Storm Water Pollution Prevention Plan
SBS Construction

Fountain Hills Assisted Living , Albuquerque, New Mexico, Bernalillo County

Prepared by Inspections Plus 505-344-9410 or 505-489-5077
WWW.INSPECTIONSPLUSINC.COM

STORMWATER POLLUTION PREVENTION PLAN (SWPPP)

For Construction Activities At:

Fountain Hills Assisted Living
4551 Vista Fuente Rd NW
Albuquerque, New Mexico 87114

SWPPP Prepared For:

SBS Construction
Shawn Biazar
10209 Snowflake Ct NW
Albuquerque, New Mexico 87114
505-804-5013
aecllc@ail.com

SWPPP Prepared By:

Inspections Plus
504 El Paraiso Rd NE Suite B
Albuquerque, NM 87113
505-344-9410

SWPPP Preparation Date:

August 16, 2019

Plan Documentation & Revision Record

- Stormwater Pollution Prevention Plan
- Plan Revision Record

Delegation & Certifications

- Delegation of Authority Letters
- Inspector Qualifications

NOI/NOT & Additional Operators

- NOI/NOT
- Subcontractor Certification

RUSLE II and Soil Data

- RUSLE II Worksheet
- NRCS Soil Report

Watershed and TMDL Documentation

- EPA GeoViewer
- Waterbody Quality and TMDL Reports

Endangered Species and Cultural Documentation

- Endangered Species Map
- IPAC Report
- Historic and Cultural Properties

Site Housekeeping and Training

- Rain Event Log
- Watering Log
- BMP Maintenance Log
- Sweeping Log
- Training Log

BMP Measures and Product Details

BMP Phasing
Temporary Controls
Interim Stabilization
Permanent Stabilization- Erosion Control

NPDES General Permit

- 2017 EPA Construction General Permit

Completed Inspection Reports

TAB 1

PONDING VOLUME REQUIREMENTS (90TH PERCENTILE/FIRST FLUSH)

VOLUME REQUIRED = 0.34 INCHES x IMPERVIOUS AREA =
(0.34/12 x 47,094.52) = 1,334.34 CF

PONDING VOLUME CALCULATION

TOTAL POND AREA PROVIDED =
PONDING CALCULATIONS:

POND A:
AREA @ ELEV. 5126 = 1,376.46 SF
AREA @ ELEV. 5124 = 96.56 SF
POND VOLUME=(1,376.46+96.56)/2*2=1,473.02 CF

POND B:
AREA @ ELEV. 5134 = 567.83 SF
AREA @ ELEV. 5124 = 16.35 SF
POND VOLUME=(567.83+16.35)/2*2=584.18 CF

TOTAL PONDING VOLUME PROVIDED =
1,473.02 + 584.18 = 2,057.20 CF

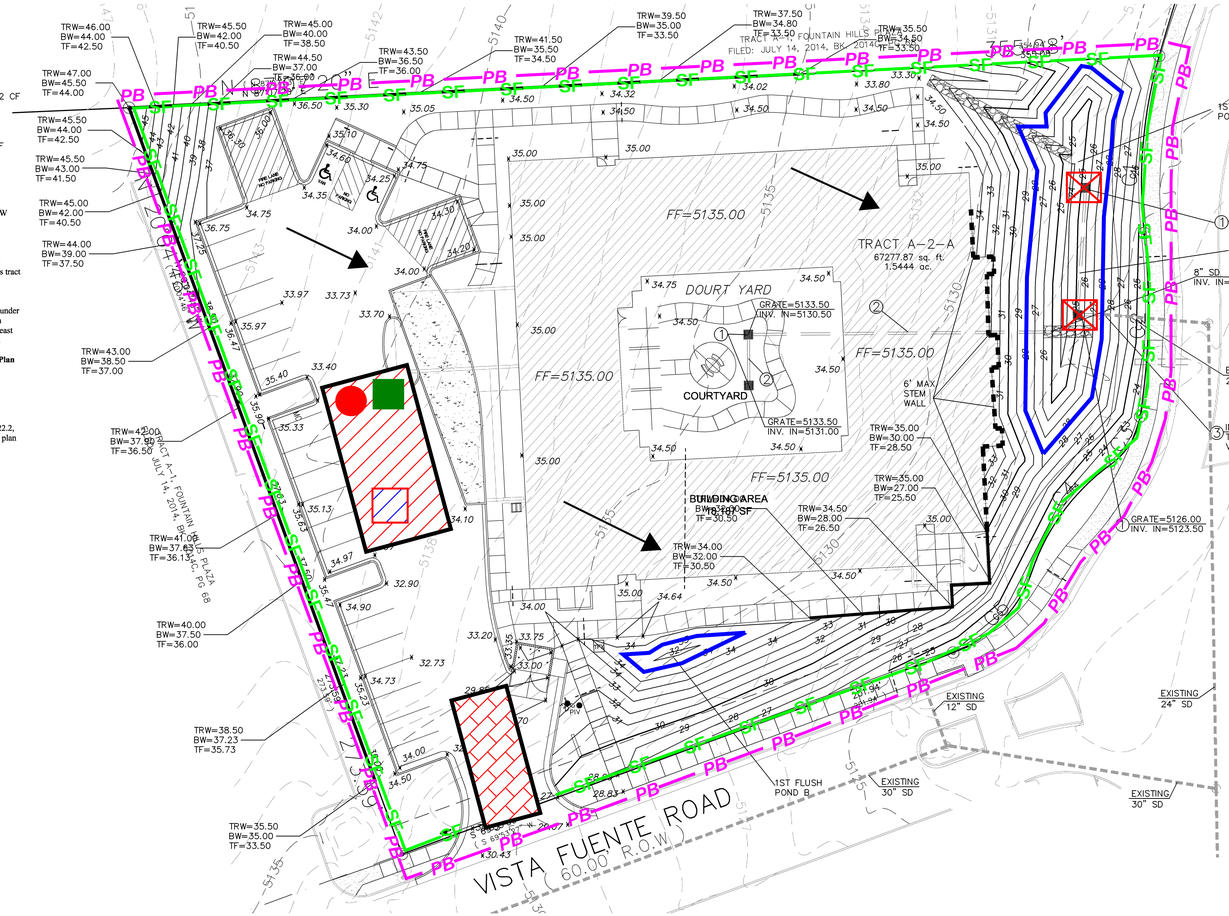
Location
TRACT A-2-A, Fountain Hills Subdivision is located at the northwest corner of Vista Fuente Road and Nunzio Avenue NW containing 1.5444 acre. See attached portion of Vicinity Map C-12-Z for exact location.

Purpose
The purpose of this drainage report is to present a grading and drainage solution for new building and improvements with this tract of land.

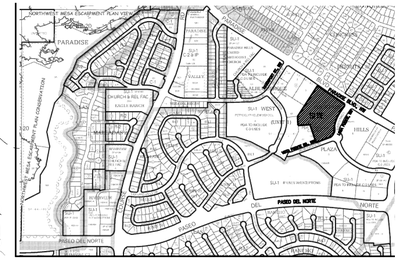
Existing Drainage Conditions
This site falls within Master Drainage Plan for Fountain Hills under the City project number C12-D003B. This project falls within Basin B-1-A. The site currently drain from northwest to southeast side of the site to Vista Fuente Road and Nunzio Avenue NW.

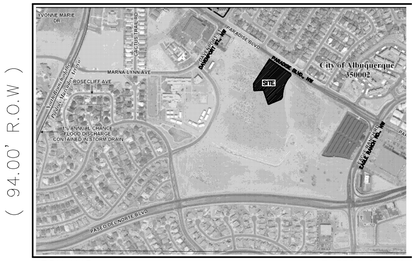
Proposed Conditions and On-Site Drainage Management Plan
We are proposing to pond the 90th PercentileFirst Flush requirement (1,334.34 cf). Total retention volume provided (2,057.20 cf) exceeds the ponding requirement for First Flush (1,334.34 cf).

Calculations
City of Albuquerque, Development Process Manuel, Section 22.2, Hydrology Section, was used for runoff calculations. See this plan for AHYMO input and Summary output files.



SITE WILL HAVE A PERIMETER SILT FENCE. INLET GRATES WILL BE PROTECTED ONCE THEY ARE ACTIVE. STAGING AREA IS REPRESENTATIVE AND MAY BE MOVED TO ACCOMODATE PROJECT.





FIRM MAP: FM35001C0116G
EFFECTIVE DATE: 09-06-2008

LEGAL DESCRIPTION:
TRACT A-2-A, FOUNTAIN HILLS PLAZA
CONTAINING 1.5444 ACRE
ZONING: SU-1 FOR PDA TO INCLUDE C-3 USES
ADDRESS: 4590 PARADISE BLVD NW

LEGEND

EROSION AND SEDIMENT CONTROL PLAN

- PB PROJECT PERIMETER & DISTURBED AREA
- SF SILT FENCE
- MULCH SOCKS
- FLOW DIRECTION
- STAGING AREA
- STABILIZED CONSTRUCTION ENTRANCE
- TRASH RECEPTACLE
- CHEMICAL TOILET
- CONCRETE WASHOUT
- RETENTION POND
- RIP RAP
- CHECK DAM
- DROP INLET PROTECTION
- OUTFALL
- POSTING SIGN
- PRESERVED VEGETATION

GRAPHIC SCALE
20 10 0 20
SCALE: 1"=20'

RECEIVING WATERS:	**RIO GRANDE 2105_50 BY WAY OF ALBUQUERQUE MS4. TIER II AND IMPAIRED WITH E. COLI, PCBs IN FISH TISSUE, AND OXYGEN DEPLETION**
CRITICAL HABITAT:	**CRITERION "A"; NO CRITICAL HABITATS WITHIN PROJECT AREA**
GPS LOCATION:	**35.1849, -106.6780**

CERTIFIED PROFESSIONAL IN EROSION AND SEDIMENT CONTROL
CPESC
CASSANDRA DURKIN
No. 9212

08/16/2019
CPESC Stamp

FOUNTAIN HILLS PLAZA ASSISTED LIVING
PROJECT TITLE

ALBUQUERQUE, BERNALILLO COUNTY, NM
CITY, COUNTY, STATE

08/16/2019 DATE

C. DURKIN DRAWN BY

INSPECTIONS PLUS

INLET PROTECTION

SILT FENCE

BMP Objectives

- Sediment Control
- Sheet Flow Runoff Control
- Wind Erosion Control

MULCH SOCK/STRAW WATTLE

BMP Objectives

- Sediment Control
- Reduce Runoff Velocity
- Inlet Protection

EROSION CONTOL NOTES

1. All perimeter erosion and sediment control measures shall be installed prior to the execution of any grading work and shall be maintained for the duration of the project. failure to install and maintain erosion controls is a violation of the Federal Permit and is subject to fines.

2. All Erosion Controls and their installation shall meet manufacturer specification and comply with the current guidelines for Stormwater Management for Construction Activities.

3. Sediment collected behind sediment filters and Silt Fences shall be removed when sediment reaches 1/3 the height of the barrier.

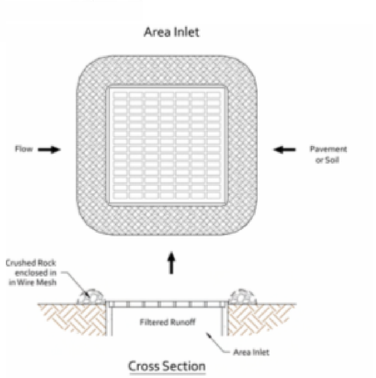
4. Inspection of erosion and sediment controls and other protective measures are required once every 7 days from July 1st to October 31st and once every 7 days from November 1st to June 30th for discharge to tier and Sensitive Waters. Storm Events that produce 0.25' or more shall be inspected within 24 hours of the storm event.

5. Erosion and Sediment control measures shall be removed following construction or upon permanent stabilization of the disturbed/graded areas, whichever occurs last.

6. All disturbed areas that are not to be paved shall be reseeded unless otherwise noted.

7. The Contractor shall keep the site clean at all times and control dust resulting from earthwork operations. The Contractor shall not track mud or sediment from the site onto the public streets.

SEDIMENT TRACK OUT CONTROL



BMP Objectives

- Sediment Control
- Sheet Flow Runoff Control

BMP Objectives

- Sediment Control

BERMS AND SWALES

BMP Objectives

- Runoff Control
- Run-on Diversion

RECEIVING WATERS:	RIO GRANDE 2105_50 BY WAY OF ALBUQUERQUE MS4. TIER II AND IMPAIRED WITH E. COLI, PCBs IN FISH TISSUE, AND OXYGEN DEPLETION
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ALBUQUERQUE, BERNALILLO COUNTY, NM
CITY, COUNTY, STATE

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C. DURKIN DRAWN BY

INSPECTIONS PLUS

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Inspections Plus
504 El Paraiso Rd NE Suite B
Albuquerque, NM 87113
505-344-9410

SWPPP Preparation Date:

August 16, 2019

Estimated Project Dates:

Project Start Date: **09/01/2019**

Project Completion Date: **06/30/2020**

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STORM WATER POLLUTION PREVENTION PLAN
Fountain Hills Assisted Living

PREFACE

The United States Environmental Protection Agency (EPA) has issued a final 2017 Construction General Permit (CGP) that covers stormwater discharges from construction sites.

The 2017 National Pollutant Discharge Elimination System (NPDES) General Permit for Storm Water Discharges from Construction Activity (Appendix D) includes the following requirements:

- Conduct critical habitat and threatened/endangered species research
- Conduct historic/cultural property research
- Develop and implement a SWPPP in accordance with good engineering practices
- Submit a Notice of Intent (NOI)
- Install and maintain erosion and stormwater controls
- Perform and document storm water inspections during construction and site stabilization
- Amend the SWPPP as necessary
- Submit a Notice of Termination (NOT) following project completion and final stabilization of disturbed areas.

Authorization to discharge storm water is required under the Permit for both large and small construction projects disturbing one (1) acre or more or less than one (1) acre but part of a larger common plan of development that will ultimately disturb more than one (1) acre.

All parties that meet the definition of Operator must be permitted. Each Permittee is not required to develop and implement a separate SWPPP Plan. It is required that there be at least one SWPPP Plan for a site that incorporates the required elements for all Operators.

The New Mexico (Region 6) permit number is NMR100000. This Plan, which has been developed for Fountain Hills Assisted Living, describes the nature and sequencing of construction activities, potential sources of pollution, and identifies the Best Management Practices (BMPs) to minimize the potential for erosion and stormwater pollution. This Plan was developed in accordance with the provisions of the Clean Water Act (33 U.S.C. § § 1251 et seq. as amended by the Water Quality Act of 1987, P.L. 100-4), and the regulations established by the U.S. Environmental Protection Agency (EPA) for the National Pollutant Discharge Elimination System (NPDES) General Permits for Storm Water Discharges from Construction Activities.

