Detention or Retention Ponds

Will a Detention or Retention basin be installed on site? ☒ Yes ☐ No

Control Name: Detention Basin
Phase of Construction/Timing of Installation: During Grading
Location: Central area of Phase 3
Describe: A basin with an outlet designed to detain stormwater runoff for at least 24 hours to allow particles and associated pollutants to settle at the bottom of the basin.
How to Maintain: Note erosion of basin banks or bottom. Inspect for damage to the embankment. Monitor for sediment accumulation in the facility and forebay. Examine to ensure that inlet and outlet devices are free of debris and operational. Seed or sod to restore dead or damaged ground. Remove sediment when pond volume has been reduced by 25%.

17. Treatment Chemicals

In order to use treatment chemicals an approval letter from the Department of Environmental Quality is required. Erosion and Sediment controls must be used before and after the use of treatment chemicals. The chemicals must be properly stored. The MS4 must be notified and approve of the use of treatment chemicals. Proper documentation needs to be insert into the SWPPP whenever treatment chemicals are used.

Will treatment chemicals be used at this construction site? ☐ Yes ☒ No

18. De-watering

For dewatering off site or into a storm drain a UPDES De-watering permit must be obtained. Also the MS4 must be notified.

Will dewatering occur at the construction site? ☐ Yes ☒ No

19. Concrete, Paint, Stucco Washouts

Concrete Washouts must be contained and lined including stucco washout. No washout should take place on the ground. Paint washouts must be contained and lined and separate from Concrete Washouts.

Concrete Washout

Control Name: Portable Concrete Washout Bin
Phase of Construction/Timing of Installation: Prior to pouring of concrete.
Location: Designated washout location
Describe: Bin installed for concrete washout containment.
How to Maintain: Must be emptied when it is 75% full to prevent spillage.

Paint Washout

Control Name: Portable Paint Washout Bin
Phase of Construction/Timing of Installation: Prior to painting during vertical construction
Location: Designated washout location
Describe: Bin installed for paint washout containment.
How to Maintain: Must be emptied when it is 75% full to prevent spillage.

20. Fuels, Oils, and Vehicle Maintenance Fluids

If oil storage on site exceeds 1320 Gallons then an SPCC plan is required. Spill kits for small spills are required on all sites. If large amounts of oils are stored on site then larger spill kits are required. Vehicles or equipment that drip or leak they need to have drip pans.

Will Fuels or Oils be stored at the construction site? ☐ Yes ☒ No

21. Toxic or hazardous substances

Toxic or hazardous substances must be stored properly undercover and in secondary containment. When they are disposed of they must be separate from other wastes and disposed in the manner that is specified on the labeling

Will Toxic or Hazardous Substances be present at the construction site? ☐ Yes ☒ No

22. Other Chemicals

Will Other Chemicals be stored at the construction site? ☐ Yes ☒ No

23. Vehicle Washing

Vehicle washing must minimize discharge of pollutants. Discharge of soaps is prohibited. All soaps must be properly stored in secondary containment or undercover.

Will vehicle washing occur at the construction site? ☐ Yes ☒ No

24. Site Storage

All site storage must be covered with plastic or undercover.

Will there be a designated storage area on site? ☐ Yes ☒ No

25. Waste Disposal

Waste control and disposal of all construction and sanitary wastes. This also includes containment and cleanup of blowable trash.

Construction Waste:

Control Name: Dumpster
Phase of Construction/Timing of Installation: Beginning of construction
Location: Designated areas
Describe: Dumpsters will be put into place for construction waste on site.
How to Maintain: Dumpster must be emptied prior to trash and debris going above the rim of the dumpster.

Sanitary Waste:

Control Name: Portable Toilets
Phase of Construction/Timing of Installation: Beginning of construction
Location: Designated areas minimum of 10 feet from the street.
Describe: Portable toilets
How to Maintain: Must be staked and 10 feet from the street to prevent spillage that could run into storm drains.

Blowable Trash Containment:

Control Name: Covered cans or bagging of trash
Phase of Construction/Timing of Installation: Beginning of construction
Location: Throughout the site
Describe: All blowable trash must be place din a covered trash can or bagged and placed in the dumpster.

How to Maintain: Blowable trash must be contained and picked up when found on the ground in the construction site.

26. Fertilizer Discharge Restrictions

Fertilizers must be stored undercover and have containment around them. Fertilizer should not be spread on frozen ground, prior to heavy rain, or in sensitive areas.

Will fertilizer be used or storage at the site? ☐ Yes ☒ No

Fertilizer Use

27. Other Erosion Controls

Control Name: Rock Rip Rap
Phase of Construction/Timing of Installation: Development
Location: Located in the swale near where the storm drain is. Please refer to the SWPPP map.
Describe: Rip Rap is used to help filter out sediment and break up energy as storm water passes through it on its way to the storm drain.
How to Maintain: Rip Rap needs to be maintained when it fills up with sediment, trash, or other debris.

28. Additional Permits

Details of the additional permits will be located in section 9.2 of this SWPPP

a. Will the site have a Stream Alteration Permit? ☐ Yes ☒ No

b. Will the site have a 404 d wetland permits? ☐ Yes ☒ No

c. Does the site have an SPCC? ☐ Yes ☒ No

d. Does the site have a Land Disturbance Permit? ☒ Yes ☐ No

Describe: Weber County Land Disturbance Permit

4.1 Spill Response Prevention and Control Plan

Other than the below procedures and specifications for management of hazardous spill, absorbent/oil dry, sealable containers, plastic bags, and shovels/brooms are suggested minimum spill response items that should be on this location.

Designated Person on Site for Spill Clean-up and Response:

Name: Dan Ross
Title: Site Superintendent
Company: HWL Edgewater, LLC
Telephone Number: 801-361-5555
Email: Dan.Ross@JackFisherHomes.com

EMERGENCY NUMBERS

Utah's Division of Water Quality	(801) 538-6146
24-hour DWQ answering service	(801) 536-4123
Utah Hazmat Response Officer (24-hour)	(801)-538-3745
Reportable Quantity	
EPA National Response Center	(800) 424-8802
Weber County Stormwater Management	(801) 399-8374
Weber Fire District	(801) 745-9277
Weber County Sheriff	(801) 778-6602
Emergency	911

A list of hazardous material spill response companies are listed on the following pages.

Hazardous Material	Location of Spill	Reportable Quantity
Oils, fuel, hydraulic, brake fluid	Land/Water	25 gallons/ Visible Sheen
Refrigerant	Air	1 lb.
Antifreeze	Land/Water	13 gallons
Battery Acid	Land/Water	100 lbs.
Engine Degreaser Products	Land/Water	100 lbs.
Gasoline/Diesel Fuels	Land/Water	100 lbs.

1. Utah Code Annotated (UCA) 19-5-l 07(l) (a): it is unlawful for any person to discharge a pollutant into waters of the state or to cause pollution which constitutes a menace to public health and welfare.

2. Utah Administrative Code (UAC) R317-2-7.2: It shall be unlawful, and a violation of these regulations, for any person to discharge or place any waste or other substance in such a way as will be or may become offensive, such as unnatural deposits, floating debris, oil, scum, or other nuisances such as color, odor or taste; or cause conditions which produce undesirable aquatic

life or which produce objectionable tastes in edible aquatic organisms; or result in concentrations or combinations of substances which produce undesirable physiological responses in desirable resident fish, or other desirable aquatic life, or undesirable human health effects, as determined by bioassay or other tests performed in accordance with standard procedures.

SPILL RESPONSE PLAN

Spills require action. Ensure your people are safe, then on-site equipment and property, then the environment.

1st Priority: Protect all People
2nd Priority: Protect Equipment and Property
3rd Priority: Protect the Environment

1. Make sure the spill area is safe to enter and that it does not pose an immediate threat to health or safety of any person.

2. Stop the spill source. Refer to MSDS sheets so that the spilled material can be handled properly.

3. Check for hazards (flammable material, noxious fumes, cause of spill) - If flammable liquid, turn off engines and nearby electrical equipment. If serious hazards are present leave area and call 911. LARGE SPILLS ARE LIKELY TO PRESENT A HAZARD.

4. Call co-workers and supervisor for assistance and to make them aware of the spill and potential dangers.

5. If possible, stop spill from entering storm drain (use absorbent or other material as necessary, close valve to drain, cover or plug drain)

6. Stop spill from spreading (use absorbent or containment materials)

7. If spilled material has entered a storm drain then check oil/water interceptor or catch basins then notify the local city. Clean out the storm drain if possible. Do not spray spilled materials down the storm drain.

8. Clean up spilled material/absorbent (do not flush area with water) - If outside clean-up service is required, phone numbers of qualified clean up companies is available on following pages.

9. Properly dispose of cleaned material/absorbent into secure container for disposal as hazardous waste

10. Make sure cleaned area is not slippery (if slippery, put down no-slip material or mark area with a “slippery when wet” sign)

	Company Name	Location	Contact	Telephone	24 Hr	Spill Type Capability for Handling		Spill Response Services					Response Time In Hours To Farthest Point In Area (See Utah Map of Area Numbers)							
						Petroleum Products	General HazMat	Level A Team	Level B Team	Sorbent Dealer	Treat (T) Store (S) Dispose (D)	Other * (see key)	1	2	3	4	5	6	7	8
1	A Plus Environmental	Salt Lake City, Layton, Ogden, Brigham City	Kody or Kurt	801-628-3157 (cell) 801-392-6545 (office)	X	X	X				TSD	CDREV	2	3	2	4	4	5	6	7
2	Atomic Industrial Services	Salt Lake City		801-979-9606	X	X	X	X	X		TSD	CDEV	1	1	1	3	3	4	4	5
3	Bonneville Industrial Supply	Orem		801-225-7770						X										
4	E.T. Technologies Consulting	Salt Lake City		801-977-0731	X	X	X	X	X	X	TSD	DEV	6	4	3	10	8	10	12	12
5	E.T. Technologies Disposal Services	Salt Lake City		801-973-2065	X (soil)						D									
6	Enviro Car, Inc.	North Salt Lake	John K. Hart	801-299-1900; or 800-820-9058	X	X	X	X	X		TSD	CDEV	2	2	1	1	4	4	6	7
7	Environmental Restoration	Salt Lake City		888-814-7477; or 801-268-6450	X	X	X	X	X		TSD	CDREV	2	2	1	3	4	4	5	7
8	Environmental Technologies of Nevada	Las Vegas, NV		702-734-5400	X	X	X	X	X	X	TD	CDV	8	8	9	9	8	9	4	5
9	Envirotech, Inc.	Farmington, NM		505-632-0615	X	X	X		X		TSD	DV						5	5	4
10	Flare Construction	Coalville		307-789-1979	X	X			x		TSD	D	4	4	2	5	6	6	8	9
11	H2O Environmental, Inc.	Las Vegas, NV	Pat Heyneman	702-396-4148	x	X	X	X	X	X	TSD	CDRV					4	6	2	4
12	H2O Environmental, Inc.	Salt Lake City	Pat Heyneman	801-355-3499	X	X	X	X	X	X	TSD	CDRV								
13	Harper Contracting, Inc.	Salt Lake City	Lawnie Mayhen	801-231-5622; or 801-250-0132	X	X	X		X		TSD	DV	4	1	1	4	6	6	8	9
14	Herrick Industrial Supply	Ogden		801-627-2240						X										
15	HMHTTC Response Inc.	Salt Lake City	Ray Maxon	800-927-9303	X	X	X	X	X			CDREV	2	1	1	3	3	4	5	5
16	Industrial Supply	Salt Lake City	Craig Curtis	801-484-8644						X										
17	Lincoln Environmental Services	Ogden, Salt Lake		800-257-5370	X	X	X	X	X	X	TSD	CDREV	2	2	1	5	5	5	5	8
18	Lincoln Environmental Services	Box Elder Co.		800-257-5370	X	X	X	X	X	X	TSD	CDREV	1	2	1	5	5	5	5	8
19	LN Curtis & Sons	Salt Lake City		801-486-7285	X					X										
20	Pacific West LLC	Salt Lake City	Dustin Hall	801-972-2727	X	X	X		X	X	TSD		3	1	2	4	3	4	6	7
21	S&M Diesel Environmental Service	Brigham City	Matt Tingey	800-735-2004; or 435-279-8124	X	X	X				TSD	CDV	1	3	1	3	4	4	7	7
22	Safety Kleen	Tooele		801-323-8100	X						TSD									
23	Safety West	Salt Lake City		801-972-5800	X					X										
24	Souder, Miller and Associates	Farmington, NM	Cindy Gray	505-325-5667	x	X			X	X	TSD**	D	16	14	13	12	9	9	6-10	4-8
25	Thatcher Chemical (primarily their own shipments, may respond to others)	Salt Lake City		Day 801-972-4587; Night 801-541-3723			Cl2, SO2, NH3	X	X	X		CD	4	2	2	8	6	6	8	12
26	Universal Products, Inc.	Ogden	Bill Hendren	888-584-5575	X					X										
27	USA Environmental	Layton/Ogden	George Pasalano	801-390-4934	X	X	X	X	X	X	TSD	CDEV	1	1	1	4	4	5	5	7
28	Green Remediation Solutions (GRS)	Pomona California	Owen Long	760-987-5226	X	X				X			24	24	24	24	18	18	18	18
29	American Remediation & Restoration	Ogden, Utah	Steven Gary	801-627-4700	X	X							1	2	1	3	4	5	5	5
30	NWFF Environmental	Salt Lake City	Robert Surette	800-942-4614	X	X	X		B	X	D	CDV	2	2	1	4	4	4	5	5

Foot Notes

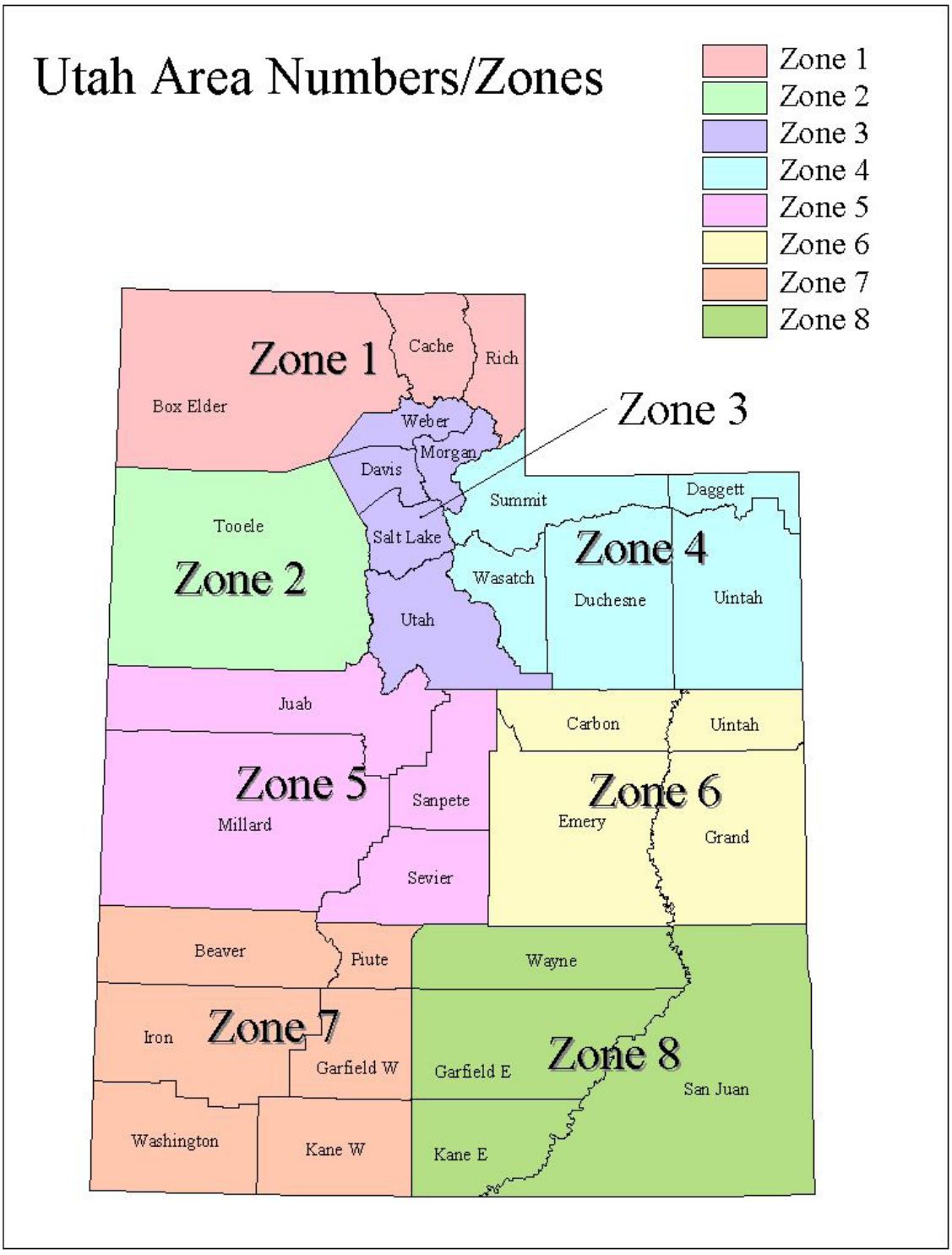
* C-cylinders; D-drum; R-radioactive materials; E-explosives; V-vacuum transport
** Can arrange T, S, and D

Supplemental Information

The Utah Department of Environmental Quality provides this list to the public as a courtesy only. Inclusion on the list does not in any manner constitute by this agency licensure, certification, endorsement, or recommendations of any kind. Information is subject to change w/o notice. For copies, or to update information, contact Mike Zucker, DEQ Response and Remediation (801-536-4100, or send a message at mzucker@utah.gov Please be advised, if you are performing enivironmental mitigation work for the person responsible for the release of one or more hazardous chemicals, hazardous substances, hazardous wastes, pollutants or contaminants, solid wastes, or other materials resulting from an an unauthorized release to the environment, pursuant to state laws and/or rules, your client may be subject to the requirements to submit written notification of actions taken to mitigate a release. You, as the contractor, may be tasked to prepare such documentation. Pacific West LLC, Erda facility is approved by the State of Utah to recycle Petroleum Contaminated Soils. This list is available for download at the DEQ DERR website: http://www.superfund.utah.gov/spills.htm (see link titled Spill Response Resource List).

http://www.superfund.utah.gov/docs/resource.pdf

Field	Description
Company Name	Provide the name of the company
Location City	Location city
Contact	Name of appropriate contact to access assistance
Telephone	Contact number one calls to access response assistance
24hr	An “X” indicates the phone number listed is 24-hour number and assistance is available on a 24 hour basis.
Spill Type Capability to Handle – Petroleum Products	An "X" indicates the company has the capability to contain and cleanup spills of petroleum products such as gasoline, diesel fuel, jet fuel, crude oil, etc.
Spill Type Capability to Handle – General Hazmat	An “X” indicated the company has the capability to contain and cleanup spill of other hazardous materials such as acids, bases, pesticides, organic solvents, etc.
Spill Type Capability For Handling – Specific Chemical(s)	If the company does not handle general hazmat responses, but does have the capability to contain and cleanup spills of a specific chemical, the chemical(s) is/are identified.
Spill Response Services – Level A Team	An “X” indicates the company has the capability to provide teams equipped and trained to enter areas requiring “Level A” personal protective equipment as defined by 29CFR 1910.120.
Spill Response Services – Level B Team	An “X” indicates the company has the capability to provide teams equipped and trained to enter areas requiring “Level B” personal protective equipment as defined by 29CFR 1910.120.
Spill Response Services – Sorbent Dealer	An “X” indicates the company can provide petroleum product or chemical sorbents.
Spill Response Services – Treat (T)	“T” = the company is a permitted hazardous waste treatment facility or can arrange for permitted treatment.
Spill Response Services - Store (S)	“S” = the company is a permitted hazardous waste storage facility or can arrange for permitted storage.
Spill Response Services – Dispose (D)	“D” = the company is a permitted hazardous waste disposal facility or can arrange for permitted disposal.
Spill Response Services – Other	Codes at the bottom of the form identify specialized hazardous material response services involving: (C) Compressed gas cylinders, (E) Explosives, (R) Radioactive materials, (V) Vacuum transport of spilled liquids, or (D) Able to supply over-pack or regular drums for containerizing hazardous waste
Response Time To Farthest Point in Area (Hrs)	Indicates the number of hours it would take the company to respond to the farthest point in various state areas. The areas are identified by numbers on the accompanying state map.


Utah Area Numbers/Zones
Zone 1
Zone 2
Zone 3
Zone 4
Zone 5
Zone 6
Zone 7
Zone 8
Box Elder
Cache
Rich
Weber
Morgan
Davis
Summit
Daggett
Tooele
Salt Lake
Wasatch
Duchesne
Uintah
Utah
Juab
Carbon
Uintah
Millard
Sanpete
Emery
Grand
Sevier
Beaver
Piute
Wayne
Iron
Garfield W
Garfield E
San Juan
Washington
Kane W
Kane E

Spill Kit Information:

Is there a spill kit on site? ☐ Yes ☒ No

Describe the spill kit: Spill kits will be kept on trucks with hydraulic lines

The information below is to assist in obtaining the correct materials and equipment for spill response and spill clean-up.

Absorbents – pads, pillows, booms, socks, dikes, rolls, and loose or particulate sorbents

1. Universal – absorbs – oils, water based fluids, water, coolants, solvents, and most non-hazardous liquids.
2. Oil Only – Absorbs oils and repels water
3. Hazmat – Absorbs most fluids including corrosive liquids

Containment:

1. Spill Berm – A mobile containment boom – designed to contain a spill or protect an inlet
2. Drain Seals – Designed to seal an inlet to prevent any liquid from entering the inlet to allow for clean-up of the spill
3. Drain absorbents – designed to absorb oils while allowing water to pass through

Tools (Non-sparking, chemical and corrosion resistant):

1. Shovel – A shovel that does not produce sparks
2. Scoops – to clean up absorbents
3. Broom – sweep up absorbents
4. Squeegee
5. Plastic bags
6. Container – to hold the spill cleaned-up debris

Personal Protective Equipment:

1. Heavy Duty Gloves made of nitrile or neoprene
2. Safety Glasses or goggles that are chemical resistant
3. Disposable lab coat or apron
4. Boot covers

Other Supplies (May be needed):

1. Warning Tape or signs
2. Labels – to mark the cleaned up equipment for disposal
3. Markers
4. MSDS

Hazardous Material Spill Reporting Sheet

This Report must be submitted to the Utah Department of Environmental Quality Division of Water Quality within 7 days of the hazardous material release that meets or exceeds a reportable quantity. A copy of this form must also be included in this SWPPP.

Hazardous Material Spill Reporting Sheet	
Hazardous material released.	
Estimated amount of release.	
Was the release reported to the appropriate authorities? If reported then to whom? (Reportable quantities are listed in section 4.1 of the SWPPP)	
Date that the release occurred.	
Circumstances leading to the release.	
Measures taken or planned to clean up the release.	
Steps taken to prevent a future release.	

Please send the report to the address below within 14 days of the hazardous material release.

Department of Environmental Quality
Division of Water Quality
195 North 1950 West
PO Box 144870
Salt Lake City, Utah 84114-4870

4.2 Underground Injection Control Requirements

If any of the following storm water controls exists on the construction site then contact with the DWQ must be documented.

Are any of the following controls to be installed on site? Please check all that apply.

Underground Injection Controls	**Control Utilized?**
Infiltration trenches (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).	☐
Commercially manufactured pre-cast or pre-built propriety subsurface detention vaults, chambers, or other devices designed to capture and infiltrate storm water flow.	☐
Drywalls, 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).	☐
No underground injection controls are to be installed on site.	☒

Insert copies of letters, emails, or other communications from the Utah DWQ

4.3 Allowable Non-Stormwater Discharge Management

All discharges authorized by the permit and covered by this SWPPP are composed entirely of storm water associated with construction activities or are an authorized Non-Storm Water Discharge. Allowable non-stormwater discharges and the measures used to eliminate or reduce them and to prevent them from becoming contaminated are as follows:

Type of Allowable Non-Stormwater Discharge	Likely to be Present at Your Site?
Discharges from emergency fire-fighting activities	☐ YES ☒ NO
Fire hydrant flushings	☐ YES ☒ NO
Landscape irrigation	☐ YES ☒ NO
Waters used to wash vehicles and equipment	☐ YES ☒ NO
Water used to control dust	☒ YES ☐ NO
Potable water including uncontaminated water line flushings	☐ YES ☒ NO
Routine external building wash down	☐ YES ☒ NO
Pavement wash waters	☐ YES ☒ NO
Uncontaminated air conditioning or compressor condensate	☐ YES ☒ NO
Uncontaminated, non-turbid discharges of ground water or spring water	☐ YES ☒ NO
Foundation or footing drains	☐ YES ☒ NO

For all yes answers above describe:

Pollutant Control Name: Water Truck
Phase of Construction/Timing of Installation: Prior to construction
Location: A water truck will be brought on site as dust control is needed.
Describe: A water truck will be used to spray water on dirt that is getting too dusty.
How to Maintain: Make sure water tank has adequate amounts of water

4.4 Final Stabilization

Stabilization requirements

Moist Areas (Over 20 inches or rain per year):

Areas receiving over 20 inches of rain per year are required to initiate stabilization practices within 14 days of completion of earth disturbing activities on any portion of the construction site. Within 14 days after initiating stabilization practices the site needs to be stabilized with vegetation being planted or non-vegetation areas being completed.

Arid and Semi-Arid areas (Less than 20 inches of rain per year):

Areas receiving less than 20 inches of rain per year are required to initiate stabilization practices within 14 days of completion of earth disturbing activities on any portion of the construction site. After initiating stabilization practices then BMPs need to be put into place to control runoff until full stabilization can take place.

Sensitive or High Quality Waters:

For sites that discharge to a high quality waters or to sediment or nutrient impaired waters then stabilization must be completed within 7 days of temporary or permanent cessation of earth disturbing activities.

Describe the climate conditions on site: Semi-Arid

Does this site discharge to sediment or nutrient impaired waters? ☐ Yes ☒ No

Insert or describe the detailed plan for site stabilized:
The site will be stabilized with landscaping. The lots will be landscaped either by the property owner or HWL Edgewater, LLC depending on contracts. If the site is being landscaped by HWL Edgewater, LLC then it will be completed soon after vertical construction is completed. If the property owner does the landscaping then the BMPs will be left at the perimeters when the home is turned over.

Insert the landscaping or stabilization map if there is one:

4.5 Post Construction BMPs

Is this site required to install Post Construction BMPS? ☒ Yes ☐ No

Describe the post construction BMP:
Landscaping

Describe the phase of construction when the post construction BMP will be installed
Landscaping will be installed upon completion of construction activities.

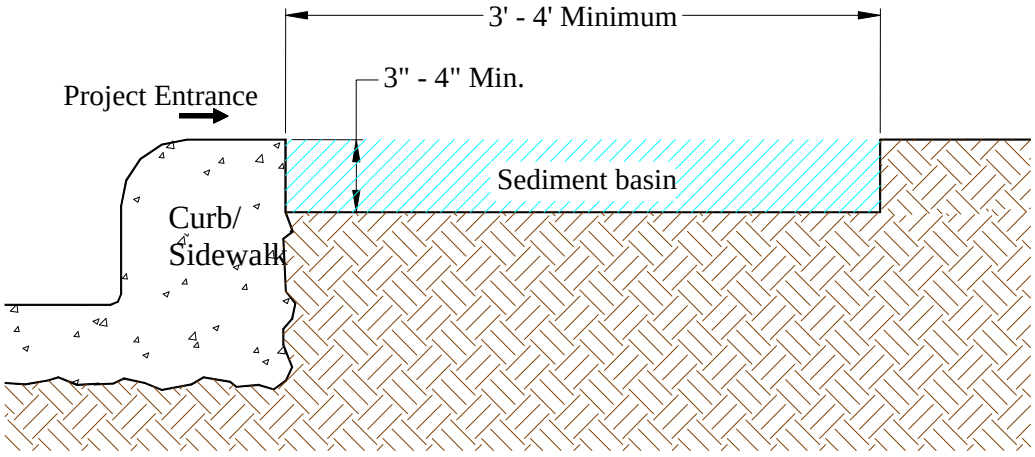
Has a storm water management agreement been filed with an MS4? ☐ Yes ☐ No ☒ NA

Insert a copy of the Storm Water Management Agreement on the following page:

SECTION 5: BMP SPECIFICATIONS

BMP Specifications that will be used on the site are inserted in this section.

Cut Back Curb/Sidewalk



Description

A temporary sediment trap formed by excavation behind the curb, sidewalk, or roadway. Various uses could be applied. V ditches, depressed areas (area between sidewalk and curb, behind sidewalk, or behind the roadway), and other sediment type traps preventing sediment from entering impervious surface areas.

Application

The purpose is to intercept sediment laden runoff from the lot or commercial pad during construction and retain sediment on the lot.

Conditions Where the Practice Applies

A cutback curb is installed when discharge from the lot or commercial pad runs over the curb and traditional silt fence, wattles, existing vegetation, or erosion control blanket is not used. It can also be installed at the entrance to the lot when access is needed.

Design/Installation

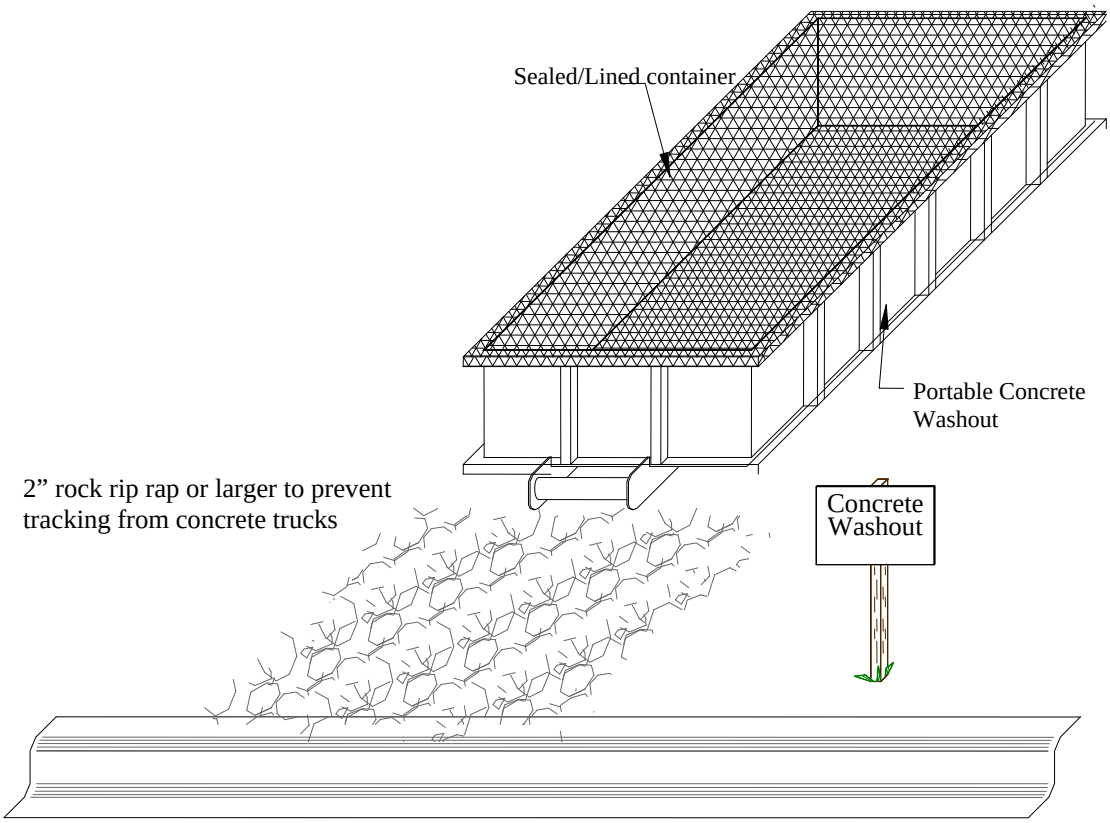
Cut back soil from behind curb 3" - 4" deep to form a temporary sediment trap. The depth required may be increased if more sediment storage is needed. Installing the sidewalk will form a two-stage sediment trap that will be more effective.

Sidewalks need to be kept clear of all sediment and debris.

Maintenance

The trap must be cleaned regularly as site conditions or rain events cause sediment deposition in the trap. Allow sediment laden water to infiltrate before cleaning to prevent overflow into the street.

Portable Concrete Washout Container



Description

A temporary portable self-contained and water-tight bin that contains concrete washout, material, and wastewater with a poly liner to facilitate emptying and cleaning. Many types of bins exist that are designed to meet this purpose. (ie: EcoPan, Metro Waste, Concrete Washout Systems)

Application

Allows operators to wash out concrete trucks, pumps, and equipment on-site and facilitate off-site recycling of concrete material and washout waters.