SECTION 1: CONTACT INFORMATION/RESPONSIBLE PARTIES

1.1 Operator(s) / Subcontractor(s)

OWNER:

JB2C, LLC.
3821 Masthead St. NE
Albuquerque, New Mexico 87109
Biju Cherian, Managing Member
505-264-8120
bijucherian@hotmail.com

OPERATOR:

SBS Construction
10209 Snowflake Ct NW
Albuquerque, New Mexico 87114
Shawn Biazar, Managing Member
505-804-5013
aecllc@ail.com

24-HOUR EMERGENCY CONTACT

SBS Construction
Shawn Biazar
505-804-5013

1.2 Stormwater Team

The Stormwater Team will be comprised of personnel who are responsible for overseeing the development, implementation, maintenance, and revision of this SWPPP and for the compliance requirements of the 2017 Construction General Permit. Each member of the Stormwater Team must have ready access to either an electronic or paper copy of applicable portions of the 2017 CGP and this SWPPP. The Stormwater Team Members are familiar with the management and operations of Fountain Hills Assisted Living.

Table 1.2

NAME	TITLE	RESPONSIBILITY
JB2C, LLC	Managing Member	Owner • Certifies SWPPP • Submits NOI and NOT • Certifies Inspection Reports • Certifies SWPPP Modifications
SBS Construction	Managing Member	Operator • Certifies SWPPP • Submits NOI and NOT • Certifies Inspection Reports • Confirms Corrective Actions • Certifies Corrective Action Reports • Certifies SWPPP Modifications
Inspection Plus	SWPPP Development	SWPPP Development Team
SBS Construction	Site Inspector	Site Inspections and NPDES Compliance Team
SBS Construction	Foreman	Implementation Team
SBS Construction	Foreman	Maintenance and Corrections Team

SECTION 2: SITE EVALUATION, ASSESSMENT, AND PLANING

2.1 Project/Site Information

The project site is located at 4551 Vista Fuente Rd NW
Albuquerque, New Mexico, 87114
Bernalillo County

GPS Location: 35.1849 N, 106.6780 W

Google Earth was used to determine latitude/longitude.

This project is not located on Indian country lands or property of religious or cultural significance belonging to N/A.

The earth disturbing activities of Fountain Hills Assisted Living are not in response to a public emergency.

Operators of this project are applying for permit coverage as a "Federal Operator" as defined in Appendix A of the 2017 Construction general Permit (CGP)

2.1.1 Climate and Topography

Site specific meteorology at Fountain Hills Assisted Living is influenced by its proximity to topographic features such as mountains, canyons, and arroyos. These features influence the local wind patterns across the site. Canyons and arroyos tend to channel or funnel wind, whereas mountains create upslope/downslope diurnal patterns to wind flows. Winds tend to blow towards the mountains or up the Rio Grande Valley during the day. Nocturnal winds tend to blow down the mountains toward the Rio Grande Valley. These topographically-induced wind flows can be enhanced or negated by weather systems that move across the southwestern U.S. The strongest winds occur in the spring when the monthly wind speeds average 10.3 mph. wind gusts commonly reach 50 mph.

Large diurnal temperature ranges, summer monsoons, and frequent drying winds are characteristic of the regional climate in New Mexico. Temperatures are typical of mid latitude dry continental climates with summer high temperatures of approximately 90°F and winter high temperatures of approximately 50°F. Daily low temperatures range from approximately 60°F in the summer to approximately 20°F in the winter. The dry continental climate also produces low average humidity in the late spring and summer prior to the onset of the monsoon season. Daytime relative humidity can be between 10 and 20 percent in the spring and early summer, with an average humidity near 30 percent. Winter relative humidity averages near 50 percent.

2.1.2 Soils and Hydrology

The prominent soil at Fountain Hills Assisted Living is madurez wink association. This soil is in the well drained drainage class and is in the B hydrologic soil group. This soil has a moderate infiltration rate. This soil has a low potential for runoff. Slopes average 3.0 percent. Native vegetation is primarily black grama (Bouteloua eriopoda). The possibility of water erosion for this soil is very low .

2.2 Discharge Information

The Operators of Fountain Hills Assisted Living understand the any discharges not expressly authorized under the CGP are not covered by the CGP or the permit shield provision of the CWA Section 402(k) and they cannot become authorized or shielded by disclosure to EPA, state, or local authorities via the NOI to be covered by the permit or by any other means (e.g., in the SWPPP or during an inspection). If any discharges requiring NPDES permit coverage other than the allowable stormwater and non-stormwater discharges listed in Parts 1.2.1 and 1.2.2 will be discharged, they must either be eliminated or covered under another NPDES permit.

2.2.1 Receiving Waters

Name of the first surface water that receives stormwater directly from Fountain Hills Assisted Living and or the MS4:

1. Rio Grande is 3.0 miles from the site and is not a discharge point.

It is important for the reviewer to note if the waters listed a discharge points. If none of the waters are discharge points, the water does not receive direct runoff from the site. The listing is provided to demonstrate the Operator's knowledge of the surface waters in proximity of the project site.

2.2.2 Impairment Status and Tier Designation

Table 2.2.2

Water	Is this surface water listed as "impaired"	What pollutant(s) are causing the impairment?	Is this a Tier 2 water?	Has a TMDL been completed?
1	Yes	E. coli, PCBs, and Dissolved Oxygen	Yes	Yes

The above waters are impaired with PCBs and demolition of a 10,000 sq. ft. or more structure built or renovated before 1980 is not applicable to this project.

2.3 Nature of Construction Activities

Fountain Hills Assisted Living will consist of the development of access, infrastructure, utilities, permanent drainage, and permanent stabilization for the construction of a new assisted living facility. Fountain Hills Assisted Living is a 7 gross acre site with a disturbed acreage of 7. Site hours will consist of Monday through Friday 7am to 5pm. Construction Support Activities will include a staging area and material storage and are included in within the perimeter controls of the site.

2.4 Sequence and Estimated Dates of Construction Activities

Soil Disturbing Activities will include but are not necessarily limited to: Clearing and grubbing, rough grading, installation of perimeter controls and other erosion and sediment management control measures, construction of infrastructure, installation of utilities, permanent drainage, and construction of pavement sections (if required) for Fountain Hills Assisted Living. The sequence of the following activities will be filled out by the Stormwater Team on Site as they occur.

Table 2.4

Construction Activity	Date Initiated	Date Completed
Installation of BMPs- sediment transport barriers, entrances, washouts, posting boards		
Clearing and Grubbing		
Rough Grading		
Infrastructure		
Concrete (as required)		
Final Grading		
Paving		
Site Cleanup		
Temporary Stabilization (MUST Commence immediately once it is known that construction will cease for 14 days or more)		

2.5 Authorized Non-Stormwater Discharges

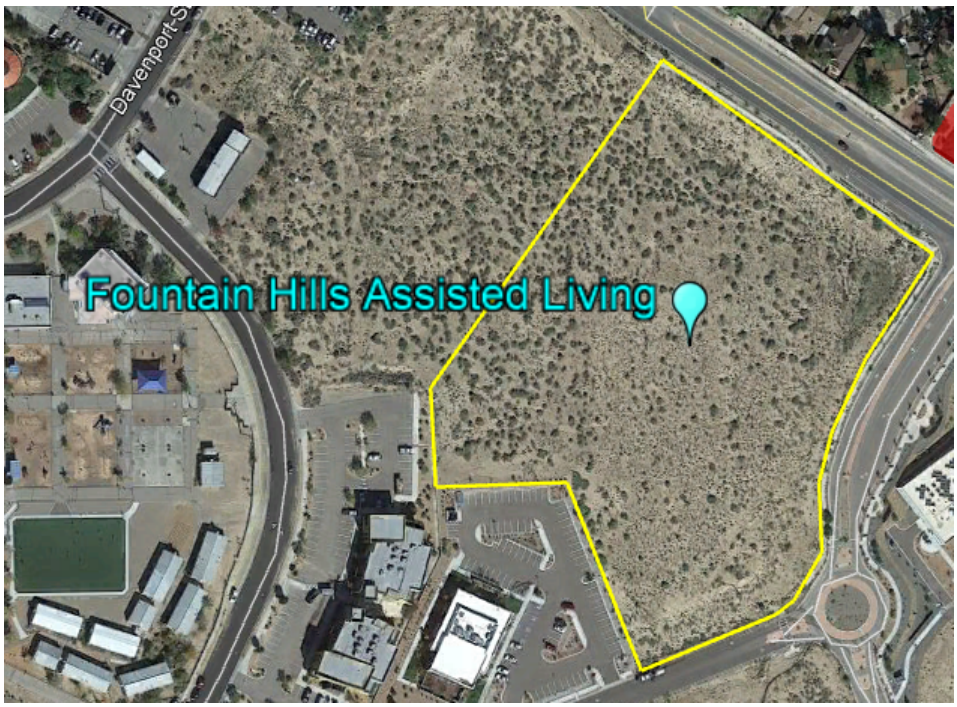
The following table outlines the authorized non-storm water discharges, provided that they are in compliance with Part 1.2.2 of the 2017 CGP, and whether they are expected on the project:

Table 2.5

Non-Stormwater Discharge	Expected on Project
Discharges from Firefighting Activities	No
Fire Hydrant Flushing	No
Vehicle Wash Water Without Detergent	Yes
Water used for Dust Control	Yes
Potable water including uncontaminated water line flushing	Yes
Pavement wash waters without detergents (e.g. waters used in sweeping activities) providing spills or leaks of toxic or hazardous materials have not occurred or removed if an occurrence has stopped.	Yes
Uncontaminated air conditioning or compressor condensate	No
Re-vegetation or landscape irrigation	No
Foundation and Footing Drains *applies only if expected on project	No
Construction Dewatering	No
External building washdown used without soaps, solvents or detergents and external surfaces do not contain hazardous substances (e.g. paint, chalk).	Yes

2.6 Site Maps

2.6.1 Ariel Project Location



2.6.2 Sediment and Erosion Control Management Plan

The temporary sediment and erosion control plan is located at the front of the binder. RUSLE II Calculations are under tab 4 of this binder.

2.6.3 Rational for Selected BMPs

Table 2.6.3

BMP	Rationale
Silt Fence	Silt Fence is an effective perimeter sediment control. It will intercept sheet flow, detain sediment, and decrease velocity of runoff. It requires minimal maintenance because it is rigid and UV stable. This site does not have concentrated flow.
Inlet Protection	Inlet Protection is a structural BMP that protects inlets which receive stormwater from disturbed areas. It is an effective sediment and runoff control. It requires moderate maintenance and should be inspected regularly. This site has operational storm drain inlets that need protection.

SECTION 3: DOCUMENTATION OF COPLIANCE WITH OTHER FEDERAL REQUIREMENTS

3.1 Endangered Species Protection

3.1.1 Eligibility Criterion

This project meets the Endangered Species Act Eligibility Criterion "A". Measures were taken to determine the potential effects of potential storm water runoff and construction related activities on federally listed endangered or threatened species as required by Addendum D of the Construction General Permit.

For reference purposes, the eligibility criteria listed in CGP Appendix D are:

- **Criterion A:** No federally-listed threatened or endangered species or their designated critical habitat(s) are likely to occur in your site's "action area" as defined in Appendix A of this permit.

- **Criterion B:** The construction site's discharges and discharge-related activities were already addressed in another operator's valid certification of eligibility for your action area under eligibility Criterion A, C, D, E, or F and there is no reason to believe that federally-listed species or federally-designated critical habitat not considered in the prior certification may be present or located in the "action area". To certify your eligibility under this Criterion, there must be no lapse of NPDES permit coverage in the other operator's certification. By certifying eligibility under this Criterion, you agree to comply with any effluent limitations or conditions upon which the other operator's certification was based. You must include in your NOI the tracking number from the other operator's notification of authorization under this permit. If your certification is based on another operator's certification under Criterion C, you must provide EPA with the relevant supporting information required of existing dischargers in Criterion C in your NOI form.

- **Criterion C:** Federally-listed threatened or endangered species or their designated critical habitat(s) are likely to occur in or near your site's "action area," and your site's discharges and discharge-related activities are not likely to adversely affect listed threatened or endangered species or critical habitat. This determination may include consideration of any stormwater controls and/or management practices you will adopt to ensure that your discharges and discharge-related activities are not likely to adversely affect listed species and critical habitat. To make this certification, you must include the following in your NOI: 1) any federally listed species and/or designated habitat located in your "action area"; and 2) the distance between your site and the listed species or designated critical habitat (in miles). You must also include a copy of your site map with your NOI.

- **Criterion D:** Coordination between you and the Services has been concluded. The coordination must have addressed the effects of your site's discharges and discharge-related activities on federally-listed threatened or endangered species and federally-designated critical habitat, and must have resulted in a written concurrence from the relevant Service(s) that your site's discharges and discharge-related activities are not likely to adversely affect listed species or critical habitat. You must include copies of the correspondence between yourself and the Services in your SWPPP and your NOI.

- **Criterion E:** Consultation between a Federal Agency and the U.S. Fish and Wildlife Service and/or the National Marine Fisheries Service under section 7 of the ESA has been concluded. The consultation must have addressed the effects of the construction site's discharges and discharge-related activities on federally-listed threatened or endangered species and federally-designated critical habitat. The result of this consultation must be either:

  1. a biological opinion that concludes that the action in question (considering the effects of your site's discharges and discharge-related activities) is not likely to jeopardize the continued existence of listed species, nor the destruction or adverse modification of critical habitat; or

  2. written concurrence from the applicable Service(s) with a finding that the site's discharges and discharge-related activities are not likely to adversely affect federally-listed species or federally-designated habitat.

You must include copies of the correspondence between yourself and the Services in your SWPPP and your NOI.

- **Criterion F:** Your construction activities are authorized through the issuance of a permit under section 10 of the ESA, and this authorization addresses the effects of the site's discharges and discharge-related activities on federally-listed species and federally-designated critical habitat. You must include copies of the correspondence between yourself and the Services in your SWPPP and your NOI.

3.1.2 Supporting Documentation

Tab 6 of this binder includes the documentation required to support the selected criterion. The requirement for the selected eligibility criterion from CGP Appendix D is:

For Criterion A:

No federally listed threatened/endangered species or habitats are not likely to occur within the project action area.

X Specific communication with staff of the U.S. Fish & Wildlife Service or National Marine Fisheries Service. INSPECTIONS PLUS contacted USFWS IPAC and Critical Habitat Mapper to assist with this determination.

X Publicly available species list. Documentation is found in the Protected Entities Section of this Binder.

X Other source: **http://criticalhabitat.fws.gov/crithab/**, a copy of the map for the area is included in the Protected Entities Section of this Binder.

3.2 Historic Preservation

Appendix E of the Permit lists specific requirements to determine the effect subsurface stormwater controls on a historic property. This "screening process" is intended to determine if installation of stormwater controls on your site has the potential to cause effects to historic properties and whether or not you need to contact your SHPO, THPO, or other tribal representative for further information. If there are no earth disturbing stormwater controls on the project, the reader is directed to review the listing of sites in Bernalillo County placed in the Historic Register provided in Tab 6 of this Binder.

3.2.1 Eligibility Criterion

Step 1:

Are any of the following stormwater controls installed at the project site?

Table 3.2.1

Stormwater Control	Installed at Project Site
Dike	No
Berm	No
Catch Basin	No
Pond	Yes
Ditch	No
Trench	No
Culvert	No
Channel	No
Perimeter Drain	No
Swale	No
Other type of Ground Disturbing Stormwater Control	Yes

*If none of the controls in the list are installed, the screening process is complete.

Step 2:

Have prior professional cultural resource surveys or other evaluations determined that historic properties do not exist, or have prior disturbances precluded the existence of historic properties?