Conditions Where Practice Applies

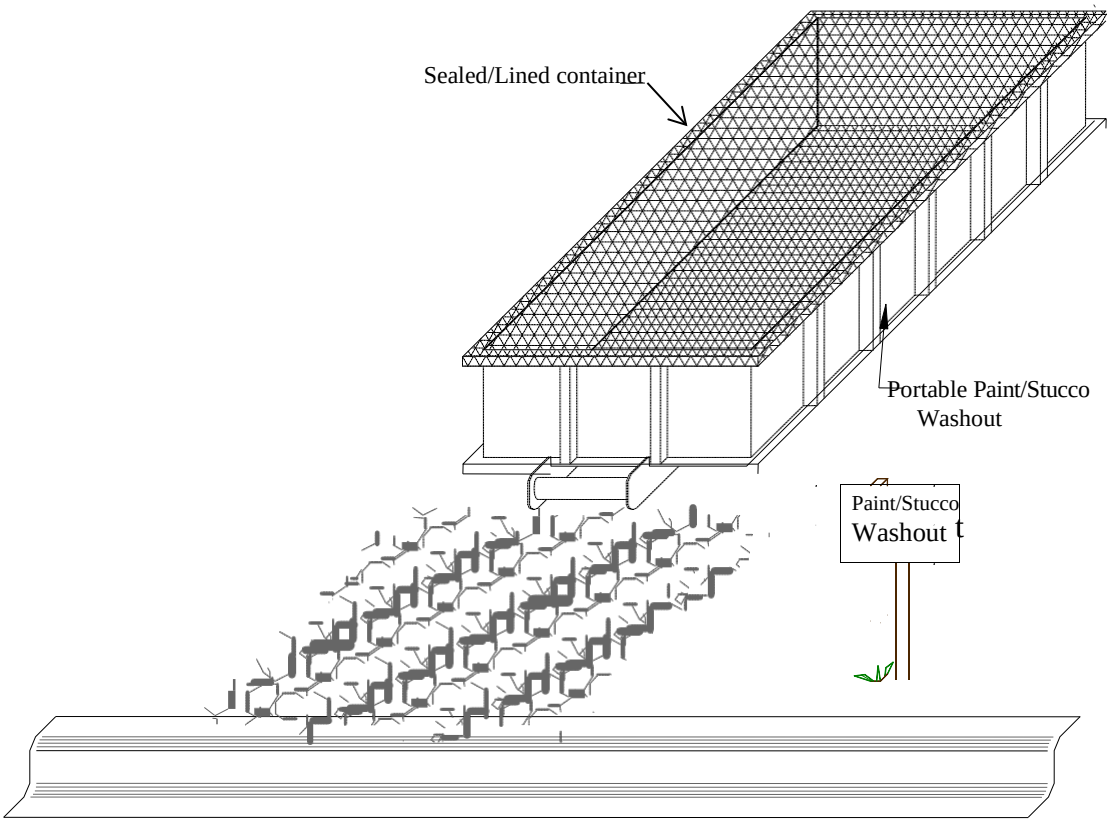
New construction projects where concrete is used as a construction material or demolition projects where concrete dust and debris result from demolition activities.

Design / Installation

The container must be manufactured of steel, portable, and watertight. Clean out when 3/4 full.

accenaGroup TM
Engineering Storm Water Compliance

Portable Paint/Stucco Washout Container



Description

A temporary portable self-contained and water-tight bin that contains paint and stucco washout material, and wastewater with a poly liner to facilitate emptying and cleaning. Many types of bins exist that are designed to meet this purpose. (ie: EcoPan, Metro Waste, Paint/Stucco Washout Systems)

Application

Allows operators to wash out paint and stucco sprayers, and equipment on-site and facilitate off-site recycling of paint and stucco material and washout waters.

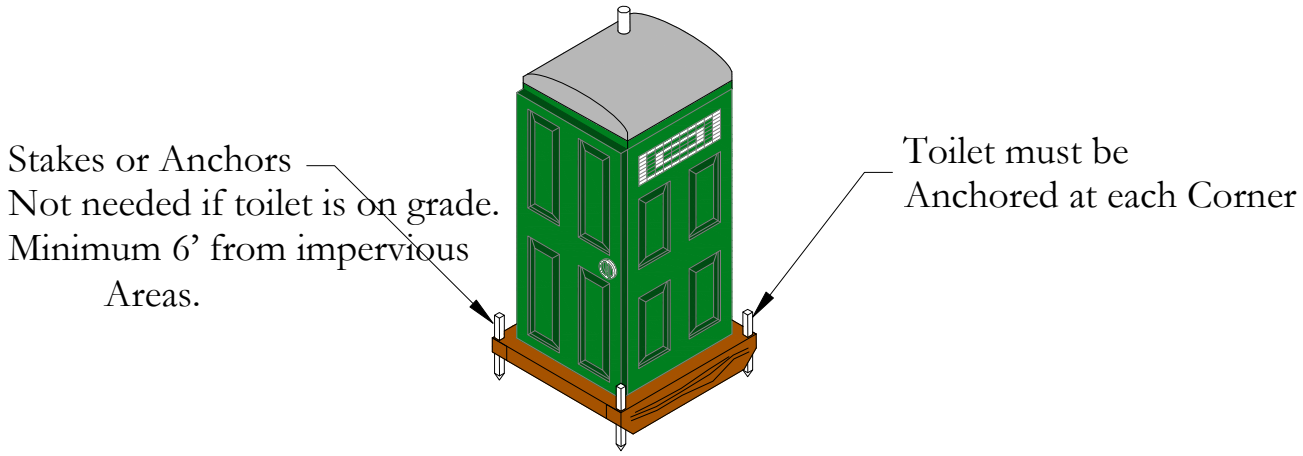
Conditions Where Practice Applies

New construction projects where paint or stucco is used as a construction material or demolition projects where stucco dust and debris result from demolition activities.

Design / Installation

The container must be manufactured of steel, portable, and watertight. Clean out when ¾ full. Oil-based paints must be washed out separately from concrete, stucco, and other paints and liquids.

Sanitary Waste Management



Description

Contained sanitary and septic waste management prevent the discharge of pollutants to storm water from sanitary and septic waste by providing convenient, well-maintained facilities, and arranging for regular service and disposal.

Application

Sanitary septic waste management practices are suitable for use at all construction sites that use temporary or portable sanitary and septic waste systems.

Installation

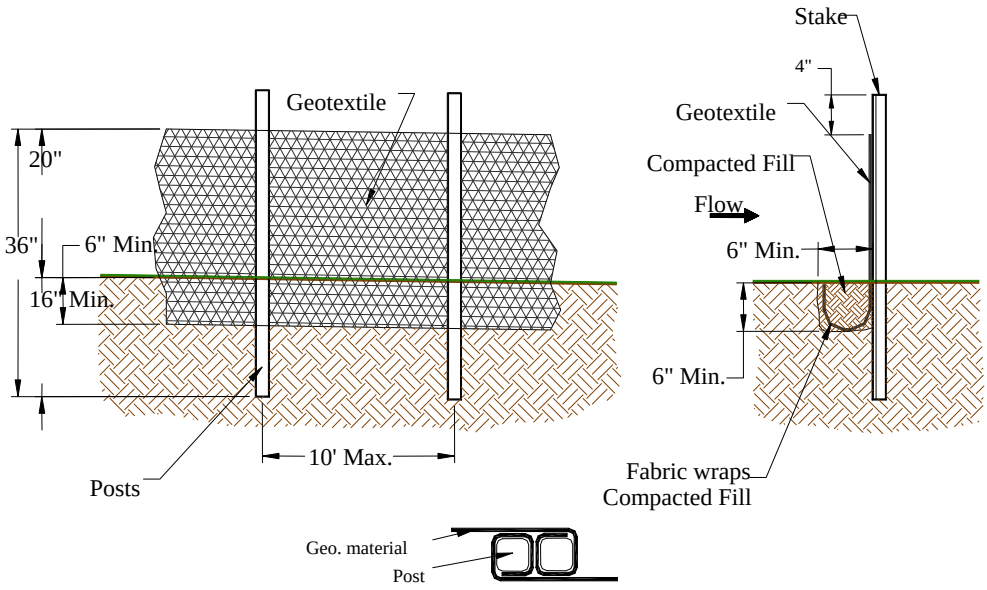
Sanitary or septic wastes should be treated or disposed of in accordance with state and local requirements by reputable, licensed sanitary and septic waste haulers. If using an onsite disposal system, such as a septic system, local health agency requirements must be followed.

Procedures

- Sanitary facilities must be provided on the site in close proximity to areas where people are working.
- Locate portable toilets a minimum of 20 feet away from storm drain inlets, conveyance channels, or surface waters. If unable to meet 20-foot distance requirement, provide containment for portable toilets.
- Temporary sanitary facilities should be located away from drainage facilities, watercourses and from traffic circulation.
- Untreated raw wastewater should never be discharged or buried.
- Temporary septic systems should treat wastes to appropriate levels before discharging.
- Temporary sanitary facilities that discharge to the sanitary sewer system should be properly connected to avoid illicit discharges.
- Sanitary and septic facilities should be maintained in good working order by a licensed service.

- Regular waste collection by a licensed hauler should be arranged before facilities overflow.
- Portable toilets must be secured to the ground by stakes or other suitable means to prevent them from turning over during high winds or by accident.

Silt Fence



Description

A temporary barrier of Geotextile used to intercept sediment laden runoff from small drainage areas.

Application

The purpose of silt fence is to reduce velocity and allow the deposition of transported sediment to occur. Limits imposed by ultraviolet light on the stability of the fabric will dictate the maximum period that the silt fence may be used.

1. Silt fence provides a barrier that can collect and hold debris and soil, preventing the material from entering critical areas, streams, streets, etc.
2. Silt fence can be used where the installation of a dike or other control would destroy sensitive areas, woods, wetlands, etc.

Conditions where the Practice Applies

Silt fence is limited to intercepting sheet flow runoff from limited distances according to slope. It provides filtering and velocity dissipation to promote gravity settling of sediment.

Design/Installation

The posts must be a minimum of 16" into the ground and at least to the top of the fabric. The fabric should extend 16"-24" above the ground. Wood or steel posts may be used in certain instances. Silt fence should be placed as close to the contour as possible-following the swppp map recommendations. Use 36" wide cloth. Where ends of the geotextile fabric meet, they shall be overlapped. Roll the fabric ends around each end post, overlap, and butt posts together tightly. Fasten with wire, staples, or other durable ties.

- If wood posts are to be used they must meet the following specifications:

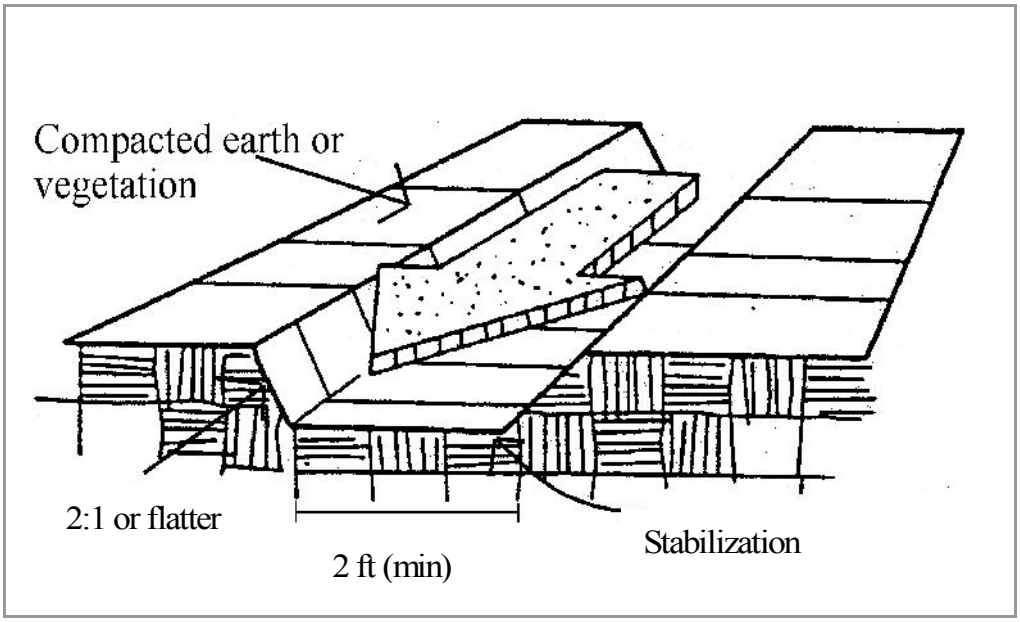
1½" X 1½" minimum square posts, or 1¾" minimum diameter round post

● If metal posts are to be used, they must be standard "T" or "U" post weighing not less than 1 lb. per linear foot. The length of the flow contributing to silt fence shall conform to the following limitations. For slopes less than 2% and sandy soils, maximum slope and silt fence lengths will be unlimited. Always check local requirements.

Slope (%)	Slope Steepness	Slope Length (Ft.) (Maximum)	Silt Fence Length (Ft.) (Maximum)
2	0-50:1	Unlimited	Unlimited
2-10	50:1-10:1	125	1,000
10-20	10:1-5:1	100	750
20-33	5:1-3:1	60	500
33-50	3:1-2:1	40	250
50 +	> 2:1	20	125

Maintenance

Silt fence shall be inspected after each rainfall event and maintained when bulges occur or when sediment accumulations reach 50% of the fabric height. The silt fence will be inspected daily for damage by construction equipment.



DESCRIPTION:
Temporary drains and swales are used to divert off-site runoff around the construction site, divert runoff from stabilized areas around disturbed areas, and direct runoff into sediment.

APPLICATIONS:
- Temporary drains and swales are appropriate for diverting any upslope runoff around unstabilized or disturbed areas of the construction site.
- Prevent slope failures. Prevent damage to adjacent property. Prevents erosion and transport of sediments into water ways. Increases the potential for infiltration. Diverts sediment-laden runoff into sediment basins or traps.

INSTALLATION/APPLICATION:
- Temporary drainage swales will effectively convey runoff and avoid erosion if built properly:
- Size temporary drainage swales using local drainage design criteria. A permanent drainage channel must be designed by a professional engineer (see the local drainage design criteria for proper design).
- At a minimum, the drain/swale should conform to predevelopment drainage patterns and capacities.
- Construct the drain/swale with an uninterrupted, positive grade to a stabilized outlet. Provide erosion protection or energy dissipation measures if the flow out of the drain or swale can reach an erosive velocity.

LIMITATIONS:
- Temporary drains and swales or any other diversion of runoff should not adversely impact upstream or downstream properties.
- Temporary drains and swales must conform to local floodplain management requirements.

Riprap

Minimum Measure: Construction Site Stormwater Runoff Control

Subcategory: Erosion Control

Riprap can be used to stabilize drainageways and outlets to prevent erosion

Description

Riprap is a layer of large stones used to protect soil from erosion in areas of concentrated runoff. Riprap can also be used on slopes that are unstable because of seepage problems.

Applicability

Use riprap to stabilize cut-and-fill slopes; channel side slopes and bottoms; inlets and outlets for culverts, bridges, slope drains, grade stabilization structures, and storm drains; and streambanks and grades.

Siting and Design Considerations

Riprap can be unstable on very steep slopes, especially when rounded rock is used. For slopes steeper than 2:1, consider using materials other than riprap for erosion protection.

Consider the following design recommendations for riprap installation (Smolen et al., 1988):

Gradation. Use a well-graded mixture of rock sizes instead of one uniform size.

Quality of stone. Use riprap material that is durable so that freeze and thaw cycles do not decompose it in a short time; most igneous stones, such as granite, have suitable durability.

Riprap depth. Make the riprap layer at least two times as thick as the maximum stone diameter.

Filter material. Apply a filter material--usually a synthetic cloth or a layer of gravel--before applying the riprap. This prevents the underlying soil from moving through the riprap.

Riprap Limits. Place riprap so it extends to the maximum flow depth, or to a point where

vegetation will be satisfactory to control erosion.

Curves. Ensure that riprap extends to five times the bottom width upstream and downstream of the beginning and ending of the curve and the entire curved section.

Riprap Size. The size of the riprap material depends on the shear stress of the flows the riprap will be subject to, but it ranges from an average size of 2 inches to 24 inches in diameter (Idaho Department of Environmental Quality, no date).

Wire Riprap Enclosures. Consider using chain link fencing or wire mesh to secure riprap installations, especially on steep slopes or in high flow areas.

Limitations

The steepness of the slope limits the applicability of riprap, because slopes greater than 2:1 can cause riprap loss due to erosion and sliding. If used improperly, riprap can actually increase erosion. In addition, riprap can be more expensive than other stabilization options.

Maintenance Considerations

Inspect riprap areas annually and after major storms. If riprap has been damaged, repair it promptly to prevent a progressive failure. If repairs are needed repeatedly at a location, evaluate the site to determine if the original design conditions have changed. Also, you might need to control weed and brush growth in some locations.

Effectiveness

When properly designed and installed, riprap can prevent erosion from the protected area.

Cost Considerations

The cost of riprap varies depending on location and the type of material selected. A cost of $35 to $50 per square yard of nongrouted riprap has been reported, while grouted riprap ranges from $45 to $60 per square yard (1993 dollars; Mayo et al., 1993).

References

FHWA (Federal Highway Administration). 1995. *Best Management Practices for Erosion and Sediment Control*. FHWA-SLP-94-005. Federal Highway Administration, Sterling, VA.

Idaho Department of Environmental Quality. No date. *Catalog of Stormwater BMPs for Cities and Counties: BMP #20 - Riprap Slope and Outlet Protection.* http://www.deq.state.id.us/water/data_reports/storm_water/catalog/sec_2/bmps/5.pdf. Accessed May 10, 2006.

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MPCA (Minnesota Pollution Control Agency). 1998. *Protecting Water Quality in Urban Areas*. Minnesota Pollution Control Agency, Division of Water Quality, St. Paul, MN.

Smolen, M.D., D.W. Miller, L.C. Wyatt, J. Lichthardt, and A.L. Lanier. 1988. *Erosion and Sediment Control Planning and Design Manual*. North Carolina Sedimentation Control Commission; North Carolina Department of Environment, Health, and Natural Resources; and Division of Land Resources Land Quality Section, Raleigh, NC.

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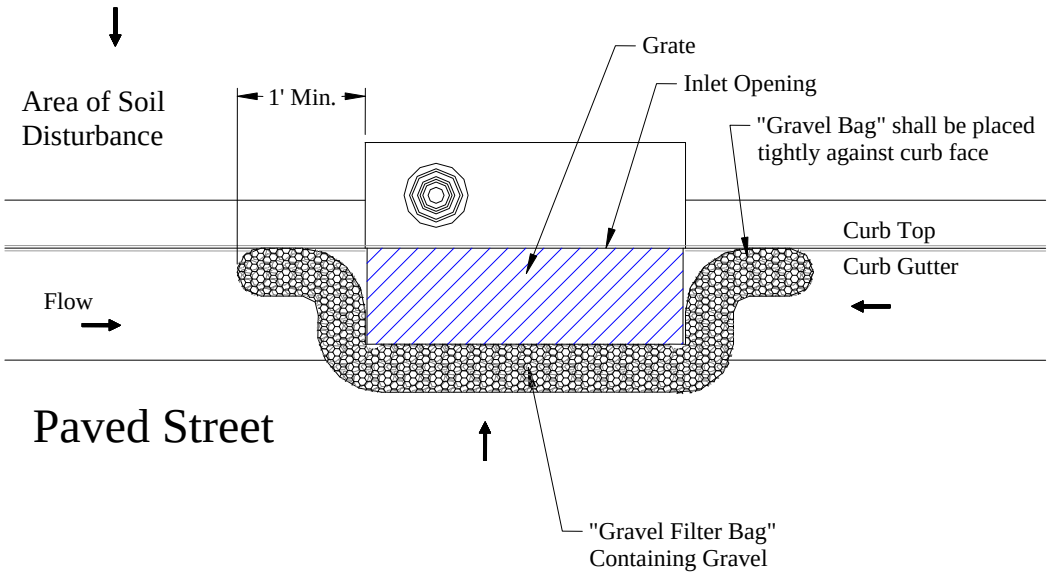
Gravel Bag
Curb Storm Drain Inlet Protection



Description

The inlet protection consists of a continuous gravel bag filter constructed around a storm drain curb inlet. The bag is made of high UV mono-filament weave for strength and durability and is heat sealed to prevent rupture. Many varying types of bags exist, contact local supplier for details.

Application

Storm drain inlet protection is used to filter sediment laden runoff before it enters the storm drain system.

Conditions Where the Practice Applies

Inlets should be protected with this BMP when storm water from construction areas having earth disturbing activities has the potential to reach existing curb inlets after streets have been paved but lots have not been stabilized.

Design/Installation

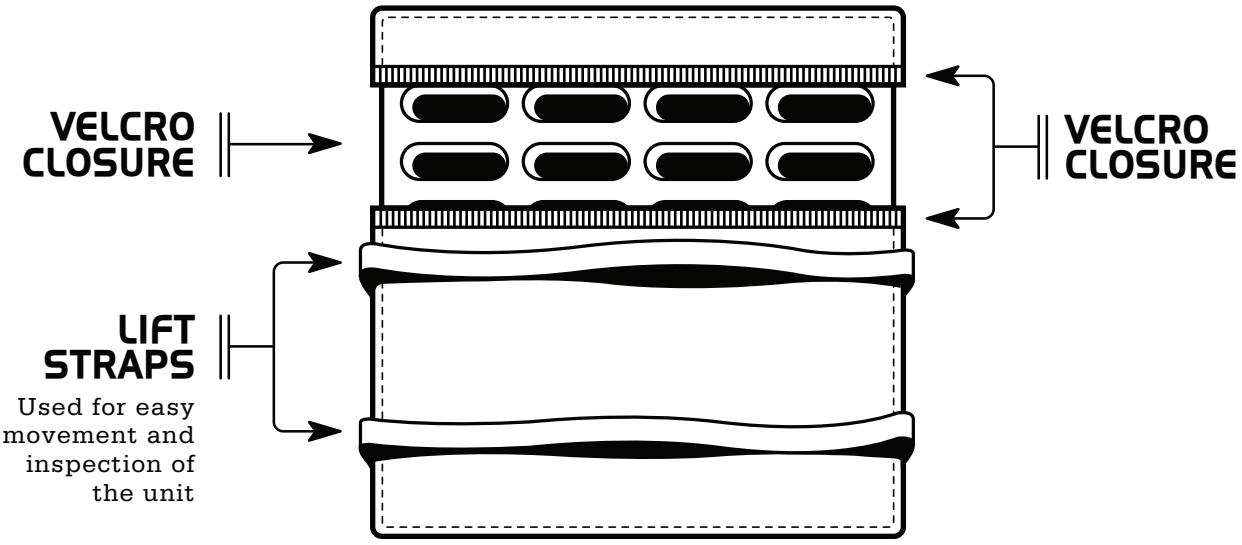
Pour ¾" maximum graded gravel into the bags on site. It is not necessary to fill the bags completely. Overfilling could damage the bag and limit the ability to reuse the bags on future sites. The filter shall be effective in retaining the desired soil particle size. Follow manufacturer's recommendations with respect to the bag requirements. Bags with gravel may be 4", 6", or 8" in diameter depending on the job requirements. The standard bags

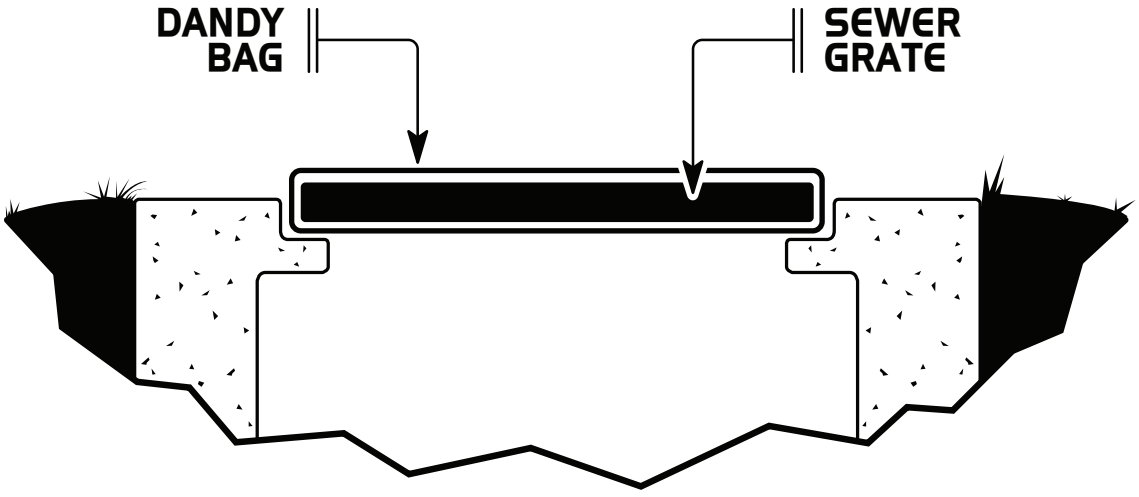
are 10" X 42". If bags are butted together, they must form a tight seal to prevent sediment from bypassing the filter. It may be necessary to special order longer lengths and cut to the desired length. Twist galvanized wire at least 1" from the open end to retain the gravel in the bag. If grates exist in front of the curb opening, the bag must be outside of the grate in order to prevent unfiltered water from entering the grate. Do not place the filter inside the curb opening. A special product is used for inside the opening applications. The "snake" must be out from the opening far enough to allow overflow during intense rain events.

Maintenance

Bags can be reused provided they are clean and undamaged. Discard damaged bag material in a solid waste facility. The operator shall inspect inlet protection as required by applicable regulations and make repairs or clean out as necessary. More frequent inspections and repairs shall be required during winter conditions due to freeze/thaw problems. Sediment accumulated upstream of the inlet shall be removed when the sediment depth upstream of the device has reached ½ the bag height. Inlet protection is to remain in place until the upstream disturbed area is stabilized and grass cover is approved, unless the local entity approves earlier removal of inlet protection in streets.

DANDY BAG®


VELCRO CLOSURE
VELCRO CLOSURE
LIFT STRAPS
Used for easy movement and inspection of the unit


DANDY BAG
SEWER GRATE

DANDY BAG®
INLET PROTECTION SYSTEM GUIDE SPECIFICATION

PRODUCT:

DANDY BAG®

MANUFACTURER:

Dandy Products Inc.
P.O. Box 1980
Westerville, Ohio 43086
Phone: 800-591-2284
Fax: 740-881-2791
E mail dlc@dandyproducts.com
Web www.dandyproducts.com

1.0 **Description:**

1.1 Work covered under this item consists of installing a Dandy Bag® inlet protection system. The purpose is to keep silt, sediment and construction debris out of the storm water system.

2.0 **Material:**

2.1 The Dandy Bag® inlet protection unit shall be a **sewn in the U.S.A**. geotextile fabric unit fitted to the individual grate(s) and completely enclosing the grate(s).

2.2 The Dandy Bag® shall have lifting devises to allow manual inspection of the storm water system.

2.3 The Dandy Bag® unit shall utilize an orange monofilament fabric manufactured in the U.S.A. with the following characteristics:

PROPERTY	TEST METHOD	UNITS	TEST RESULTS
Grab Tensile Strength	ASTM D 4632	lbs	450 X 300
Elongation	ASTM D 4632	%	40% X 25%
Puncture Strength	ASTM D 4833	lbs	130
Mullen Burst Strength	ASTM D 3786	psi	600
Trapezoid Tear Strength	ASTM D 4533	lbs	165 x 150
% Open Area (POA)	COE - 22125-86	%	28
Apparent Opening Size	ASTM D 4751	US Std Sieve	30
Permittivity	ASTM D 4491	sec[1]	3.5
Permeability	ASTM 4491	cm/sec	0.25
Water Flow Rate	ASTM 4491	gal/min/ft^2	250
Ultraviolet Resistance	ASTM D 4355	%	70
Color			Orange[1]

[1]The color orange is a trademark of Dandy Products, Inc.
The property values listed above are effective October 2010 and are subject to change without notice.

3.**0 Installation:**

3.1 Place the empty Dandy Bag® over the grate as the grate stands on end.

3.2 For oil and sediment model; to install or replace absorbent, place absorbent pillow in pouch, on the bottom (below-grade side) of the unit.

3.3 Tuck the enclosure flap inside to completely enclose the grate.

3.4 Holding the lifting devises, insert the grate into the inlet being careful not to damage the Dandy Bag® unit.

4.0 **Maintenance:**

4.1 The contractor shall remove all accumulated sediment and debris from surface and vicinity of unit after each rain event or as directed by engineer/inspector. Dispose of unit no longer in use at an appropriate recycling or solid waste facility.

4.2 *For oil and sediment model; remove and replace absorbent when near saturation.*

5.0 **Method of Measurement:**

5.1 The quantity to be paid is for the actual number of Dandy Bag® inlet protection units installed

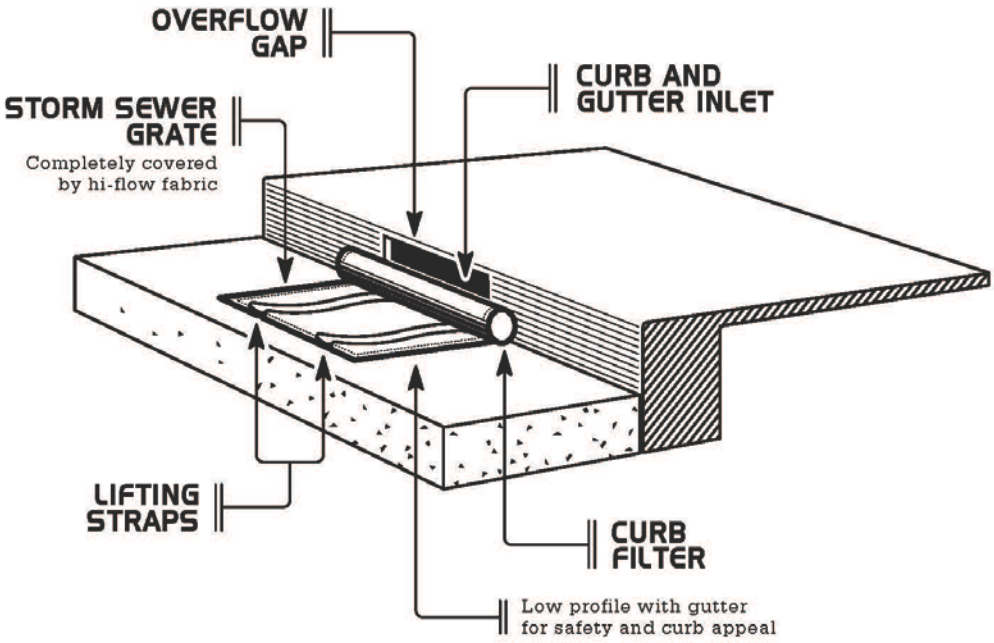
6.0 **Basis of Payment:**

6.1 The unit price shall include labor, equipment, and materials necessary to complete the work and maintain the Dandy Bag® inlet protection units.

6.2 Payment for the completed work will be made at the contract prices for:

ITEM	UNIT	DESCRIPTION
Dandy Bag®	EA	Inlet Protection Unit (#_____Inlet)

DANDY CURB BAG®
CURB AND GUTTER INLET/GRATE PROTECTION SYSTEM
GUIDE SPECIFICATION



PRODUCT:

DANDY CURB BAG®

MANUFACTURER:

Dandy Products, Inc.
P.O. Box 1980
Westerville, Ohio 43086
Phone: 800-591-2284
Fax: 740-881-2791
E-mail dlc@dandyproducts.com
Web www.dandyproducts.com

1.0 **Description:**

1.1 Work covered under this item consists of installing a Dandy Curb Bag® curb and gutter inlet protection system. The purpose is to keep silt, sediment and construction debris out of the storm water system.

2.0 **Material:**

2.1 The Dandy Curb Bag® curb and gutter inlet protection unit shall be a **sewn in the U.S.A.** geotextile fabric unit enclosing a porous structure in the form of a cylindrical tube placed in front of and extending beyond the inlet opening on both sides and have a geotextile fabric envelope fitted to the individual grate(s)on the street side of the sewn unit for grate(s) to be inserted and to completely enclose the grate(s).

2.2 The Dandy Curb Bag® shall have lifting devices to allow manual inspection of the storm water system.

2.3 The Dandy Curb Bag® unit shall utilize an orange monofilament fabric that is manufactured in the U.S.A. with the following characteristics:

PROPERTY	TEST METHOD	UNITS	TEST RESULTS
Grab Tensile Strength	ASTM D 4632	lbs	450 x 300
Grab Tensile Elongation	ASTM D 4632	%	40 x 25
Puncture Strength	ASTM D 4833	lbs	130
Mullen Burst Strength	ASTM D 3786	psi	600
Trapezoid Tear Strength	ASTM D 4533	lbs	165 x 150
% Open Area (POA)	COE - 22125-86	%	28
Apparent Opening Size	ASTM D 4751	US Std Sieve	30
Permittivity	ASTM D 4491	sec^{1}	3.5
Permeability	ASTM 4491	cm/sec	0.25
Water Flow Rate	ASTM 4491	$gal/min/ft^{2}$	250
Ultraviolet Resistance	ASTM D 4355	%	70
Color			Orange[1]

[1]The color orange is a trademark of Dandy Products, Inc.
The property values listed above are effective October 2010 and are subject to change without notice.

3.0 **Installation:**

3.1 Place the empty Dandy Curb Bag® unit over the grate as the grate stands on end.

3.2 *For oil and sediment model; to install or replace absorbent, place absorbent pillow in pouch, on the bottom (below-grade side) of the unit.*

3.3 Tuck the enclosure flap inside to completely enclose the grate.

3.4 Holding the lifting devices, being careful not to damage the sewn fabric unit, insert the grate into its frame, street side edge first, then lower back edge with cylindrical tube into place. The cylindrical tube should be partially blocking the curb hood opening when installed properly.

4.0 **Maintenance:**

4.1 The contractor shall remove all accumulated sediment and debris from surface and vicinity of unit after each rain event or as directed by engineer/inspector. Dispose of

unit no longer in use at an appropriate recycling or solid waste facility.

4.2 *For oil and sediment model; remove and replace absorbent when near saturation.*

5.0 **Method of Measurement:**

5.1 The quantity to be paid is for the actual number of Dandy Curb Bag® inlet protection units installed

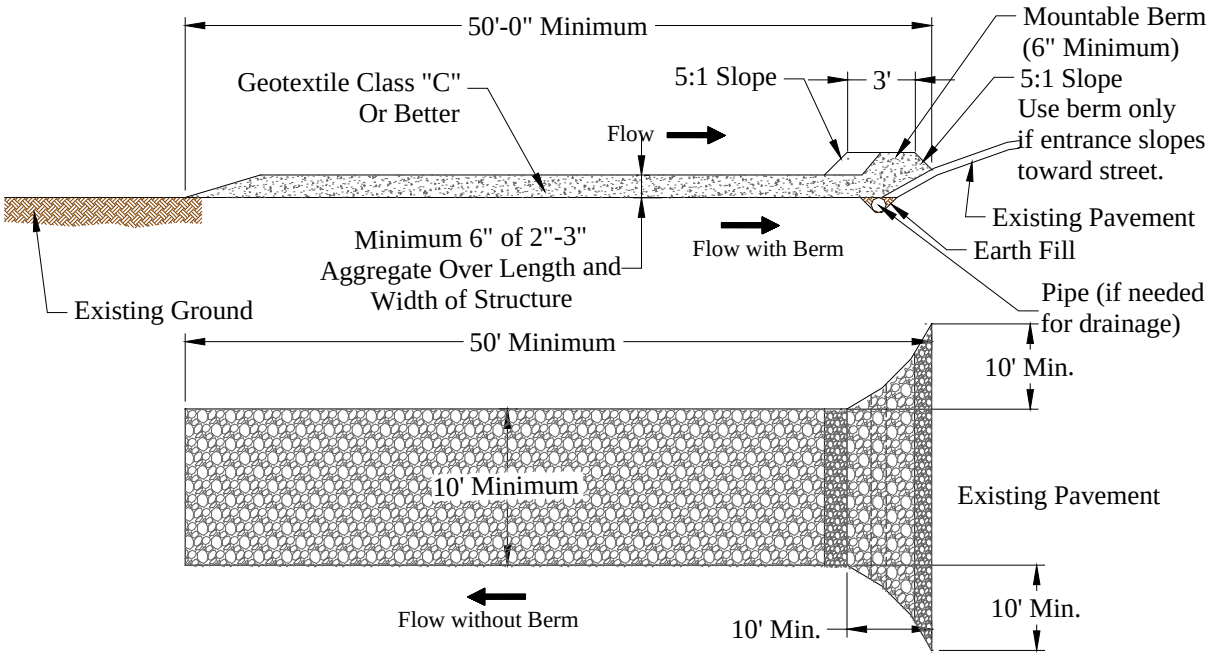
6.0 **Basis of payment:**

6.1 The unit price shall include labor, equipment, and materials necessary to complete the work and maintain the Dandy Curb Bag® inlet protection units.

6.2 Payment for the completed work will be made at the contract prices for:

ITEM	UNIT	DESCRIPTION
Dandy Curb Bag®	EA	Curb Inlet Protection Unit (#_____Inlet)

Stabilized Construction Exit



Description

A stabilized layer of aggregate that is underlain with Geotextile Material. Stabilized exits are located at any point where traffic exits a construction site.

Application

The purpose of the stabilized construction entrance is to reduce tracking of sediment onto streets or public rights-of-way and provide a stable area for entrance or exit from the construction site.

Conditions Where the Practice Applies

1. Stabilized construction entrances shall be located at points of construction ingress and egress.
2. Modified stabilized construction Exit should apply to individual homes/building lots.
2. Stabilized construction entrances should not be used on existing pavement.

Design/Installation

1. Length - Minimum of 50'-0" (30'-0" for single residence lot/commercial pad or as space will allow).
2. Width - Minimum of 10'-0", should be flared at the existing road to provide a turning radius.
3. Geotextile Material shall be placed over the existing ground prior to placing stone. This does not apply to stabilized exit points for individual building lots.

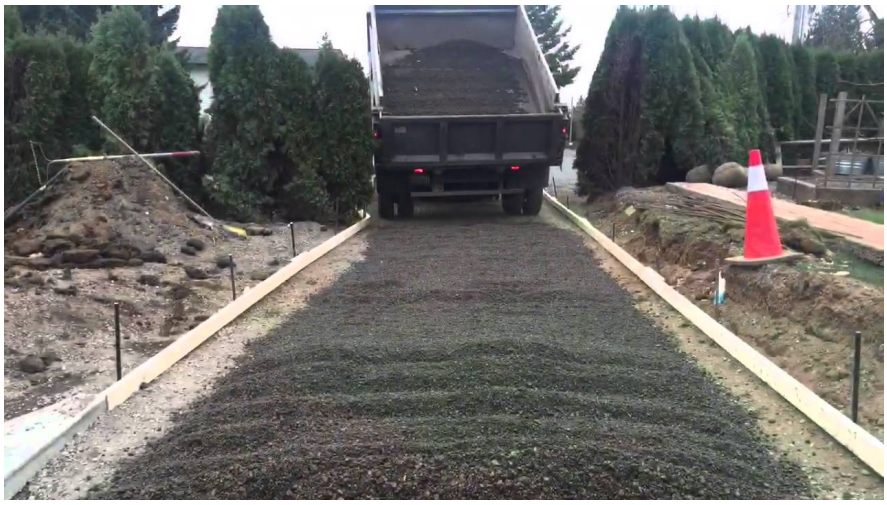
4. Stone-crushed aggregate 2"-3" (See Standards for Geotextile and Rock) (3/4 inch graded or bigger may be used on individual building lot applications). Recycled concrete equivalent also may be used. The rock should be placed at least 6" deep over the length and width of the entrance.
5. Surface Water - All the surface water flowing to or diverted toward construction entrances shall be piped under the entrance to maintain positive drainage. Pipe installed under the construction entrance shall be protected with a mountable berm. The pipe shall be sized according to the drainage, with the minimum diameter being 6".
6. Location - A stabilized construction entrance shall be located at every point where construction traffic enters or exits a construction site. Vehicles leaving the site must travel over the entire length of the stabilized construction entrance. (Check local requirements)

Maintenance

If stone compacts, raking is required. Add more stone if needed. Clean up fugitive sediment. Wash wheels into approved trap if necessary. Daily maintenance is required.

accenaGroup TM
Engineering Storm Water Compliance

Stabilized Drive Approach



Description

A stabilized layer of aggregate or road base laid in preparation for a driveway or drive approach on a residential lot. Stabilized drive approaches are used as the only vehicular access to a lot so that vehicles do not compact or track out disturbed soils.

Application

The purpose of the stabilized drive approach is to reduce tracking of sediment onto streets or public rights-of-way and provide a stable area for entrance or exit from the individual lot.

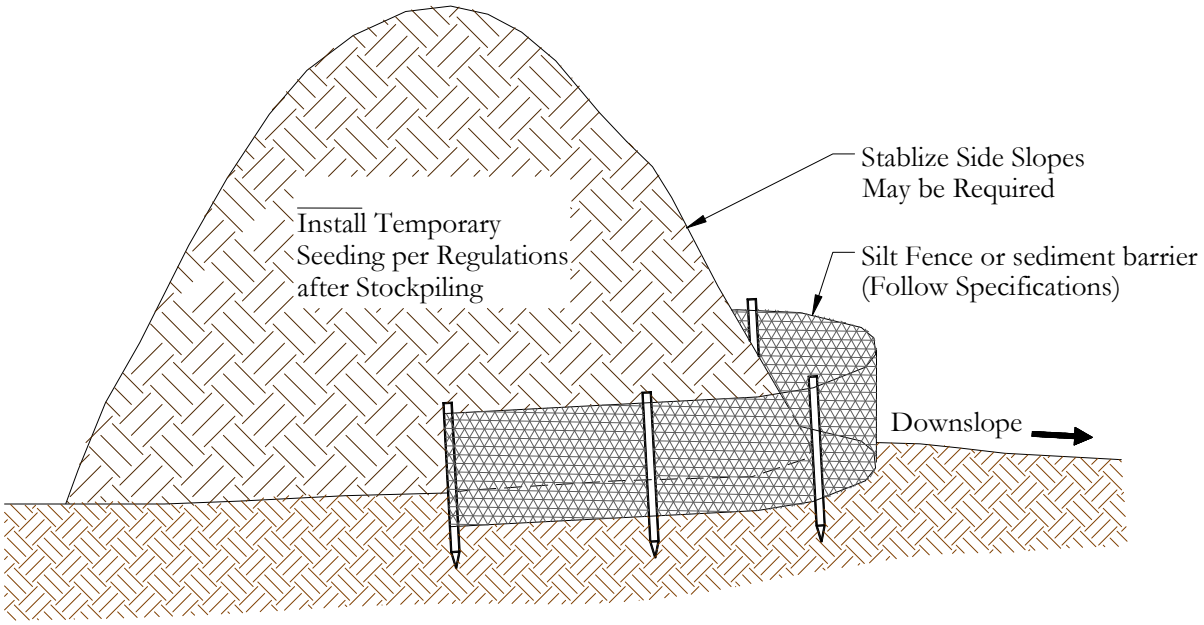
Conditions Where the Practice Applies

1. Stabilized drive approaches shall be located where a future driveway or drive approach will be paved with concrete.
2. Stabilized drive approaches should only apply to individual homes/building lots.
3. Stabilized drive approaches should not be used on existing pavement.

Design/Installation

1. Length - Minimum of 10'-0" (30'-0" preferred for single residence lot/commercial pad or as space will allow).
2. Width - Minimum of 10'-0", should be flared at the existing road to provide a turning radius.
3. Road base or similar aggregate should be used as normal in preparation for a driveway
4. Location - The stabilized drive approach will be the only access point for vehicular traffic to the site. Vehicle traffic will not be allowed on areas of the site other than the stabilized drive approach.

Soil Stockpile Protection



Description

Soil Stockpile Protection is the use of a temporary BMP such as vegetation, silt fence, wattle or a sediment barrier placed on the down slope side of a soil stockpile to prevent sediment from escaping the stockpile.

Purpose

The purpose is to trap or filter sediment that is carried in the storm water leaving the stockpile during rain events. Note: some local ms4's do not allow stockpiling.

Conditions where the Practice Applies

Provide stockpile protection whenever a stockpile is created for temporary storage of topsoil or excess soil during mass grading. The topsoil will be spread over the site after final grading and before final stabilization with vegetation. The topsoil fertility is usually greater when compared to subsurface layers of soil and therefore is a better media for establishing vegetation. Construction sites requiring the import of soils from another site also require temporary stockpile areas. In some cases an excess of soil exists from excavation on the site and the excess will eventually need to be exported from the site or placed in another location onsite. In some cases excavated soil may be unsatisfactory for use on the site. Draper City-no stockpiles allowed.

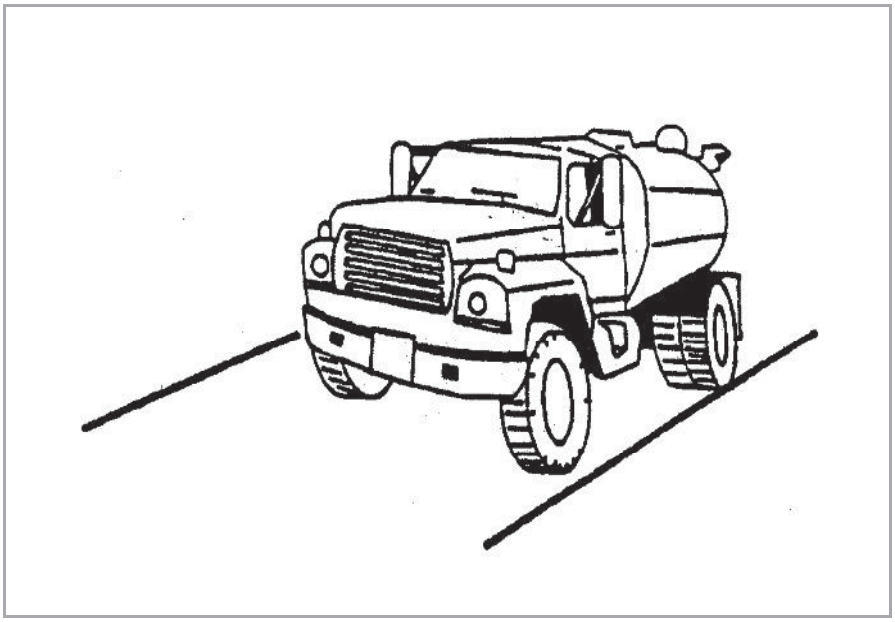
Design/Installation

If vegetation is used, a temporary silt fence or other suitable BMP should be placed immediately around the stockpile. The temporary BMP can be removed after an adequate cover of vegetation is established. Avoid placing stockpiles on paved surfaces. Special considerations are required when selecting BMPs for stockpiles on paved

surfaces. The slopes of the stockpile should be flat enough to insure slope stability and prevent sloughing. The location of stockpile areas should always be addressed and shown in the Storm Water Pollution Prevention Plan.

Maintenance

Once vegetation is established, it should be maintained until the stockpile is removed. Check BMPs periodically and after rain events for stability and soil loss. Repair or replace damaged BMPs immediately or replace the BMP if it is ineffective.



DESCRIPTION:
Dust control measures are used to stabilize soil from wind erosion, and reduce dust by construction activities.

APPLICATION:
Dust control is useful in any process area, loading and unloading area, material handling areas, and transfer areas where dust is generated. Street sweeping is limited to areas that are paved.

INSTALLATION/APPLICATION CRITERIA:
- Mechanical dust collection systems are designed according to the size of dust particles and the amount of air to be processed. Manufacturers' recommendations should be followed for installation (as well as the design of the equipment).
- Two kinds of street weepers are common: brush and vacuum. Vacuum sweepers are more efficient and work best when the area is dry.
- Mechanical equipment should be operated according to the manufacturers' recommendations and should be inspected regularly.

LIMITATIONS:
- Generally more expensive than manual systems.
- May be impossible to maintain by plant personnel (the more elaborate equipment).
- Labor and equipment intensive and may not be effective for all pollutants (street sweepers).

MAINTENANCE:
If water sprayers are used, dust-contaminated waters should be collected and taken for treatment. Areas will probably need to be resprayed to keep dust from spreading.

DESCRIPTION:
Employee training, like equipment maintenance, is a method by which to implement BMPs. Employee training should be used in conjunction with all other BMPs as part of the facility's SWPPP.

The specific employee training aspects of each of the source controls are highlighted in the individual information sheets. The focus of this information sheet is more general, and includes the overall objectives and approach for assuring employee training in stormwater pollution prevention. Accordingly, the organization of this information sheet differs somewhat from the other information sheets in this chapter.

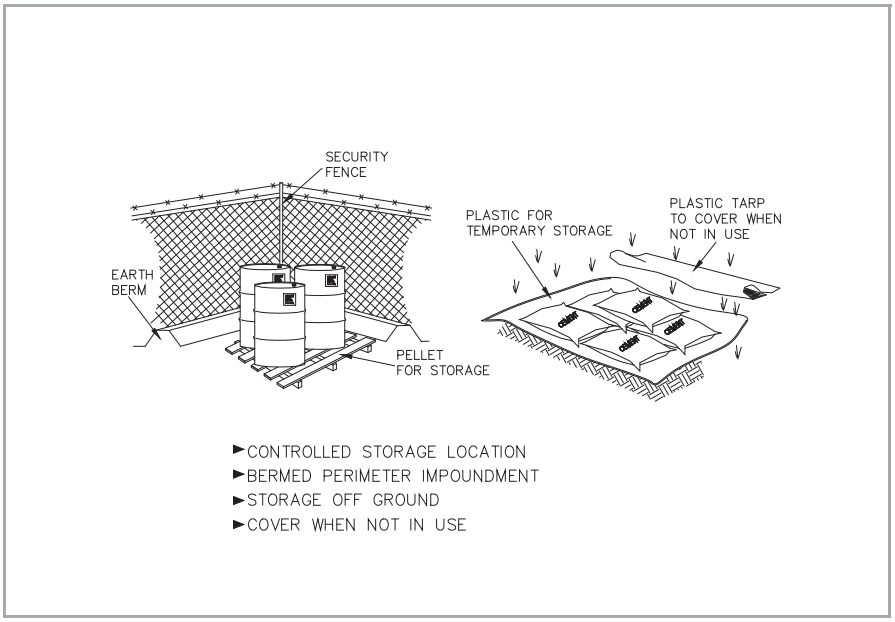
OBJECTIVES:
Employee training should be based on four objectives:

- Promote a clear identification and understanding of the problem, including activities with the potential to pollute stormwater;
- Identify solutions (BMPs);
- Promote employee ownership of the problems and the solutions; and
- Integrate employee feedback into training and BMP implementation.

APPROACH:

- Integrate training regarding stormwater quality management with existing training programs that may be required for your business by other regulations.
- Businesses that are not regulated in Federal, State, or local regulations, may use the information in this handbook to develop a training program to reduce their potential to pollute stormwater.
- Employee training is a vital component of many of the individual source control BMPs included in this manual.

BMP: Material Storage



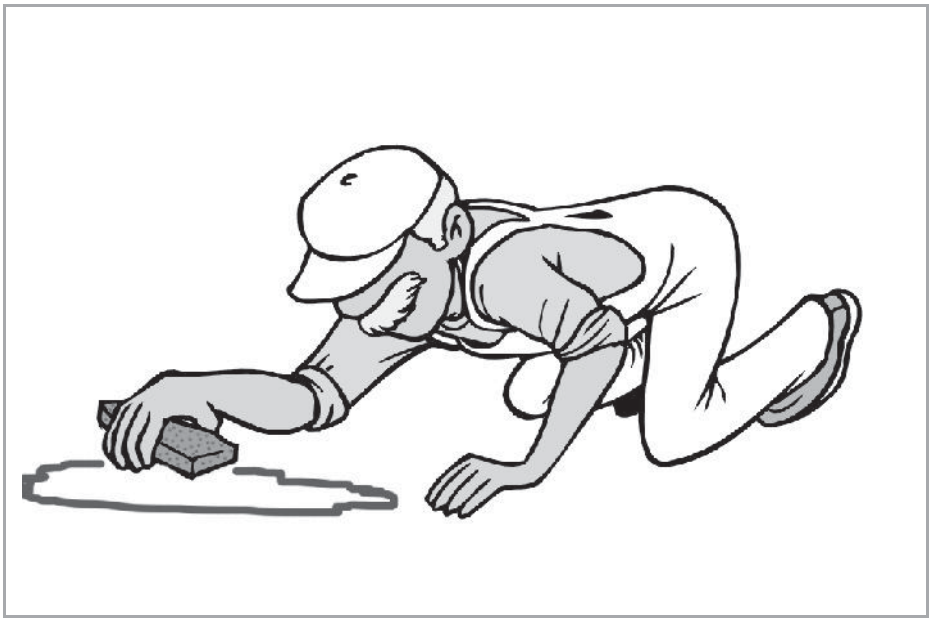
DESCRIPTION:
Controlled storage of on-site materials.

APPLICATION:
- Storage of hazardous, toxic, and all chemical substances.
- Any construction site with outside storage of materials.

INSTALLATION/APPLICATION CRITERIA:
- Designate a secured area with limited access as the storage location. Ensure no waterways or drainage paths are nearby.
- Construct compacted earthen berm (See Earth Berm Barrier Information Sheet), or similar perimeter containment around storage location for impoundment in the case of spills.
- Ensure all on-site personnel utilize designated storage area. Do not store excessive amounts of material that will not be utilized on site.
- For active use of materials away from the storage area ensure materials are not set directly on the ground and are covered when not in use. Protect storm drainage during use.

LIMITATIONS:
- Does not prevent contamination due to mishandling of products.
- Spill Prevention and Response Plan still required.
- Only effective if materials are actively stored in controlled location.

MAINTENANCE:
- Inspect daily and repair any damage to perimeter impoundment or security fencing.
- Check materials are being correctly stored (i.e. standing upright, in labeled containers, tightly capped) and that no materials are being stored away from the designated location.



DESCRIPTION:
Practices to clean-up leakage/spillage of on-site materials that may be harmful to receiving waters.

APPLICATION:
All sites

GENERAL:
- Store controlled materials within a storage area.
- Educate personnel on prevention and clean-up techniques.
- Designate an Emergency Coordinator responsible for employing preventative practices and for providing spill response.
- Maintain a supply of clean-up equipment on-site and post a list of local response agencies with phone numbers.

METHODS:
- Clean-up spills/leaks immediately and remediate cause.
- Use as little water as possible. NEVER HOSE DOWN OR BURY SPILL CONTAMINATED MATERIAL.
- Use rags or absorbent material for clean-up. Excavate contaminated soils. Dispose of clean-up material and soil as hazardous waste.
- Document all spills with date, location, substance, volume, actions taken and other pertinent data.
- Contact the Salt Lake County Health Department (313-6700) for any spill of reportable quantity.

BMP: Street Sweeping

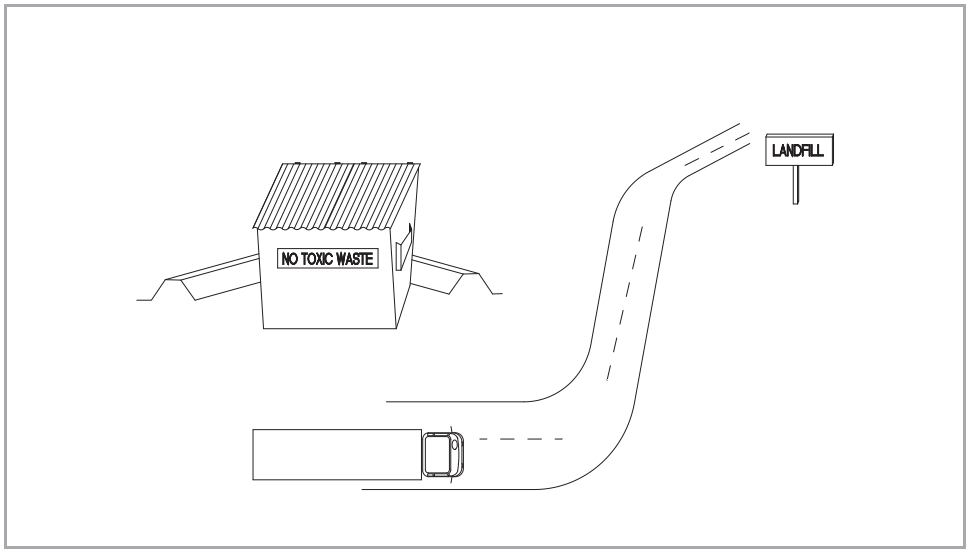
SS
Construction

DESCRIPTION:
Reduce the discharges of pollutants to stormwater from street surfaces by conducting street cleaning on a regular basis.

APPROACH:
- Prioritize cleaning to use the most sophisticated sweepers, at the highest frequency, and in areas with the highest pollutant loading.
- Restrict street parking prior to and during sweeping.
- Increase sweeping frequency just before the rainy season.
- Proper maintenance and operation of sweepers greatly increase their efficiency.
- Keep accurate operation logs to track programs.
- Sweepers effective at removing smaller particles (less than 10 microns) may generate dust that would lead to concerns over worker and public safety.
- Equipment selection can be key for this particular BMP. There are two types used, the mechanical broom sweepers (more effective at picking up large debris and cleaning wet streets), and the vacuum sweepers (more effective at removing fine particles and associated heavy metals). Many communities find it useful to have a compliment of both types in their fleet.

LIMITATIONS:
- Conventional sweepers are not able to remove oil and grease.
- Mechanical sweepers are not effective at removing finer sediments.
- Effectiveness may also be limited by street conditions, traffic congestion, presence of construction projects, climatic conditions and condition of curbs.

MAINTENANCE:
- Replace worn parts as necessary.
- Install main and gutter brooms of the appropriate weight.



DESCRIPTION:
Controlled storage and disposal of solid waste generated by construction activities.

APPLICATION:
All construction sites.

INSTALLATION:
- Designate one or several waste collection areas with easy access for construction vehicles and personnel. Ensure no waterways or storm drainage inlets are located near the waste collection areas.
- Construct compacted earthen berm (See Earth Berm Barrier Information Sheet), or similar perimeter containment around collection area for impoundment in the case of spills and to trap any windblown trash.
- Use watertight containers with covers to remain closed when not in use. Provide separate containers for different waste types where appropriate and label clearly.
- Ensure all on site personnel are aware of and utilize designated waste collection area properly and for intended use only (e.g. all toxic, hazardous, or recyclable materials shall be properly disposed of separately from general construction waste).
- Arrange for periodic pickup, transfer and disposal of collected waste at an authorized disposal location. Include regular Porta-potty service in waste management activities.

LIMITATIONS:
- On-site personnel are responsible for correct disposal of waste.

MAINTENANCE:
- Discuss waste management procedures at progress meetings.
- Collect site trash daily and deposit in covered containers at designated collection areas.
- Check containers for leakage or inadequate covers and replace as needed.
- Randomly check disposed materials for any unauthorized waste (e.g. toxic materials).
- During daily site inspections check that waste is not being incorrectly disposed of on-site (e.g. burial, burning, surface discharge, discharge to storm drain).

Grassed Swales

Click here to comment on this fact sheet

Minimum Measure: Post-Construction Stormwater Management in New Development and Redevelopment

Subcategory: Infiltration

Description

In the context of BMPS to improve water quality, the term swale (a.k.a. grassed channel, dry swale, wet swale, biofilter, or bioswale) refers to a vegetated, open-channel management practices designed specifically to treat and attenuate stormwater runoff for a specified water quality volume. As stormwater runoff flows along these channels, it is treated through vegetation slowing the water to allow sedimentation, filtering through a subsoil matrix, and/or infiltration into the underlying soils. Variations of the grassed swale include the grassed channel, dry swale, and wet swale. The specific design features and methods of treatment differ in each of these designs, but all are improvements on the traditional drainage ditch. These designs incorporate modified geometry and other features for use of the swale as a treatment and conveyance practice.

Grassed swales can be used along roadsides and parking lots to collect and treat stormwater runoff

Applicability

Grassed swales can be applied in most situations with some restrictions. Swales are well suited for treating highway or residential road runoff because they are linear practices. Swales are also useful as one of a series of stormwater BMPs or as part of a treatment train, for instance, conveying water to a detention pond and receiving water from filter strips. Furthermore, swales are highly recommended by the proponents of design approaches such as Low Impact Development and Better Site Design (Low Impact Development (LID) and Other Green Designs fact sheet).

Regional Applicability

Grassed swales can be applied in most regions of the United States. In arid and semi-arid climates, however, the value of these practices needs to be weighed against the water needed to irrigate them.

Ultra-Urban Areas

Ultra-urban areas are densely developed urban areas with little pervious surface. Grass swales may not be well suited to ultra-urban areas because they require a relatively large area of pervious surfaces.

Stormwater Hot Spots

Stormwater hot spots are areas where land use or activities generate highly contaminated runoff, with concentrations of pollutants exceeding those typically found in stormwater. A typical example is a gas station or convenience store. With the exception of the dry swale design (see Design Variations), hot spot runoff should not be directed toward grassed channels. These practices either infiltrate stormwater or intersect the ground water, making use of the practices for hot spot runoff a threat to ground water quality.

Stormwater Retrofit

A stormwater retrofit is a stormwater management practice (usually structural) put into place after development has occurred to improve water quality, protect downstream channels, reduce flooding, or meet other specific objectives such as reducing loadings to comply with a TMDL waste load allocation. One retrofit opportunity using grassed swales modifies existing drainage ditches. Ditches have traditionally been designed only to convey stormwater. In some cases, it may be possible to incorporate features to enhance pollutant removal or infiltration such as check dams (i.e., small dams along the ditch that trap sediment, slow runoff, and reduce the effective longitudinal slope). Since grassed swales cannot treat a large area, using this practice to retrofit an entire watershed would be expensive because of the number of practices needed to manage runoff from a significant amount of the watershed's land area.

Cold Water (Trout) Streams

Grassed channels are a good treatment option within watersheds that drain to cold water streams. These practices do not pond water for a long period and often induce infiltration. As a result, standing water will not typically be subjected to solar warming.

Siting and Design Considerations

In addition to the broad applicability concerns described above, designers need to consider site conditions. In addition, they need to incorporate design features to improve the longevity and performance of the practice while minimizing the maintenance burden.

Siting Considerations

In addition to considering the restrictions and adaptations of grassed swales to different regions and land uses, designers need to ensure that this management practice is feasible at the site in question because some site conditions (i.e., steep slopes, highly impermeable soils) might restrict the effectiveness of grassed channels.

Drainage Area

Grassed swales should generally treat runoff from small drainage areas (less than 5 acres). If used to treat larger areas, the flows through the swale become too large to produce designs to treat stormwater runoff in addition to conveyance.

Slope

Grassed swales should be used on sites with relatively flat slopes of less than 4 percent slope; 1 to 2 percent slope is recommended. When site conditions require installing the swales in areas with larger slopes, check dams can be used to reduce the influence of the slope. Runoff velocities within the channel become too high on steeper slopes. This can cause erosion and does not allow for infiltration or filtering in the swale.

Soils / Topography

Grassed swales can be used on most soils, with some restrictions on the most impermeable soils. In the dry swale (see Design Variations) a fabricated soil bed replaces on-site soils in order to ensure that runoff is filtered as it travels through the soils of the swale.

Ground Water

The required depth to ground water depends on the type of swale used. In the dry swale and grassed channel

options, the bottom of the swale should be constructed at least 2 ft above the ground water table to prevent a moist swale bottom or contamination of the ground water. In the wet swale option, treatment is provided by creating a standing or slow flowing wet pool, which is maintained by intersecting the ground water.

Design Considerations

Although there are different design variations of the grassed swale (see Design Variations), there are some design considerations common to all designs. An overriding similarity is the cross-sectional geometry. Swales often have a trapezoidal or parabolic cross section with relatively flat side slopes (flatter than 3:1), though rectangular and triangular channels can also be used. Designing the channel with flat side slopes increases the wetted perimeter. The wetted perimeter is the length along the edge of the swale cross section where runoff flowing through the swale contacts the vegetated sides and bottom. Increasing the wetted perimeter slows runoff velocities and provides more contact with vegetation to encourage sorption, filtering, and infiltration. Another advantage to flat side slopes is that runoff entering the grassed swale from the side receives some pretreatment along the side slope.

Another similarity among designs is the type of pretreatment needed. In all design options, a small forebay should be used at the front of the swale to trap incoming sediments. A pea gravel diaphragm, a small trench filled with river-run gravel, should be constructed along the length of the swale and used as pretreatment for runoff entering the sides of the swale. Other features designed to enhance the performance of grassed swales are a flat longitudinal slope (generally between 1 percent and 2 percent) and a dense vegetative cover in the channel. The flat slope helps to reduce the flow velocity within the channel. The dense vegetation also helps reduce velocities, protects the channel from erosion, and acts as a filter to treat stormwater runoff. During construction, it is important to stabilize the channel while the vegetation is becoming established, either with a temporary grass cover or with natural or synthetic erosion control products. In addition to treating runoff for water quality, grassed swales must convey runoff from larger storms safely. Typical designs allow the runoff from the 2-year storm (i.e., the storm that occurs, on average, once every two years) to flow through the swale without causing erosion. Swales should also have the capacity to pass larger storms (typically a 10-year storm) safely.

Design Variations

The following discussion identifies three different variations of open channel practices, including the grassed channel, the dry swale, and wet swale.