Yes

*If yes, the screening process is complete. If no, continue to Step 3.

If, during excavation or other construction activities, any previously unidentified of unanticipated historical, archaeological, and/or cultural resources are discovered, all activities that may damage or alter such resources shall be temporarily suspended. Resources covered by this paragraph include but are not limited to:

- Any human skeletal remains or burials
- Artifacts
- Shell, Midden, Bone Charcoal, or other deposits
- Rock or Coral Alignments, Pavings, Walls or other constructed features
- Any other indication of Agricultural or Human activities

Upon such discovery, the Operator shall immediately cease activity and contact the appropriate authorities so that a determination may be made as to their significance and what, if any, special disposition of the finds should be made. The Operator shall secure the area and prevent employees or other persons from trespassing on, removing, or otherwise disturbing such resources.

3.3 Safe Drinking Water Act Underground Injection Control Requirements

Per Part 7.2.9.c of the CGP, if you are using any of the following controls at your site, you must document any contact you have had with the applicable state agency or EPA regional Office responsible for implementing the requirements for underground injection wells in the Safe Drinking Water Act and EPA's implementing regulations at 40 CFR 144-147. Such controls would generally be considered Class V UIC wells.
Will you be installing any of the following controls?

No Infiltration Trenches (if stormwater is directed to any bored, drilled,, driven shaft or dug hole that is deeper than it's widest surface dimension, or has a subsurface fluid distribution system)

No Commercially manufactured pre-cast or pre-built proprietary subsurface detention vaults, chambers, or other devices designed to capture and infiltrate stormwater flows

No Drywells, seepage pits, or improved sinkholes ((if stormwater is directed to any bored, drilled,, driven shaft or dug hole that is deeper than it's widest surface dimension, or has a subsurface fluid distribution system)

SECTION 4: EROSION AND SEDIMENT CONTROLS

4.1 Natural Buffers or Equivalent Sediment Controls

CGP Part 2.2.1 requires that sites provide and maintain natural buffers and/or equivalent erosion and sediment controls for any discharge to waters of the U.S. that are located within 50 feet of the site's earth disturbances. If the water of the U.S. is not located within 50 feet of earth disturbing activities, Part 2.2.1 does not apply.

Are there waters of the U.S. within 50 feet of earth disturbing activities at your site: No

This site will have an exception to the buffer requirement

X There is no stormwater discharge to waters of the U.S. between the disturbed portions of this site and any water of the U.S. within 50 feet of the project perimeter.

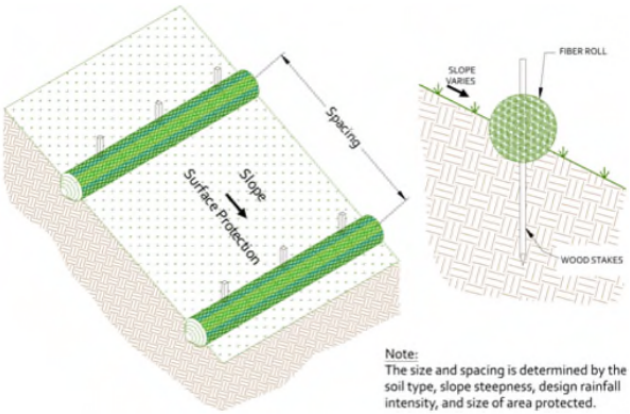
The compliance alternative for this site is:

X: Surface waters ***are not*** within 50 feet of the project's earth disturbances. Additional engineering beyond the RUSLE calculations are not required.

The Operator will implement erosion and sediment controls that achieve the sediment load reduction equivalent to a 50-foot undisturbed natural buffer.

4.2 Perimeter Controls

4.2.1 Wattles



DESCRIPTION AND PURPOSE

Wattles are temporary, structural BMPs consisting of coconut husk, mulch, compost or similar material packed and placed into rolls designed to capture sediment and reduce flow velocity.

OBJECTIVES:

- Sediment Control
- Runoff Control
- Erosion Control

TARGETED POLLUTANTS

- Sediment
- Hydrocarbons/Petroleum Products

APPLICATIONS

- Sediment Capture
- Storm Inlet Protection
- Slope Length Reduction
- Perimeter Containment
- Stockpile Containment
- Velocity dissipation

LIMITATIONS

- Wattles are not effective unless entrenched, and are prone to migration when not properly staked and entrenched.
- Wattles, due to their relatively small size, possess a limited capture area.
- Wattles are difficult to move when sediment laden or are saturated.
- Wattles should not be used on slopes prone to creep, slumping, or landslide.

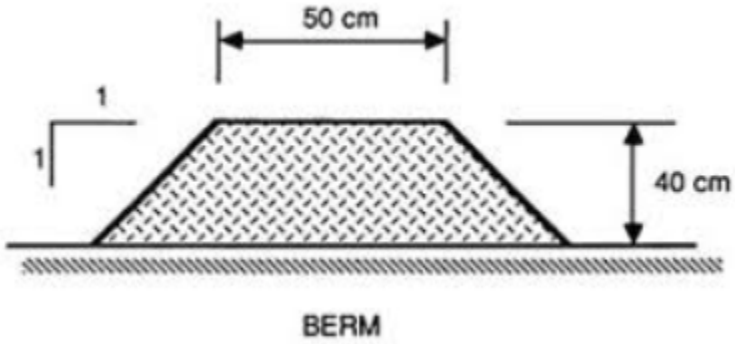
INSPECTION

- Inspect according to regulatory timetables
- Proper trenching beneath wattle
- Adjoining rolls should overlap (as opposed to meeting the adjacent roll end to end)
- When installed on slopes, wattles must be installed on the contours.

MAINTENANCE

- Repair or replace roll that experiences splits, tears, unraveling, clogging, or slumping within 24 hours.
- Remove accumulation of soil behind roll beyond levels allowed by local regulations and manufacturers specifications within 24 hours.
- Ensure stakes are spaced and driven correctly, according to regulations and manufacturer specifications.

4.2.2 Earth Berms



BERM

DESCRIPTION AND PURPOSE

Earth Berms are temporary or permanent, structural BMPs that are utilized to intercept and divert run on/off site water to prevent it from entering or leaving a site.

OBJECTIVES

- Runoff Control
- Erosion Control
- Post Construction Management

TARGETED POLLUTANTS

- Sediment

APPLICATIONS

- Divert run on water away from disturbed areas
- Above existing disturbed slopes and cut or fill slopes
- At or near project perimeter

LIMITATIONS

- Freezing weather
- Topographic features

IMPLIMENTATION CONSIDERATIONS

- The berm should be sufficient in size and shape to prevent run on/off from the site.

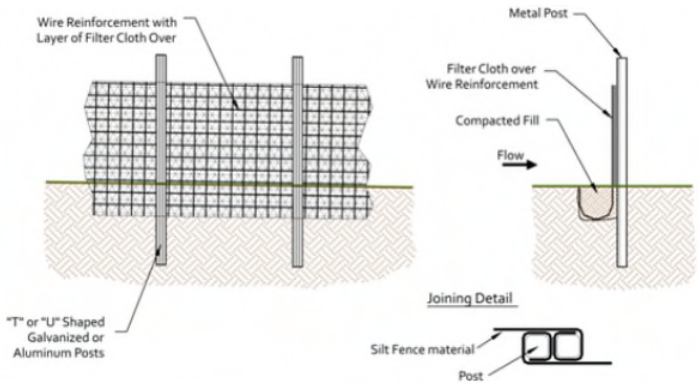
INSPECTION

- Inspect according to regulatory timetables
- Correct location and dimensions
- Accumulation of sediment
- Evidence of runoff over-topping the berm

MAINTENANCE

- Repair erosion damage (rills, gullies) when encountered.
- Remove accumulation of sediment.
- Remove debris and trash.

4.2.3 Silt Fence



DESCRIPTION AND PURPOSE

Silt fence is a temporary, structural BMPs consisting of filter fabric stretched across stakes and entrenched.

OBJECTIVES:

- Sediment Control
- Runoff Control

TARGETED POLLUTANTS

- Sediment
- Trash and Debris

APPLICATIONS

- Perimeter Control
- Small Sediment Containment System

LIMITATIONS

- Silt fence should not be installed where conditions preclude uniform entrenchment of filter fabric or installation posts. (e.g. across a paved or rocky area)
- Silt fence may not be used in an area of concentrated flow.
- Silt fence is degraded by ultraviolet (UV) light and wind.
- Silt fence is designed to accept a certain amount of flow from a drainage area per linear foot of silt fence.
- Not for use in areas where accumulation of water may cause flooding.
- Not for use on steep slopes.

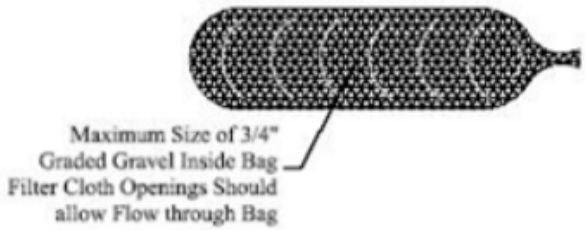
INSPECTION

- Inspect according to regulatory timetables
- Placement according to the SWPPP Plan, with field adjustments as needed.
- Sagging, frayed, torn, or otherwise worn or damaged fabric
- Proper stake materials and filter fabric.
- Damaged or broken reinforcement and staking materials
- Correct stake spacing, every 10 feet.
- Sediment build-up
- Undercutting/end runs
- Missing or removed silt fence
- Ensure proper entrenchment, applying physical pressure for verification.

MAINTENANCE

- Repair end runs and undercutting within 24 hours.
- Repair or replace worn, torn, or sagging fabric within 24 hours.
- Remove sediment deposits that accumulate to 1/3 height of the fabric within 24 hours.
- Check for reinforcement and staking materials for structural integrity and replace when necessary.

4.2.4 Gravel Bags



DESCRIPTION AND PURPOSE

Gravel Bags area temporary, structural BMP that utilizes bags filled with gravel to create a small sediment trap upstream of a storm drain inlet or culvert where water can pool and let sediment fall out of suspension before clean water tops the gravel bag and enters the drain.

OBJECTIVES:

- Runoff Control
- Sediment Control

TARGETED POLLUTANTS

- Sediment
- Trash and Debris

APPLICATIONS

- Culvert Inlets
- Drop Inlets

LIMITATIONS

- Pooling situation created by the gravel bag design may encroach upon roadways or parking structures.

INSPECTION

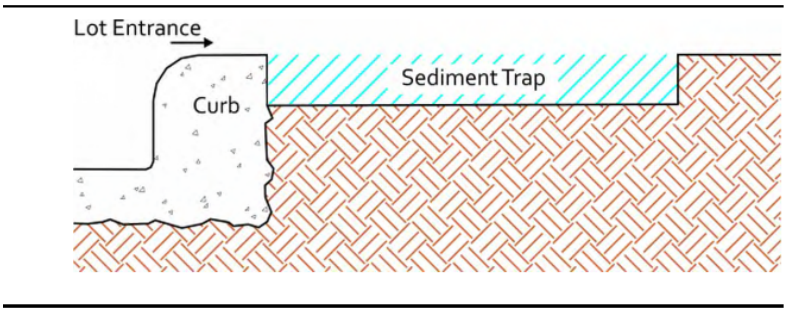
- Inspect according to regulatory timetables
- Displacement of gravel bags.
- Ruptured or damaged bags
- Ensure contact between the bags and the material underneath/beside them.
- Sediment accumulation around bags
- Check for bypass of measure

.

MAINTENANCE

- Remove accumulated sediment and debris from around the gravel bags within 24 hours.
- Replace bags that have shifted and are no longer in contact with the street or curb within 24 hours.
- Repair or replace bags that become damaged within 24 hours.

4.2.5 Cut Back Curb



DESCRIPTION AND PURPOSE

Cut Back Curbs are temporary, structural, BMPs that create a place for water to pond at the back of the curb, while still allowing access to the site.

OBJECTIVE:

- Sediment Control

TARGETED POLLUTANTS

- Sediment

APPLICATIONS

- Along the curb of lots
- At site perimeters
- Linear road projects

LIMITATIONS

- When installed improperly, cut back curbs can undermine and cause the collapse of adjacent roadways and sidewalks
- Not designed to handle large amounts of water.

INSPECTION

- Inspect according to regulatory timetables
- Proper Depth of Cut Back
- Erosion of soil under roadways, curbs and sidewalks adjacent to cut-back curb
- Accumulated sediment behind cut back curb
- Soil escaping the cut back ponding area
- Accumulated trash and debris

MAINTENANCE

- Maintain proper depth of cut back
- Remove accumulated sediment when it reaches 1/3 to 1/2 the depth of the cut back within 24 hours.
- Keep cut back curb areas free of trash and debris

4.3 Sediment Track Out

OBJECTIVE:

A project site's access points experience concentrated and loose sediment. The EPA suggests this directive as a minimum performance guideline, "At a minimum, you must provide for maintenance that meets the following requirement in CGP Part 2..2.4.d: Where sediment has been tracked-out from your site onto paved roads, sidewalks, or other paved areas outside of your site, remove the deposited sediment by the end of the same business day in which the track-out occurs or by the end of the next business day it track out occurs on a non-business day. 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 stormwater conveyance, storm drain inlet, or water of the U.S."
The entrance may utilize several types of controls to capture sediment and prevent its movement offsite. Specifically, rumble mats or round stone approximately 4" in diameter have proven as effective dry approaches. Wash stations are effective wet solutions although the expense and maintenance of this method is significantly greater than a dry method.

INSTALLATION:

Stabilize all entrances to a site before construction and site disturbance begin. The stabilized entrances need to be large enough to allow the largest construction vehicle that will enter the site to fit through with room to spare. If many vehicles are expected to use an entrance in any one day, make the site entrance wide enough for two vehicles to pass at the same time with room on either side of each vehicle, and long enough to allow two full tire rotations.
If a site entrance leads to a paved road, make the end of the entrance flared so that long vehicles do not leave the stabilized area when they turn onto or off the paved roadway. If a construction site entrance crosses a stream, swale, or other depression, provide a bridge or culvert to prevent erosion from unprotected banks.
Make sure stone and gravel used to stabilize the construction site entrance are large enough so that they are not carried offsite by vehicles. Avoid sharp-edged stone to reduce

the possibility of puncturing tires. Install stone or gravel at a depth of at least 6 inches for the entire length and width of the stabilized construction entrance.

INSPECTION:

Common items to consider when inspecting a rock construction entrance is to determine if the rock is the appropriate size, if the rock is compacted due to frequent use and no longer effective, and if the rock has been placed over a filter cloth or blanket material. Similarly, it is important to determine if the entrance is of sufficient length and width and allow for adequate wheel rotation. Ineffective installation and maintenance of a construction entrance or track – out pad may lead to increased offsite sediment tracking and pollutant discharge.

MAINTENANCE

- Remove accumulated sediment.
- Where sediment has been tracked-out from your site onto paved roads, sidewalks, or other paved areas outside of your site, remove the deposited sediment by the end of the same business day in which the track-out occurs or by the end of the next business day if track-out occurs on a non-business day. 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 stormwater conveyance, storm drain inlet, or water of the U.S.