Grassed Channel

Of the three grassed swale designs, grassed channels are the most similar to a conventional drainage ditch, with the major differences being flatter side slopes and longitudinal slopes, and a slower design velocity for water quality treatment of small storm events. Of all of the options, grassed channels are the least expensive but also provide the least reliable pollutant removal. An excellent application of a grassed channel is as pretreatment to other structural stormwater practices. A major difference between the grassed channel and many other structural practices is the method used to size the practice. Most stormwater management water quality practices are sized by volume. This method sets the volume available in the practice equal to the water quality volume, or the volume of water to be treated in the practice. The grassed channel, is a flow-rate-based design. Based on the peak flow from the water quality storm (this varies regionally, but a typical value is the 1-inch/ 24-hr storm), the channel should be designed so that runoff takes, on average, 10 minutes to flow from the top to the bottom of the channel. A procedure for this design can be found in *Design of Stormwater Filtering Systems* (CWP, 1996).

Dry Swales

Dry swales are similar in design to bioretention areas (see Bioretention (Rain Gardens) fact sheet). These designs incorporate a fabricated soil bed into their design. The native soil is replaced with a sand/soil mix that meets minimum permeability requirements. An underdrain system is installed at the bottom of the soil bed. This underdrain is a gravel layer that encases a perforated pipe. Stormwater treated in the soil bed flows into the underdrain, which routes this treated stormwater to the storm drain system or receiving waters. Dry swales are a relatively new design, but studies of swales with a native soil similar to the man-made soil bed of dry swales suggest high pollutant removal.

Wet Swales

Wet swales intersect the ground water and behave similarly to a linear wetland cell (see Stormwater Wetland fact sheet). This design variation incorporates a shallow permanent pool and wetland vegetation to provide stormwater treatment. This design also has potentially high pollutant removal. Wet swales are not commonly used in residential or commercial settings because the shallow standing water may be a potential mosquito breeding area.

Regional Variations

In cold or snowy climates, swales may serve a dual purpose by acting as both a snow storage/treatment and a stormwater management practice. This dual purpose is particularly relevant when swales are used to treat road runoff. If used for this purpose, swales should incorporate salt-tolerant vegetation, such as creeping bentgrass.

Arid Climates

In arid or semi-arid climates, swales should be designed with drought-tolerant vegetation, such as buffalo grass. As pointed out in the Applicability section, the value of vegetated practices for water quality needs to be balanced against the cost of water needed to maintain them in arid and semi-arid regions.

Limitations

Grassed swales have some limitations, including the following:

- Grassed swales cannot treat a very large drainage area.
- Wet swales may become a nuisance due to mosquito breeding.
- If designed improperly (e.g., if proper slope is not achieved), grassed channels will have very little pollutant removal.

Maintenance Considerations

Maintenance of grassed swales mostly involves litter control and maintening the grass or wetland plant cover. Typical maintenance activities are included in Table 1.

Table 1. Typical maintenance activities for grassed swales (Source: Adapted from CWP, 1996)

Activity	Schedule
• Inspect pea gravel diaphragm for clogging and correct the problem. • Inspect grass along side slopes for erosion and formation of rills or gullies and correct. • Remove trash and debris accumulated in the inflow forebay. • Inspect and correct erosion problems in the sand/soil bed of dry swales. • Based on inspection, plant an alternative grass species if the original grass cover has not been successfully established. • Replant wetland species (for wet swale) if not sufficiently established.	Annual (semi-annual the first year)
• Rototill or cultivate the surface of the sand/soil bed of dry swales if the swale does not draw down within 48 hours. • Remove sediment build-up within the bottom of the swale once it has accumulated to 25 percent of the original design volume.	As needed (infrequent)
• Mow grass to maintain a height of 3–4 inches	As needed (frequent seasonally)

Effectiveness

Structural stormwater management practices can be used to achieve four broad resource protection goals.

These include flood control, channel protection, ground water recharge, and pollutant removal. Grassed swales can be used to meet ground water recharge and pollutant removal goals.

Ground Water Recharge

Grassed channels and dry swales can provide some ground water recharge as infiltration is achieved within the practice. Wet swales, however, generally make little, if any, contributions to ground water recharge. Infiltration is impeded by the accumulation of debris on the bottom of the swale.

Pollutant Removal

Few studies are available regarding the effectiveness of grassed channels (Table 2). The data suggest relatively high removal rates for some pollutants, negative removals for some bacteria, and fair performance for phosphorous. One study of available performance data (Schueler, 1997) estimates the removal rates for grassed channels as:

Total Suspended Solids:	81%
Total Phosphorous:	29%
Nitrate Nitrogen:	38%
Metals:	14% to 55%
Bacteria:	-50%

Table 2. Grassed swale pollutant removal efficiency data

Removal Efficiencies (% Removal)							
Study	**TSS**	**TP**	**TN**	**NO 3**	**Metals**	**Bacteria**	**Type**
Goldberg 1993	67.8	4.5	-	31.4	42–62	-100	grassed channel
Seattle Metro and Washington Department of Ecology 1992	60	45	-	-25	2–16	-25	grassed channel
Seattle Metro and Washington Department of Ecology, 1992	83	29	-	-25	46–73	-25	grassed channel
Wang et al., 1981	80	-	-	-	70–80	-	dry swale
Dorman et al., 1989	98	18	-	45	37–81	-	dry swale
Harper, 1988	87	83	84	80	88–90	-	dry swale
Kercher et al., 1983	99	99	99	99	99	-	dry swale
Harper, 1988	81	17	40	58	27–99	-	wet

Harper, 1988.	81	17	40	52	37–69	-	wet swale
Koon, 1995	67	39	-	9	-35 to 6	-	wet swale
Occoquan Watershed Monitoring Lab, 1983	-100	-100	-100	-	-100	-	drainage channel
Yousef et al., 1985	-	8	13	11	14–29	-	drainage channel
Occoquan Watershed Monitoring Lab, 1983	-50	-9.1	-18.2	-	-100	-	drainage channel
Yousef et al., 1985	-	-19.5	8	2	41–90	-	drainage channel
Occoquan Watershed Monitoring Lab, 1983	31	-23	36.5	-	-100 to 33	-	drainage channel
Welborn and Veenhuis, 1987	0	-25	-25	-25	0	-	drainage channel
Yu et al., 1993	68	60	-	-	74	-	drainage channel
Dorman et al., 1989	65	41	-	11	14-55	-	drainage channel
Pitt and McLean, 1986	0	-	0	-	0	0	drainage channel
Oakland, 1983	33	-25	-	-	20–58	0	drainage channel
Dorman et al., 1989	-85	12	-	-100	14–88	-	drainage channel

While it is difficult to distinguish between different designs based on the small amount of available data, grassed channels generally have poorer removal rates than wet and dry swales, although wet swales may export soluble phosphorous (Harper, 1988; Koon, 1995). It is not clear why swales export bacteria. One explanation is that bacteria thrive in the warm swale soils. Another explanation is that studies have not accounted for some sources of bacteria, and like any open BMP, swales likely receive inputs from wildlife. Another possible explanation is that local residents might walk dogs within the grassed swale area. Signs identifying swales as a stormwater BMP leading to local receiving waters might encourage some pet owners to clean up after their pets.

Cost Considerations

Cost Considerations

Little data are available to estimate the difference in cost between various swale designs. One study (SWRPC, 1991) estimated the construction cost of grassed channels at approximately $0.25 per ft2. This price does not include design costs or contingencies. Brown and Schueler (1997) estimate these costs at approximately 32 percent of construction costs for most stormwater management practices. For swales, however, these costs would probably be significantly higher since the construction costs are so low compared with other practices. A more realistic estimate would be a total cost of approximately $0.50 per ft2, which compares favorably with other stormwater management practices.

Costs to construct swales should be taken in context. With most development designs, some conveyance structure must be constructed as part of the development. The construction of grass swales is less expensive than concrete ditches or sewers. Hence, the use of grass swales is often a less expensive alternative than traditional design approaches.

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Dry Detention Ponds

Minimum Measure: Post-Construction Stormwater Management in New Development and Redevelopment

Subcategory: Retention/Detention

Description

Photo of a dry detention pond designed to temporarily detain runoff during storm events.

Dry detention ponds (a.k.a. dry ponds, extended detention basins, detention ponds, extended detention ponds) are basins whose outlets have been designed to detain stormwater runoff for some minimum time (e.g., 24 hours) to allow particles and associated pollutants to settle. Unlike wet ponds, these facilities do not have a large permanent pool of water. However, they are often designed with small pools at the inlet and outlet of the basin. They can also be used to provide flood control by including additional flood detention storage.

Applicability

Dry detention ponds have traditionally been one of the most widely used stormwater best management practices. In some instances, these ponds may be the most appropriate best management practice. However, they should not be used as a one size fits all solution. If pollutant removal efficiency is an important consideration then dry detention ponds may not be the most appropriate choice. Dry detention ponds require a large amount of space to build them. In many instances, smaller-sized best management practices are more appropriate alternatives (see Grassed Swales, Infiltration Basin, Infiltration Trench, Porous Pavement, and Bioretention (Rain Gardens), Alternative Pavers, or Green Roofs.

Regional Applicability

Dry detention ponds can be applied in all regions of the United States. Some minor design modifications might be needed, however, in cold or arid climates or in regions with karst (i.e. limestone) topography.

Ultra-Urban Areas

Ultra-urban areas are densely developed urban areas in which little pervious surface is present. It is difficult to use dry detention ponds in the ultra-urban environment because of the land area each pond consumes.

Stormwater Hot Spots

Stormwater hot spots are areas where land use or activities generate highly contaminated runoff, with concentrations of pollutants in excess of those typically found in stormwater. Dry detention ponds can accept runoff from stormwater hot spots, but they need significant separation from ground water if they will be used for this purpose.

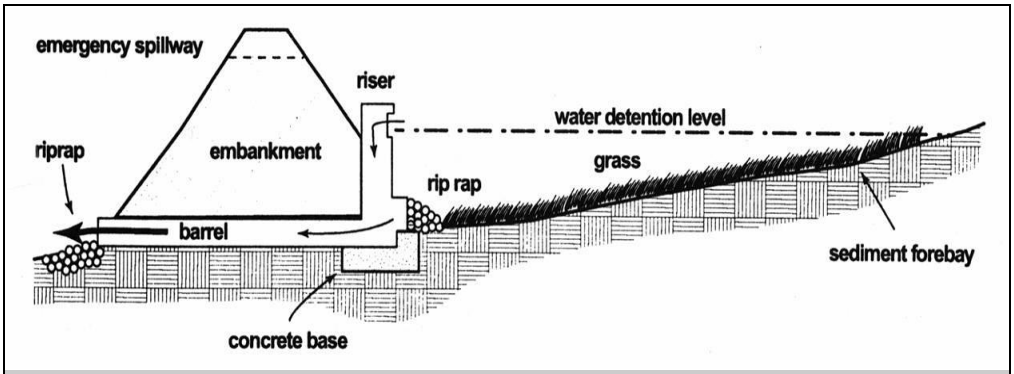
Stormwater Retrofit

A stormwater retrofit is a stormwater management practice (usually structural) put into place after development has occurred to improve water quality, protect downstream channels, reduce flooding, or meet other specific objectives. Dry detention ponds are useful stormwater retrofits, and they have two primary applications as a retrofit design. In many communities in the past, detention basins have been designed for flood control. It is possible to modify these facilities to incorporate features that encourage water quality control and/or channel protection. It is also possible to construct new dry ponds in open areas of a watershed to capture existing drainage.

Cold Water (Trout) Streams

A study in Prince George's County, Maryland, found that stormwater management practices can increase stream temperatures (Galli, 1990). Overall, dry detention ponds increased temperature by about 5°F. In cold water streams, dry ponds should be designed to detain stormwater for a relatively short time (i.e., less than 12 hours) to minimize the amount of warming that occurs in the practice. If the temperature of the water is a factor, then alternative best management practices may be more appropriate.

Siting and Design Considerations



Example profile view of a dry pond design.

Siting Considerations

Designers need to ensure that the dry detention pond is feasible at the site in question. This section provides basic guidelines for siting dry detention ponds.

Drainage Area

In general, dry detention ponds should be used on sites with a minimum area of 10 acres. On smaller sites, it can be challenging to provide channel or water quality control because the orifice diameter at the outlet needed to control relatively small storms becomes very small and thus prone to clogging. Low impact development techniques and on-lot treatment controls are recommended for smaller sites.

Slope

Dry detention ponds can be used on sites with slopes up to about 15 percent. The local slope needs to be

relatively flat, however, to maintain reasonably flat side slopes in the practice. There is no minimum slope requirement, but there does need to be enough elevation drop from the pond inlet to the pond outlet to ensure that flow can move through the system.

Soils / Topography

Dry detention ponds can be used with almost all soils and geology, with minor design adjustments for regions of karst topography or in rapidly percolating soils such as sand. In these areas, extended detention ponds should be designed with an impermeable liner to prevent ground water contamination or sinkhole formation.

Ground Water

Except for the case of hot spot runoff, the only consideration regarding ground water is that the base of the extended detention facility should not intersect the ground water table. A permanently wet bottom may become a mosquito breeding ground. Research in Southwest Florida (Santana et al., 1994) demonstrated that intermittently flooded systems, such as dry extended detention ponds, produced more mosquitoes than other pond systems, particularly when the facilities remained wet for more than 3 days following heavy rainfall.

Design Considerations

Specific designs may vary considerably, depending on site constraints or preferences of the designer or community. Some features, however, should be incorporated into most dry extended detention pond designs. These design features can be divided into five basic categories: pretreatment, treatment, conveyance, maintenance reduction, and landscaping.

Pretreatment

Pretreatment incorporates design features that help to settle out coarse sediment particles. By removing these particles from runoff before they reach the large permanent pool, the maintenance burden of the pond is reduced. In ponds, pretreatment is achieved with a sediment forebay, which is a small pool (typically about 10 percent of the volume of water to be treated for pollutant removal).

Treatment

Treatment design features help enhance the ability of a stormwater management practice to remove pollutants. Designing dry ponds with a high length-to-width ratio (i.e., at least 1.5:1) and incorporating other design features to maximize the flow path effectively increases the detention time in the system by eliminating the potential of flow to short-circuit the pond. Designing ponds with relatively flat side slopes can also help to lengthen the effective flow path. Finally, the pond should be sized to detain the volume of runoff to be treated for between 12 and 48 hours.

Conveyance

Conveyance of stormwater runoff into and through the dry pond is a critical component. Stormwater should be conveyed to and from dry ponds safely in a manner that minimizes erosion potential. The outfall of pond systems should always be stabilized to prevent scour. To convey low flows through the system, designers should provide a pilot channel. A pilot channel is a surface channel that should be

used to convey low flows through the pond. In addition, an emergency spillway should be provided to safely convey large flood events. To help mitigate the warming of water at the outlet channel, designers should provide shade around the channel at the pond outlet.

Maintenance Reduction

Regular maintenance activities are needed to maintain the function of stormwater practices. In addition, some design features can be incorporated to ease the maintenance burden of each practice. In dry detention ponds, a "micropool" at the outlet can prevent resuspension of sediment and outlet clogging. A good design includes maintenance access to the forebay and micropool.

Another design feature that can reduce maintenance needs is a non-clogging outlet. Typical examples include a reverse-slope pipe or a weir outlet with a trash rack. A reverse slope pipe draws from below the permanent pool extending in a reverse angle up to the riser and determines the water elevation of the micropool. Because these outlets draw water from below the level of the permanent pool, they are less likely to be clogged by floating debris.

Landscaping

Designers should maintain a vegetated buffer around the pond and should select plants within the extended detention zone (i.e., the portion of the pond up to the elevation where stormwater is detained) that can withstand both wet and dry periods. The side slopes of dry ponds should be relatively flat to reduce safety risks.

Design Variations

Tank Storage

Another variation of the dry detention pond design is the use of tank storage. In these designs, stormwater runoff is conveyed to large storage tanks or vaults underground. This practice is most often used in the ultra-urban environment on small sites where no other opportunity is available to provide flood control. Tank storage is provided on small areas because underground storage for a large drainage area would generally be costly. Because the drainage area contributing to tank storage is typically small, the outlet diameter needed to reduce the flow from very small storms would very small. A very small outlet diameter, along with the underground location of the tanks, creates the potential for debris being caught in the outlet and resulting maintenance problems. Since it is necessary to control small runoff events (such as the runoff from a 1-inch storm) to improve water quality, it is generally infeasible to use tank storage for water quality and generally impractical to use it to protect stream channels.

Regional Variations

Arid or Semi-Arid Climates

In arid and semi-arid regions, some modifications might be needed to conserve scarce water resources. Any landscaping plans should prescribe drought-tolerant vegetation wherever possible. In addition, the wet forebay can be replaced with an alternative dry pretreatment, such as a detention cell. In regions with a distinct wet and dry season, as in many arid regions, regional detention ponds can possibly be used as a recreation area such as a ball field during the dry season.

Cold Climates

In cold climates, some additional design features can help to treat the spring snowmelt. One such modification is to increase the volume available for detention to help treat this relatively large runoff event. In some cases, dry facilities may be an option as a snow storage facility to promote some treatment of plowed snow. If a pond is used to treat road runoff or is used for snow storage, landscaping should incorporate salt-tolerant species. Finally, sediment might need to be removed from the forebay more frequently than in warmer climates (see Maintenance Considerations for guidelines) to account for sediment deposited as a result of road sanding.

Limitations

Although dry detention ponds are widely applicable, they have some limitations that might make other stormwater management options preferable:

Dry detention ponds have only moderate pollutant removal when compared to other structural stormwater practices, and they are ineffective at removing soluble pollutants (See Effectiveness).
Dry extended detention ponds may become a nuisance due to mosquito breeding if improperly maintained or if shallow pools of water form for more than 7 days.
Although wet ponds can increase property values, dry ponds can actually detract from the value of a home (see Cost Considerations).

Dry detention ponds on their own only provide peak flow reduction and do little to control overall runoff volume, which could result in adverse downstream impacts.

Maintenance Considerations

In addition to incorporating features into the pond design to minimize maintenance, some regular maintenance and inspection practices are needed. Table 1 outlines some of these practices.

Table 1. Typical maintenance activities for dry ponds (Source: Modified from WMI, 1997)

Activity	Schedule
Note erosion of pond banks or bottom	Semiannual inspection
Inspect for damage to the embankment Monitor for sediment accumulation in the facility and forebay Examine to ensure that inlet and outlet devices are free of debris and operational	Annual inspection
Repair undercut or eroded areas Mow side slopes Manage pesticide and nutrients Remove litter and debris	Standard maintenance
Seed or sod to restore dead or damaged ground	Annual

cover	maintenance (as needed)
Remove sediment from the forebay	5- to 7-year maintenance
Monitor sediment accumulations, and remove sediment when the pond volume has been reduced by 25 percent	25- to 50-year maintenance

Effectiveness

Structural management practices can be used to achieve four broad resource protection goals: flood control, channel protection, ground water recharge, and pollutant removal. Dry detention basins can provide flood control and channel protection, as well as some pollutant removal.

Flood Control

One objective of stormwater management practices can be to reduce the flood hazard associated with large storm events by reducing the peak flow associated with these storms. Dry extended detention basins can easily be designed for flood control, and this is actually the primary purpose of most detention ponds.

Channel Protection

One result of urbanization is the geomorphic changes that occur in response to modified hydrology. Traditionally, dry detention basins have provided control of the 2-year storm (i.e., the storm that occurs, on average, once every 2 years) for channel protection. It appears that this control has been relatively ineffective, and research suggests that control of a smaller storm might be more appropriate (MacRae, 1996). Slightly modifying the design of dry detention basins to reduce the flow of smaller storm events might make them effective tools in reducing downstream erosion.

Pollutant Removal

Dry detention basins provide moderate pollutant removal, provided that the design features described in the Siting and Design Considerations section are incorporated. Although they can be effective at removing some pollutants through settling, they are less effective at removing soluble pollutants because of the absence of a permanent pool. A few studies are available on the effectiveness of dry detention ponds. Typical removal rates, as reported by Schueler (1997), are as follows:

Total suspended solids: 61%

Total phosphorus: 19%

Total nitrogen: 31%

Nitrate nitrogen: 9%

Metals: 26%-54%

There is considerable variability in the effectiveness of ponds, and it is believed that properly designing and maintaining ponds may help to improve their performance. The siting and design criteria presented in this sheet reflect the best current information and experience to improve the performance of wet ponds. A joint project of the American Society of Civil Engineers (ASCE) and the USEPA Office of Water might help to isolate specific design features that can improve performance. The National Stormwater Best Management Practice (BMP) database is a compilation of stormwater practices that includes both design information and performance data for various practices. As the database expands, inferences about the extent to which specific design criteria influence pollutant removal may be made. For more information on this database, access the BMP database EXIT Disclaimer.

Cost Considerations

The construction costs associated with dry detention ponds range considerably. One recent study evaluated the cost of all pond systems (Brown and Schueler, 1997). Adjusting for inflation, the cost of dry extended detention ponds can be estimated with the equation

$C = 12.4V^{0.760}$

where:

C = Construction, design, and permitting cost, and

V = Volume needed to control the 10-year storm (ft^3).

Using this equation, typical construction costs are

$ 41,600 for a 1 acre-foot pond

$ 239,000 for a 10 acre-foot pond

$ 1,380,000 for a 100 acre-foot pond

Interestingly, these costs are generally slightly higher than the cost of wet ponds on a cost per total volume basis. Dry detention ponds are generally less expensive on a given site, because they are usually smaller than a wet pond design.

Ponds do not consume a large area compared to the total area treated (typically 2 to 3 percent of the contributing drainage area). It is important to note, however, that each pond is generally large. Other practices, such as filters or swales, may be "squeezed in" on relatively unusable land, but ponds need a relatively large continuous area.

For ponds, the annual cost of routine maintenance is typically estimated at about 3 to 5 percent of the construction cost. Alternatively, a community can estimate the cost of the maintenance activities outlined in the maintenance section. Finally, ponds are long-lived facilities (typically longer than 20 years). Thus, the initial investment into pond systems can be spread over a relatively long time period.

Another economic concern associated with dry ponds is that they might detract slightly from the value of

adjacent properties. One study found that dry ponds can actually detract from the perceived value of homes adjacent to a dry pond by between 3 and 10 percent (Emmerling-Dinovo, 1995).

References

Design References:

Denver Urban Drainage and Flood Control District. 1992. *Urban Storm Drainage Criteria Manual-Volume 3: Best Management Practices*. Denver, CO.

Watershed Management Institute (WMI). 1997. *Operation, Maintenance, and Management of Stormwater Management Systems*. Prepared for U.S. Environmental Protection Agency, Office of Water. Washington, DC.

Other References:

Brown, W., and T. Schueler. 1997. *The Economics of Stormwater BMPs in the Mid-Atlantic Region*. Prepared for Chesapeake Research Consortium. Edgewater, MD. Center for Watershed Protection. Ellicott City, MD.

Emmerling-Dinovo, C. 1995. Stormwater Detention Basins and Residential Locational Decisions. *Water Resources Bulletin* 31(3): 515-521

Galli, J. 1990. *Thermal Impacts Associated with Urbanization and Stormwater Management Best Management Practices*. Metropolitan Washington Council of Governments. Prepared for Maryland Department of the Environment, Baltimore, MD.

MacRae, C. 1996. Experience from Morphological Research on Canadian Streams: Is Control of the Two-Year Frequency Runoff Event the Best Basis for Stream Channel Protection? In *Effects of Watershed Development and Management on Aquatic Ecosystems*. American Society of Civil Engineers. Edited by L. Roesner. Snowbird, UT. pp. 144-162.

Santana, F., J. Wood, R. Parsons, and S. Chamberlain. 1994. *Control of Mosquito Breeding in Permitted Stormwater Systems*. Prepared for Southwest Florida Water Management District, Brooksville, FL.

Schueler, T. 1997. Influence of Ground Water on Performance of Stormwater Ponds in Florida. *Watershed Protection Techniques* 2(4):525-528.

Information Resources

Center for Watershed Protection (CWP), Environmental Quality Resources, and Loiederman Associates. 1997. *Maryland Stormwater Design Manual*. Draft. Prepared for Maryland Department of the Environment, Baltimore, MD.

Center for Watershed Protection (CWP). 1997. *Stormwater BMP Design Supplement for Cold Climates*. Prepared for U.S. Environmental Protection Agency, Office of Wetlands, Oceans and Watersheds. Washington, DC.

U.S. Environmental Protection Agency (USEPA). 1993. *Guidance Specifying Management Measures for*

Sources of Nonpoint Pollution in Coastal Waters. EPA-840-B-92-002. U.S. Environmental Protection Agency, Office of Water, Washington, DC.

SECTION 6: Recordkeeping and Training

6.1 Recordkeeping

The following is a list of records you should keep at your project site available for inspectors to review:

- Dates of grading, construction activity-Sections 3.3, 3.12, 7
- Dates when major grading activities occur-Sections 3.3, 3.12, 7
- A copy of the construction general permit-Section 8
- The signed and certified NOI form or permit application form-Section 9
- Inspection reports-Section 7
- Records relating to endangered species and historic preservation-Section 3.9-3.10
- Delineation of Responsibilities-Section 1, Section 3.2
- Delegation Letter-Section 2.3
- Responsive (Corrective) Action Logs-Section 7
- SWPPP Certification-Section 1
- Updated site SWPPP map-Section 3.12
- Dates when construction activities temporarily or permanently cease on a portion of the site-Section 3.3, 3.12, 7

For SWPPPs that are being managed on compliance|**GO** all records will be located in the documents/permits tab, BMPs tab, or reports tab of compliance|**GO**.

Please notify either the contact person for the operator found on the NOI or compliance|**GO** in order to access this information if needed.

801-701-6188
compliance|**GO**

6.2 Log of Changes to the SWPPP

This SWPPP will be amended, changed, and updated on an as needed basis to account for changing site conditions. The SWPPP map will be updated in Section 3.12 to reflect pollutants on site with applicable controls while providing dates of activity. Dates related to specific and ongoing construction activities such as major grading activities will be found in Sections 3.3 and Section 7 of this SWPPP. Any changes or additions regarding new BMPs (Section 4,5), replacement of failed BMPs (Section 3,4), significant changes in the activities or their timing on the project (Section 3.3, 3.12{map}), changes in personnel (Section 3.2), changes in inspection and maintenance procedures (Section 7), and updates to site maps (Section 3.12), etc. will be updated respective to each of the sections referenced in this SWPPP.

For SWPPPs that are being managed on compliance|**GO** all amendments will be located in the documents/permits tab of compliance|**GO**.

Please notify either the contact person for the operator found on the NOI or compliance|**GO** in order to access this information if needed.

801-701-6188
compliance|**GO**

6.3 Training

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 that such personnel understand any requirements of the permit 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.

A training log may be kept regarding SWPPP regulations and specifics for all employees and subcontractors who work on this project. Please attach this log or multiple logs in this Section of the SWPPP as needed.

For SWPPPs that are being managed on compliance|**GO** all training logs will be located in the documents/permits tab of compliance|**GO**.

Please notify either the contact person for the operator found on the NOI or compliance|**GO** in order to access this information if needed.

801-701-6188
compliance|**GO**

SECTION 7: INSPECTIONS and MAINTENANCE

SWPPP/SITE NOTICE

To Whom It May Concern:

In an effort to further protect the environment; this SWPPP is being managed via a web-based management system that can be accessed during business hours. The required SWPPP, map, permit, inspections, and documents may be found and reviewed online.

These regulated SWPPP items may only be viewed at the correct url with the proper unique user identification – UUID # provided below:

http://core.compliancego.com/cgviewer

Enter the following site ID:

dcc153cf-49ec-4f76-9ede-f7a5e8569d48

Site Name: Edgewater Beach Resort Phase 2

Please notify either the contact person for the operator found on the NOI or complianceGO for any additional questions.

Site Contact: Craig Glauser Phone Number: 801-663-1600

Email: Craig@StrategicBuilders.com UPDES Permit #: UTR373259

complianceGO Support 801-701-6188

7.1 Inspections

1. Inspection Personnel are listed in section 3.2 of this SWPPP. Inspector qualifications are listed in section 7.4 of this SWPPP.

2. Inspection Schedule and Procedures

☐ *At least once every 7 calendar days; or*

☒ *At least once every 7 calendar days and within 24 hours of the initial 0.5 inches of rain and at the end of the storm event. Increased frequency due to impaired receiving water.*

☐ *At least once every 14 calendar days and within 24 hours of the initial 0.5 inches of rain and at the end of the storm event.*

☐ Other (i.e. different city requirements): _____

For SWPPPs that are being managed on compliance|**GO** all inspections will be located in the reports tab of compliance|**GO**.

Please notify either the contact person for the operator found on the NOI or compliance|**GO** in order to access this information if needed.

801-701-6188
compliance|**GO**

Inspections will be conducted on this project in accordance with applicable governing UPDES regulations, and individual municipal regulations. Inspections will be conducted by qualified inspectors from accenaGroup. Where sites have been finally or temporarily stabilized, runoff is unlikely due to winter conditions (e.g. site covered with snow, ice, or frozen ground).

Inspections are only required to take place during regular business hours. Holidays and weekends do not require inspections. Thus is a rain event occurs on a Friday then the rain event inspection will take place by the end of business on Monday. If a regular inspection is scheduled to occur on a holiday the inspection will occur prior to or after the holiday.

Inspections that occur during rain that is causing a discharge from the site a visual sample will be taken. Following the visual sample being taken at the discharge point a Visual Monitoring Form will be filled out and kept with the inspection history. The visual monitoring form will be used to drive action items if the water does not appear cleaned.

3. Where rain events are required

Storm events need to be tracked either with a rain gauge on site or by using websites to determine the total rainfall amount.

- If a rain gauge is used it will need to be installed and located properly on site.
  - If the rain gauge is in an open area strive to be twice as far from obstacles as they are high to reduce splatter. In developed areas strive to be as far from obstacles as they are high.
  - Be sure that the gauge is level.
  - Check the gauge regularly for water and empty at the end of rain events.
  - Be sure that the gauge is not receiving water from any sources such as sprinklers.
- In the case where someone not on site is doing inspections the site rep would need to communicate to the site inspector after precipitation has occurred.

- If storm events are being tracked electronically
  - Be sure to use a reputable site
  - Check to see when the site was updated with information
  - Check the location of the site. Some sites use the nearest airport even if the airport is 10 or 20 miles away.
  - Below is the link to the National Weather Service Rain Totals:
    - http://www.nws.noaa.gov/view/prodsByState.php?state=UT&prodtype=public

4. Below is a copy of the inspection report and action log used for this site.

	YES	NO	N/A
1 - Has an NOI Permit and the applicable City MS4 permit been filed for construction activities specific to this project and are these permits current and in the SWPPP?	❑	❑	❑
2 - Is the NOI posted on the site with a site notice that signifies where the SWPPP is located and the person to call for SWPPP questions regarding this site?	❑	❑	❑
3 - Are certification pages in the SWPPP signed by the owner and operator of the project according to local/state/federal signature standards?	❑	❑	❑
4 - Does the inspector of this site have the required qualifications (RSI, CPESC, CPSWQ, CESSWI, CISEC, NICET Level 3, ECS) and are these qualifications listed in the SWPPP?	❑	❑	❑
5 - Has the inspector and those signing SWPPP documents been properly delegated and is the delegation letter found in the SWPPP?	❑	❑	❑
6 - Are all of the required BMPs (as is set forth in the UPDES construction general permit) listed in the SWPPP and applied to the site according to the phase of construction?	❑	❑	❑
7 - Are all pollutants/hazardous materials (fuel, concrete waste/washout waters, stucco waste, paint, portable toilet, trash bin, etc.)/spoils/stockpiles on site identified on the SWPPP map? NOTE: For map updating, this requires the SITE MAP to be updated with specific pollutants (including dates/locations when a pollutant was introduced, moved, or removed with an activity description where applicable) in the SITE MAPS section when using complianceGO.	❑	❑	❑
8 - Are BMPs utilized on site able to be noted on the SWPPP map (are the SWPPP and site consistent with each other)? NOTE: For map updating, this requires the SITE MAP to be updated with specific BMPs (including dates/locations when a BMP was added, moved, repaired, or removed with an activity description where applicable) in the SITE MAPS section when using complianceGO.	❑	❑	❑
9 - Have all staff personnel, BMP contractors, and subcontractors that are required to receive training been trained? Has the training log in the SWPPP been updated with this information? Note: for SWPPPs that are kept on complianceGO be sure to update the training log in the documents section	❑	❑	❑
10 - Is the SWPPP document up to date with no need of amendments (Including storm water team contacts, site activities, or other site activities)? SITE ACTIVITIES All areas of the site should be inspected, i.e., all BMPs (erosion and sediment controls), Pollutants, Storage Areas, Discharge Points, Outfalls, and Surface Waters.	❑	❑	❑

11 - Is site FREE from any discharges of sediments or pollutants leaving site boundaries or perimeters (i.e. lot boundaries, into streets, parking areas, or site perimeter boundary)? NOTE: If the site has fertilizers, be sure to check to see the site is FREE from them being in the street, on sidewalks, or other areas that could cause a discharge of the fertilizer.	❑	❑	❑
12 - Have the required erosion/sediment/pollutant controls (BMPs) been installed; Are the required erosion/sediment/pollutant controls (BMPs) correctly installed; Are the erosion/sediment/pollutant controls (BMPs) functioning properly to prevent erosion from occurring or from allowing sediment/pollutants to leave the site boundaries or perimeters (Perimeter controls must be installed for all areas that may receive storm water flows; may also be at the back of lots)?	❑	❑	❑
13 - Are impervious surfaces FREE from evidence of tracking of sediment/pollutants (roads, ramps, sidewalks, parking areas, etc.)?	❑	❑	❑
14 - Are all construction traffic access/exit points stabilized properly or are controls in place to prevent tracking from the site?	❑	❑	❑
15 - Are concrete/stucco washouts and paint washouts on site, clearly marked, properly contained, and FREE from any washout or spillage outside of the contained areas?	❑	❑	❑
16 - Are construction debris and blowable trash being properly contained on site?	❑	❑	❑
17 - Are the stockpiles located off of any impervious surfaces; Are the stockpiles located outside of any natural buffers; Do the stockpiles on site have the proper sediment controls at the base (If the stockpile is in place for more than three days) or have they been covered or stabilized?	❑	❑	❑
18 - Are the site Run-On flows properly controlled (i.e. stream, creek, or concentrated flows onto the site) with BMPs to prevent contact with pollutants and to prevent erosion, and are all storm water flow structures (drainage channels, diversions, conveyance, sediment basins) FREE of erosion, sediment buildup of over 50%, or needing additional BMPs?	❑	❑	❑
19 - Are all discharge points and outfalls on or near the site FREE from sediment buildup, pollutants, and erosion, and are all surface waters on or near the site FREE from visible pollutants coming from the construction site? e.g. outfalls into a water body, retention basin outfalls, detention basin outfalls,	❑	❑	❑
20 - If the site is within 50 feet of a surface water (Area of water that is in place more than two months out of the year) is the natural buffer or natural buffer equivalent in place on site?	❑	❑	❑
21 - Is dust being properly controlled on site, and is the site FREE from additional dust control BMPs being needed?	❑	❑	❑
22 - Are all materials on site properly stored on site (i.e. undercover, plastic cover, secondary containment, out of the street and off of	❑	❑	❑

impervious surfaces)?