4.4 Stockpiled Sediment or Soils

OBJECTIVE:

Stockpiles of soil, Portland Cement Concrete (PCC), Asphalt Concrete (AC), Hot Mix Asphalt Cement (HMAC) and rubble are potential storm water pollutants if not properly managed. Eliminate stockpiles whenever possible. Elimination is the most certain method available to prevent sediment discharge. Secondary protection may include perimeter control or covering with blankets to minimize the stockpile's exposure to stormwater and non-stormwater discharge.
The following are requirements that apply to all stockpiles, regardless of season or material, if elimination is not possible:
Locate stockpiles away from drainage courses, drain inlets or concentrated flows of stormwater.
For wind erosion control, apply water or other dust palliative to stockpiles.
Small stockpiles may be covered as an alternative.
Place bagged materials on pallets and cover them with a tarp or similar material.

Soil Stockpiles

The temporary perimeter sediment barriers (e.g. wattles, dikes, silt fence) will contain any soil stockpiles. The description of the structural practice employed is included in the Perimeter Control section of this document. The design, installation and maintenance requirements are included in the description. A soil stabilization measure may be used in lieu of a perimeter control when active use of the stockpile ceases for short periods. Year-round, active soil stockpiles are to be protected with temporary linear sediment barriers prior to the onset of rain.

Paving Material & Waste Stockpiles

Stockpiles of PCC, AC/HMAC, aggregate base course, aggregate sub grade materials or rubbles are to be managed as follows:
Cover non - active stockpiles or protect them with temporary perimeter sediment barriers prior to the onset of rain;

Year – round, protect active stockpiles with temporary linear sediment barriers prior to the onset of rain.

Asphalt Stockpiles

During the non-rainy season, place non-active stockpiles of asphalt on plastic or a comparable material and cover the stockpile prior to the onset of rain.
During the rainy season, place asphalt stockpiles on plastic and always cover them. Year-round, active asphalt stockpiles are to be placed on plastic and covered prior to rain.

INSPECTION AND MAINTENANCE

Inspect stockpiles as part of the routine storm water inspection. The Owner and/or Operator may repair or replace perimeter controls and covers to ensure proper function.

4.5 Minimize Dust

OBJECTIVE:

Dust control BMPs reduce surface activities and air movement that causes dust to be generated from disturbed soil surfaces. Construction sites can generate large areas of soil disturbance and open space for wind to pick up dust particles. Limited research at construction sites has established an average dust emission rate of 1.2 tons/acre/month for active construction (WA Dept. of Ecology, 1992).
Airborne particles pose a dual threat to the environment and human health. First, dust can be carried offsite, thereby increasing soil loss from the construction area and increasing the likelihood of sedimentation and water pollution. Second, blowing dust particles can contribute to respiratory health problems and create an inhospitable working environment.

INSTALLATION:

Dust control measures are applicable to any construction site where there is the potential for air and water pollution from dust traveling across the landscape or through the air. Dust control measures are especially important in arid or semiarid regions, where soil can become extremely dry and vulnerable to transport by high winds.
Implement dust control measures on all construction sites where there will be major soil disturbances or heavy equipment construction activity such as clearing, excavation, demolition, or excessive vehicle traffic. Earthmoving activities are the major source of dust from construction sites, but traffic and general disturbances can also be major contributors (WA Dept. of Ecology, 1992). The dust control measures that are implemented at a site will depend on the topography and land cover of the site and its soil characteristics and expected rainfall.

DUST CONTROL METHODS

When designing a dust control plan for a site, the amount of soil exposed will dictate the quantity of dust generation and transport. Therefore, construction sequencing and disturbing only small areas at a time can greatly reduce problematic dust from a site. If land must be disturbed, consider using temporary stabilization measures before

disturbance. Several methods exist which can be used to control dust from a site but not all will be applicable to a site.
Consider site-specific assessments and weather conditions to determine which method may be most effective. The following lists some control measures and design criteria:

Sprinkling/Irrigation
Sprinkling the ground surface with water until it is moist is an effective dust control method for haul roads and other traffic routes (Smolen et al., 1988). This practice can be applied to almost any site.

Vegetative Cover
In areas not expected to handle vehicle traffic, vegetative stabilization of disturbed soil is often desirable. Vegetative cover provides coverage to surface soils and slows wind velocity at the ground surface, thus reducing the potential for dust to become airborne.

Mulch
Mulching can be a quick and effective means of dust control for a recently disturbed area and may reduce wind erosion by up to 80 percent.

Wind Breaks
Wind breaks are barriers (either natural or constructed) that reduce wind velocity through a site and, therefore, reduce the possibility of suspended particles. Wind breaks can be trees or shrubs left in place during site clearing or constructed barriers such as a wind fence, snow fence, tarp curtain, hay bale, crate wall, or sediment wall.
For each foot of vertical height, and 8 to 10-foot deposition zone develops on the leeward side of the barrier. The permeability of the barrier will change the breaks effectiveness at capturing windborne sediment.

Tillage
Deep tillage in large open areas brings soil clods to the surface where they rest on top of dust, preventing it from becoming airborne. Roughening the soil can reduce losses by approximately 80 percent in some situations.

Stone
Stone can be an effective dust deterrent for construction roads and entrances or as a mulch in areas where vegetation cannot be established. The size of the stones can affect the amount of erosion taking place. In areas of high wind, small stones are not as effective as 20 cm stones, for example.

Spray-on Chemical Soil Treatments (Palliatives)
Chemical palliatives should be used only on mineral soils. When considering chemical application to suppress dust, determine whether the chemical is biodegradable or water-soluble and what effect its application could have on the surrounding environment, including water bodies and wildlife. Per limited research, the effectiveness of polymer stabilization methods range from 70 percent to 90 percent.

INSPECTION AND MAINTENANCE:

Because dust controls are dependent on specific site and weather conditions, inspection and maintenance requirements are unique for each site. Generally, however, dust control measures involving application of either water or chemicals require more monitoring than structural or vegetative controls to remain effective. If structural controls are used, inspect them regularly for deterioration to ensure that they are still achieving their intended purpose.

4.6 Minimize Steep Slope Disturbance

The project **does not have** steep slope areas. This section will not apply if the project does not have a steep slope.

Steep slopes have many definitions. Generally, slopes that are steeper than 2.5:1 are slopes that meet the steep slope requirements of the 2017 CGP. The methods of compliance are linked with the phase of construction.

Consider using spray-on chemical treatments as described in Section 5.8 of this plan to minimize steep slope disturbance and erosion. The palliative may be applied by hydraulic methods or executed with a spray truck (hydroseeder).

INSPECTION AND MAINTENANCE:

Inspect the palliative treatment during each regularly scheduled inspection and after each rain event. If there is evidence of erosion or sediment subsistence at the toe of the slope, reapply the temporary treatment.

4.7 Topsoil

This project has extensive paving, concrete or other impervious structures.

Topsoil, if the project is not highly impervious, will be stockpiled in an area of the project where it can be preserved by sediment barriers at the base of the pile combined with the mitigation measures described in the Minimization of Dust in section 4.5 of this document. Alternatively, the topsoil pile can be covered with geotextile or other impenetrable barrier to preserve the material in the pile.

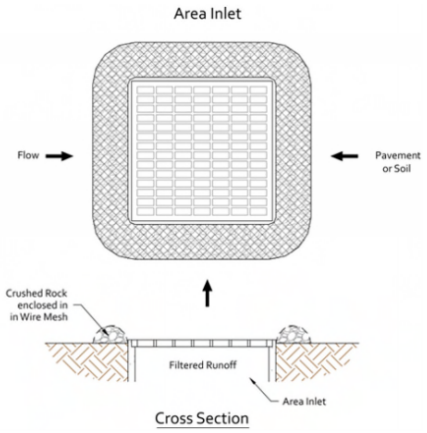
INSPECTION AND MAINTENANCE:
Maintenance Requirements for the topsoil pile will follow those listed in the Stockpile discussion included in the document.

4.8 Soil Compaction

Where engineered infiltration or vegetation practices are the stabilization methods and compaction has occurred, it is necessary to condition the area to accept the stabilization practice. Determining the level of compaction is a site-specific activity. The area to be vegetated should be marked to prevent traffic and to notify site employees to avoid the area until the vegetation activities take place.

If the conditioning method is not listed in the specification documents, the specification for installation of vegetative means or infiltrations practices will be provided by the Operator.

4.9 Storm Drain Inlet Controls



DESCRIPTION AND PURPOSE

Inlet protection at grade is a structural BMP that protects inlets that are flush with the ground or at grade (drop or yard inlets) which receive stormwater from disturbed areas of the construction site. This inlet protection may include any number of above ground constructions.

OBJECTIVES:

- Runoff Control
- Sediment Control

TARGETED POLLUTANTS

- Sediment
- Trash and Debris

APPLICATIONS

- Where additional sediment control is needed
- Where other surface protection is prohibited due to:
- The presence of vehicular traffic
- Safety hazards
- regulations
- Along highways where grates are used in combination with curb inlets

LIMITATIONS

- Pooling situation created by the inlet protection at grade may encroach upon roadways or parking structures.
- May be safety issues on roadways

INSPECTION

- Inspect according to regulatory timetables
- Protection fitting grate dimensions.
- Rips, tears, or other damage to materials
- Install according to SWPPP Plan.
- Sediment accumulation
- Check for bypass

MAINTENANCE

- Clean, or remove and replace, the protection measures as sediment accumulates, the filter becomes clogged, and/or performance is compromised. Where there is evidence of sediment accumulation adjacent to the inlet protection measure, remove the deposited sediment by the end of the same business day in which it is found or by the end of the following business day if removal by the same business day is not feasible.

4.10 Stormwater Conveyance Channels

OBJECTIVE:

Incorporating conveyance channels into a project demonstrates well-developed engineering practices. Control methods must address and prevent channel deterioration to ensure the channel does not contribute to sedimentation and pollution of waters of the U.S. It is equally important to include velocity dissipation measures to ensure:

- The velocity gradient in the channel is moderated
- The geometry of the channel is maintained
- Pollutants are controlled
- Sediment is captured and contained onsite

4.11 Sediment Basins

SEDIMENT BASINS OR TRAPS WILL NOT BE INSTALLED AS A CONTROL IN THE PROJECT.

OBJECTIVE:

Sediment traps are small impoundments that allow sediment to settle from construction runoff. They are usually installed in a drainage way or other discharge point. Sediment traps are most commonly used at channels, slope drains, dewatering locations, construction site entrance wash tracks, conveyance discharge points or any other runoff outlet.

Sediment traps detain sediments in stormwater runoff to protect receiving streams, lakes, drainage systems and the surrounding area. The traps are formed by excavating an area or by placing an earthen embankment across a low area or drainage swale.

Drainage swales, sediment traps or sediment basins capture runoff and sediment on a larger scale than smaller BMPs. They are sized to manage large storm or drainage areas. Sediment basins also allow for the controlled return of surface water in dewatering situations while simultaneously capturing sediment. Lastly, sediment traps provide collections points for sediment at the perimeter of site discharge locations meeting the ELG regulatory requirements.

INSTALLATION:

- When excavating an area for a sediment trap, the side slopes should not be steeper than 2:1 and the top of the embankment no more than 5 feet from the original ground surface.
- Ensure stability of side walls, mounds and barriers by Machine-compacting all embankments. If the trap is created above grade it should be lined with well-graded stone to reduce flow rate from the trap the outlet.
- The spillway weir for each temporary sediment trap should be at least 4 feet long for a 1-acre drainage area and increase by 2 feet for each additional drainage acre added, up to a maximum drainage area of 5 acres.

INSPECTION AND MAINTENANCE:

- Inspect the sediment basin or trap per the schedule outlined in this plan. At each inspection, ensure the trap is draining properly. Remove sediments when the basin reaches 50% sediment capacity. Inspect the structure for damage from erosion by reviewing the depth of the spillway and maintain it at a minimum of 18 inches below the lowest point of the trap embankment.
- Take care to situate sediment traps for easy access by maintenance crews. The primary maintenance consideration for temporary sediment traps is to remove accumulated sediment. Do this periodically to ensure ongoing operation. Perform re-compaction of side walls, mounds and barriers after extended periods of water retention to ensure each is competent to accept future flows.

4.12 Chemical Treatment

Chemical treatment is not employed as a BMP on this project.

4.13 Dewatering Practices

Dewatering is not expected on this project.

4.14 Other Stormwater Controls

4.14.1 NPDES Notification Board

OBJECTIVE:

To ensure the soil disturbance information for the project is readily for review and use by the public and site personnel. The NPDES Notification must be large enough to contain information about the project and all notifications and posting. The NPDES Notification must provide all soil disturbance information, including the NPDES tracking number, contact for additional information, directive to the SWPPP location, and a directive to contact the EPA in the event that there is an indication of stormwater pollutants in site discharge or a receiving waterbody, in accordance with Part 1.5 of the 2017 CGP.

INSTALLATION:

The NPDES Notification must be installed or posted at a location which is easily accessible to the public. It must be located so that it is visible from the public road that is nearest the active part of the construction site and it must use font large enough to be readily viewed from public right-of-way.

INSPECTION AND MAINTENANCE:

The NPDES Notification Board will be inspected during the scheduled site inspections per Part 4.2 of the CGP. The board should always be in proper condition with a rain gauge attached. Any identified board maintenance will be scheduled for repair.

4.14.2 Temporary Sanilet Facilities

OBJECTIVE:

Provide personal waste facilities for site personnel for the proper collection, disposal and prevention of waste products in compliance with OSHA regulations. Temporary sanilet facilities encourage good housekeeping measures at the construction site. Their installation meets OSHA regulations and prevents pollution and stormwater contamination.

INSTALLATION:

The sanilet provider may install the device at locations throughout the project site which provide convenient access to both site personnel and equipment maintenance or removal operators. Sanilets should not be installed near any discharge or inlet location, such as on top of or uphill from a storm drain or drop inlet. The sanilet provider should securely anchor the facility to prevent tipping. It may be necessary to install a secondary control measure, such as a wattle perimeter or earth berm, to further ensure minimal runoff.

INSPECTION AND MAINTENANCE:

Inspect sanilet facilities daily to determine if they have reached 50% volume capacity. The facilities should be removed, replaced or emptied when they have reached or exceeded this amount. Daily inspection should check that all plastic structures are intact and do not show signs of damage from construction, vandalism or weather – related activities. Inspectors should also determine if the location is appropriate and not near discharge or inlet locations.

Sanilets are designed to promote safe and sanitary use. However, if stored liquids have not been removed and the sanilet is nearing capacity, vacuum and dispose of them in an approved manner - check with the local sanitary sewer authority to determine if there are special disposal requirements.

4.15 Site Stabilization

The Site is located in an arid, semi-arid or drought stricken area.

Regardless of the project location's in an arid, semi-arid or drought stricken area, projects operating in New Mexico, except Indian country, must comply with the temporary stabilization deadlines noted in Parts 2.2.14.

4.15.1 Initiation Timeframe Requirements

Per Part 2.2.14 of the CGP, "You must initiate soil stabilization measures immediately whenever earth-disturbing activities have permanently or temporarily ceased on any portion of the site."

The term "immediately" is used to define the deadline for initiating stabilization measures. In the context of this provision, "immediately" means as soon as practicable, but no later than the end of the next work day, following the day when the earth-disturbing activities have temporarily or permanently ceased.