23 - Is the site FREE from having any signs of spills or leaks from equipment or storage, and is the appropriate spill prevention in place including proper storage of fuels, oils, or chemicals with secondary containment and coverings where possible? If the site is storing over 1320 gallons of fuels has a site specific SPCC plan been created? ❑ ❑ ❑

24 - Is the site FREE from de-watering off site perimeter boundaries , or has a de-watering permit been obtained from the state and is proper sampling occurring? ❑ ❑ ❑

NOTE: A de-watering permit is required if pumping is off of site perimeter boundaries, i.e., any water on the construction site that needs to be discharged off the site perimeter boundary or into the storm drain system.

25 - Do all of the off-site support activities (i.e. off site staging, storage, batch plants, stockpiling) have the proper BMPs in place; are the BMPs installed and functioning properly; and is the site FREE from any pollutants leaving site boundaries? ❑ ❑ ❑

26 - Are all non-stormwater activities being properly contained, and if there are any discharges are the discharges FREE of sediment or other pollutants? ❑ ❑ ❑

27 - If applicable are all BMPs that are needed in place prior to winter conditions occurring? ❑ ❑ ❑

28 - If Post Construction BMPs are required, are they being installed according to the phase of construction, or have they been completed? ❑ ❑ ❑

29 - Are topsoils and vegetation being preserved where possible? ❑ ❑ ❑

STABILIZATION

30 - Have all slopes and disturbed areas not actively being worked for over 14 days had stabilization initiated? ❑ ❑ ❑

31 - According to climate conditions or impaired receiving waters, have stabilization practices of completed areas of the site been initiated or completed in the appropriate time period? ❑ ❑ ❑

NOTICE OF TERMINATION

32 - Have all BMPs identified in the SWPPP been removed where they are no longer needed? ❑ ❑ ❑

NOTE: For SWPPP updating, this requires the site map to be updated in the SITE MAPS section when using complianceGO.

33 - If applicable has the final inspection been scheduled with the City MS4? ❑ ❑ ❑

34 - Are future inspections still needed? ❑ ❑ ❑

NOTE: Inspections are needed if construction is not complete, site is not stabilized, and/or BMPs are not removed where no longer needed.

Site Activity and Required Disturbance/Stabilization Information:

- Indicate the current phase or phases of construction activity for this site.
- Note the dates and locations of any new disturbances/excavations/major digs; areas that have been temporarily/permanently stabilized or sold; when construction activities have temporarily or permanently ceased, and what temporary or permanent stabilization measures will be applied to applicable areas.
- Indicate if inspection is for Emergency construction activities.
- Note areas that were unsafe/Non-accessible during this inspection.

Communication/Observations and Notes/Regulator:

- Indicate who these inspection findings were reviewed with or sent to.
- Provide any additional observations/notes pertinent to this inspection.
- Indicate if a regulatory inspection has occurred on this site since the last inspection and what regulatory body was on site and the findings from the visit.

Required Weather Information and Notes:

- Indicate weather conditions at time of this inspection.
- If there was a storm event since the last inspection, indicate the best estimate of beginning of each storm event, duration of each storm event, approximate amount of rainfall of each event (in inches), and whether any discharge occurred.
- Indicate where the information for the precipitation totals was found (i.e., website or onsite rain gauge).
- If a discharge is occurring at time of this inspection: identify all areas where discharges are occurring; take a sample of the discharge and fill out the Visual Observations Form describing the discharge.

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

_____

_____

_____

7.2 Corrective Action Log

This log example, when completed during regular inspection intervals, will note by date and describe locations of new bmp items, bmp repair items and replacement items as part of maintaining all site BMPs to the maximum extent practicable as applied to governing storm water regulations. Additionally, responsible parties identified in Section 2.2 will continuously initial and date corrected items. An inspector from accenaGroup will verify this action on each action log.

For SWPPPs that are being managed on compliance|**GO** all corrective action logs will be located in the reports tab of compliance|**GO**.

Please notify either the contact person for the operator found on the NOI or compliance|**GO** in order to access this information if needed.

801-701-6188
compliance|**GO**

- *Please find attached below a copy of the action log.*

accenaGroup **Action Log**

Action Log (includes development and all construction activities)

Client Name:
Project Name:
Project Contact:
Date of Inspection:

Action Needed
DATE COMPLETED: INITIAL:
DATE VERIFIED:

7.3 Maintenance of Controls

Responsive (Corrective) action items will be identified in the inspection report and action log. Once identified and reported, responsible parties in section 3.2 will correct problems according to the construction general permit. Frozen ground conditions, temporary stabilization measures, and inspection impact monitoring documentation may prolong the date of correction for a logged action item. If an action item is delayed then it will be documented in the inspection reports. Minimum regulations maintenance requirements will be met according to the governing UPDES permit.

Maintenance procedures for individual BMPs are included in Sections 4 and 5. Specific maintenance activities are documented in the regularly occurring corrective action logs described above and documented on the site map in section 3.12.

7.4 Inspector Qualifications

The qualifications of any inspector who has inspected the site according to the Utah Pollution Discharge Elimination System (UPDES) permit regulations will be located in this section. The UPDES construction general permit requires that an inspector has one of the following qualifications or the equivelant as determined by the State: RSI, CPESC, CPSWQ, CESSWI, CISEC, NICET, or UDOT ECS.

For SWPPPs that are being managed on compliance|**GO** all qualifications that are not listed in the SWPPP will be located in the documents/permits tab of compliance|**GO**.

Please notify either the contact person for the operator found on the NOI or compliance|**GO** in order to access this information if needed.

801-701-6188
compliance|**GO**

Insert Qualifications for who ever will be inspecting the site

accenaGroup™
Engineering Storm Water Compliance

Storm Water Compliance Inspector
QUALIFICATIONS

Mike Dickson

Mike Dickson has a strong background in the construction industry and is an experienced storm water inspector. He began inspecting construction sites and industrial facilities in 2006. Mike has received over 60 hours of on-site and classroom storm water instruction and training. With his construction and industrial background and hands-on experience, Mr. Dickson provides depth and experience to the accenaGroup of inspectors. Below is a brief summary of Mr. Dickson's and experience.

Training

- RSI-Utah: A registered storm water inspector of Utah.
- UDOT – Environmental Control Supervisor Training
- accenaGroup CSI-Utah Storm Water Training Program-60 hour.
- accenaGroup certified management training program-4 hours.
- Red Rock Environmental May 17th, 2006 – A five hour storm water inspector training for construction. An eight hour field training for site inspections, installation, and repair techniques of BMP's.
    - Training covering storm water regulations, SWPPPs, best management practices, site inspection procedures, historic properties, and endangered species. Field training onsite inspections, installation and repair techniques of BMPs.
- May 11th, 2006 – Completion of the City of Dallas Public Works and Transportation Storm Water Management 4-hour industrial workshop for Texas Pollutant Discharge Elimination System (TPDES) Industrial Permit Requirements.

Storm Water Experience

- Employed as a storm water inspector for several large residential and commercial clients from 2006 to present in the Utah area inspecting an average of 4 or more sites per day. Inspected client construction and other sites for compliance with EPA and other regulatory agencies. Prepared and delivered detailed inspection reports for project managers. Advised project managers about pollution prevention methods and best management practices (BMPs) to meet EPA regulations.

accenaGroup™
Engineering Storm Water Compliance

Storm Water Compliance Inspector
QUALIFICATIONS

David P. Duvall

Mr. Duvall is an experienced storm water inspector. He has been actively inspecting construction sites and industrial facilities in Utah since November of 2006. David has received over 60 hours of on-site and classroom storm water instruction and training. David has obtained the Certified Professional in Erosion and Sediment Control status. With his special educational background and hands-on experience, Mr. Duvall brings depth and experience to the accenaGroup of inspectors. Below is a brief summary of Mr. Duvall's education and experience in this field.

Education

- Graduate Certificate in Geographic Information Systems from the University of Denver.
- BS in Geography with an emphasis in Physical and Environmental Studies from Brigham Young University.
- Gamma Theta Upsilon (International Geographic Honor Society).

Training

- CPESC – Certified Professional in Erosion and Sediment Control
- Approved RSI and RSR Course Instructor
- UDOT – Environmental Control Supervisor Training
- accenaGroup CSI-Utah Storm Water Training Program-90 hour.
- accenaGroup certified management training program-4 hours.

Storm Water Experience

- Employed as a storm water inspector for several large residential and commercial clients from November 2006 to present in the Utah area inspecting an average of 4 or more sites per day. Inspected client construction and other sites for compliance with EPA and other regulatory agencies. Prepared and delivered detailed inspection reports for project managers. Advised project managers about pollution prevention methods and best management practices (BMPs) to meet EPA regulations. Maintained and updated Storm Water Pollution Prevention Plans (SWPPPs) regularly as well as performed site work to develop preliminary maps for SWPPP books.

Storm Water Compliance Inspector
QUALIFICATIONS

Carl Conde

Carl Conde has a strong background in the construction industry. He has been active on construction sites since 2010. Mr. Conde has received over 60 hours of on-site and classroom storm water instruction and training. With his background and hands-on experience, Mr. Conde's provides depth and experience to the accenaGroup of inspectors. Below is a brief summary of Mr. Conde's experience.

Training

- RSI-Utah: A registered storm water inspector of Utah.
- accenaGroup CSI-Utah Storm Water Training Program-60 hour.

accenaGroup certified management training program-4 hours

Storm Water Compliance Inspector
QUALIFICATIONS

April Nelson

April has received over 60 hours of on-site and classroom storm water instruction and training. With her background and hands-on experience, Mrs. Nelson provides depth and experience to the accenaGroup of inspectors. Below is a brief summary of Mrs. Nelson's experience.

Training

- RSI-Utah: A registered storm water inspector of Utah.
- accenaGroup CSI-Utah Storm Water Training Program-60 hour.
- accenaGroup certified management training program-4 hours.

7.5 BMP Maintenance Qualifications

Include the documentation of those who will be maintaining or dealing with the SWPPP at the construction site. This will include the qualifications of those who will be maintaining the BMPs.

Qualifications of the BMP contractor

SECTION 8: Permit Regulations

8.1 UPDES Permit Regulations

The following is the UPDES permit regulations that were obtained from:
http://www.waterquality.utah.gov/UPDES/docs/2014/07Jul/FinalSWConstructionGenPermit.pdf

For SWPPPs that are being managed on compliance|**GO** the UPDES Regulations will be located in the documents/permits tab of compliance|**GO**.

Please notify either the contact person for the operator found on the NOI or compliance|**GO** in order to access this information if needed.

801-701-6188
compliance|**GO**

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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 10 day of June, 2014

Walter L. Baker, P.E.
Director

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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 occuring[4] **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 techniques[5] at all points that exit onto paved roads so that sediment removal occurs prior to vehicle exit;

iii. Where necessary, use additional controls[6] 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

[7]Examples 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 measures[8] that remove sediment from your discharge prior to entry into the storm drain inlet.

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

   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.).

[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 devices[9] 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.

[9]Examples 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.a[10], you are required to have completed:

i. For vegetative stabilization, all activities[11] 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.*

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[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 transport[12].

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 cover[13] 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,

[14]Examples 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 products[16]: 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 waste[17]:

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 waste[18]: 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 urgency[19] 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 devise 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.).

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[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 6months 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.

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[20]The 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.

[21] Your 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 activities[22] 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 types[23] 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 minutes[24] 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 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 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 oversights 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
DOGM – 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 EROSIVITY 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 a 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:

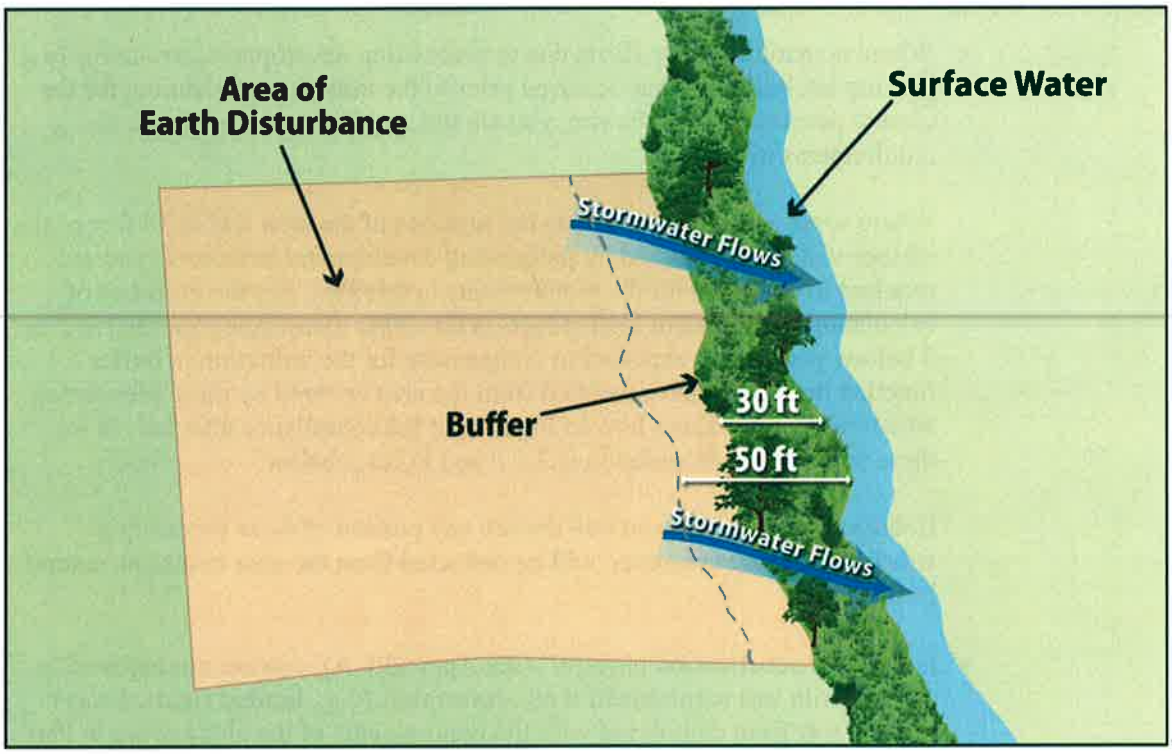
D.1 SITES THAT ARE REQUIRED TO COMPLY WITH PART 2.1.2.a.

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.

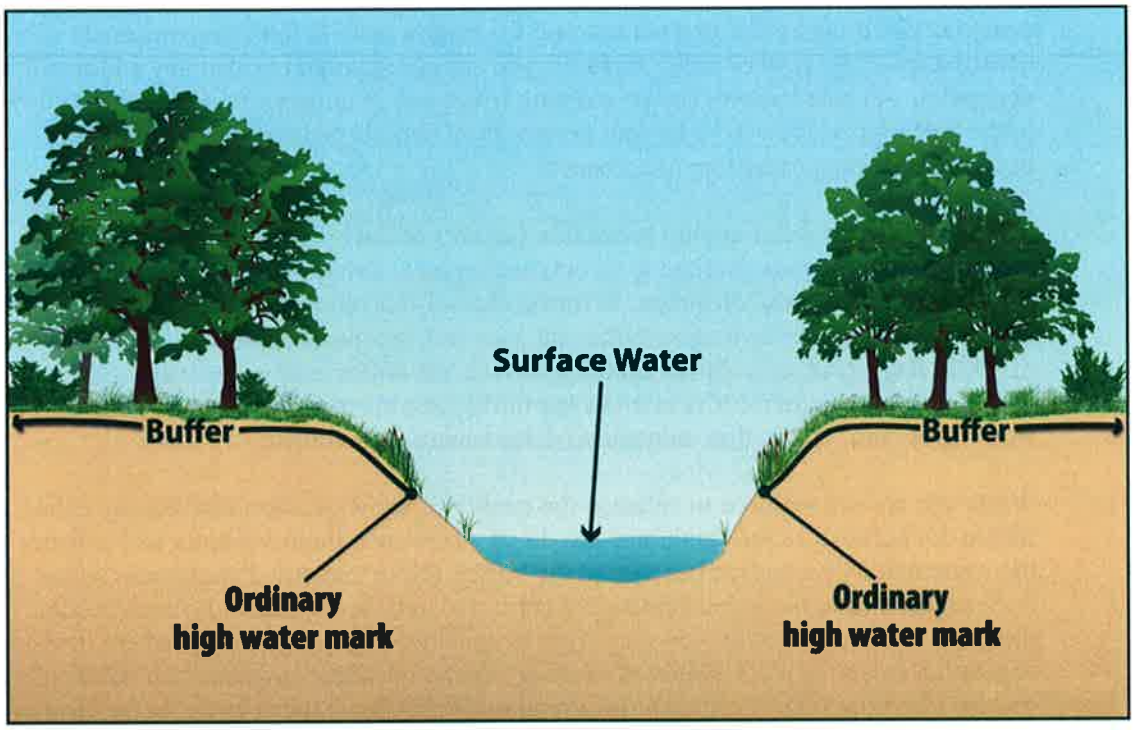
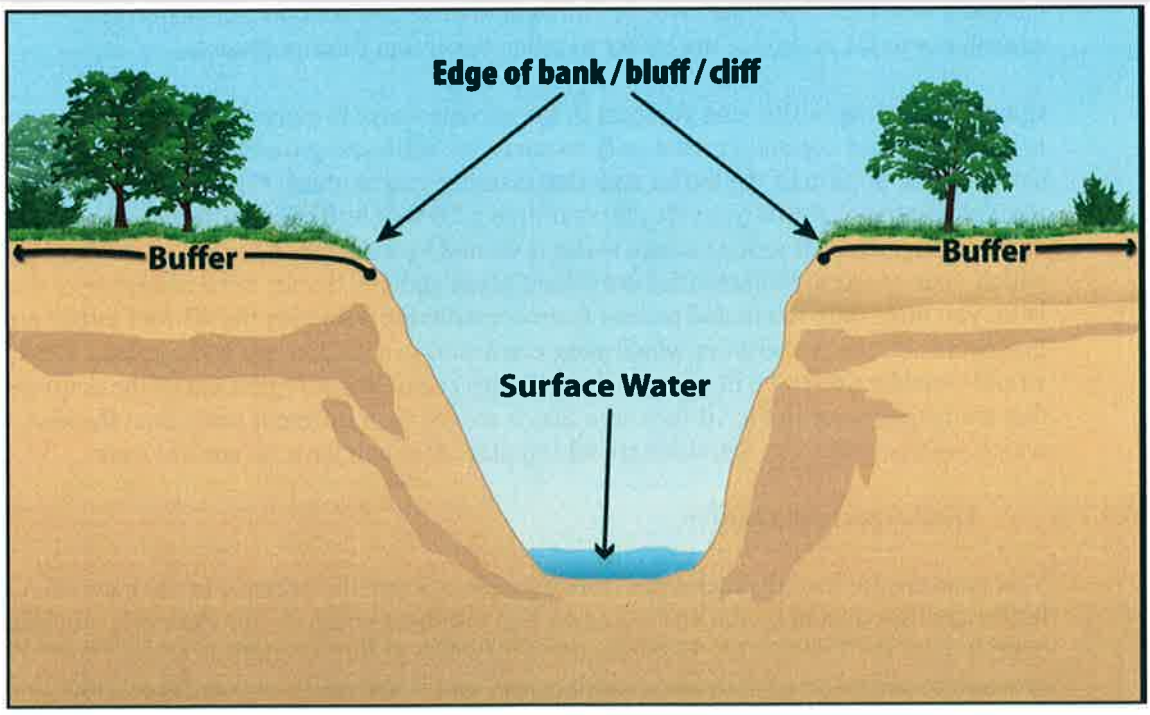


Figure D - 3. This image shows buffer measurement from the edge of the bank, bluff, or cliff, whichever is applicable.



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.

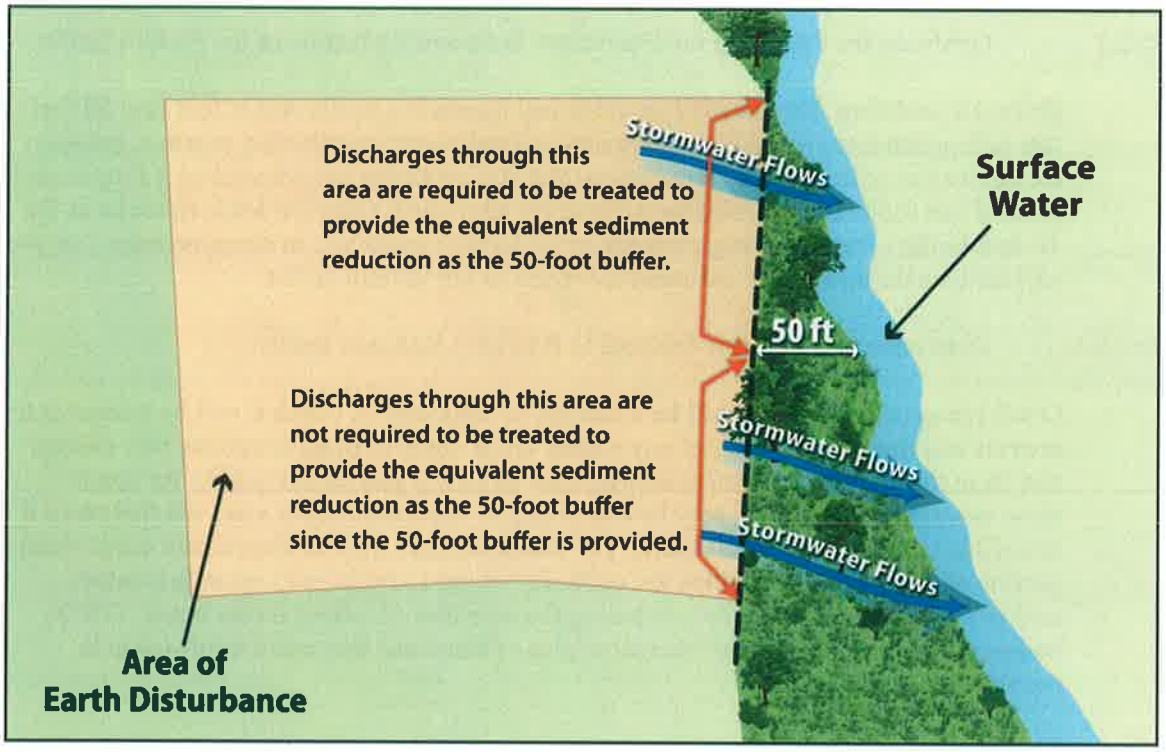
Therefore, in choosing between the 2 different compliance alternatives (Alternative 2 or 3), you should only elect to comply with Alternative 2 if it is feasible for you to retain any natural buffer on your site. (Note: For any buffer width retained, you are required to comply with the requirements in 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:

Step1 - 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

> 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.

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, 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 Requirements[3]

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 type[4] 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 Requirements[2]

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 Tables[5]

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*

	Estimated % Sediment Removal				
Type of Buffer vegetation**	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*

	Estimated % Sediment Removal				
Type of Buffer vegetation**	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

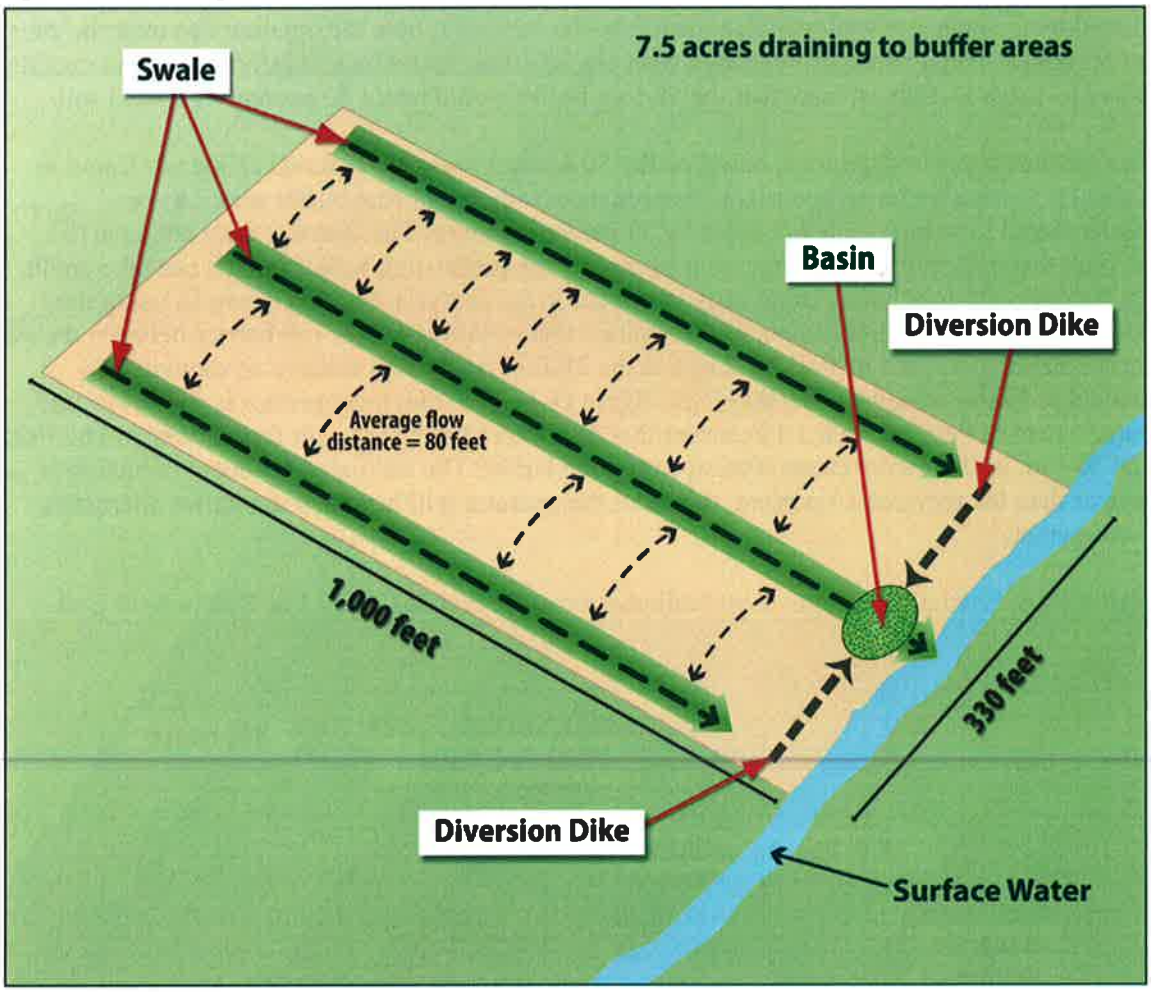
Examples of How to Use the Sediment Removal Efficiency Tables

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.