Per 2.2.14 of the CGP clarifies and defines 'permanently' and 'temporarily' to assist Owners and Operators to determine which requirements apply to the project area:

- *"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."
- *"Earth-disturbing activities have **temporarily** ceased* when clearing, grading, and excavation within any area of the site that will not include permanent structures will not resume (i.e., the land will be idle) for a period of 14 or more calendar days, but such activities will resume in the future.
- The 14-calendar day timeframe above begins counting as soon as you know that construction work on a portion of your site will be temporarily ceased. In circumstances where you experience unplanned or unanticipated delays in construction due to circumstances beyond your control (e.g., sudden work stoppage due to unanticipated problems associated with construction labor, funding, or other issues related to the ability to work on the site; weather conditions rendering the site unsuitable for the continuation of construction work) and you do not know at first how long the work stoppage will continue, your requirement to immediately initiate stabilization is triggered as soon as you know with reasonable certainty that work will be stopped for 14 or more additional calendar days. At that point, you must comply with Parts 2.2.1.i and 2.2.1.ii."

4.15.2 Initiation Activities

If construction work ceases on a portion of the site for a continuous 14-day period, ***but will resume in the future,*** the Permittee will stabilize the disturbed areas with a means shown in the list below. Part 2.2.14 of the CGP provides the following list of initiation examples as a guide. This list is not exhaustive:

1. Prepping the soil for vegetative or non-vegetative stabilization;
2. Applying mulch or other non-vegetative product to the exposed area (e.g. temporary soil stabilizer);
3. Seeding or planting the exposed area;
4. Starting any of the activities in # 1 – 3 on a portion of the area to be stabilized, but not on the entire area; and
5. Finalizing arrangements to have stabilization product fully installed in compliance with the applicable deadline for completing stabilization in Parts 2.2.14.

The areas disturbed will exclude locations in which construction has not started or locations in which construction has implemented permanent stabilization. Locations where permanent stabilization practices and controls have been implemented will conform to the design specifications for each or the Stabilization Practices – Post Construction listed herein.

4.15.3 Completion Deadline

Per Part 2.2.14 of the CGP, stabilization activities must be complete as soon as practicable but no later than 7 calendar days after stabilization has been initiated as discussed above. At the close of the 7 period, the site must exhibit the following:

1. Establish uniform, perennial vegetation (i.e., evenly distributed, without large bare areas) that provides 70 percent or more of the cover that is provided by vegetation native to local undisturbed areas; and or

2. Implement permanent no vegetative stabilization measures (examples of permanent non-vegetative stabilization measures include riprap, gravel, gabions, and geotextiles) to provide effective cover.

4.15.4 Temporarily Ceased Activities

Fountain Hills Assisted Living may use the following stabilization methods to comply with Part 2.2.14 of the CGP. Descriptions of the mechanism and maintenance protocols for Non-Vegetative Controls are available in Tab 8 of this binder. Descriptions of the mechanism and maintenance protocols for Vegetative Controls are available in Tab 8 of this Binder.

Table 4.15.4

Stabilization Practice	Stabilization Type	Convert to Permanent?
Sprayed Water	Non Vegetative	No
Pond	Vegetative	Yes
Silt Fence	Non Vegetative	No
Inlet Protection	Non Vegetative	No

4.15.5 Post Construction Stabilization

The area from which vegetation is removed or the soil disturbed is that area which will be designated for excavation, grading, concrete, paving, vertical construction or landscaping for this project and must be addressed in the design of the entire project.

Stabilization is more than establishing of vegetation. Site stabilization is coverage of the disturbed area with a constructed element (e.g. a building or stabilized channel) or a natural element (e.g. seeding or planted vegetation).It is important for the reviewer to acknowledge sites include both constructed and natural elements that can deliver stabilization equivalent to the 'pre-construction condition'. A representative site evaluation will recognize an appropriately stabilized area prevents the transport of sediment off the site. Prevention of sediment transport is attainable using constructed elements as well as natural elements. The site around which this plan is developed incorporates the contract documents for constructed elements, permanent erosion control or other stabilization means.

It is the intent of the Owner, Operator, and Contractors to provide and comply with permitted coverage requirements until 70% of the natural vegetated state (prior to disturbance) is achieved.

The criteria for final stabilization in Part 2.2.14b is to "Establish uniform, perennial vegetation (i.e., evenly distributed, without large bare areas) that provides 70 percent or more cover that in provided by vegetation native to local undisturbed areas; and/or Implement permanent non-vegetative stabilization measures to provide effective cover."

There is an exception to the criteria for Arid, semi arid, and drought- stricken areas:

Final stabilization is met if the area has been seeded or planted to establish vegetation that provides 70 percent or more of the cover that is provided by vegetation native to local undisturbed areas within three (3) years and, to the extent necessary to prevent erosion on the seeded or planted area, non-vegetative erosion controls have been applied that provide cover for at least three years without active maintenance.

Table 4.15.5

Stabilization Practice	Stabilization Type	Converted from Temporary?
Pond	Vegetative	Yes
Vertical Structure	Non Vegetative	No
Paving	Non Vegetative	No
Landscaping	Vegetative	No

SECTION 5: POLLUTION PREVENTION STANDARDS

5.1 Potential Sources of Pollution

Potential pollutants that could affect the stormwater discharges from this project may include but are not limited to:

Table 5.1

Activity	Potential Pollutants
Equipment Activity	Oils, Grease, and other Distillates
Material Storage Area	Sediment, Oils, Grease, and other Distillates
Pond	Sediment
Grubbing	Sediment
Backfill	Sediment
Asphalt Paving	Asphalt and Sediment
Concrete	Lime
Paint	VOCs
Landscaping	Sediment

All equipment and materials used during the project will be stored within the site's perimeter controls. Additional appropriate controls including, but not limited to: secondary containment, drip pans, berming, and covering may be used. Additional controls will be established based on site conditions and equipment/materials used.

5.2 Spill Prevention and Response

The discharge or spill of hazardous substances is not expected to occur due to or during construction activities. The project and its activities are not expected to use any substance in a manner or quantity that might require the reporting of a release in excess of reportable quantities. Substances and reportable values include:

Table 5.2

Hazardous Substances	Where Released	Reportable Quantity
Engine Oil, fuel, hydraulic and brake fluids	Land	25 Gallons
Engine Oil, fuel, hydraulic and brake fluids	Water	Visible Sheen
Antifreeze, battery acid, gasoline, engine degreasers, radiator fluid	Air, Land or Water	100 lbs. or 13 Gallons
Paints, solvents and thinners	Land	100 lbs. or 13 Gallons
Freon	Air	1 lb.

When an incident (spill of hazardous material in excess of reportable quantities) occurs within the project during construction activities, the following measures will be employed:

The Operator Will:	Time Action Required	Responsible Employee Onsite
Stop the source of the spill	Immediate	Assigned Team Member
Contain the spill utilizing (compost) mulch socks or soil berms	Immediate	Safety Officer
Clean up the spill	Once Spill is Contained	Assigned Team Member
Dispose of material contaminated by the spill in an approved disposal site	Within 24 Hours	Safety Officer
Notify both the National Response Center (1-866-428-6535) and the New Mexico Environment's Hazardous and Radioactive Materials Bureau (1-505-827-4300) providing a release of hazardous materials in excess of reportable quantities has occurred.	Within 24 Hours	Superintendent
Submit a description of the incident to the appropriate authorities (SWQB)	14 Calendar Days	Superintendent
Modify SWPPP, if appropriate, and identify prevention measures.	14 Calendar Days	Inspections Plus

Sanitation: providing temporary facilities (such as portable restrooms) to ensure that the site sanitation requirements comply with federal, state and local regulations.

This site does not require a Spill Prevention Control and countermeasure (SPCC) plan. If a plan is required, it will be found in a separate binder at the construction site office.

5.3 Fueling and Maintenance of Equipment or Vehicles

OBJECTIVE:

Minimize or eliminate the discharge of fuel spills and other pollutants into the MS4 on construction sites. Key areas include all construction sites where storage and maintenance occur on – site, and all fueling areas within a construction site.

LIMITATIONS:

Fuel vehicles on-site only when off-site fueling is impractical.
Comply with local codes regarding fluid disposal and on-site equipment maintenance.

STANDARDS AND SPECIFICATIONS:

- Spill cleanup kits should be available in fueling areas and on fueling trucks. Proper disposal is required.
- A drip pan or absorbent pad should be used unless fueling or maintenance activities occur over an impervious surface.

- When a vehicle is located over a water body (dock, barge) and is planned to be idle for more than one hour, a drip pan or sheet should be placed under the vehicle.

Fueling areas should be:

- Located at least 100 feet from waterways, channels, and storm drains.
- Protected from run-on or runoff.
- Located on a level-graded area.
- Attended always during fueling.
- Fueling equipment should be equipped with an automatic shut-off nozzle to contain drips.
- Fuel tanks should not be “topped-off”.
- Avoid mobile fueling.
- Observe federal, state, and local requirements relating to any stationary aboveground storage tanks. Double containment mechanisms should be employed whenever possible.
- Do not dump fuels and lubricants onto the ground.
- Do not bury used tires.
- Do not dispose of oil in a dumpster or pour it down the storm drain.
- Properly dispose of used batteries.
- Conduct washing, fueling, and major maintenance off-site whenever possible.
- Inspect vehicles for leaky hoses, gaskets, or other problems.

- Locate vehicle services areas away from waterways, storm drains, gutters, and curbs.
- Use berms, sand bags, or other barriers to contain areas.
- Do not use detergents, solvents, degreasers, or other chemical products to do on-site cleaning.
- Use a drip pan or drip cloth if fluids will be drained and replaced on-site.
- Collect all used fluids, store in separate labeled containers, and either recycle or dispose of properly.

INSPECTION AND MAINTENANCE:

- Inspect on all containment structures.
- Maintain waste fluid containers in a leak proof condition.
- Service sumps associated with wash areas regularly.
- Inspect daily for leaks on vehicles and equipment.
- Keep an ample supply of spill cleanup materials available on-site.
- Clean up spills immediately and dispose of waste properly.
- Prevent boil-over by regularly cleaning equipment radiators.

5.4 Washing of Equipment and Vehicles

OBJECTIVE:

To minimize or eliminate the discharge of pollutants entering the storm drain system from vehicle and equipment cleaning operations at all construction sites where vehicle cleaning occurs.

INSTALLATION:

Limitations:

Wash water discharges may need to be pretreated before release into the sanitary sewer.

Standards and Specifications:

- On-site vehicle and equipment washing is discouraged.
- Do not clean vehicles and equipment with detergent, solvents, or steam on the project site.
- Contain wash water away from storm drain inlets or waterways for evaporative drying or percolation.
- Off-site cleanings are encouraged for all vehicles and equipment that regularly enter and leave the construction site.
- Conduct washing, fueling, and major maintenance off-site whenever possible.
- If equipment or vehicle washing must occur on-site:
- Locate cleaning area away from storm drain inlets, drainage facilities, or waterways.
- Perform the washing in a paved area with concrete or asphalt utilizing a berm to contain wash waters and prevent run-on or runoff.
- Install a sump to collect wash water.
- Do not discharge wash waters to storm drains or waterways.
- Use only when necessary.
- When cleaning vehicles with water:
- Consider using a high-pressure sprayer or a positive shut-off valve to reduce water usage.

INSPECTION AND MAINTENANCE:

- Inspect the control measure at a minimum of once per week.
- Monitor employees and subcontractors to ensure they are implementing or following proper practices.
- Regularly inspect and maintain the sump. Remove sediments and liquids as needed.

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

Table 5.5

Construction Product/Material/ Waste	Storage/Handling	Disposal
Building Materials	Enclosed Leak Proof Containment Area	Off Site
Construction Waste	Covered Dumpster	Off Site
Onsite Chemicals	Water Tight Containers	Off Site
Landscaping Materials	Temporary Cover	Off Site

5.5.1 Pesticides, Herbicides, Insecticides, Fertilizers, and Landscape Materials

Pesticides, Herbicides, Insecticides, Fertilizers, and Landscape Materials are found on the site per CGP Part 2.3.3b

5.5.2 Diesel Fuel, Oil, Hydraulic Fluids, Other Petroleum Products, and Other Chemicals

OBJECTIVE:

To minimize or eliminate the discharge of hazardous or non-hazardous materials to storm drains, watercourses, or drainage channels. These practices are applicable to all construction sites that have delivery and/or storage of:

- Fuel, oil, grease
- Herbicides, pesticides, fertilizers
- Asphalt, concrete and their components
- Acids, curing and form compounds
- Other hazardous materials

INSTALLATION:

Limitations:

- All temporary storage buildings must meet building codes.
- Storage must meet fire codes.
- All secondary containment structures and materials should be removed from the site upon completion of the project and disposed of per regulations.

Standards and Specifications:

- Designate a storage area that is not near a storm drain or watercourse.
- Follow manufacturers' instructions on application, storage, and disposal of materials.
- Store on-site only the amount of material necessary for the job.
- Use non-hazardous and environmentally friendly products.
- Provide indoor storage or cover stockpiled materials and wastes with a tarp.
- Provide covered storage for secondary containment of hazardous materials.
- Use secondary storage to prevent soil contamination.
- Monitor employees and subcontractors to ensure that proper practices are being implemented.
- Keep all material in original containers.
- Label all stored materials per state, local and federal regulations.
- Do not store incompatible materials together.
- Keep adequate supply of cleanup materials on site at all times.
- Report all spills.
- Do not apply hazardous chemicals during wet or windy conditions.

INSPECTION AND MAINTENANCE:

- Inspect storage areas weekly to ensure neatness.
- Post proper storage instructions and Safety Data Sheets (SDS) for all currently stored materials.
- Repair and replace damaged secondary containment facilities.
- Remove all empty containers and packaging from site.
- Store materials with adequate clearances for access and emergency response.

5.5.3 Hazardous or Toxic Waste

OBJECTIVE:

To minimize or eliminate the discharge of hazardous wastes from construction sites to storm drains, gutters, watercourses and drainage channels. These practices are applicable to the following products:

- Petroleum products
- Asphalt products
- Concrete products
- Herbicides and pesticides
- Acids for cleaning masonry
- Soil stabilization chemicals
- Septic wastes
- Paints, solvents, stains and wood preservatives
- Materials that were used to treat or adsorb other wastes
- Hazardous construction wastes such as lead, asbestos, or lead paint

INSTALLATION:

Limitations:

- Does not address preexisting contamination or site assessments.
- Large spills or other serious hazardous wastes require immediate response from specialists.
- Contractor is required to follow all federal, state and local laws regarding handling, storing, and transporting waste materials.

Standards and Specifications:

- Waste containers shall be constructed of a suitable material and properly labeled according to regulations. Labels must include type of material, time of collection and site location.
- Temporary containment for stored materials should be sized at 1.5 times the volume of the stored material. Materials must be stored in sealed drums.
- Temporary containment areas shall be free of accumulated stormwater and spills.
- Temporary containment areas shall have room between containers for emergency response and cleanup.
- Incompatible materials shall be stored separately.
- Do not store different materials in the same container.
- Do not locate temporary containment areas near storm drains, gutters, watercourses or drainage channels.
- Provide adequate access to temporary containment areas.