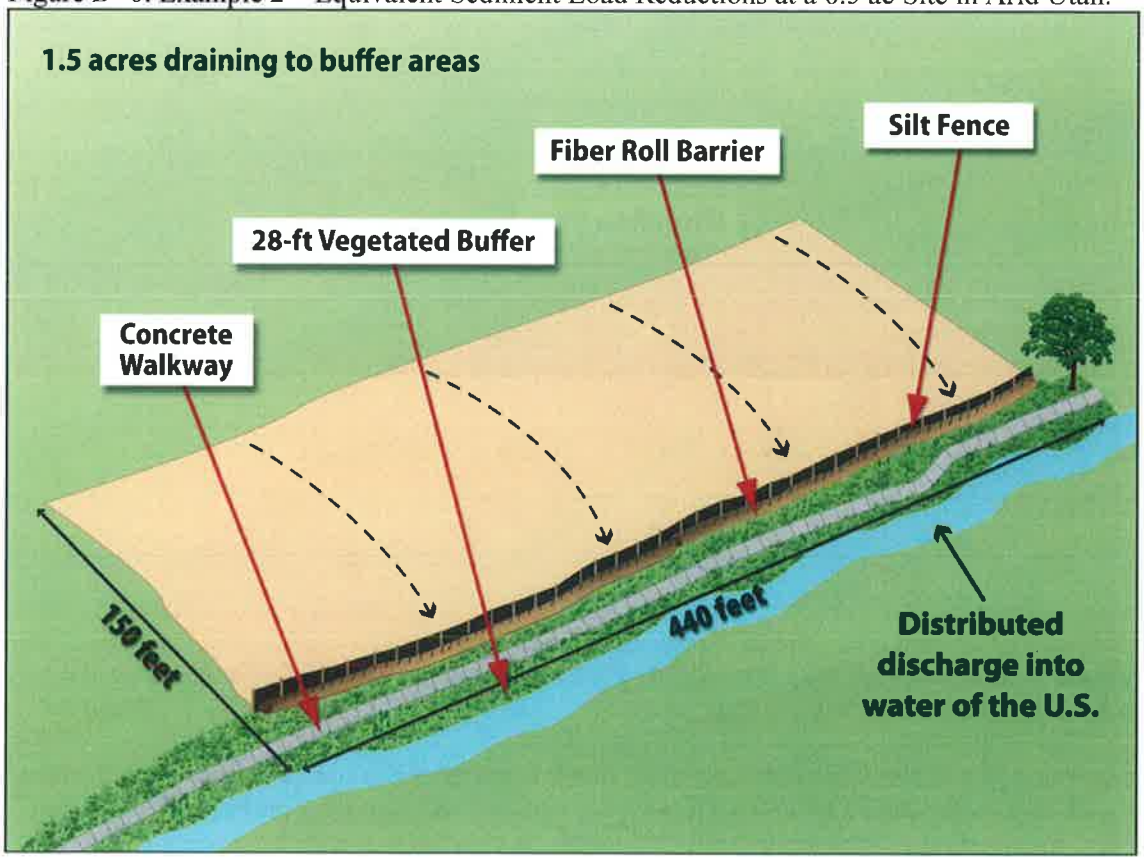
Example 2. Arid Location With Pre-existing Disturbances in the Natural Buffer (6.5 acre site located in Arid Utah)

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

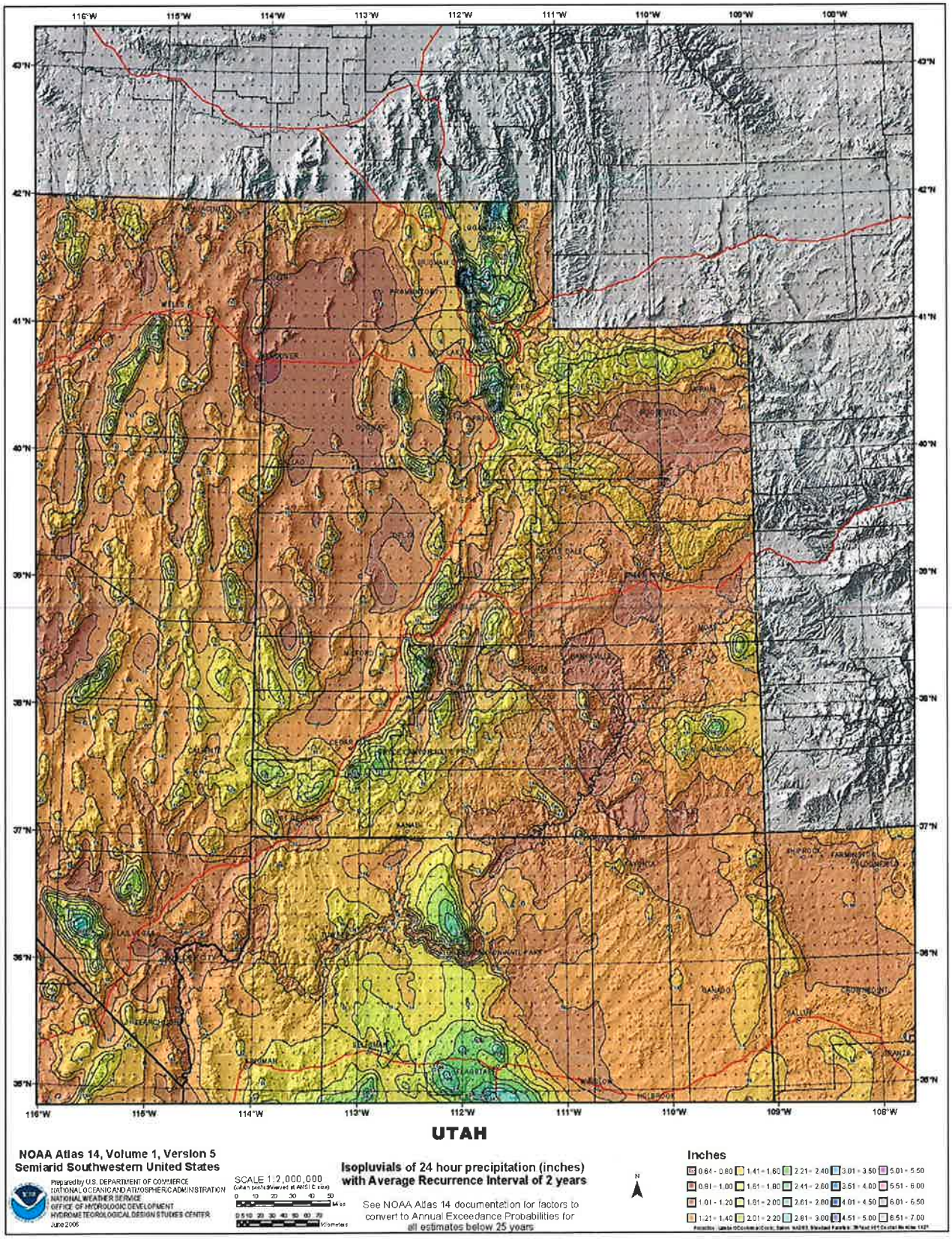
(This appendix is not included in the public notice review as it is for help and assistance to aid compliance and is not regulatory in nature. It may be modified during the term of the permit if the list of MS4s change during the permit term.) The MS4s listed below are regulated by a municipal storm 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
American Fork
Bluffdale
Bountiful
Cedar Hills
Centerville
Clearfield
Clinton
Cottonwood Heights
Davis County (unincorporated area)
Draper
Farmington
Farr West City
Fruit Heights
Harrisville
Herriman
Highland
Hill Air Force
Holladay
Hooper
Hyde Park
Hyrum City
Ivins City
Kaysville
Layton
Lehi
Lindon
Logan
Mapleton
Marriott-Slaterville
Midvale
Millville
Murray
Nibley
North Logan City
North Ogden
North Salt Lake
Ogden
Orem
Plain City
Pleasant Grove
Pleasant View
Providence
Provo
River Heights
Riverdale
Riverton
Roy
Salt Lake City
Salt Lake County (unincorporated area)
Sandy
Santa Clara
Smithfield
South Jordan
South Ogden City
South Salt Lake
South Weber
Springville
St. George
Sunset
Syracuse
Taylorsville
UDOT
Uintah City
University of Utah
Utah State Prison
Veterans Affairs Medical Center
Washington
Washington Terrace
Weber County (unincorprated area)
Weber State University
Wellsville
West Bountiful
West Haven
West Jordan
West Point City
West Valley City
Woods Cross

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.)



NOAA Atlas 14, Volume 1, Version 5
Semiarid 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
(Albers projection, standard parallels 29°30' and 45°30', central meridian 112°)
0 10 20 30 40 50 Miles
0 5 10 20 30 40 50 60 70 Kilometers

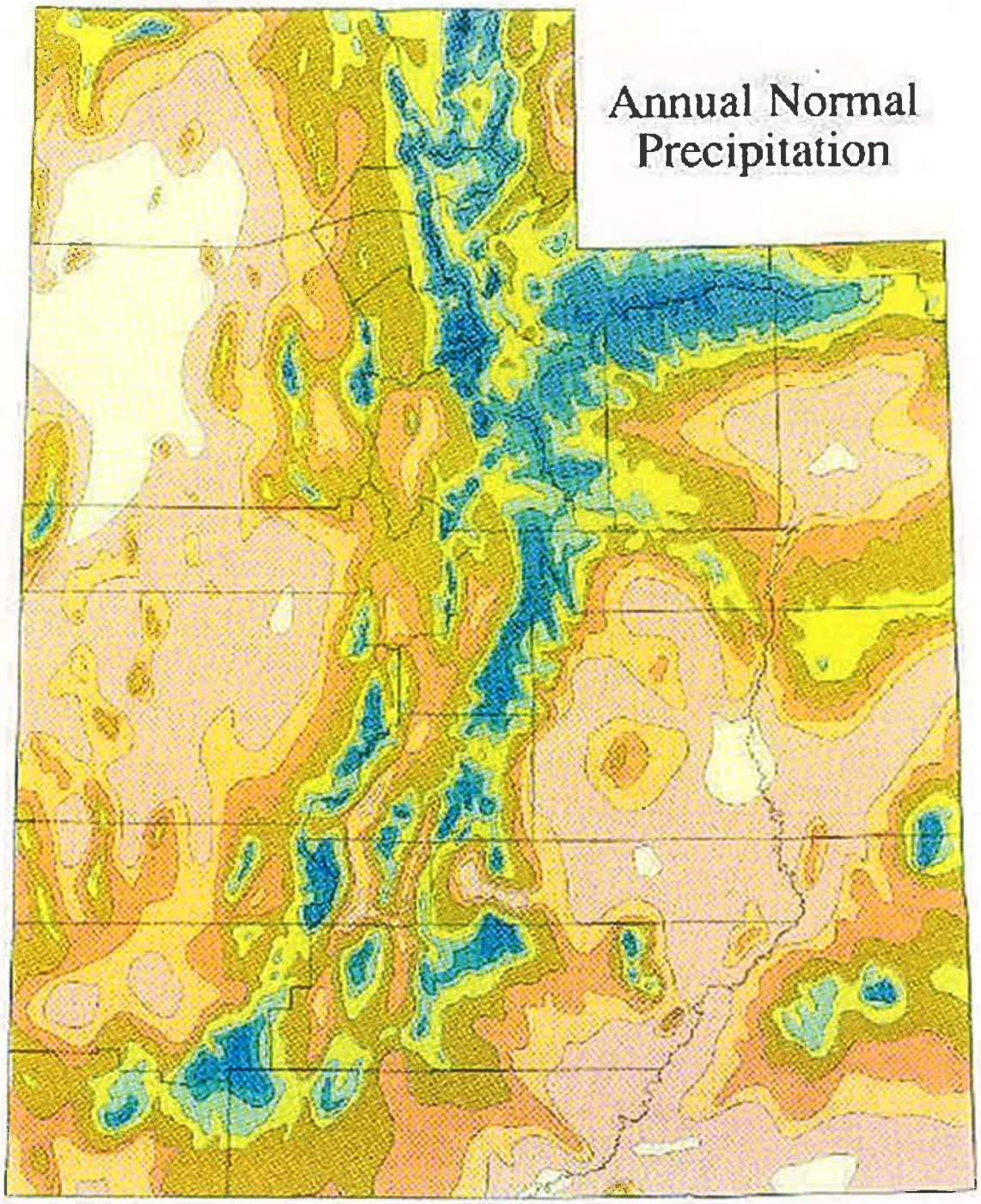
Isopluvials of 24 hour precipitation (inches) with Average Recurrence Interval of 2 years

See NOAA Atlas 14 documentation for factors to convert to Annual Exceedance Probabilities for all estimates below 25 years

N

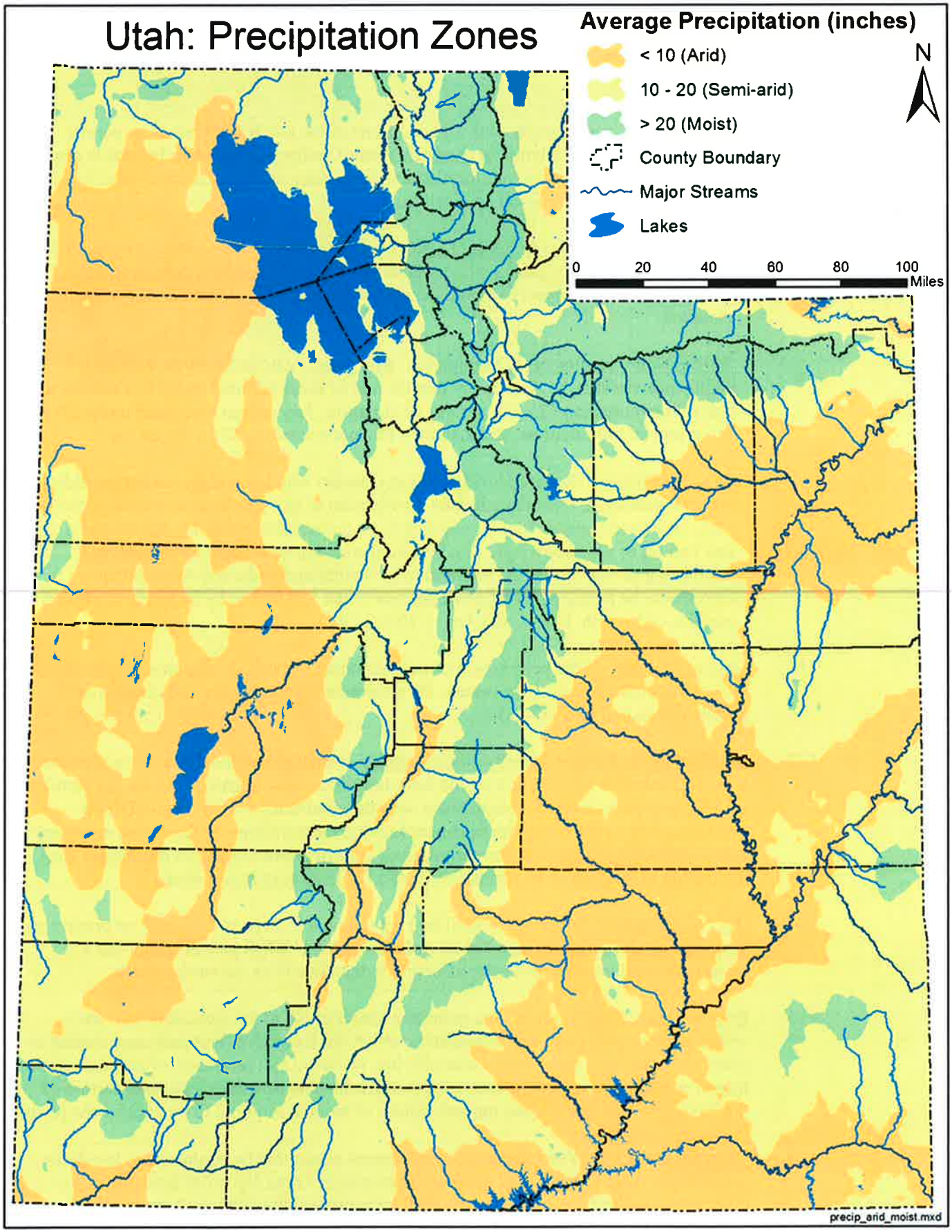
Inches

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		



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
N
0
20
40
60
80
100
Miles
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

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.

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

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

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

_____

_____

_____

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 ☐ EPA calculated ☐

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.

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.)

CONSTRUCTION STORM WATER SELF-INSPECTION FORM

Inspection General Information

Project Name Address/Location City State zip	Date Start Time End Time

Contractor Name Address City State zip	Inspector Name Inspector Phone Inspector Qualifications

Local Jurisdiction Permit Coverage Date	UPDES Permit No. Permit Expiration Date

Weather Conditions

Windy ☐ Hot ☐ Cold ☐ Temperate ☐ Raining ☐ Snowing ☐
Clear ☐ Partly Cloudy ☐ Heavy Clouds ☐ Wet Conditions ☐ Dry Conditions ☐

Precipitation Events Since the Last Inspection

Day of Event _____ Duration of Event _____ Inches of Precip. _____

Inspection Schedule

Weekly ☐ Bi-weekly & after a half inch event ☐ Other (specify) _____

Construction Phase

Clearing/Grubbing ☐ Demolition ☐ Grading/Excavation ☐ Utilities/Foundation Work ☐
Above Ground Erection ☐ Landscaping/Paving ☐

Permit Requirements to Look For

Water Bodies & Buffer Zones ☐ Discharge to High Quality or Sensitive Water ☐

Off site areas of the Project ☐ Areas over 14 days w/o stabilization ☐ Perimeter Controls ☐

Good House Keeping (track out, waste disposal, sanitary, washout areas) ☐ Material Storage ☐

SWPPP planned SW controls ☐ Discharge Points ☐ SWPPP is updated with site ☐

Accumulations of Sediment ☐ Places where SW controls are needed ☐

BMP Designation	Okay	Not Okay	BMP Condition, Corrective Action Required.
Are all pollution sources controlled? Do any other problems exist?			
[BMP # and Name] From SWPPP Template			
[BMP # and Name] From SWPPP Template			
[BMP # and Name] From SWPPP Template			
[BMP # and Name] From SWPPP Template			
[BMP # and Name] From SWPPP Template			
[BMP # and Name] From SWPPP Template			
[BMP # and Name] From SWPPP Template			
[BMP # and Name] From SWPPP Template			
[BMP # and Name] From SWPPP Template			
[BMP # and Name] From SWPPP Template			
[BMP # and Name] From SWPPP Template			

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?				

Corrective Action Log

Date & Time of Inspection or Random Notice of Problem	Inspection or Randomly Noticed	BMP # and Name	Description of BMP Deficiency (or reference the inspection report)	Initial	Correction Date	How the BMP was Corrected	SWPPP Change Y/N

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 _____

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

8.2 Weber County Storm Water Ordinance

For SWPPPs that are being managed on compliance|**GO** the local MS4 Regulations will be located in the documents/permits tab of compliance|**GO**.

Please notify either the contact person for the operator found on the NOI or complianceGO in order to access this information if needed.

801-701-6188
compliance|**GO**

CHAPTER 3. - STORMWATER CONSTRUCTION ACTIVITY PERMIT

Sec. 40-3-1. - Purpose and intent.

The purpose of this chapter is to prevent the discharge of sediment and other construction-related pollutants from construction sites. Sediment and debris from construction sites are a major source of pollution to waterways and water systems located within the unincorporated county and surrounding areas. Each year stormwater runoff carries tons of sediment from construction sites into local drainage systems, irrigation systems, canals, rivers, and lakes. Sediment from stormwater runoff also clogs and obstructs storm drains, culverts, and canals and causes damage to private property, wildlife habitat and water quality.

(Code 1985, § 33-3-1; Ord. No. 2005-17, 12-13-2005)

Sec. 40-3-2. - Stormwater construction activity permit—When required.

A county stormwater construction activity permit is required before any person or entity may excavate, grub and clear, grade, or perform any type of construction activity that will disrupt or cause a change in the natural landscape upon any of the following types of property located within the unincorporated county:

(1) *Regardless of size.* Any parcel, lot or land development qualifies under this subsection with construction activities which:
   a. Disturbs more than 5,000 square feet of land surface area;
   b. Consists of the excavation and/or fill of more than 200 cubic yards of material; or
   c. Requires a building permit for which excavation or fill is a part of the construction, and less than five acres;

   shall apply for a county permit. Activities involving five acres or more must get a permit from the state division of water quality.

(2) *Special concern areas.* Any parcel, lot or land development for which the county determines that because of the nature or type of the parcel, lot or development, disturbance of the land is likely to result in erosion or the transport of sediment off of the site by stormwater to a degree substantially greater than that which would occur under natural landscape conditions.

(Code 1985, § 33-3-2; Ord. No. 2005-17, 12-13-2005)

Sec. 40-3-3. - Same—Application.

Any person or entity desiring a stormwater construction activity permit must first file an application with the county engineering department. The application may be submitted independently, or as part of an application for a site plan, subdivision plan, or building permit approval.

(1) *Content.* The application shall include a stormwater pollution prevention plan which meets the criteria set forth in section 40-3-4
(2) *Timing.* The applicant shall file the application on or before the following dates:
   a.

Subdivision. The date that the applicant submits the preliminary subdivision development plat application.

b. *Site plan.* The date that the applicant submits a site plan application or amended site plan.

c. *Building permit.* The date that the applicant submits a building permit application if the applicant proposes to construct a building on an existing lot or parcel.

d. *Land use permit.* The date that the applicant submits a land use permit application.

e. *Other.* At least two weeks before the developer intends to perform any type of work not listed in this subsection that would require a stormwater construction activity permit pursuant to this chapter.

If an applicant's development comes under more than one of the categories listed in subsection (2) of this section, then the applicant shall submit the stormwater construction activity permit application on the earliest of the listed dates. Failure to comply with the application dates set forth in this subsection is not a criminal offense, but may delay the applicant's project. Failure to acquire a required stormwater construction activity permit is grounds for tabling a related subdivision application, site plan application, conditional use permit application, or building permit application. It is unlawful to commence work (move dirt) on a development site before obtaining a required stormwater construction activity permit.

(3) *Fee.* The applicant for a stormwater construction activity permit shall pay a fee in an amount set by resolution of the county commission.

(4) *Application approval.* The storm sewer utility manager or designee shall approve the application and grant the permit if the application is complete and meets the criteria set forth in section 40-3-4. The storm sewer utility manager shall deny the application or approve the application with conditions if he or she determines that the measures proposed in the plan fail to meet the criteria set forth in section 40-3-4. Conditions the stormwater manager may impose in connection with the approval of a permit include, but are not limited to, the establishment of specific measures and controls to prevent erosion and the discharge of sediment, debris and other construction-related pollutants from the site by stormwater.

(5) *Term.* Unless otherwise revoked or suspended, a stormwater construction activity permit shall be in effect for the full period of the construction activity. The construction activity will not be considered to be completed until the following events occur:

a. *Subdivisions.* For permits associated with a subdivision plat approval:

1. The permittee must complete all required subdivision improvements; and
2. One of the following three events must occur:
   (i) The county issues a final certificate of occupancy for each lot in the subdivision;
   (ii) Individual stormwater construction activity permits have been issued for each lot in the subdivision not having a final occupancy permit; or
   (iii) The property has been re-vegetated or landscaped in a manner that eliminates erosion and sediment discharge or that brings the property back to its natural state;

the plan must include provision for on-site detention or coordination with regional detention.

b. *Site plans.* For permits associated with a site plan approval, the date that the permittee has completed all required landscaping and all outside construction work associated with the site plan.

c. *Building permits.* For permits associated with a building permit application, the date that the county issues a final occupancy permit for the structure covered by the building permit.

d. *Other.* For permits issued that are not tied to other approvals from the county, the date that the permittee has completed all work associated with the permit and takes steps required by the permit to prevent further erosion and runoff from the site.

No stormwater construction activity permit shall be considered terminated until the permittee submits a notice of termination of construction activity permit ("notice") to the county and the notice is accepted by the county. The county shall accept the notice if the permittee has met the requirements of the permit and this chapter.

(6) *Amendments.* In the event that the proposed construction activity for a site to which a permit pertains is materially altered from that described in an original plan in a way that may have a significant impact upon the effectiveness of the measures and controls described in the original plan, the permittee shall file an amended stormwater pollution prevention plan which meets the criteria set forth in section 40-3-4

(Code 1985, § 33-3-3; Ord. No. 2005-17, 12-13-2005)

Sec. 40-3-4. - Stormwater pollution prevention plan.

(a) *Required information.* The stormwater pollution prevention plan (the "plan") shall contain the following information:

(1) *Site description.* A site description (including a map with spot elevations and contour lines) which includes a description of the nature and location of the construction activity, a description of the intended sequence of major activities which will disturb soils for major portions of the site (e.g., grubbing, excavation, grading, utilities, and infrastructure installation, etc.), and estimates of the total area of the site and the total area of the site that is expected to be disturbed by excavation, grading, or other activities;

(2) *Control description.* A description of the proposed measures and controls that will be implemented during construction activity and/or while the site is not stable. The plan must clearly describe the times during the construction process that the measures will be implemented for each major activity identified pursuant to subsection (a)(1) of this section. The plan shall also state the name and phone number of the person or entity responsible for implementation of each control measure.

(b) *Goals and criteria.* The proposed measures and controls described in the plan shall be designed to meet the following goals and criteria:

(1) *Prevent or minimize discharge.* The proposed measures and controls shall be designed to prevent or minimize, to the maximum extent practicable, the discharge of sediment, debris and other construction-related pollutants from the construction site by stormwater runoff into the storm drainage system.

(2) *Prevent or minimize construction debris.* The proposed measures and controls shall be designed to prevent or minimize, to the maximum extent practicable, the deposit, discharge, tracking by construction vehicles, or dropping of mud, sediment, debris or other potential pollutants onto public streets and rights-of-way. Any such discharge shall be cleaned up and removed immediately upon notification to the permittee or when it otherwise comes to the attention of

the permittee. At a minimum, the deposit or discharge shall be cleaned and removed at the end of the work shift in which the deposit occurred, or at the end of the work day, whichever comes first.

(3) *BMPs.* The proposed measures and controls shall consist of best management practices (BMPs) available at the time that the plan is submitted. BMPs may include, but shall not be limited to, temporary silt or sediment fences, sediment traps and detention ponds, gravel construction entrances and wash down pads to reduce or eliminate off-site tracking, straw bale sediment barriers, establishment of temporary grasses and permanent vegetative cover, use of straw mulch as a temporary ground cover, erosion control blankets, temporary interceptor dikes and swales, storm drain inlet protection, check dams, subsurface drains, pipe slope drains, level spreaders, rock outlet protection, reinforced soil retaining systems, and gabions.

(4) *Stabilization.* The proposed measures and controls shall be designed to preserve existing vegetation, where possible. Disturbed portions of the site shall be stabilized. Stabilization practices may include temporary seeding, permanent seeding, mulching, geotextiles, sod stabilization, vegetative buffer strips, protection of trees, preservation of mature vegetation, and other appropriate measures. Use of impervious surfaces for stabilization should be avoided. Stabilization measures shall be initiated as soon as practicable in disturbed portions of the site where construction activities have temporarily or permanently ceased, but in no case more than 14 days after the construction activity in that portion of the site has temporarily or permanently ceased, except under the following circumstances:

a. If the initiation of stabilization measures by the 14th day after construction activity temporarily or permanently ceases is precluded by snow cover or frozen ground conditions, stabilization measures shall be initiated as soon as practicable; or

b. If construction activity on a portion of the site is temporarily ceased, and earth disturbing will resume within 21 days, temporary stabilization measures need not be initiated on that portion of the site.

(5) *Minimize risk of discharge of other materials.* The proposed measures and controls shall be employed to minimize the risk of discharge of construction-related pollutants (such as paint, thinners, solvents and other chemicals) from the construction site. Such measures may include implementation of storage practices to minimize exposure of the material to stormwater as well as spill prevention and response.

(Code 1985, § 33-3-4; Ord. No. 2005-17, 12-13-2005)

Sec. 40-3-5. - Proper operation and maintenance.

The recipient of a stormwater construction activity permit (the permittee) shall install the erosion and sediment control measures required by the approved stormwater pollution prevention plan before commencing any construction activity on the site to which the plan applies or at such times indicated in the plan. The erosion and sediment control measures shall be properly installed and maintained in accordance with the permit, the manufacturers' specifications, and good engineering practices. The permittee shall maintain such measures on the site until the county accepts the termination of the permit pursuant to section 40-3-4(5).

(Code 1985, § 33-3-5; Ord. No. 2005-17, 12-13-2005)

Sec. 40-3-6. - Inspection and entry.

The permittee shall allow any authorized employees and representatives of the county, representatives of the state division of water quality, and representatives of the EPA, to enter the site to which a permit applies at any time and to inspect the erosion and sediment control measures maintained by the permittee. The permittee shall also allow inspection of any records pertaining to the conditions of the permit.

(Code 1985, § 33-3-6; Ord. No. 2005-17, 12-13-2005)

Sec. 40-3-7. - Revocation or suspension of stormwater construction activity permit.

(a) *Revocation or suspension.* A stormwater construction activity permit may be revoked or suspended by the director upon the occurrence of any one of the following events:

(1) Failure of a permittee to comply with the plan or any condition of the permit; or

(2) Failure of a permittee to comply with any provision of this chapter or any other applicable law, ordinance, rule or regulation related to stormwater; or

(3) A determination by the director that the erosion and sediment control measures implemented by a permittee pursuant to the plan are inadequate to prevent or minimize, to the maximum extent practicable, the discharge of sediment, debris or other pollutants from the construction site by stormwater.

(b) *Notice.* The county shall mail a permittee written notice of noncompliance before revoking or suspending a permit. The notice shall state the location and nature of the noncompliance and shall also specify what action is required for the permittee to avoid revocation or suspension of the permit. The notice shall allow the permittee a reasonable time to take the necessary corrective action to avoid revocation or suspension of the permit which time, in the absence of exceptional circumstances, shall not be less than ten nor more than 30 days. The notice shall be mailed to the address listed for the permittee in the application. If the permittee fails to correct the problems identified in the notice during the time specified in the notice, the director may suspend or revoke the permit by mailing or delivering written notice of the suspension or revocation to the permittee. The permittee may appeal a suspension or revocation of the permit pursuant to the appeal procedure set forth in section 40-3-10

(c) *Exceptional circumstances.* For purposes of this section, exceptional circumstances include, but are not limited to, situations which involve a risk of injury to persons, damage to storm drain facilities, or damage to other property or the environment. The county may take any steps the county deems necessary to alleviate any such exceptional circumstances as defined above, and may bill the owner, developer, or contractor responsible for creating the exceptional circumstances for the cost of alleviating said circumstances.

(d) *Stop work order.* A stop work order may be issued upon the revocation or suspension of a permit, or upon the discovery of work being conducted without a required permit. The stop work order may be issued by inspectors in the engineering, stormwater management building inspection, or the planning departments. No construction activity may be commenced or continued on any site for which a permit has been revoked or suspended until the permit has been reinstated or reissued.

(e) *Reinstatement.* A stormwater construction activity permit may be reinstated or reissued upon compliance with all provisions of this chapter and all permit conditions, or in the case of a suspension for reasons provided in subsection (a)(3) of this section, upon the filing of an amended stormwater pollution prevention plan which is designed to correct the deficiencies of the original plan.

(Code 1985, § 33-3-7; Ord. No. 2005-17, 12-13-2005)

Sec. 40-3-8. - Violations and enforcement.

(a) The violation of any of the provisions of this chapter shall be a Class C misdemeanor. Each day that a violation occurs shall constitute a separate offense.

(b) Violators of this chapter are also subject to any penalties that may be imposed by the State, under the authority of the Utah Water Quality Act, Title 19, Chapter 5 of the Utah Code.

(c) In addition to any criminal fines and/or penalties which may be assessed for a violation of this chapter, the county shall have the right to issue a stop work order or to install and/or maintain appropriate erosion and sediment control measures on any site which is required to have such measures in the event that construction activity is commenced or continued without such measures having been installed as required by this chapter. The county shall have the right to have such measures installed or maintained by county personnel or to hire a private contractor to perform such work and the contractor and/or the property owner shall be liable for any and all expenses related to performing such work. The county may assess said charges against the financial guarantee posted by the contractor and/or property owner.

(d) Violators of this chapter may also be subject to prosecution, fines and penalties from the State of Utah and the United States' EPA.

(Code 1985, § 33-3-8; Ord. No. 2005-17, 12-13-2005)

Sec. 40-3-9. - Exemptions.

The following activities are exempt from the requirements of this chapter:

(1) Actions by a public utility, the county, or any other governmental entity to remove or alleviate an emergency condition, restore utility service, or reopen a public thoroughfare to traffic;

(2) Actions by any other person when the county determines, and documents in writing, that the actions are necessary to remove or alleviate an emergency condition, restore utility service, or reopen a public thoroughfare to traffic;

(3) Construction activities which disturb less than 500 square feet of land surface area, or which consist of the excavation and/or fill of less than 20 cubic yards of material;

(4) Landscape maintenance activities on fully developed properties, necessary to maintain the existing developed landscape;

(5) Bona fide agricultural and farming operations which constitute the principal use of any lot or tract of ground located within the unincorporated county and which meet the requirements of Part II, Land Use Code.

(Code 1985, § 33-3-9; Ord. No. 2005-17, 12-13-2005)

Sec. 40-3-10. - Appeal.

(a) An applicant for a stormwater construction activity permit or a permittee of a stormwater construction activity permit may appeal any decision or directive made by the county or its representatives pursuant to this chapter. The party desiring to appeal shall file a notice of appeal at the county commission office within ten days of the decision or directive being appealed. The notice of appeal shall contain the following information:

(1) The appellant's name, address and daytime telephone number;

(2) A short statement describing the basis for the appeal; and

(3) The relief sought by the appellant.

(b) Upon receipt of the notice of appeal, the county commission chair shall set a date for an informal hearing to consider the appeal. The county commission shall uphold the decision or directive being appealed unless the county commission finds that there has been an error in the interpretation or implementation of this title. The county commission shall render a decision on the appeal within ten days of the informal hearing with the appellant. The county commission shall have authority to affirm, reverse or modify any decision or directive appealed pursuant to this section.

(Code 1985, § 33-3-10; Ord. No. 2005-17, 12-13-2005)

Sec. 40-3-11. - Compliance with federal and state law.

Nothing contained in this chapter is intended to relieve any person or entity from any obligation to comply with applicable federal and state laws and regulations pertaining to clean water and/or stormwater runoff.

(Code 1985, § 33-3-11; Ord. No. 2005-17, 12-13-2005)

SECTION 9: Copy of NOI/NOT specific to site.

9.1 UPDES NOI and Not Permit

Insert copy of NOI for site-Will be filed as soon as obtained.

The NOI permit must be filed with the state either on the following website:

https://secure.utah.gov/stormwater/main.html

Or by sending the appropriate forms to the following address:

Department of Environmental Quality
Division of Water Quality
PO Box 144870
Salt Lake City, Utah 84114-4870

Insert copy of the NOT when the site is stabilized or responsibility for the site has been transferred to a new operator who will file for their own NOI.

The NOT can be filed by sending the appropriate form to the following address:

https://secure.utah.gov/stormwater/main.html

Department of Environmental Quality
Division of Water Quality
PO Box 144870
Salt Lake City, Utah 84114-4870

Note: The disturbed acreage listed on the NOI may be different from the disturbed acreage in the SWPPP. This may occur if the NOI is renewed during the project, where portions of the project have been completed. The correct acreage should be reflected on the NOI. If there is a large discrepancy, the SWPPP or NOI will need to be amended. The NOI can be amended by sending the changes to the Department of Environmental Quality Division of Water Quality.

For SWPPPs that are being managed on compliance|**GO** the NOI Permit for the site will be located in the documents/permits tab of compliance|**GO**.

Please notify either the contact person for the operator found on the NOI or compliance|**GO** in order to access this information if needed.

801-701-6188
compliance|**GO**

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. UTR373259 **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. UTR373259 **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 ◉ N ○
If yes, what is the number of the previous permit coverage? **Permit No.** UTR369429

Permit Start Date 03/06/2017 **Permit Expiration Date:** 06/30/2018

I. OPERATOR INFORMATION

Name (Owner): Jack Fisher Construction of Northern Utah **Phone:** 801-335-8500

Address: 1148 W. Legacy Crossing Blvd. #400 **Status of Owner/Operator:** PRIVATE

City: CENTERVILLE **State:** UT **Zip:** 84014

Contact Person: Dan Ross **Phone:** 801-361-5555

Name (Operator): **Phone:**

Address: **Status of Owner/Operator:**

City: **State:** UT **Zip:**

Contact Person: **Phone:**

II. FACILITY SITE / LOCATION INFORMATION

Is the facility located in Indian Country? Y ○ N ◉

Name: Edgewater Beach Subdivision

Project No. (if any):

Address: SR-39 **County:** WEBER

City: HUNTSVILLE **State:** UT **Zip:** 84317

Latitude: 41.250244 **Longitude:** -111.794981

Method (check one): ☐ USGS Topo Map, Scale ☐ EPA Web site ☑ GPS ☐ Other

III. SITE INFORMATION

Municipal Separate Storm Sewer System (MS4) Operator Name: Weber County

Receiving Water Body: Pineview Reservoir known **this is known** ◉ **this is a guess** ○

Estimate of distance to the nearest water body? 0.5 miles **ft.** ○ **miles.** ◉

Is the receiving water an impaired or high quality water body (see http://wq.deq.utah.gov/)? **Yes** ◉ **No** ○

List the Number of any other UPDES permits at the site:

IV. TYPE OF CONSTRUCTION (Check all that apply)

1. ☑ **Residential** **2.** ☐ **Commercial** **3.** ☐ **Industrial** **4.** ☑ **Road** **5.** ☐ **Bridge** **6.** ☑ **Utility**

7. ☐ **Contouring, Landscaping** **8.** ☐ **Pipeline** **9.** ☐ **Other (Please list)**

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 The preferred method of submitting an NOI to apply for the construction general storm water permit (CGP) is electronically on-line at http://www.waterquality.utah.gov/UPDES/stormwatercon.htm. The fee can be submitted on line also. If on-line is not an option for you send a paper form of the NOI to the following address:

Department of Environmental Quality
Division of Water Quality
P.O. Box 144870
Salt Lake City, UT 84114-4870

Beginning of Coverage CGP coverages 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. You can print a copy of the CGP from the DWQ web site.

Permit Fees. The permit fee is $150.00 per year. The fee is paid by Visa/Master Card on-line when an NOI is filed (by check if submitted with a paper NOI). If the project continues for more than one year the fee must be submitted again in a renewal process on-line. CGP coverage will not be issued until the fee is paid.

Length of Coverage: CGP coverage starts the day that the NOI and fee is received at DWQ and expires a year from issuance. All CGP coverages must be renewed within 60-days after the yearly expiration date, or be terminated with a notice of termination (NOT) before the expiration date. To terminate the permit the site must meet the permit conditions for final stabilization (see permit definitions), or must continue under a different permit holder. In most cases the DWQ or municipality of jurisdiction will perform a final inspection when a CGP coverage submits an NOT. If the site passes the final inspection the permit is terminated.

The Storm Water General Permit for Construction Activities UTRC00000 will expire on May 30, 2019. 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 coverage for construction activity.

SECTION I - FACILITY OPERATOR INFORMATION Supply the legal name(s) of the person(s), firm(s), public organization(s), or any other entity(ies) that qualifies as the owner of the project (see permit definitions). Do the same for the operator (most commonly the general contractor) that conducts the construction operation at the facility or site to be permitted. The owner and the general contractor of the project may be the same.

Enter the complete address and telephone number of the owner and operator and a contact person and number for each. 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], or other).

Indicate whether the facility is located in Indian Country. If the facility is located in Indian Country, do not complete this NOI, instead submit an application for coverage under a storm water permit to EPA Region VIII except for facilities on the Navajo Reservation or on the Goshute Reservation which should submit an application to EPA 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., the name of the City or County of jurisdiction) 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).

For Impaired Waters: Go to http://wq.deq.utah.gov and identify the water body that will receive the storm water discharge from the permitted site, on the map provided at the web site (zoom in for easier resolution). On the left hand side of the page you will see "**2010 Assessment**" or "**2013 Assessment**" depending on the year you refer to the web site (the assessment is done every 3 years). The **20XX Assessment** the will indicate if the water is impaired. If there is nothing after **20XX Assessment** or the narrative after does not include the word "impaired", your receiving water is not impaired.

For High Quality Waters: On the web page referred to in the paragraph above on the left hand side of the page you will see "**Anti-Degradation Category**". Under **Anti-Degradation Category** you will see the category of the water body. Only categories 1 and 2 are high quality water bodies. Some waters may be both categories 1 and 3. If your water body is both category 1 and 3 it means the headwaters of your water body is within Forest Service boundaries, and because it is within Forest Service boundaries it is category 1. If your project is within Forest Service boundaries then your water body is category 1 and it is "high quality". If your project is not within Forest Service boundaries then your water body is category 3 and is not "high quality". Again, category 1 waters are high quality waters, category 3 waters are not high quality waters.

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 – GOOD HOUSEKEEPING PRACTICES Check each type of good housekeeping practice that you will use on the site any time during construction activities.

SECTION VII – ADDITIONAL Provide an estimate of the total number of acres of the site on which soil will be disturbed (to the nearest hundredth of an acre). An email address is required of the best contact associated with the project for the communication needs.

SECTION VIII – 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 the Division of Water Quality's storm water construction web site.

V. BEST MANAGEMENT PRACTICES

Identify proposed Best Management Practices (BMPs) to reduce pollutants in storm water discharges (Check all that apply):

1. ☑ Silt Fence/Straw Wattle/Perimeter Controls 2. ☐ Sediment Pond 3. ☐ Seeding/Preservation of Vegetation

4. ☐ Mulching/Geotextiles 5. ☐ Check Dams 6. ☐ Structural Controls (Berms, Ditches, etc.)

7. ☐ Other (Please list)

VI. GOOD HOUSEKEEPING PRACTICES

Identify proposed Good Housekeeping Practices to reduce pollutants in storm water discharges (Check all that apply even if they apply only during a part of the construction time):

1. ☑ Sanitary/Portable Toilet 2. ☑ Washout Areas 3. ☐ Construction Chemicals/Building Supplies Storage Area

4. ☑ Garbage/Waste Disposal 5. ☑ Non-Storm Water 6. ☑ Track Out Controls 7. ☑ Spill Control Measures

VII. ADDITIONAL

Estimated Area to be Disturbed (in Acres): 12.00 **Total Area of Plot (in Acres):** 12.00

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. Y ◉ N ○
(A pollution prevention plan is required to be on hand before submittal of the NOI.)

Enter the best e-mail address to contact the permittee: danr@jackfisherhomes.com

VIII. CERTIFICATION: I certify under penalty of law that I have read and understand the Part 1 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 storm water pollution prevention plan will satisfy requirements of this permit. I understand that continued coverage under this storm water general permit is contingent upon maintaining eligibility as provided for in Part 1.

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(s) 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.

Print Name (Owner): **Date:** Apr 11, 2018

Jack Fisher Construction of Northern Utah

Signature: Chad Bessinger
Chad Bessinger (Apr 11, 2018)

Print Name (Operator): **Date:** Apr 11, 2018

Signature: Chad Bessinger
Chad Bessinger (Apr 11, 2018)

Amount of Permit Fee Enclosed: $ 150.00

9.2 Other Permits

This section is for the insertion of an permits other than the NOI permit. These permits would include a MS4 Land Disturbance Permit, De-Watering Permits, Stream Alteration Permit, 404d wetland permit, or any other pertinent permit.

For SWPPPs that are being managed on compliance|**GO** the city stormwater permit will be located in the documents/permits tab of compliance|**GO**.

Please notify either the contact person for the operator found on the NOI or compliance|**GO** in order to access this information if needed.

801-701-6188
compliance|**GO**

SECTION 10: SWPPP APPENDICES

Attach the following documentation to the SWPPP:

For SWPPPs that are being managed on compliance|**GO** any additional SWPPP documentation that is needed or required will be located in the documents/permits tab of compliance|**GO**.

Please notify either the contact person for the operator found on the NOI or compliance|**GO** in order to access this information if needed.

801-701-6188
compliance|**GO**

Appendix A- Out of Date Site Maps, Expired Permits, Other SWPPP Documentation

Appendix B- SWPPP and Site Notice

Appendix C- ComplianceGO Map Updating Legend

Appendix D - SWPPP Amendments Notice

Appendix E - Other Documentation (Soil Report, Fugitive Dust Control Permit, etc.)

Appendix A – Out of Date Site Maps, Expired Permits, Other SWPPP Documentation

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. UTR372353 **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. UTR372353 **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 ☐ N ☐
If yes, what is the number of the previous permit coverage? Permit No.

Permit Start Date 09/09/2015 **Permit Expiration Date:** 09/09/2016

I. OPERATOR INFORMATION

Name (Owner): JF Capital **Phone:** 801-518-6550

Address: 1178 W. Legacy Crossing Blvd. Ste. 400 **Status of Owner/Operator:** PRIVATE

City: CENTERVILLE **State:** UT **Zip:** 84014

Contact Person: Chad Bessinger **Phone:** 801-518-6550

Name (Operator): **Phone:**

Address: **Status of Owner/Operator:**

City: **State:** UT **Zip:**

Contact Person: **Phone:**

II. FACILITY SITE / LOCATION INFORMATION

Is the facility located in Indian Country? Y ☐ N ☐

Name: Edgewater Beach Resort Phase 2

Project No. (if any):

Address: 5598 Ogden Canyon **County:** WEBER

City: HUNTSVILLE **State:** UT **Zip:** 84317

Latitude: 41.250621 **Longitude:** -111.794804

Method (check one): ☐ USGS Topo Map, Scale ☐ EPA Web site ☑ GPS ☐ Other

III. SITE INFORMATION

Municipal Separate Storm Sewer System (MS4) Operator Name: Weber County

Receiving Water Body: Pineview Reservoir known **this is known** ☐ **this is a guess** ☐

Estimate of distance to the nearest water body? 450 ft **ft.** ☐ **miles.** ☐

Is the receiving water an impaired or high quality water body (see http://wq.deq.utah.gov/)? **Yes** ◉ **No** ☐

List the Number of any other UPDES permits at the site:

IV. TYPE OF CONSTRUCTION (Check all that apply)

1. ☑ **Residential** **2.** ☐ **Commercial** **3.** ☐ **Industrial** **4.** ☐ **Road** **5.** ☐ **Bridge** **6.** ☐ **Utility**

7. ☐ **Contouring, Landscaping** **8.** ☐ **Pipeline** **9.** ☑ **Other (Please list)** Development

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 The preferred method of submitting an NOI to apply for the construction general storm water permit (CGP) is electronically on-line at http://www.waterquality.utah.gov/UPDES/stormwatercon.htm. The fee can be submitted on line also. If on-line is not an option for you send a paper form of the NOI to the following address:

Department of Environmental Quality
Division of Water Quality
P.O. Box 144870
Salt Lake City, UT 84114-4870

Beginning of Coverage CGP coverages 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. You can print a copy of the CGP from the DWQ web site.

Permit Fees. The permit fee is $150.00 per year. The fee is paid by Visa/Master Card on-line when an NOI is filed (by check if submitted with a paper NOI). If the project continues for more than one year the fee must be submitted again in a renewal process on-line. CGP coverage will not be issued until the fee is paid.

Length of Coverage: CGP coverage starts the day that the NOI and fee is received at DWQ and expires a year from issuance. All CGP coverages must be renewed within 60-days after the yearly expiration date, or be terminated with a notice of termination (NOT) before the expiration date. To terminate the permit the site must meet the permit conditions for final stabilization (see permit definitions), or must continue under a different permit holder. In most cases the DWQ or municipality of jurisdiction will perform a final inspection when a CGP coverage submits an NOT. If the site passes the final inspection the permit is terminated.

The Storm Water General Permit for Construction Activities UTRC00000 will expire on May 30, 2019. 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 coverage for construction activity.

SECTION I - FACILITY OPERATOR INFORMATION Supply the legal name(s) of the person(s), firm(s), public organization(s), or any other entity(ies) that qualifies as the owner of the project (see permit definitions). Do the same for the operator (most commonly the general contractor) that conducts the construction operation at the facility or site to be permitted. The owner and the general contractor of the project may be the same.

Enter the complete address and telephone number of the owner and operator and a contact person and number for each. 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], or other).

Indicate whether the facility is located in Indian Country. If the facility is located in Indian Country, do not complete this NOI, instead submit an application for coverage under a storm water permit to EPA Region VIII except for facilities on the Navajo Reservation or on the Goshute Reservation which should submit an application to EPA 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., the name of the City or County of jurisdiction) 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).

For Impaired Waters: Go to http://wq.deq.utah.gov and identify the water body that will receive the storm water discharge from the permitted site, on the map provided at the web site (zoom in for easier resolution). On the left hand side of the page you will see "**2010 Assessment**" or "**2013 Assessment**" depending on the year you refer to the web site (the assessment is done every 3 years). The **20XX Assessment** the will indicate if the water is impaired. If there is nothing after **20XX Assessment** or the narrative after does not include the word "impaired", your receiving water is not impaired.

For High Quality Waters: On the web page referred to in the paragraph above on the left hand side of the page you will see "**Anti-Degradation Category**". Under **Anti-Degradation Category** you will see the category of the water body. Only categories 1 and 2 are high quality water bodies. Some waters may be both categories 1 and 3. If your water body is both category 1 and 3 it means the headwaters of your water body is within Forest Service boundaries, and because it is within Forest Service boundaries it is category 1. If your project is within Forest Service boundaries then your water body is category 1 and it is "high quality". If your project is not within Forest Service boundaries then your water body is category 3 and is not "high quality". Again, category 1 waters are high quality waters, category 3 waters are not high quality waters.

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 – GOOD HOUSEKEEPING PRACTICES Check each type of good housekeeping practice that you will use on the site any time during construction activities.

SECTION VII – ADDITIONAL Provide an estimate of the total number of acres of the site on which soil will be disturbed (to the nearest hundredth of an acre). An email address is required of the best contact associated with the project for the communication needs.

SECTION VIII – 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 the Division of Water Quality's storm water construction web site.

V. BEST MANAGEMENT PRACTICES

Identify proposed Best Management Practices (BMPs) to reduce pollutants in storm water discharges (Check all that apply):

1. ☑ Silt Fence/Straw Wattle/Perimeter Controls 2. ☐ Sediment Pond 3. ☐ Seeding/Preservation of Vegetation

4. ☐ Mulching/Geotextiles 5. ☐ Check Dams 6. ☑ Structural Controls (Berms, Ditches, etc.)

7. ☑ Other (Please list) Inlet Protection, Rip Rap, Cutback Curbs

VI. GOOD HOUSEKEEPING PRACTICES

Identify proposed Good Housekeeping Practices to reduce pollutants in storm water discharges (Check all that apply even if they apply only during a part of the construction time):

1. ☑ Sanitary/Portable Toilet 2. ☑ Washout Areas 3. ☑ Construction Chemicals/Building Supplies Storage Area

4. ☑ Garbage/Waste Disposal 5. ☑ Non-Storm Water 6. ☑ Track Out Controls 7. ☑ Spill Control Measures

VII. ADDITIONAL

Estimated Area to be Disturbed (in Acres): 4.00 **Total Area of Plot (in Acres):** 4.00

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. Y ◯ N ◯
(A pollution prevention plan is required to be on hand before submittal of the NOI.)

Enter the best e-mail address to contact the permittee: chad@jfcapital.com

VIII.CERTIFICATION: I certify under penalty of law that I have read and understand the Part 1 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 storm water pollution prevention plan will satisfy requirements of this permit. I understand that continued coverage under this storm water general permit is contingent upon maintaining eligibility as provided for in Part 1.

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(s) 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.

Print Name (Owner): **Date:**

JF Capital

Signature:

Print Name (Operator): **Date:**

Signature:

Amount of Permit Fee Enclosed: $ 150.00

SECTION 8: CERTIFICATION AND NOTIFICATION

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.

Name: DAN ROSS Title: CONSTRUCTION MANAGER

Signature: _____ Date: 12/15/14

Appendix K –Delegation of Authority Form

Delegation of Authority

I, DAN ROSS (name), hereby designate the person or specifically described position below to be a duly authorized representative for the purpose of overseeing compliance with environmental requirements, including the Construction General Permit, at the EDGEWATER BEACH construction site. The designee is authorized to sign any reports, stormwater pollution prevention plans and all other documents required by the permit.

RSI INSPECTOR (name of person or position)
ACCENA GROUP (company)
885 S. OREM, BLVD (address)
OREM, UT 84058 (city, state, zip)
801-701-6188 (phone)

By signing this authorization, I confirm that I meet the requirements to make such a designation as set forth in UTR 300000, and that the designee above meets the definition of a "duly authorized representative" as set forth in UTR 300000.

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.

Name: DAN ROSS

Company: JACK FISHER CONSTRUCTION OF NORTHERN UTAH

Title: CONSTRUCTION MANAGER

Signature:

Date: 12/15/14

Project Location:
Latitude: 41.250621° N
Longitude: 111.794804° W
Receiving Waters: Pineview Reservoir

LEGEND - [8]

- Stabilized Construction Exit (1)
- Silt Fence (1)
- Curb Cutback (Once installed) (8)
- Inlet Protection (Once Installed) (1)
- Dumpster (1)
- Portable Toilet (1)
- Material Storage (1)
- Stockpiles (1)

PHASE 3

PHASE 4

EXISTING DIRT

Drawn by: HT
Designed by: HT
Checked by: WH
Date: 03/06/2017

accenaGroup ™
Engineering Storm Water Compliance
885 S. Orem Blvd. * Orem, UT 84097 *
801-701-6188

HWL Edgewater, LLC
1178 W Legacy Crossing Blvd
Ste 400
Centerville, UT 84014

Edgewater Beach Resort
SWPPP – Residential
5598 Ogden Canyon
Huntsville, 84317

Project Number:
A17014

Sheet
1 of 1

Appendix B – SWPPP and Site Notice

SWPPP and Site Notice for posting on your construction site.

SWPPP/SITE NOTICE

To Whom It May Concern:

In an effort to further protect the environment; this SWPPP is being managed via a web-based management system that can be accessed during business hours. The required SWPPP, map, permit, inspections, and documents may be found and reviewed online.

These regulated SWPPP items may only be viewed at the correct url with the proper unique user identification – UUID # provided below:

http://core.compliancego.com/cgviewer

Enter the following site ID:

1597084

Site Name: Edgewater Beach Resort

Please notify either the contact person for the operator found on the NOI or complianceGO for any additional questions.

Site Contact: Craig Glauser Phone Number: 801-663-1600

Email: Craig@StrategicBuilders.com UPDES Permit #: UTR373259

complianceGO Support 801-701-6188

Appendix C – ComplianceGO Map Updating Legend

WEB-BASED COMPLIANCE SYSTEM

April 2012

Symbol	Map Updating/Label **Use #s where BMP map legend exists*	Symbol	Map Updating/Label **Use #s where BMP map legend exists*
	Sold lot/stabilized lot or area		Trash bin
	Indicates ownership		Defined washout area (concrete,paint,etc.)
	Outfall		Fuel tanks/storage
	Surface waters		Stabilized exit/pad; rip rap
	inlet protection		Materials storage, defined storage
	Signage		Project boundary/area indicator
	New excavation area/new dig		Cutback curb/check dam
	Vegetation/seeding, etc.		Fiber roll/Gator Guard
	Construction trailer/office		Silt fence/earthen berm
	Portable toilet	Numbers	Documentation for all BMPs (moved, been removed, replaced, etc.), pollutants, and other important SWPPP map updating items.

Mapping Legend Instructions

- Do not remove icons once inactive; place them out of the way at the bottom of the map.
- The active and stabilized areas of the site need to be labeled on the site map.
- Under “notes” for each BMP label with: date installed, date removed, location, and any actions with the BMP or other notes.

Appendix D – SWPPP Amendments

SWPPP Amendments

In an effort to further protect the environment, this SWPPP is being updated and managed on compliance|**GO**, a web-based management system that can be accessed during business hours. Any updates not made to the original SWPPP document are cited in the sections as noted below:

DOCUMENTS/PERMITS TAB>SITES

1. All applicable regulations and permits, including site specific permits
2. Certification and delegation letters
3. Inspector qualifications and training activities/logs
4. All BMP designations, additions, deletions, maintenance activities, specifications and dates

CONTROLS>INSPECTORS>SITES

1. All active inspector designations

REPORTS>SITES

1. All Inspections
2. All Action Logs and maintenance

DOCUMENTS/PERMITS>MAP SITES

1. All map updating items, including pollutants, BMPs, active/stabilized/sold areas will be found here

These regulated SWPPP items may only be viewed at the correct website url with the proper username and password provided by the project operator on site or complianceGO.

Please notify either the contact person for the operator found on the NOI or complianceGO in order to access this information if needed.

801-701-6188
complianceGO

Appendix E – Other Documents (Soil Report, Fugitive Dust Control Permit, etc.)

United States Department of Agriculture

NRCS

Natural Resources Conservation Service

A product of the National Cooperative Soil Survey, a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local participants

Custom Soil Resource Report for Morgan Area, Utah - Morgan County and Part of Weber County

Edgewater Beach Resort Phase 2

September 8, 2015

Preface

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (http://offices.sc.egov.usda.gov/locator/app?agency=nrcs) or your NRCS State Soil Scientist (http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2_053951).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

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Contents

How Soil Surveys Are Made

Soil surveys are made to provide information about the soils and miscellaneous areas in a specific area. They include a description of the soils and miscellaneous areas and their location on the landscape and tables that show soil properties and limitations affecting various uses. Soil scientists observed the steepness, length, and shape of the slopes; the general pattern of drainage; the kinds of crops and native plants; and the kinds of bedrock. They observed and described many soil profiles. A soil profile is the sequence of natural layers, or horizons, in a soil. The profile extends from the surface down into the unconsolidated material in which the soil formed or from the surface down to bedrock. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biological activity.

Currently, soils are mapped according to the boundaries of major land resource areas (MLRAs). MLRAs are geographically associated land resource units that share common characteristics related to physiography, geology, climate, water resources, soils, biological resources, and land uses (USDA, 2006). Soil survey areas typically consist of parts of one or more MLRA.

The soils and miscellaneous areas in a survey area occur in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil and miscellaneous area is associated with a particular kind of landform or with a segment of the landform. By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landform, a soil scientist develops a concept, or model, of how they were formed. Thus, during mapping, this model enables the soil scientist to predict with a considerable degree of accuracy the kind of soil or miscellaneous area at a specific location on the landscape.

Commonly, individual soils on the landscape merge into one another as their characteristics gradually change. To construct an accurate soil map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-vegetation-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they studied. They noted soil color, texture, size and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, reaction, and other features that enable them to identify soils. After describing the soils in the survey area and determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify soils systematically. Soil taxonomy, the system of taxonomic classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil scientists classified and named the soils in the survey area, they compared the

individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

The objective of soil mapping is not to delineate pure map unit components; the objective is to separate the landscape into landforms or landform segments that have similar use and management requirements. Each map unit is defined by a unique combination of soil components and/or miscellaneous areas in predictable proportions. Some components may be highly contrasting to the other components of the map unit. The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The delineation of such landforms and landform segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, onsite investigation is needed to define and locate the soils and miscellaneous areas.

Soil scientists make many field observations in the process of producing a soil map. The frequency of observation is dependent upon several factors, including scale of mapping, intensity of mapping, design of map units, complexity of the landscape, and experience of the soil scientist. Observations are made to test and refine the soil-landscape model and predictions and to verify the classification of the soils at specific locations. Once the soil-landscape model is refined, a significantly smaller number of measurements of individual soil properties are made and recorded. These measurements may include field measurements, such as those for color, depth to bedrock, and texture, and laboratory measurements, such as those for content of sand, silt, clay, salt, and other components. Properties of each soil typically vary from one point to another across the landscape.

Observations for map unit components are aggregated to develop ranges of characteristics for the components. The aggregated values are presented. Direct measurements do not exist for every property presented for every map unit component. Values for some properties are estimated from combinations of other properties.

While a soil survey is in progress, samples of some of the soils in the area generally are collected for laboratory analyses and for engineering tests. Soil scientists interpret the data from these analyses and tests as well as the field-observed characteristics and the soil properties to determine the expected behavior of the soils under different uses. Interpretations for all of the soils are field tested through observation of the soils in different uses and under different levels of management. Some interpretations are modified to fit local conditions, and some new interpretations are developed to meet local needs. Data are assembled from other sources, such as research information, production records, and field experience of specialists. For example, data on crop yields under defined levels of management are assembled from farm records and from field or plot experiments on the same kinds of soil.

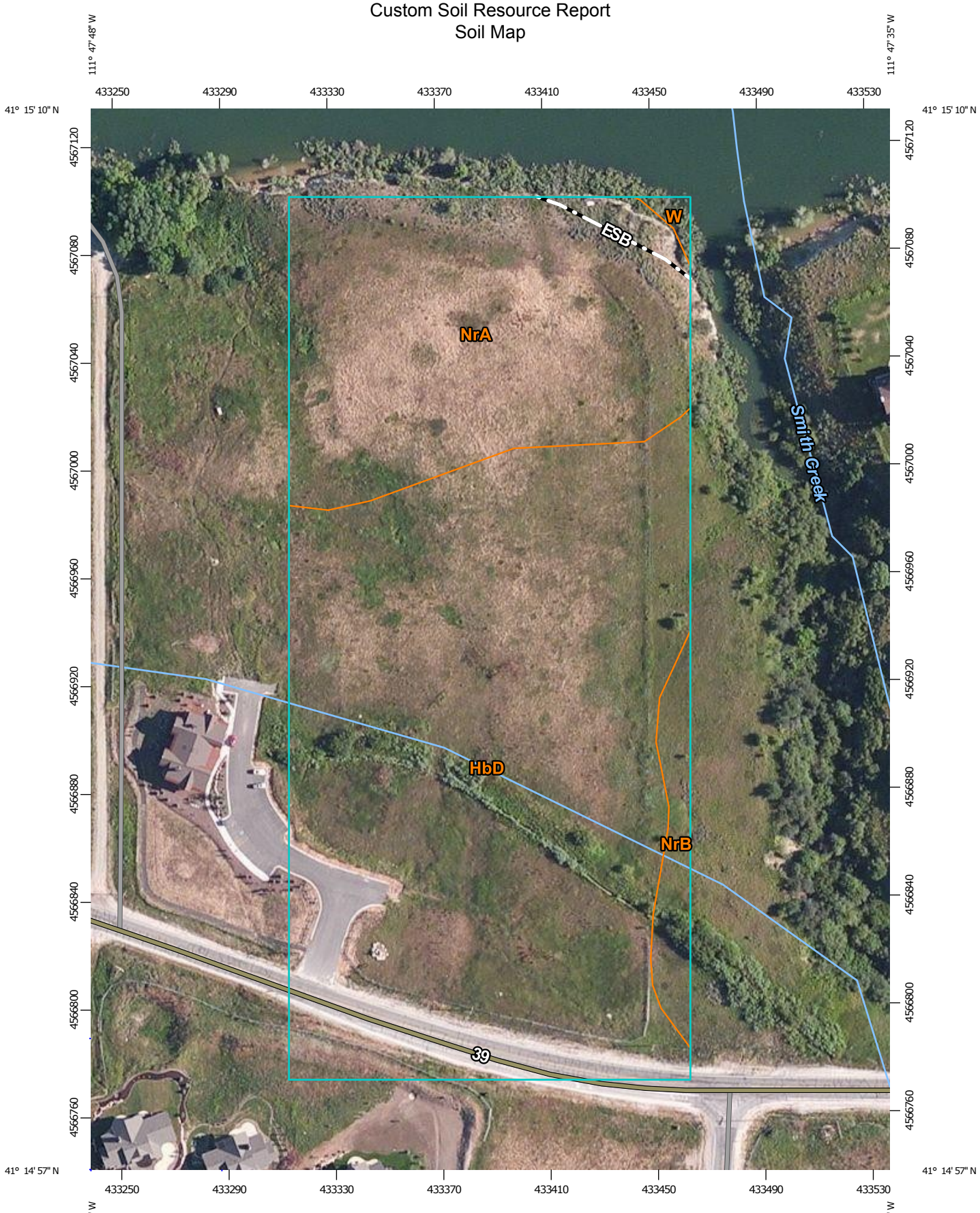
Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree of accuracy that a given soil will have a high water table within certain depths in most years, but they cannot predict that a high water table will always be at a specific level in the soil on a specific date.

After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.

Soil Map

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.

Custom Soil Resource Report
Soil Map



MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL: http://websoilsurvey.nrcs.usda.gov
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Morgan Area, Utah - Morgan County and Part of Weber County
Survey Area Data: Version 8, Aug 1, 2014

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Jul 8, 2010—Sep 28, 2011

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Morgan Area, Utah - Morgan County and Part of Weber County (UT609)			
Map Unit Symbol	**Map Unit Name**	**Acres in AOI**	**Percent of AOI**
HbD	Hawkins silty clay, 6 to 15 percent slopes	8.1	66.3%
NrA	Nebeker clay loam, 0 to 3 percent slopes	3.7	30.1%
NrB	Nebeker clay loam, 3 to 6 percent slopes	0.4	3.2%
W	Water	0.0	0.4%
Totals for Area of Interest		**12.2**	**100.0%**

Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that

have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

Morgan Area, Utah - Morgan County and Part of Weber County

HbD—Hawkins silty clay, 6 to 15 percent slopes

Map Unit Setting

National map unit symbol: k03g
Mean annual precipitation: 18 to 22 inches
Farmland classification: Farmland of statewide importance

Map Unit Composition

Hawkins and similar soils: 90 percent
Minor components: 10 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Hawkins

Setting

Landform: Hillslopes, alluvial fans
Landform position (two-dimensional): Footslope
Landform position (three-dimensional): Base slope
Down-slope shape: Convex, concave
Across-slope shape: Convex
Parent material: Slope alluvium and/or colluvium derived from tuffaceous sandstone

Typical profile

A1 - 0 to 8 inches: silty clay
B1,B21,B22 - 8 to 31 inches: clay
C1k - 31 to 44 inches: silty clay loam
C2k - 44 to 60 inches: clay loam

Properties and qualities

Slope: 6 to 15 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum in profile: 30 percent
Salinity, maximum in profile: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Available water storage in profile: High (about 10.7 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 4e
Hydrologic Soil Group: C
Ecological site: Mountain Clay (Slender wheatgrass) (R047XA402UT)

Minor Components

Hawkins

Percent of map unit: 3 percent

Manila

Percent of map unit: 3 percent

Yeates hollow
Percent of map unit: 2 percent

Soils with cobbly or very cobbly loam surface layer
Percent of map unit: 2 percent

NrA—Nebeker clay loam, 0 to 3 percent slopes

Map Unit Setting

National map unit symbol: k04w
Mean annual precipitation: 18 to 22 inches
Farmland classification: Prime farmland if irrigated

Map Unit Composition

Nebeker and similar soils: 90 percent
Minor components: 10 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Nebeker

Setting

Landform: Terraces
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Lacustrine deposits derived from mixed sources

Typical profile

Ap1, Ap1 - 0 to 8 inches: clay loam
A13, B1t - 8 to 20 inches: clay loam
B21t, B22t - 20 to 47 inches: clay
B23t - 47 to 55 inches: sandy clay loam
B24t - 55 to 60 inches: clay loam
B3tk - 60 to 69 inches: clay loam

Properties and qualities

Slope: 0 to 3 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum in profile: 15 percent
Salinity, maximum in profile: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Available water storage in profile: High (about 10.3 inches)

Interpretive groups

Land capability classification (irrigated): 2c
Land capability classification (nonirrigated): 3e

Hydrologic Soil Group: C
Ecological site: Mountain Loam (Mountain Big Sagebrush) (R047XA430UT)

Minor Components

Hawkins
Percent of map unit: 3 percent

Nebeker
Percent of map unit: 3 percent

Eastcan
Percent of map unit: 2 percent

Parleys
Percent of map unit: 2 percent

NrB—Nebeker clay loam, 3 to 6 percent slopes

Map Unit Setting
National map unit symbol: k04x
Mean annual precipitation: 18 to 22 inches
Farmland classification: Prime farmland if irrigated

Map Unit Composition
Nebeker and similar soils: 90 percent
Minor components: 10 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Nebeker

Setting
Landform: Alluvial fans, terraces
Landform position (three-dimensional): Tread
Down-slope shape: Concave, linear
Across-slope shape: Convex, linear
Parent material: Lacustrine deposits derived from mixed sources

Typical profile
Ap1, Ap2 - 0 to 8 inches: clay loam
A13, B1t - 8 to 20 inches: clay loam
B21t, B22t - 20 to 47 inches: clay
B23t - 47 to 55 inches: sandy clay loam
B24t - 55 to 60 inches: clay loam
B3tk - 60 to 69 inches: clay loam

Properties and qualities
Slope: 3 to 6 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)

Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum in profile: 15 percent
Salinity, maximum in profile: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Available water storage in profile: High (about 10.3 inches)

Interpretive groups

Land capability classification (irrigated): 2e
Land capability classification (nonirrigated): 2e
Hydrologic Soil Group: C
Ecological site: Mountain Loam (Mountain Big Sagebrush) (R047XA430UT)

Minor Components

Nebeker

Percent of map unit: 4 percent

Eastcan variant

Percent of map unit: 3 percent

Eastcan loam

Percent of map unit: 3 percent

W—Water

Map Unit Composition

Water: 100 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

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Utah Department of
Environmental Quality

195 North 1950 West
Salt Lake City, Utah 84114-4820
Attn: DAQ, Fugitive Dust Control Plan

Fugitive Dust Control Plan Application

Applicants have the option to complete the online dust control plan on the DEQ Online Services webpage or to submit a hard copy application.