- Store containers on pallets under a covered, protected area unless containers are watertight.
- Do not dispose of liquid waste in dumpsters or other solid waste containers.
- Collect water from decontamination procedures, treat it and dispose of it at an appropriate disposal site.
- Educate employees and subcontractors in waste storage and disposal. Ensure that proper procedures are followed.
- Immediately repair all dikes and liners used for storage or containment.
- Recycle materials if appropriate.

INSPECTION AND MAINTENANCE:

- Ensure that all wastes are properly labeled and stored.
- Verify that all hazardous wastes are disposed of properly.
- Hazardous wastes must be collected, labeled and disposed of at authorized disposal sites.
- Keep supplies on-site for cleanup of spills.
- Post MSDS sheets for all materials stored on-site.
- Immediately repair all dikes and liners used for storage or containment.

5.5.4 Construction and Domestic Waste

DESCRIPTION

Building materials and other construction site wastes must be properly managed and disposed of to reduce the risk of pollution from materials such as surplus or refuse building materials or hazardous wastes. Practices such as trash disposal, recycling, proper material handling, and spill prevention and cleanup measures can reduce the potential for stormwater runoff to mobilize construction site wastes and contaminate surface or ground water.

APPLICABILITY

The proper management and disposal of wastes should be practiced at every construction site to reduce stormwater runoff. Use waste management practices to properly locate refuse piles, to cover materials that might be displaced by rainfall or stormwater runoff, and to prevent spills and leaks from hazardous materials that were improperly stored.

SITING AND DESIGN CONSIDERATIONS

Solid Wastes:

- Designate a waste collection area on the site that does not receive a substantial amount of runoff from upland areas and does not drain directly to a waterbody.
- Ensure that containers have lids so they can be covered before periods of rain, and keep containers in a covered area whenever possible.
- Schedule waste collection to prevent the containers from overfilling.
- Clean up spills immediately. For hazardous materials, follow cleanup instructions on the package. Use an absorbent material such as sawdust or kitty litter to contain the spill.
- During the demolition phase of construction, provide extra containers and schedule more frequent pickups.
- Collect, remove, and dispose of all construction site wastes at authorized disposal areas. Contact a local environmental agency to identify these disposal sites.

To ensure the proper disposal of contaminated soils that have been exposed to and still contain hazardous substances, consult with state or local solid waste regulatory agencies or private firms. Some landfills might accept contaminated soils, but they require laboratory tests first.

Paint and dirt are often removed from surfaces by sandblasting. Sandblasting grits are the byproducts of this procedure and consist of the sand used and the paint and dirt particles that are removed from the surface. These materials are considered hazardous if they are removed from older structures because they are more likely to contain lead-, cadmium-, or chrome-based paints. Ensure proper disposal of sandblasting grits by contracting with a licensed waste management or transport and disposal firm.

Detergents:

Phosphorous and nitrogen containing detergents are used in wash water for cleaning vehicles. Excesses of these nutrients can be a major source of water pollution. Use detergents only as recommended, and limit their use on the site. Do not dump wash water containing detergents into the storm drain system; direct it to a sanitary sewer or contain it so that it can be treated at a wastewater treatment plant.

LIMITATIONS

An effective waste management system requires training and signage to promote awareness of the hazards of improper storage, handling, and disposal of wastes. The only way to be sure that waste management practices are being followed is to be aware of worker habits and to inspect storage areas regularly. Extra management time may be required to ensure that all workers are following the proper procedures.

MAINTENANCE CONSIDERATIONS

Inspect storage and use areas and identify containers or equipment that could malfunction and cause leaks or spills. Check equipment and containers for leaks, corrosion, support or foundation failure, or other signs of deterioration, and test them for soundness. Immediately repair or replace any that are found to be defective.

5.5.5 Sanitary Waste

OBJECTIVE:

To minimize or eliminate the discharge of sanitary wastes from construction sites to storm drains, gutters, watercourses and drainage channels. These controls apply to construction sites that have portable or temporary sanitary waste systems.

INSTALLATION:

Limitations:

- To dispose of wastes to the sanitary sewer, the leasing company must be permitted.
- On-site disposal systems must comply with all local, and state regulations.
- Temporary connections to the sanitary sewer should meet codes and regulations.

Standards and Specifications:

- Locate toilets and disposal systems where accidental discharge cannot flow to storm drains, gutters, watercourses and drainage channels.
- Anchor portable toilets so they do not overturn during high winds.
- All sanitary wastes shall eventually be discharged to a sanitary sewer.
- Employ licensed sanitary services to ensure facilities are in working order at all times.

INSPECTION AND MAINTENANCE:

- Monitor employees and subcontractors to ensure that proper practices are being implemented.
- Sanitary storage and disposal should be inspected at least once per week. Units should be properly maintained, repaired, or replaced.

5.6 Washing of Applicators and Containers used for Paint, Concrete or Other Materials

OBJECTIVE:

Concrete washouts are used to collect and contain concrete and liquids when the chutes of concrete mixers and hoppers of concrete pumps are rinsed after delivery. The washout controls consolidate solids for easier disposal and prevent runoff of liquids. Proper containment prevents caustic material from reaching the soil surface and migrating to surface waters or ground water.

The wash water is alkaline and contains high levels of chromium, which can leach into the ground and contaminate groundwater. It can also migrate to a storm drain, which can increase the pH of area waters and harm aquatic life. Solids that are improperly disposed of can clog storm drain pipes and cause flooding. Installing concrete washout facilities not only prevents pollution but also is a matter of good housekeeping at your construction site.

INSTALLATION:

Install the washout in an area that is convenient and provides easy access for concrete trucks, preferably near the area in which the concrete is being poured. There are various types of washout containers the Contractor may use at a jobsite to collect and contain wash water. Such methods include but are not limited to chute washout boxes, buckets and pumps, lined washout pits surrounded by an adequate berm or bale barrier, vinyl washout containers, and metal washout containers.

Washout containers should be leak proof and of adequate size to accommodate anticipated material use and waste without causing spillage. Each method should be installed in concurrence with manufacturer specifications of design specifications.

INSPECTION AND MAINTENANCE:

Inspect all concrete washout facilities daily to determine if they have filled to 75 percent capacity, which is when materials need to be removed. Washouts should be inspected daily to ensure that plastic linings are intact, and sidewalls have not been damaged by construction activities. Inspectors should also note whether the facilities are being used regularly. If drivers have washed their chutes or hoppers in other locations; place additional washouts in more convenient locations.

Concrete washouts are designed to promote evaporation where feasible. However, if stored liquids have not evaporated and the washout is nearing capacity, vacuum and dispose of the waste in an approved manner. Check with the local sanitary sewer authority to determine if there are special disposal requirements for concrete wash water.

- Remove liquids or cover the structures before predicted rainstorms to prevent overflows.
- Remove hardened solids whole or break them up depending on available equipment for removal and local regulations.
- Following material removal, build a new structure, or if the previous structure is still intact, inspect the structure for signs of weakening or damage and make any necessary repairs.
- Line the concrete structure with new plastic that is free of holes or tears each time concrete removal is performed.
- Replace signage if necessary.

5.7 Fertilizers

Fertilizer is not planned for use on the project.

5.8 Other Pollution Prevention Practices

Unique activities requiring pollution prevention practices do not exist on this project.

SECTION 6: INSPECTION, MAINTENANCE, AND CORRECTIVE ACTION

6.1 Inspection Personnel and Procedures

Successful SWPPP compliance includes regular BMP control inspections, preventive maintenance, and SWPPP plan review. These inspections will help to uncover conditions that might lead to a release of discharges and non-compliance violations. Planned maintenance should prevent discharges and violations. Revisions to the plan ensure it is viable and effective for the life of the project. The following activities and supporting procedures will be included in the preventive maintenance program.

6.1.1 General Site Awareness

The Operator shall continuously (during scheduled and unscheduled specific site visits) monitor the implemented erosion and sediment control measures during site specific (and project) construction activities to ensure the effectiveness and operation condition of the measures. If changes or repairs are needed to improve the effectiveness and operation of a sediment control measure, they will be implemented as soon as practicable and in no case greater than seven (7) days after the discovery of the needed corrective action.

6.1.2 Specific Inspection Frequency

Inspections will occur on a 7 day basis based on the water quality assessments for Rio Grande. Water is a Tier II water and is impaired with E. coli, PCBs, and Dissolved Oxygen. Rain events at 0.25" will be within 24 hours. Inspections will occur only during the project's normal working hours of Monday through Friday 7am to 5pm as described in Part 4.1.2.2 of the CGP.

6.1.3 Reduction in Inspection Frequency

If a reduction in inspection frequency is required it must be documented in the SWPPP and comply with Part 4.4.1, 4.4.2, or 4.4.3 of the CGP. This project will be reduced to monthly inspections during the dry season.

6.1.4 Personnel Responsible for Inspections

Table 6.1.4

INSPECTOR NAME	CERTIFICATIONS	COMPANY
Cassandra Durkin	CESSWI- 5184	INSPECTIONS PLUS
Jeff Hart	NMED CGP Training	INSPECTIONS PLUS
Marcos Valadez	Field Training	INSPECTIONS PLUS
Renee Hartman	Field training	INSPECTIONS PLUS
Bobby Moedl	NMED CGP Training	INSPECTIONS PLUS

The supporting certification documentation for the Inspection Personnel is available for review in Tab 2 of this Binder.

Note: All personnel conducting inspections must be considered a "qualified person." CGP Part 4.1 clarifies that a "qualified person" is a person knowledgeable in the principles and practices of erosion and sediment controls and pollution prevention, who possesses the skills to assess conditions at the construction site that could impact stormwater quality, and the skills to assess the effectiveness of any stormwater controls selected and installed to meet the requirements of this permit

6.1.5 Inspection Report Forms

A copy of the inspection form is included in Tab 10 of this Binder.

6.2 Corrective Actions

Corrective actions for the site BMPS are noted on each inspection report. The corrective actions should be initiated 'immediately'. Immediately is defined by EPA as a requirement of operators to initiate all reasonable steps to minimize or prevent the discharge of pollutants until a permanent solution is installed and made operational. This includes cleaning up any contaminated surfaces to prevent discharges from subsequent events.

Table 6.2

Corrective Condition	**Deadline for Corrective Action**
Stormwater control(s) needs to be repaired/replaced; and (1) the repair or replacement is not significant; and (2) it can be corrected through routine maintenance	Immediately (same day as discovered or the next business day if it is too late in the work day of discovery) initiate actions to repair/replace the control and complete by close of the next business day.
Stormwater control(s) needs to be repaired/replaced; and (1) the repair or replacement is significant; or (2) it cannot be corrected through routine maintenance	Immediately initiate actions to minimize or prevent the discharge of pollutants and maintain temporary controls until a permanent solution is installed and made operational. Install, repair, and make the control(s) operational within 7 calendar days from the date of discovery of corrective condition.
Stormwater control(s) was never installed, was installed incorrectly, or was not installed in accordance with the SWPPP or CGP requirements	Install, repair, and make the control(s) operational within 7 calendar days from the date of discovery of corrective condition.
Stormwater control(s) is not effective enough for the discharge to meet applicable water quality standards or applicable requirements in CGP Part 3.1	Modify, repair, and make the control(s) operational within 7 calendar days from the date of discovery of corrective condition.

6.2.1 Corrective Action Log

The EPA requires the Permittee to complete a Corrective Action Report or log. A log is included in Tab 7 of this Binder**.** The Operator or Owner will utilize the Inspection Report to identify the areas where corrective actions are required. The Inspection Report will list the conditions of the site, nature of the conditions identified for correction and the date and time of the identification.

Corrective Action Reports
For each corrective action taken in accordance with Part 5.1, you must complete a report in accordance with the following:

- Part 5.4.1: Within 24 hours of identifying the corrective action condition, document the specific condition and the date and time it was identified.
- Part 5.4.2: Within 24 hours of completing the corrective action (in accordance with the deadlines in Part 5.2), document the actions taken to address the condition, including whether any SWPPP modifications are required.
- Part 5.4.3: Each corrective action report must be signed in accordance with Appendix I, Part I.11 of this permit.
- Part 5.4.4: You must keep a copy of all corrective action reports at the site or at an easily accessible location, so that it can be made available at the time of an on-site inspection or upon request by EPA.
- Part 5.4.5: You must retain all corrective action reports completed for this Part for at least three (3) years from the date that your permit coverage expires or is terminated.

6.2.2 Personnel Responsible for Corrective Actions

Table 6.2.2

Name or Title	Responsibility	Telephone Number and Email
Shawn Biazar	Confirms completion of corrective actions through review of inspection reports or corrective action logs.	Shawn Biazar 505-804-5013 aecllc@ail.com
SBS Construction	Discovery of necessary actions for stormwater controls during inspections Communicates necessity to complete corrective actions to project and Construction Management Confirms completion of corrective actions	Shawn Biazar 505-804-5013 aecllc@ail.com

6.3 Delegation of Authority

The EPA accepted delegation of authority letter(s) is included in Tab 2 of this Binder

SECTION 7: TRAINING

Each operator, or group of multiple operators, must assemble a "stormwater team" to carry out compliance activities associated with the requirements in this permit.

Prior to the commencement of construction activities, you must ensure that the following personnel on the stormwater team 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 stormwater controls (including pollution prevention controls);
- 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;
- Personnel who are responsible for taking corrective actions as required in Part 5.

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

7.1 Documentation for Completion of Training

Completed training documentation is in Tab 10 of this Binder.

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 have no personal knowledge that the information submitted is other than true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

SITE OPERATOR – EXECUTION OF DAILY ACTIVITIES (e.g. Contractors)
SBS Construction

Site Operator: Date:
By: Shawn Biazar, Managing Member

SITE OPERATOR – PLAN CONTROL AND DIRECTION (e.g. Agencies, Engineers, Owners)
JB2C, LLC.

Owner: Date:
By: Biju Cherian, Managing Member

REVISIONS TO THE STORM WATER POLLUTION PREVENTION PLAN

Date	Description of Revision	Authorized Signature

TAB 2

Delegation of Authority

I, Shawn Biazar, 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 [Project Name] construction site. The designee is authorized perform and sign Site Inspections and After Rain Event Inspections.

INSPECTIONS PLUS Site Inspector
INSPECTIONS PLUS
805 Nikanda Rd NE
Albuquerque, NM 87107
505-344-9410

By signing this authorization, I confirm that I meet the requirements to make such a designation as set forth in Appendix I of EPA's Construction General Permit (CGP), and that the designee above meets the definition of a "duly authorized representative" as set forth in Appendix I.

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.

Shawn Biazar

SBS Construction

Managing Member

Signature: _____

08/16/2019

Delegation of Authority

I, Shawn Biazar, 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 [Project Name] construction site. The designee is authorized to sign inspection reports to certify that the report was prepared by a Qualified Person.

_____ (name of person or position)
_____ (company)
_____ (address)
_____ (city, state, zip)
_____ (phone)

By signing this authorization, I confirm that I meet the requirements to make such a designation as set forth in Appendix I of EPA's Construction General Permit (CGP), and that the designee above meets the definition of a "duly authorized representative" as set forth in Appendix I.

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.