Activities regulated by R307-309 may not commence before obtaining approval of the fugitive dust control plan. Therefore, online filing is encouraged because it provides instant approval.

Blank spaces must be completed for the application to be processed. If not applicable, enter N/A.

1. Applicant Information

Name:	Jack Fisher Construction of Northern Utah
Address:	1148 W. Legacy Crossing Blvd Suite 400, UT 84014
Phone:	801-335-8500
Email:	danr@jackfisherhomes.com
Applicant Type:	Property Owner

2. Project Information

Project Name:	Edgewater Beach Subdivision
Address:	Hwy 39 HUNTSVILLE, UT 84317
County:	WEBER
Directions:	West of old Snow Basin Rd
Acreage:	3.74
Latitude:	41.250244
Longitude:	111.794981

3. Point of Contact

Name: Dan Ross

Company Name: Jack Fisher Construction of Northern Utah

Address: 1148 W. Legacy Crossing Blvd Suite 400, UT 84014

Phone: 801-335-8500

Fax:

Cell: 801-361-5555

4. On-site Superintendent/Supervisor/Foreman Contact

Name: Doug Rich

Company Name: Jack Fisher Construction of Northern Utah

On-Site Phone: 801-335-8500

Cell: 801-510-7007

5. By signing this permit application I certify that:

A. I am authorized, on behalf of the individual or company listed in Section 1, as Applicant, to apply for a Fugitive Dust Control Plan and to commit to all of the terms and conditions of the requested plan.

B. Construction activities will be limited to lands that the applicant either owns or is authorized to use for construction activities.

C. The applicant accepts responsibility for assuring that all contractors, subcontractors, and all other persons on the construction site covered by this plan, comply with the terms and conditions of the Fugitive Dust Control Plan.

D. I understand that any false material statement, representation or certification made in this application may invalidate the plan or cause me to be subject to enforcement action pursuant to Utah Code Ann. 19-2-115.

E. Failure to comply with fugitive dust rules may result in compliance action and penalties up to $10,000 per violation/day.

Date: 11/26/2014
Printed Name: Jack Fisher Construction of Northern Utah
Title: Property Owner
Company Name: Jack Fisher Construction of Northern Utah
Dust Plan Number: 5271

Dust Suppressants

	Check All that Apply
	Clay additives.
	Calcium chloride.
	Lime (calcium oxide).
	Magnesium chloride.
	Organic non-petroleum products, (ligninsulfonate, tall (pine) oil, and vegetable derivatives).
	Synthetic polymers (for example; polyvinyl acetate and vinyl acrylic).

FUGITIVE DUST CONTROL PLAN

PROJECT ACTIVITIES CHECKLIST INSTRUCTIONS:

PLACE A CHECK MARK NEXT TO EVERY ACTIVITY THAT WILL BE CONDUCTED ON THIS SITE, FOR EACH CHECKED ACTIVITY, COMPLETE THE CORRESPONDING CONTROL MEASURES/BEST MANAGEMENT PRACTICE (BMP) SELECTION PAGE. WHEN COMPLETED, YOU WILL HAVE THE OPTION TO PRINT THE ENTIRE PLAN.

	Project Activity	Check All that Apply
01	Backfilling area previously excavated or trenched.	X
02	Blasting soil & rock - drilling and blasting.	
03	Clearing for site preparation and vacant land cleanup.	X
04	Clearing forms, foundations, slab clearing and cleaning of forms, foundations and slabs prior to pouring concrete.	X
05	Crushing of construction and demolition debris, rock and soil.	
06	Cut and fill soils for site grade preparation.	X
07	Demolition - Implosive demolition of a structure, using explosives.	
08	Demolition - mechanical/manual demolition of walls, stucco, concrete, freestanding structures, buildings and other structures.	
09	Disturbed soil throughout project including between structures. THIS ACTIVITY MUST BE SELECTED FOR ALL PROJECTS.	X
10	Disturbed land - long term stabilization and erosion control of large tracts of disturbed land that will not have continuing activity for more than 30 days.	
11	Hauling materials.	X
12	Paving/subgrade preparation for paving streets, parking lots, etc.	X
13	Sawing/cutting material, concrete, asphalt, block or pipe.	X
14	Screening of rock, soil or construction debris.	
15	Staging areas, equipment storage, vehicle parking lots, and material storage areas.	X
16	Stockpiles materials (storage), other soils, rock or debris, for future use or export.	X
17	Tailings piles, ponds and erosion control.	

18	Trackout Prevention and Cleanup of mud, silt and soil tracked out onto paved roads.	**X**
19	Traffic - unpaved routes and parking, construction related traffic on unpaved interior and/or access roads and unpaved employee/worker parking areas.	**X**
20	Trenching with track or wheel mounted excavator, shovel, backhoe or trencher.	**X**
21	Truck loading with materials including construction and demolition debris, rock and soil.	**X**

Backfilling area previously excavated or trenched.	BMP 01

GENERAL REQUIREMENT: ALL ACTIVITIES MUST MEET OPACITY REQUIREMENTS IN R307-309-5

MAKE AT LEAST ONE SELECTION FROM EACH SECTION.

Stabilize backfill material when not actively handling.

X	01-01	Water backfill material to maintain moisture or to form crust.
_	01-02	Apply and maintain a chemical stabilizer to backfill material to form crust.
_	01-03	Cover (natural or synthetic) or enclose backfill material when not actively handling.

Stabilize backfill material during handling.

X	01-04	Empty loader bucket slowly and minimize drop height from loader bucket.
_	01-05	Dedicate water truck or large hose to backfilling equipment and apply water as needed.
X	01-06	Mix moist soil with dry soil until the optimum moisture is reached.
_	01-07	Apply and mix water into the backfill material until optimum moisture is reached.
_	01-08	Apply and mix water and chemical solution into the backfill material until optimum moisture is reached.

Stabilize soil at completion of backfilling activity.

X	01-09	Apply water and maintain disturbed soils in a stable condition.
_	01-10	Apply and maintain a chemical stabilizer on disturbed soils to form a crust.

Stabilize material while using pipe padder equipment.

X	01-11	Mix moist soil with dry soil until the optimum moisture is reached.
_	01-12	Dedicate water truck or large hose to equipment and apply water as needed.
_	01-13	Not Applicable

Clearing for site preparation and vacant land cleanup.	BMP 03

GENERAL REQUIREMENT: ALL ACTIVITIES MUST MEET OPACITY REQUIREMENTS IN R307-309-5

MAKE AT LEAST ONE SELECTION FROM EACH SECTION.

Stabilize surface soils where support equipment and vehicles will operate.

X	03-01	Pre-water and maintain surface soils in a stabilized condition.
_	03-02	Apply and maintain a chemical stabilizer on surface soils.

Stabilize disturbed soil immediately after clearing and grubbing activities.

X	03-03	Water disturbed soils to form crust.
_	03-04	Apply and maintain a chemical stabilizer on disturbed soils to form crust.

Stabilize slopes at completion of activity.

_	03-05	Stabilize sloping surfaces using soil binders until vegetation or ground cover can effectively stabilize the slope.
X	03-06	Apply water and maintain sloping surfaces/wind breaks in a crusted condition.

Clearing forms, foundations, slab clearing and cleaning of forms, foundations and slabs prior to pouring concrete.	**BMP 04**

GENERAL REQUIREMENT: ALL ACTIVITIES MUST MEET OPACITY REQUIREMENTS IN R307-309-5

MAKE AT LEAST ONE SELECTION.

X 04-01	Use water spray to clear forms, foundations and slabs.
_ 04-02	Use sweeping and water spray to clear forms, foundations and slabs.
_ 04-03	Use industrial vacuum to clear forms, foundations and slabs prior to the use of high pressure air to blow soil and debris.
_ 04-04	Use industrial vacuum to clear forms, foundations and slabs.

Cut and fill soils for site grade preparation.	BMP 06

GENERAL REQUIREMENT: ALL ACTIVITIES MUST MEET OPACITY REQUIREMENTS IN R307-309-5

MAKE AT LEAST ONE SELECTION FROM EACH SECTION.

Stabilize surface soils where support equipment and vehicles will operate.

X 06-01	Pre-water and maintain surface soils in a stabilized condition.
_ 06-02	Apply and maintain a chemical stabilizer to surface soils.

Pre-water soils.

X 06-03	Dig a test hole to depth of cut or equipment penetration to determine if soils are moist at depth. Continue to pre-water if not moist to depth of cut.

Stabilize soil during cut activities.

X 06-04	Apply water to depth of cut prior to subsequent cuts.

Stabilize soil after cut and fill activities.

X 06-05	Water disturbed soils to maintain moisture.
_ 06-06	Apply and maintain a chemical stabilizer on disturbed soils to form crust following fill and compaction.
_ 06-07	Apply cover (natural or synthetic).

Disturbed soil throughout project including between structures. THIS ACTIVITY MUST BE SELECTED FOR ALL PROJECTS.	BMP 09

GENERAL REQUIREMENT: ALL ACTIVITIES MUST MEET OPACITY REQUIREMENTS IN R307-309-5

MAKE AT LEAST ONE SELECTION FROM EACH SECTION.

Limit disturbance of soils where possible.

_	09-01	Limit disturbance of soils with the use of fencing, barriers, barricades, and/or wind barriers.
X	09-02	Limit vehicle mileage and reduce speed.

Stabilize and maintain stability of all disturbed soil throughout construction site.

X	09-03	Apply water to stabilize disturbed soils. Soil moisture must be maintained such that soils can be worked without generating fugitive dust.
_	09-04	Apply and maintain a chemical stabilizer.
_	09-05	Use wind breaks.
_	09-06	Apply cover (natural or synthetic).

Hauling materials.	BMP 11

GENERAL REQUIREMENT: ALL ACTIVITIES MUST MEET OPACITY REQUIREMENTS IN R307-309-5

MAKE AT LEAST ONE SELECTION FROM EACH SECTION.

Limit visible dust opacity from vehicular operations.

_	11-01	Apply and maintain water/chemical suppressant to operational areas and haul routes.
X	11-02	Limit vehicle mileage and speed.

Stabilize materials during transport on site.

_	11-03	Use tarps or other suitable enclosures on haul trucks.
X	11-04	Apply water prior to transport.

Clean wheels and undercarriage of haul trucks prior to leaving construction site.

_	11-05	Clean wheels.
X	11-06	Sweep or water haul road.

Paving/subgrade preparation for paving streets, parking lots, etc.	BMP 12

GENERAL REQUIREMENT: ALL ACTIVITIES MUST MEET OPACITY REQUIREMENTS IN R307-309-5

MAKE AT LEAST ONE SELECTION.

Stabilize adjacent disturbed soils following paving activities.

X	12-01	Apply and maintain water on disturbed soils.
_	12-02	Apply and maintain chemical stabilizer on disturbed soils.
_	12-03	Stabilize disturbed soils with vegetation or hydroseeding.
_	12-04	Apply synthetic cover to disturbed soils.
_	12-05	There are no soils adjacent to paving activities.

Sawing/cutting material, concrete, asphalt, block or pipe.	BMP 13

GENERAL REQUIREMENT: ALL ACTIVITIES MUST MEET OPACITY REQUIREMENTS IN R307-309-5

MAKE AT LEAST ONE SELECTION.

Limit visible emissions.

X 13-01	Use water control to dust.
_ 13-02	Use a vacuum to collect dust.

Staging areas, equipment storage, vehicle parking lots, and material storage areas.	BMP 15

GENERAL REQUIREMENT: ALL ACTIVITIES MUST MEET OPACITY REQUIREMENTS IN R307-309-5

MAKE AT LEAST ONE SELECTION FROM EACH SECTION.

Limit visible dust opacity from vehicular operations.

_	15-01	Limit vehicle mileage and speed.
X	15-02	Apply water on all vehicle traffic areas in the staging areas and unpaved access routes.

Stabilize staging area soils during use.

X	15-03	Pre-water and maintain surface soils in a stabilized condition.
_	15-04	Apply and maintain a chemical stabilizer to surface soils.

Stabilize staging area soils at project completion.

_	15-05	Apply a chemical stabilizer.
_	15-06	Apply screened or washed aggregate.
_	15-07	Use wind breaks.
_	15-08	Pave.
_	15-09	Completed project will cover staging area with buildings, paving, and/or landscaping.
X	15-10	Apply water to form adequate crust and prevent access.

Stockpiles materials (storage), other soils, rock or debris, for future use or export.	BMP 16

GENERAL REQUIREMENT: ALL ACTIVITIES MUST MEET OPACITY REQUIREMENTS IN R307-309-5

MAKE AT LEAST ONE SELECTION FROM EACH SECTION.

Stabilize surface soils where support equipment and vehicles will operate.

X	16-01	Pre-water and maintain surface soils in a stabilized condition.
_	16-02	Apply and maintain a chemical stabilizer on surface soils.
_	16-03	Pave area.

Stabilize stockpile materials during handling.

X	16-04	Remove material from the downwind side of the stockpile, when safe to do so.
_	16-05	Reduce height.
_	16-06	Create wind screen

Stabilize stockpiles after handling.

X	16-07	Water stockpiles to form a crust immediately.
_	16-08	Apply and maintain a chemical stabilizer to all outer surfaces of the stockpiles.
_	16-09	Provide and maintain wind barriers on 3 sides of the pile.
_	16-10	Apply a cover (natural or synthetic)
_	16-11	Wind screen.
_	16-12	Avoid steep sides to prevent material sloughing.
_	16-13	Reduce height.

Trackout Prevention and Cleanup of mud, silt and soil tracked out onto paved roads.	**BMP 18**

GENERAL REQUIREMENT: ALL ACTIVITIES MUST MEET OPACITY REQUIREMENTS IN R307-309-5

MAKE AT LEAST ONE SELECTION FROM EACH SECTION.

Prevent dust from trackout.

X 18-01	Clean trackout at the end of the work shift from paved surfaces to maintain dust control
_ 18-02	Maintain dust control during working hours and clean trackout from paved surfaces at the end of the work shift/day.
_ 18-03	Install gravel pad(s), clean, well-graded gravel or crushed rock. Minimum dimensions must be 30 feet wide by 3 inches deep, and, at minimum, 50' or the length of the longest haul truck, whichever is greater. Re-screen, wash or apply additional rock in gravel pad to maintain effectiveness.
_ 18-04	Install wheel shakers. Clean wheel shakers on a regular basis to maintain effectiveness.
_ 18-05	Install wheel washers. Maintain wheel washers on a regular basis to maintain effectiveness.
_ 18-06	Motorized vehicles will only operate on paved surfaces.
_ 18-07	Install cattle guard before paved road entrance.

All exiting traffic must be routed over selected trackout control device(s).

X 18-08	Clearly establish and enforce traffic patterns to route traffic over selected trackout control device(s).
_ 18-09	Limit site accessibility to routes with trackout control devices in place by installing effective barriers on unprotected routes.

Traffic - unpaved routes and parking, construction related traffic on unpaved interior and/or access roads and unpaved employee/worker parking areas.	BMP 19

GENERAL REQUIREMENT: ALL ACTIVITIES MUST MEET OPACITY REQUIREMENTS IN R307-309-5

MAKE AT LEAST ONE SELECTION.

Stabilize surface soils where support equipment and vehicles will operate.

_	19-01	Limit vehicle mileage and speeds.
X	19-02	Apply and maintain water on surface soils.
_	19-03	Apply and maintain chemical stabilizers on surface soils.
_	19-04	Apply and maintain gravel on surface soils.
_	19-05	Supplement chemical stabilizers, water or aggregate applications as necessary.
_	19-06	Apply recycled asphalt (RAP) to surface soils.

Trenching with track or wheel mounted excavator, shovel, backhoe or trencher.	BMP 20

GENERAL REQUIREMENT: ALL ACTIVITIES MUST MEET OPACITY REQUIREMENTS IN R307-309-5

MAKE AT LEAST ONE SELECTION FROM EACH SECTION.

Presoak soils prior to trenching activities.

X 20-01	Pre-water surface.

Stabilize surface soils where trenching equipment, support equipment and vehicles will operate.

X 20-02	Pre-water and maintain surface soils in a stabilized condition.
_ 20-03	Apply and maintain a chemical stabilizer to surface soils.
_ 20-04	Limit mileage and speed.

Stabilize soils after trenching.

X 20-05	Apply and maintain water on excavated soil.
_ 20-06	Apply and maintain chemical stabilizer on excavated soil.

Truck loading with materials including construction and demolition debris, rock and soil.	**BMP 21**

GENERAL REQUIREMENT: ALL ACTIVITIES MUST MEET OPACITY REQUIREMENTS IN R307-309-5

MAKE AT LEAST ONE SELECTION.

X 21-01	Pre-water and maintain surface soils in a stabilized condition where loaders, support equipment and vehicles will operate.
_ 21-02	Apply and maintain a chemical stabilizer on surface soils where loaders, support equipment and vehicles will operate.
_ 21-03	Empty loader bucket slowly and keep loader bucket close to the truck to minimize the drop height while dumping.

Utah Department of
Environmental Quality

195 North 1950 West
Salt Lake City, Utah 84114-4820
Attn: DAQ, Fugitive Dust Control Plan

Fugitive Dust Control Plan Application

Applicants have the option to complete the online dust control plan on the DEQ Online Services webpage or to submit a hard copy application.

Activities regulated by R307-309 may not commence before obtaining approval of the fugitive dust control plan. Therefore, online filing is encouraged because it provides instant approval.

Blank spaces must be completed for the application to be processed. If not applicable, enter N/A.

1. Applicant Information

Name:	JF Capital
Address:	1178 W. Legacy Crossing Blvd. Ste. 400 Centerville, UT 84014
Phone:	801-518-6550
Email:	chad@jfcapital.com
Applicant Type:	

2. Project Information

Project Name:	Edgewater Beach Resort Phase 2
Address:	5598 Ogden Canyon HUNTSVILLE, UT 84317
County:	WEBER
Directions:	Just south of Pineview Resevoir along SR-39
Acreage:	4.0
Latitude:	41.250621
Longitude:	-111.794804

3. Point of Contact

Name: Chad Bessinger

Company Name: JF Capital

Address: 1178 W. Legacy Crossing Blvd. Ste. 400 Centerville, UT 84014

Phone: 801-518-6550

Fax:

Cell:

4. On-site Superintendent/Supervisor/Foreman Contact

Name: Craig Glauser

Company Name: Strategic Builders

On-Site Phone: 801-510-7007

Cell:

5. By signing this permit application I certify that:

A. I am authorized, on behalf of the individual or company listed in Section 1, as Applicant, to apply for a Fugitive Dust Control Plan and to commit to all of the terms and conditions of the requested plan.

B. Construction activities will be limited to lands that the applicant either owns or is authorized to use for construction activities.

C. The applicant accepts responsibility for assuring that all contractors, subcontractors, and all other persons on the construction site covered by this plan, comply with the terms and conditions of the Fugitive Dust Control Plan.

D. I understand that any false material statement, representation or certification made in this application may invalidate the plan or cause me to be subject to enforcement action pursuant to Utah Code Ann. 19-2-115.

E. Failure to comply with fugitive dust rules may result in compliance action and penalties up to $10,000 per violation/day.

Date: 09/09/2015
Printed Name: JF Capital
Title: null
Company Name: JF Capital
Dust Plan Number: 7073

Dust Suppressants

	Check All that Apply
	Clay additives.
	Calcium chloride.
	Lime (calcium oxide).
	Magnesium chloride.
	Organic non-petroleum products, (ligninsulfonate, tall (pine) oil, and vegetable derivatives).
	Synthetic polymers (for example; polyvinyl acetate and vinyl acrylic).

FUGITIVE DUST CONTROL PLAN

PROJECT ACTIVITIES CHECKLIST INSTRUCTIONS:

PLACE A CHECK MARK NEXT TO EVERY ACTIVITY THAT WILL BE CONDUCTED ON THIS SITE, FOR EACH CHECKED ACTIVITY, COMPLETE THE CORRESPONDING CONTROL MEASURES/BEST MANAGEMENT PRACTICE (BMP) SELECTION PAGE. WHEN COMPLETED, YOU WILL HAVE THE OPTION TO PRINT THE ENTIRE PLAN.

	Project Activity	Check All that Apply
01	Backfilling area previously excavated or trenched.	
02	Blasting soil & rock - drilling and blasting.	
03	Clearing for site preparation and vacant land cleanup.	**X**
04	Clearing forms, foundations, slab clearing and cleaning of forms, foundations and slabs prior to pouring concrete.	
05	Crushing of construction and demolition debris, rock and soil.	
06	Cut and fill soils for site grade preparation.	**X**
07	Demolition - Implosive demolition of a structure, using explosives.	
08	Demolition - mechanical/manual demolition of walls, stucco, concrete, freestanding structures, buildings and other structures.	
09	Disturbed soil throughout project including between structures. THIS ACTIVITY MUST BE SELECTED FOR ALL PROJECTS.	**X**
10	Disturbed land - long term stabilization and erosion control of large tracts of disturbed land that will not have continuing activity for more than 30 days.	**X**
11	Hauling materials.	**X**
12	Paving/subgrade preparation for paving streets, parking lots, etc.	**X**
13	Sawing/cutting material, concrete, asphalt, block or pipe.	**X**
14	Screening of rock, soil or construction debris.	
15	Staging areas, equipment storage, vehicle parking lots, and material storage areas.	**X**
16	Stockpiles materials (storage), other soils, rock or debris, for future use or export.	**X**
17	Tailings piles, ponds and erosion control.	

18	Trackout Prevention and Cleanup of mud, silt and soil tracked out onto paved roads.	**X**
19	Traffic - unpaved routes and parking, construction related traffic on unpaved interior and/or access roads and unpaved employee/worker parking areas.	**X**
20	Trenching with track or wheel mounted excavator, shovel, backhoe or trencher.	**X**
21	Truck loading with materials including construction and demolition debris, rock and soil.	**X**

Clearing for site preparation and vacant land cleanup.	**BMP 03**

GENERAL REQUIREMENT: ALL ACTIVITIES MUST MEET OPACITY REQUIREMENTS IN R307-309-5

MAKE AT LEAST ONE SELECTION FROM EACH SECTION.

Stabilize surface soils where support equipment and vehicles will operate.

X	03-01	Pre-water and maintain surface soils in a stabilized condition.
_	03-02	Apply and maintain a chemical stabilizer on surface soils.

Stabilize disturbed soil immediately after clearing and grubbing activities.

X	03-03	Water disturbed soils to form crust.
_	03-04	Apply and maintain a chemical stabilizer on disturbed soils to form crust.

Stabilize slopes at completion of activity.

_	03-05	Stabilize sloping surfaces using soil binders until vegetation or ground cover can effectively stabilize the slope.
X	03-06	Apply water and maintain sloping surfaces/wind breaks in a crusted condition.

Cut and fill soils for site grade preparation.	**BMP 06**

GENERAL REQUIREMENT: ALL ACTIVITIES MUST MEET OPACITY REQUIREMENTS IN R307-309-5

MAKE AT LEAST ONE SELECTION FROM EACH SECTION.

Stabilize surface soils where support equipment and vehicles will operate.

X	06-01	Pre-water and maintain surface soils in a stabilized condition.
_	06-02	Apply and maintain a chemical stabilizer to surface soils.

Pre-water soils.

X	06-03	Dig a test hole to depth of cut or equipment penetration to determine if soils are moist at depth. Continue to pre-water if not moist to depth of cut.

Stabilize soil during cut activities.

X	06-04	Apply water to depth of cut prior to subsequent cuts.

Stabilize soil after cut and fill activities.

X	06-05	Water disturbed soils to maintain moisture.
_	06-06	Apply and maintain a chemical stabilizer on disturbed soils to form crust following fill and compaction.
_	06-07	Apply cover (natural or synthetic).

Disturbed soil throughout project including between structures. THIS ACTIVITY MUST BE SELECTED FOR ALL PROJECTS.	**BMP 09**

GENERAL REQUIREMENT: ALL ACTIVITIES MUST MEET OPACITY REQUIREMENTS IN R307-309-5

MAKE AT LEAST ONE SELECTION FROM EACH SECTION.

Limit disturbance of soils where possible.

X 09-01	Limit disturbance of soils with the use of fencing, barriers, barricades, and/or wind barriers.
X 09-02	Limit vehicle mileage and reduce speed.

Stabilize and maintain stability of all disturbed soil throughout construction site.

X 09-03	Apply water to stabilize disturbed soils. Soil moisture must be maintained such that soils can be worked without generating fugitive dust.
_ 09-04	Apply and maintain a chemical stabilizer.
_ 09-05	Use wind breaks.
_ 09-06	Apply cover (natural or synthetic).

Disturbed land - long term stabilization and erosion control of large tracts of disturbed land that will not have continuing activity for more than 30 days.	**BMP 10**

GENERAL REQUIREMENT: ALL ACTIVITIES MUST MEET OPACITY REQUIREMENTS IN R307-309-5

MAKE AT LEAST ONE SELECTION FROM EACH SECTION.

Prevent access to limit soil disturbance.

X	10-01	Prevent access by fencing, ditches, vegetation, berms or other suitable barrier.

Stabilize soil.

_	10-02	Apply and maintain a chemical stabilizer on disturbed soils.
_	10-03	Stabilize disturbed soil with vegetation.
_	10-04	Pave or apply surface rock.
_	10-05	Use wind breaks.
X	10-06	Apply water and maintain soil moisture sufficient to avoid generating fugitive dust.

Hauling materials.	**BMP 11**

GENERAL REQUIREMENT: ALL ACTIVITIES MUST MEET OPACITY REQUIREMENTS IN R307-309-5

MAKE AT LEAST ONE SELECTION FROM EACH SECTION.

Limit visible dust opacity from vehicular operations.

X	11-01	Apply and maintain water/chemical suppressant to operational areas and haul routes.
X	11-02	Limit vehicle mileage and speed.

Stabilize materials during transport on site.

_	11-03	Use tarps or other suitable enclosures on haul trucks.
X	11-04	Apply water prior to transport.

Clean wheels and undercarriage of haul trucks prior to leaving construction site.

X	11-05	Clean wheels.
X	11-06	Sweep or water haul road.

Paving/subgrade preparation for paving streets, parking lots, etc.	BMP 12

GENERAL REQUIREMENT: ALL ACTIVITIES MUST MEET OPACITY REQUIREMENTS IN R307-309-5

MAKE AT LEAST ONE SELECTION.

Stabilize adjacent disturbed soils following paving activities.

X	12-01	Apply and maintain water on disturbed soils.
_	12-02	Apply and maintain chemical stabilizer on disturbed soils.
_	12-03	Stabilize disturbed soils with vegetation or hydroseeding.
_	12-04	Apply synthetic cover to disturbed soils.
_	12-05	There are no soils adjacent to paving activities.

Sawing/cutting material, concrete, asphalt, block or pipe.	BMP 13

GENERAL REQUIREMENT: ALL ACTIVITIES MUST MEET OPACITY REQUIREMENTS IN R307-309-5

MAKE AT LEAST ONE SELECTION.

Limit visible emissions.

X	13-01	Use water control to dust.
_	13-02	Use a vacuum to collect dust.

Staging areas, equipment storage, vehicle parking lots, and material storage areas.	**BMP 15**

GENERAL REQUIREMENT: ALL ACTIVITIES MUST MEET OPACITY REQUIREMENTS IN R307-309-5

MAKE AT LEAST ONE SELECTION FROM EACH SECTION.

Limit visible dust opacity from vehicular operations.

X 15-01	Limit vehicle mileage and speed.
X 15-02	Apply water on all vehicle traffic areas in the staging areas and unpaved access routes.

Stabilize staging area soils during use.

X 15-03	Pre-water and maintain surface soils in a stabilized condition.
_ 15-04	Apply and maintain a chemical stabilizer to surface soils.

Stabilize staging area soils at project completion.

_ 15-05	Apply a chemical stabilizer.
_ 15-06	Apply screened or washed aggregate.
_ 15-07	Use wind breaks.
_ 15-08	Pave.
_ 15-09	Completed project will cover staging area with buildings, paving, and/or landscaping.
X 15-10	Apply water to form adequate crust and prevent access.

Stockpiles materials (storage), other soils, rock or debris, for future use or export.	**BMP 16**

GENERAL REQUIREMENT: ALL ACTIVITIES MUST MEET OPACITY REQUIREMENTS IN R307-309-5

MAKE AT LEAST ONE SELECTION FROM EACH SECTION.

Stabilize surface soils where support equipment and vehicles will operate.

X	16-01	Pre-water and maintain surface soils in a stabilized condition.
_	16-02	Apply and maintain a chemical stabilizer on surface soils.
_	16-03	Pave area.

Stabilize stockpile materials during handling.

X	16-04	Remove material from the downwind side of the stockpile, when safe to do so.
X	16-05	Reduce height.
_	16-06	Create wind screen

Stabilize stockpiles after handling.

X	16-07	Water stockpiles to form a crust immediately.
_	16-08	Apply and maintain a chemical stabilizer to all outer surfaces of the stockpiles.
_	16-09	Provide and maintain wind barriers on 3 sides of the pile.
_	16-10	Apply a cover (natural or synthetic)
_	16-11	Wind screen.
X	16-12	Avoid steep sides to prevent material sloughing.
X	16-13	Reduce height.

Trackout Prevention and Cleanup of mud, silt and soil tracked out onto paved roads.	**BMP 18**

GENERAL REQUIREMENT: ALL ACTIVITIES MUST MEET OPACITY REQUIREMENTS IN R307-309-5

MAKE AT LEAST ONE SELECTION FROM EACH SECTION.

Prevent dust from trackout.

X 18-01	Clean trackout at the end of the work shift from paved surfaces to maintain dust control
X 18-02	Maintain dust control during working hours and clean trackout from paved surfaces at the end of the work shift/day.
X 18-03	Install gravel pad(s), clean, well-graded gravel or crushed rock. Minimum dimensions must be 30 feet wide by 3 inches deep, and, at minimum, 50' or the length of the longest haul truck, whichever is greater. Re-screen, wash or apply additional rock in gravel pad to maintain effectiveness.
_ 18-04	Install wheel shakers. Clean wheel shakers on a regular basis to maintain effectiveness.
_ 18-05	Install wheel washers. Maintain wheel washers on a regular basis to maintain effectiveness.
_ 18-06	Motorized vehicles will only operate on paved surfaces.
_ 18-07	Install cattle guard before paved road entrance.

All exiting traffic must be routed over selected trackout control device(s).

X 18-08	Clearly establish and enforce traffic patterns to route traffic over selected trackout control device(s).
X 18-09	Limit site accessibility to routes with trackout control devices in place by installing effective barriers on unprotected routes.

Traffic - unpaved routes and parking, construction related traffic on unpaved interior and/or access roads and unpaved employee/worker parking areas.	**BMP 19**

GENERAL REQUIREMENT: ALL ACTIVITIES MUST MEET OPACITY REQUIREMENTS IN R307-309-5

MAKE AT LEAST ONE SELECTION.

Stabilize surface soils where support equipment and vehicles will operate.

X 19-01	Limit vehicle mileage and speeds.
X 19-02	Apply and maintain water on surface soils.
_ 19-03	Apply and maintain chemical stabilizers on surface soils.
_ 19-04	Apply and maintain gravel on surface soils.
_ 19-05	Supplement chemical stabilizers, water or aggregate applications as necessary.
_ 19-06	Apply recycled asphalt (RAP) to surface soils.

Trenching with track or wheel mounted excavator, shovel, backhoe or trencher.	**BMP 20**

GENERAL REQUIREMENT: ALL ACTIVITIES MUST MEET OPACITY REQUIREMENTS IN R307-309-5

MAKE AT LEAST ONE SELECTION FROM EACH SECTION.

Presoak soils prior to trenching activities.

X	20-01	Pre-water surface.

Stabilize surface soils where trenching equipment, support equipment and vehicles will operate.

X	20-02	Pre-water and maintain surface soils in a stabilized condition.
_	20-03	Apply and maintain a chemical stabilizer to surface soils.
X	20-04	Limit mileage and speed.

Stabilize soils after trenching.

X	20-05	Apply and maintain water on excavated soil.
_	20-06	Apply and maintain chemical stabilizer on excavated soil.

Truck loading with materials including construction and demolition debris, rock and soil.	**BMP 21**

GENERAL REQUIREMENT: ALL ACTIVITIES MUST MEET OPACITY REQUIREMENTS IN R307-309-5

MAKE AT LEAST ONE SELECTION.

X	21-01	Pre-water and maintain surface soils in a stabilized condition where loaders, support equipment and vehicles will operate.
_	21-02	Apply and maintain a chemical stabilizer on surface soils where loaders, support equipment and vehicles will operate.
X	21-03	Empty loader bucket slowly and keep loader bucket close to the truck to minimize the drop height while dumping.