Shawn Biazar

SBS Construction

Managing Member

Signature: _____

08/16/2019

EnviroCert International, Inc.®

certifies that

Cassandra Diane Durkin

Subscribes to the Code of Ethics and Professional Conduct and has met the requirements established for the CPESC® Program as a

Certified Professional in Erosion and Sediment Control®

CPESC® Number: CPESC

Certificate Date: May 13, 2019

Jim O'Tousa, EnviroCert Technical Co-Chair

Michael R. Chase, EnviroCert Technical Co-Chair

Robert Anderson, EnviroCert Board President

The CPESC® Certification was established in 1983

EnviroCert International, Inc.®

certifies that

Durkin Diane Cassandra

Subscribes to the Code of Ethics and Professional Conduct and has met the requirements established for the CESSWI™ Program as a

Certified Erosion, Sediment and Storm Water Inspector™

CESSWI™ Number: 5184

Certificate Date: February 21, 2018

Jim O'Tousa, EnviroCert Technical Co-Chair

Michael R. Chase, EnviroCert Technical Co-Chair

Robert Anderson, EnviroCert Board President

The CESSWI™ Certification was established in 2007

Certificate of Completion

This certificate acknowledges that

Cassandra Durkin

Has satisfactorily completed training in

STORM WATER QUALIFIED PERSON

Class Date: July 23,2015
Expiration Date: July 23,2019
Hours of Instruction: **8**

Training & Safety Director

Executive Director

ACNM - TTCP No.: **230510**

An Equal Employment Opportunity Program

Associated Contractors of New Mexico

This card certifies that the bearer has completed the course on NPDES Storm Water Qualified Person Training.

Issued: 7/23/2015

Expires: 7/23/2019

B. Franco Jr.
Safety & Training Director

ACNM # 230510

CASSANDRA DURKIN

Certificate of Attendance

THIS ACKNOWLEDGES THAT

CASSANDRA DURKIN

ATTENDED THE NEW MEXICO ENVIRONMENT DEPARTMENT
2018 CONSTRUCTION GENERAL PERMIT NPDES WORKSHOP
(6 HOURS)

MARCH 21, 2018
LAS CRUCES, NEW MEXICO

Certificate of Attendance

THIS ACKNOWLEDGES THAT

JEFF HART

ATTENDED THE NEW MEXICO ENVIRONMENT DEPARTMENT
2018 CONSTRUCTION GENERAL PERMIT NPDES WORKSHOP
(6 HOURS)

MARCH 21, 2018
LAS CRUCES, NEW MEXICO

INSPECTIONS PLUS, Inc.

Certificate of Completion

Qualified Storm Water Construction Inspector

is hereby granted to

Jeff Hart

he/she has completed to satisfaction

Training for General Construction, covering storm water regulations, storm water pollution prevention plans, best management practices, site inspection procedures, endangered species and historical preservation impacts and is now qualified to perform storm water site inspections. Two weeks of one on one field training.

Granted: August 15, 2017

Storm Water Construction Inspector Qualification	
Inspector's Name	Jeff Hart
Training Received	Onsite construction field training for 2 days of inspections and review of 2012 NPDES regulations. 2 weeks of oversight by veteran inspector. August 15, 2017
Training Covered	The training covered the EPA Storm Water permit issued 2012, Storm Water Pollution Prevention Plans (SWPPPs), Best Management Practices (BMPs) proper installation and maintenance, Endangered Species and Historic Preservation Acts.
Construction Experience	Beginning August 15, 2017 through current
Installing Sediment and Erosion Control Experience	N/A
Storm Water Construction Inspection Experience	Beginning August 15, 2017

Certificate of Attendance

THIS ACKNOWLEDGES THAT

BOBBY MOEDL

ATTENDED THE NEW MEXICO ENVIRONMENT DEPARTMENT
2018 CONSTRUCTION GENERAL PERMIT NPDES WORKSHOP
(6 HOURS)

MARCH 21, 2018
LAS CRUCES, NEW MEXICO

INSPECTIONS PLUS, Inc.

Certificate of Completion

Qualified Storm Water Construction Inspector

is hereby granted to

Marcos Valadez

to certify that he/she has completed to satisfaction

Training for General Construction, covering storm water regulations, storm water pollution prevention plans, best management practices, site inspection procedures, endangered species and historical preservation impacts and is now qualified to perform storm water site inspections. Three weeks of one on one field training.

Granted: May 9,2014

Storm Water Construction Inspector Qualification	
Inspector's Name	Marcos Valadez
Training Received	Onsite construction field training for 2 days of inspections and review of 2012 NPDES regulations. 2 weeks of oversight by veteran inspector.
Training Covered	The training covered the EPA Storm Water permit issued 2012, Storm Water Pollution Prevention Plans (SWPPPs), Best Management Practices (BMPs) proper installation and maintenance, Endangered Species and Historic Preservation Acts.
Construction Experience	Installation of BMPs 2005
Installing Sediment and Erosion Control Experience	N/A
Storm Water Construction Inspection Experience	Beginning 2007 and physical installation of BMPs 2005

TAB 3

SWPPP
NOI Posting Notice

Fountain Hills Assisted Living

Owner	JB2C, LLC.
Tracking Number	N M R 1 0 0 2 D D
Contact	B i j u C h e r i a n
Phone Number	5 0 5 - 2 6 4 - 8 1 2 0

General Contractor	SBS Construction
Tracking Number	N M R 1 0 0 2 C N
Contact	S h a w n B i a z a r
Phone Number	5 0 5 - 8 0 4 - 5 0 1 3

"If you would like to obtain a copy of the Stormwater Pollution Prevention Plan (SWPPP) for this site, contact the EPA Regional Office
For CGP questions: Suzanna Perea (perea.suzanna@epa.gov) (214) 665-7217)
For CGP noncompliance reporting: Region 6 NPDES Reporting (R6_NPDES_Reporting@epa.gov)
"If you observe indicators of stormwater pollutants in the discharge or in the receiving waterbody, contact the EPA through the following website: https://www.epa.gov/enforcement/report-environmental-violations."

NPDES FORM 3510-9	EPA	UNITED STATES ENVIRONMENTAL PROTECTION AGENCY WASHINGTON, DC 20460 NOTICE OF INTENT (NOI) FOR THE 2017 NPDES CONSTRUCTION PERMIT	FORM Approved OMB No. 2040-0004

Submission of this Notice of Intent (NOI) constitutes notice that the operator identified in Section III of this form requests authorization to discharge pursuant to the NPDES Construction General Permit (CGP) permit number identified in Section II of this form. Submission of this NOI also constitutes notice that the operator identified in Section III of this form meets the eligibility requirements of Part 1.1 CGP for the project identified in Section IV of this form. Permit coverage is required prior to commencement of construction activity until you are eligible to terminate coverage as detailed in Part 8 of the CGP. To obtain authorization, you must submit a complete and accurate NOI form. Discharges are not authorized if your NOI is incomplete or inaccurate or if you were never eligible for permit coverage. Refer to the instructions at the end of this form.

Permit Information

NPDES ID: NMR1002CN

State where your construction site is located: NM

Is your construction site located on Indian Country Lands? ☐ YES ☑ NO

Are you requesting coverage under this NOI as a *"Federal Operator"* as defined in Appendix A (https://www.epa.gov/sites/production/files/2019-05/documents/final_2017_cgp_appendix_a_-_definitions.pdf)?
☐ YES ☑ NO

Have stormwater discharges from your current construction site been covered previously under an NPDES permit? ☐ YES ☑ NO

Will you use polymers, flocculants, or other treatment chemicals at your construction site? ☐ YES ☑ NO

Has a Stormwater Pollution Prevention Plan (SWPPP) been prepared in advance of filling this NOI, as required? ☑ YES ☐ NO

Are you able to demonstrate that you meet one of the criteria listed in Appendix D (https://www.epa.gov/sites/production/files/2017-02/documents/2017_cgp_final_appendix_d_-_endangered_species_reqs_508.pdf) with respect to protection of threatened or endangered species listed under the Endangered Species Act (ESA) and federally designated critical habitat?
☑ YES ☐ NO

Have you completed the screening process in Appendix E (https://www.epa.gov/sites/production/files/2017-02/documents/2017_cgp_final_appendix_e_-_historic_properties_reqs_508.pdf) relating to the protection of historic properties?
☑ YES ☐ NO

Indicating "Yes" below, I confirm that I understand that CGP only authorized the allowable stormwater discharges in Part 1.2.1 and the allowable non-stormwater discharges listed in Part 1.2.2. Any discharges not expressly authorized in this permit cannot become authorized or shielded from liability under CWA section 402(k) by disclosure to EPA, state or local authorities after issuance of this permit via any means, Including the Notice of Intent (NOI) to be covered by the permit, the Stormwater Pollution Prevention Plan (SWPPP), during an Inspection, etc. If any discharges requiring NPDES permit coverage other than the allowable stormwater and non-stormwater discharges listed in Parts 1.2.1 and 1.2.2 will be discharged, they must be covered under another NPDES permit.
☑ YES ☐ NO

Operator Information

Operator Information

Operator Name: SBS Construction

Operator Mailing Address:
Address Line 1: 10209 Snowflake Ct NW

Address Line 2:

City: Albuquerque

ZIP/Postal Code: 87114

State: NM

County or Similar Division: BERNALILLO

Operator Point of Contact Information

First Name, Middle Initial, LastName: Shawn Biazar

Title: Managing Member

Phone: 505-804-5013 **Ext.**

Email: aecllc@ail.com

Project/Site Information

Project/Site Name: Fountain Hills Assisted Living

Project/Site Address

Address Line 1: 4551 Vista Fuente Rd NW

Address Line 2:

City: Albuquerque

ZIP/Postal Code: 87114

State: NM

County or Similar Division: BERNALILLO

Latitude/Longitude: 35.1849°N, 106.678°W

Latitude/Longitude Data Source: Google Earth

Horizontal Reference Datum: WGS 84

Project Start Date: 2019-09-01

Project End Date: 2020-06-30

Estimated Area to be Disturbed: 7

Types of Construction Sites:

- Commercial

Will there be demolition of any structure built or renovated before January 1, 1980? ☐ YES ☑ NO

Was the pre-development land use used for agriculture? ☐ YES ☑ NO

Have earth-disturbing activities commenced on your project/site? ☐ YES ☑ NO

Is your project located on a property of religious or cultural significance to an Indian tribe? ☐ YES ☑ NO

Discharge Information

Does your project/site discharge stormwater into a Municipal Separate Storm Sewer System (MS4)? ☑ YES ☐ NO

Are there any waters of the U.S. within 50 feet of your project's earth disturbances? ☐ YES ☑ NO

Are any of the waters of the U.S. to which you discharge designated by the state or tribal authority under its antidegradation policy as a Tier 2 (or Tier 2.5) water (water quality exceeds levels necessary to support propagation of fish, shellfish, and wildlife and recreation in and on the water) or as a Tier 3 water (Outstanding National Resource Water)? See Appendix F (https://www.epa.gov/sites/production/files/2017-02/documents/2017_cgp_final_appendix_f_-_tier_3_tier_2_and_tier_2.5_waters_508.pdf)

☑ YES ☐ NO

001: MS4 to Rio Grande

Latitude/Longitude: 35.1849°N, 106.678°W

Tier Designation: Tier 2

Is this receiving water impaired (on the CWA 303(d) list)? ☑ YES ☐ NO

Has a TMDL been completed for this receiving waterbody? ☑ YES ☐ NO

Pollutant	Causing Impairment?	TMDL ID	TMDL Name
E. coli	Yes	38855	Rio Grande 2105_50 E. coli TMDL
PCB in fish tissue	Yes	38855	Rio Grande 2105_50 E. coli TMDL
Oxygen, dissolved percent saturation	Yes	38855	Rio Grande 2105_50 E. coli TMDL

Stormwater Pollution Prevention Plan (SWPPP)

First Name, Middle Initial, LastName: Shawn Biazar

Title: Managing Member

Phone: 505-804-5013

Ext.

Email: aecllc@ail.com

Endangered Species Protection

Using the Instructions in Appendix D of the CGP, under which criterion listed in Appendix D are you eligible for coverage under this permit? Criterion A

Provide a brief summary of the basis for criterion selection listed above (the necessary content for a supportive basis statement is provided under the criterion you selected.):

Per communication with the USFWS there are no critical habitats within the project area.

Historic Preservation

Are you installing any stormwater controls as described in Appendix E (https://www.epa.gov/sites/production/files/2017-02/documents/2017_cgp_final_appendix_e_-_historic_properties_reqs_508.pdf) that require subsurface earth disturbances? (Appendix E (https://www.epa.gov/sites/production/files/2017-02/documents/2017_cgp_final_appendix_e_-_historic_properties_reqs_508.pdf), Step 1)

☑ YES ☐ NO

Have prior surveys or evaluations conducted on the site already determined historic properties do not exist, or that prior disturbances have precluded the existence of historic properties? (Appendix E (https://www.epa.gov/sites/production/files/2017-02/documents/2017_cgp_final_appendix_e_-_historic_properties_reqs_508.pdf), Step 2):

☑ YES ☐ NO

Certification Information

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 have no personal knowledge that the information submitted is other than true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. Signing an electronic document on behalf of another person is subject to criminal, civil, administrative, or other lawful action.

Certified By: Shahram Biazar

Certifier Title: Managing Member

Certifier Email: aecllc@aol.com

Certified On: 08/16/2019 12:44 PM

NPDES FORM 3510-9	EPA	UNITED STATES ENVIRONMENTAL PROTECTION AGENCY WASHINGTON, DC 20460 NOTICE OF INTENT (NOI) FOR THE 2017 NPDES CONSTRUCTION PERMIT	FORM Approved OMB No. 2040-0004

Submission of this Notice of Intent (NOI) constitutes notice that the operator identified in Section III of this form requests authorization to discharge pursuant to the NPDES Construction General Permit (CGP) permit number identified in Section II of this form. Submission of this NOI also constitutes notice that the operator identified in Section III of this form meets the eligibility requirements of Part 1.1 CGP for the project identified in Section IV of this form. Permit coverage is required prior to commencement of construction activity until you are eligible to terminate coverage as detailed in Part 8 of the CGP. To obtain authorization, you must submit a complete and accurate NOI form. Discharges are not authorized if your NOI is incomplete or inaccurate or if you were never eligible for permit coverage. Refer to the instructions at the end of this form.

Permit Information

NPDES ID: NMR1002DD

State where your construction site is located: NM

Is your construction site located on Indian Country Lands? ☐ YES ☑ NO

Are you requesting coverage under this NOI as a *"Federal Operator"* as defined in Appendix A (https://www.epa.gov/sites/production/files/2019-05/documents/final_2017_cgp_appendix_a_-_definitions.pdf)?

☐ YES ☑ NO

Have stormwater discharges from your current construction site been covered previously under an NPDES permit? ☐ YES ☑ NO

Will you use polymers, flocculants, or other treatment chemicals at your construction site? ☐ YES ☑ NO

Has a Stormwater Pollution Prevention Plan (SWPPP) been prepared in advance of filling this NOI, as required? ☑ YES ☐ NO

Are you able to demonstrate that you meet one of the criteria listed in Appendix D (https://www.epa.gov/sites/production/files/2017-02/documents/2017_cgp_final_appendix_d_-_endangered_species_reqs_508.pdf) with respect to protection of threatened or endangered species listed under the Endangered Species Act (ESA) and federally designated critical habitat?

☑ YES ☐ NO

Have you completed the screening process in Appendix E (https://www.epa.gov/sites/production/files/2017-02/documents/2017_cgp_final_appendix_e_-_historic_properties_reqs_508.pdf) relating to the protection of historic properties?

☑ YES ☐ NO

Indicating "Yes" below, I confirm that I understand that CGP only authorized the allowable stormwater discharges in Part 1.2.1 and the allowable non-stormwater discharges listed in Part 1.2.2. Any discharges not expressly authorized in this permit cannot become authorized or shielded from liability under CWA section 402(k) by disclosure to EPA, state or local authorities after issuance of this permit via any means, Including the Notice of Intent (NOI) to be covered by the permit, the Stormwater Pollution Prevention Plan (SWPPP), during an Inspection, etc. If any discharges requiring NPDES permit coverage other than the allowable stormwater and non-stormwater discharges listed in Parts 1.2.1 and 1.2.2 will be discharged, they must be covered under another NPDES permit.

☑ YES ☐ NO

Operator Information

Operator Information

Operator Name: JB2C, LLC.

Operator Mailing Address:

Address Line 1: 3821 Masthead St. NE

Address Line 2:

City: Albuquerque

ZIP/Postal Code: 87109

State: NM

County or Similar Division: BERNALILLO

Operator Point of Contact Information

First Name, Middle Initial, LastName: Biju Cherian

Title: Managing Member

Phone: 505-264-8120 **Ext.**

Email: bijucherian@hotmail.com

Project/Site Information

Project/Site Name: Fountain Hills Assisted Living

Project/Site Address

Address Line 1: 4551 Vista Fuente Rd NW

Address Line 2:

City: Albuquerque

ZIP/Postal Code: 87109

State: NM

County or Similar Division: BERNALILLO

Latitude/Longitude: 35.1849°N, 106.678°W

Latitude/Longitude Data Source: Google Earth

Horizontal Reference Datum: WGS 84

Project Start Date: 2019-09-01

Project End Date: 2020-06-30

Estimated Area to be Disturbed: 7

Types of Construction Sites:

- Commercial

Will there be demolition of any structure built or renovated before January 1, 1980? ☐ YES ☑ NO

Was the pre-development land use used for agriculture? ☐ YES ☑ NO

Have earth-disturbing activities commenced on your project/site? ☐ YES ☑ NO

Is your project located on a property of religious or cultural significance to an Indian tribe? ☐ YES ☑ NO

Discharge Information

Does your project/site discharge stormwater into a Municipal Separate Storm Sewer System (MS4)? ☑ YES ☐ NO

Are there any waters of the U.S. within 50 feet of your project's earth disturbances? ☐ YES ☑ NO

Are any of the waters of the U.S. to which you discharge designated by the state or tribal authority under its antidegradation policy as a Tier 2 (or Tier 2.5) water (water quality exceeds levels necessary to support propagation of fish, shellfish, and wildlife and recreation in and on the water) or as a Tier 3 water (Outstanding National Resource Water)? See Appendix F (https://www.epa.gov/sites/production/files/2017-02/documents/2017_cgp_final_appendix_f_-_tier_3_tier_2_and_tier_2.5_waters_508.pdf)

☑ YES ☐ NO

001: MS4 to Rio Grande

Latitude/Longitude: 35.1849°N, 106.678°W

Tier Designation: Tier 2

Is this receiving water impaired (on the CWA 303(d) list)? ☑ YES ☐ NO

Has a TMDL been completed for this receiving waterbody? ☑ YES ☐ NO

Pollutant	Causing Impairment?	TMDL ID	TMDL Name
E. coli	Yes	38855	Rio Grande 2105_50 E. coli TMDL
PCB in fish tissue	Yes	38855	Rio Grande 2105_50 E. coli TMDL
Oxygen, dissolved percent saturation	Yes	38855	Rio Grande 2105_50 E. coli TMDL

Stormwater Pollution Prevention Plan (SWPPP)

First Name, Middle Initial, LastName: Biju Cherian

Title: Managing Member

Phone: 505-804-5013

Ext.

Email: bijucherian@hotmail.com

Endangered Species Protection

Using the Instructions in Appendix D of the CGP, under which criterion listed in Appendix D are you eligible for coverage under this permit? Criterion A

Provide a brief summary of the basis for criterion selection listed above (the necessary content for a supportive basis statement is provided under the criterion you selected.):

Per communication with the USFWS there are no critical habitats within the project area.

Historic Preservation

Are you installing any stormwater controls as described in Appendix E (https://www.epa.gov/sites/production/files/2017-02/documents/2017_cgp_final_appendix_e_-_historic_properties_reqs_508.pdf) that require subsurface earth disturbances? (Appendix E (https://www.epa.gov/sites/production/files/2017-02/documents/2017_cgp_final_appendix_e_-_historic_properties_reqs_508.pdf), Step 1)

☑ YES ☐ NO

Have prior surveys or evaluations conducted on the site already determined historic properties do not exist, or that prior disturbances have precluded the existence of historic properties? (Appendix E (https://www.epa.gov/sites/production/files/2017-02/documents/2017_cgp_final_appendix_e_-_historic_properties_reqs_508.pdf), Step 2):

☑ YES ☐ NO

Certification Information

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 have no personal knowledge that the information submitted is other than true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. Signing an electronic document on behalf of another person is subject to criminal, civil, administrative, or other lawful action.

Certified By: Biju Cherian

Certifier Title: OWNER

Certifier Email: bijucherian@hotmail.com

Certified On: 08/27/2019 6:16 PM

NPDES FORM 3510-9

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, DC 20460
NOTICE OF INTENT (NOI) FOR THE 2017 NPDES CONSTRUCTION PERMIT

FORM Approved OMB No. 2040-0004

Submission of this Notice of Intent (NOI) constitutes notice that the operator identified in Section III of this form requests authorization to discharge pursuant to the NPDES Construction General Permit (CGP) permit number identified in Section II of this form. Submission of this NOI also constitutes notice that the operator identified in Section III of this form meets the eligibility requirements of Part 1.1 CGP for the project identified in Section IV of this form. Permit coverage is required prior to commencement of construction activity until you are eligible to terminate coverage as detailed in Part 8 of the CGP. To obtain authorization, you must submit a complete and accurate NOI form. Discharges are not authorized if your NOI is incomplete or inaccurate or if you were never eligible for permit coverage. Refer to the instructions at the end of this form.

Permit Information

NPDES ID: NMR1002DD

State where your construction site is located: NM

Is your construction site located on Indian Country Lands? ☐ YES ☑ NO

Are you requesting coverage under this NOI as a *"Federal Operator"* as defined in Appendix A (https://www.epa.gov/sites/production/files/2019-05/documents/final_2017_cgp_appendix_a_-_definitions.pdf)?
☐ YES ☑ NO

Have stormwater discharges from your current construction site been covered previously under an NPDES permit? ☐ YES ☑ NO

Will you use polymers, flocculants, or other treatment chemicals at your construction site? ☐ YES ☑ NO

Has a Stormwater Pollution Prevention Plan (SWPPP) been prepared in advance of filling this NOI, as required? ☑ YES ☐ NO

Are you able to demonstrate that you meet one of the criteria listed in Appendix D (https://www.epa.gov/sites/production/files/2017-02/documents/2017_cgp_final_appendix_d_-_endangered_species_reqs_508.pdf) with respect to protection of threatened or endangered species listed under the Endangered Species Act (ESA) and federally designated critical habitat?
☑ YES ☐ NO

Have you completed the screening process in Appendix E (https://www.epa.gov/sites/production/files/2017-02/documents/2017_cgp_final_appendix_e_-_historic_properties_reqs_508.pdf) relating to the protection of historic properties?
☑ YES ☐ NO

Indicating "Yes" below, I confirm that I understand that CGP only authorized the allowable stormwater discharges in Part 1.2.1 and the allowable non-stormwater discharges listed in Part 1.2.2. Any discharges not expressly authorized in this permit cannot become authorized or shielded from liability under CWA section 402(k) by disclosure to EPA state or local authorities after issuance of this permit via any means, including the Notice of Intent (NOI) to be covered by the permit, the Stormwater Pollution Prevention Plan (SWPPP), during an inspection, etc. If any discharges requiring NPDES permit coverage other than the allowable stormwater and non-stormwater discharges listed in Parts 1.2.1 and 1.2.2 will be discharged, they must be covered under another NPDES permit.
☑ YES ☐ NO

Operator Information

Operator Information

Operator Name: JB2C, LLC.

Operator Mailing Address:
Address Line 1: 3821 Masthead St NE

Address Line 2:

City: Albuquerque

ZIP/Postal Code: 87109

State: NM

County or Similar Division: BERNALILLO

Operator Point of Contact Information

First Name, Middle Initial, LastName: Biju Cherian

Title: Managing Member

Phone: 505-264-8120 **Ext.**

Email: bijucherian@hotmail.com

Project/Site Information

Project/Site Name: Fountain Hills Assisted Living

Project/Site Address

Address Line 1: 4551 Vista Fuente Rd NW

Address Line 2:

City: Albuquerque

ZIP/Postal Code: 87109

State: NM

County or Similar Division: BERNALILLO

Latitude/Longitude: 35.1849°N, 106.678°W

Latitude/Longitude Data Source: Google Earth

Horizontal Reference Datum: WGS 84

Project Start Date: 2019-09-01

Project End Date: 2020-06-30

Estimated Area to be Disturbed: 7

Types of Construction Sites:

- Commercial

Will there be demolition of any structure built or renovated before January 1, 1980? ☐ YES ☑ NO

Was the pre-development land use used for agriculture? ☐ YES ☑ NO

Have earth-disturbing activities commenced on your project/site? ☐ YES ☑ NO

Is your project located on a property of religious or cultural significance to an Indian tribe? ☐ YES ☑ NO

Discharge Information

Does your project/site discharge stormwater into a Municipal Separate Storm Sewer System (MS4)? ☑ YES ☐ NO

Are there any waters of the U.S. within 50 feet of your project's earth disturbances? ☐ YES ☑ NO

Are any of the waters of the U.S. to which you discharge designated by the state or tribal authority under its antidegradation policy as a Tier 2 (or Tier 2.5) water (water quality exceeds levels necessary to support propagation of fish, shellfish, and wildlife and recreation in and on the water) or as a Tier 3 water (Outstanding National Resource Water)? See Appendix F (https://www.epa.gov/sites/production/files/2017-02/documents/2017_cgp_final_appendix_f_-_tier_3_tier_2_and_tier_2.5_waters_508.pdf)

☑ YES ☐ NO

001: MS4 to Rio Grande

Latitude/Longitude: 35.1849°N, 106.678°W

Tier Designation: Tier 2

Is this receiving water impaired (on the CWA 303(d) list)? ☑ YES ☐ NO

Has a TMDL been completed for this receiving waterbody? ☑ YES ☐ NO

Pollutant	Causing Impairment?	TMDL ID	TMDL Name
E. coli	Yes	38855	Rio Grande 2105_50 E. coli TMDL
PCB in fish tissue	Yes	38855	Rio Grande 2105_50 E. coli TMDL
Oxygen, dissolved percent saturation	Yes	38855	Rio Grande 2105_50 E. coli TMDL

Stormwater Pollution Prevention Plan (SWPPP)

First Name, Middle Initial, LastName: Biju Cherian

Title: Managing Member

Phone: 505-804-5013 Ext.

Email: bijucherian@hotmail.com

Endangered Species Protection

Using the Instructions in Appendix D of the CGP, under which criterion listed in Appendix D are you eligible for coverage under this permit? Criterion A

Provide a brief summary of the basis for criterion selection listed above (the necessary content for a supportive basis statement is provided under the criterion you selected.):

Per communication with the USFWS there are no critical habitats within the project area.

Historic Preservation

Are you installing any stormwater controls as described in Appendix E (https://www.epa.gov/sites/production/files/2017-02/documents/2017_cgp_final_appendix_e_-_historic_properties_reqs_508.pdf) that require subsurface earth disturbances? (Appendix E (https://www.epa.gov/sites/production/files/2017-02/documents/2017_cgp_final_appendix_e_-_historic_properties_reqs_508.pdf), Step 1)

☑ YES ☐ NO

Have prior surveys or evaluations conducted on the site already determined historic properties do not exist, or that prior disturbances have precluded the existence of historic properties? (Appendix E (https://www.epa.gov/sites/production/files/2017-02/documents/2017_cgp_final_appendix_e_-_historic_properties_reqs_508.pdf), Step 2):

☑ YES ☐ NO

Certification Information

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 have no personal knowledge that the information submitted is other than true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. Signing an electronic document on behalf of another person is subject to criminal, civil, administrative, or other lawful action.

Certified By: Biju Cherian

Certifier Title: OWNER

Certifier Email: bjucherian@hotmail.com

Certified On: 08/27/2019 6:16 PM

James D Hughes 9-2-2019

TAB 4

RUSLE2 Worksheet Erosion Calculation Record

Info: Vertical Construction

Inputs:

Owner name	***Location***	**--**
SBS Construction	**New Mexico\USA\New Mexico\Bernalillo County\NM_Bernalillo_R_16-18**	

Location	*Soil*	*T value*	*Slope length (horiz)*	*Avg. slope steepness, %*
New Mexico\USA\New Mexico\Bernalillo County\NM_Bernalillo_R_16-18	Bernalillo County\nm600\MWA Madurez-Wink associatin, gently sloping\Madurez Fine sandy loam 55%	5.0	180	3.0

Outputs:

Description	*Base management*	*Soil loss erod. portion, t/ac/yr*	*Soil detachment, t/ac/yr*	*Cons. plan. soil loss, t/ac/yr*	*Sed. delivery, t/ac/yr*
Pre Construction	Existing Undisturbed Vegetative Cover\Grass and forbs, existing, 0 to 25 pct Canopy Cover	1.0	1.0	1.0	1.0
Construction Without Controls	Strip/Barrier Managements\Bare ground; rough surface	3.8	3.8	3.8	3.8
Construction With Controls	Highly disturbed\Construction With Temporary Practices\Erosion Control Blankets and Mulch Materials\Combination Straw/Coir RECP	0.33	0.33	0.33	0.33
Post Construction	Highly disturbed\Paving and Armoring\Asphalt	0.0024	0.0024	0.0024	0.0024

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 Bernalillo County and Parts of Sandoval and Valencia Counties, New Mexico

Fountain Hills Assisted Living

August 16, 2019

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 (https://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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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 (Fountain Hills Assisted Living)

Map Scale: 1:1,660 if printed on A portrait (8.5" x 11") sheet.

N

Meters: 0 20 40 80 120

Feet: 0 50 100 200 300

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 13N WGS84

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:
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: Bernalillo County and Parts of Sandoval and Valencia Counties, New Mexico
Survey Area Data: Version 13, Sep 12, 2018

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Jun 23, 2018—Sep 9, 2018

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background

MAP LEGEND	MAP INFORMATION
	imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend (Fountain Hills Assisted Living)

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
BKD	Bluepoint-Kokan association, hilly	2.3	31.1%
MWA	Madurez-Wink associatin, gently sloping	5.0	68.9%
Totals for Area of Interest		**7.3**	**100.0%**

Map Unit Descriptions (Fountain Hills Assisted Living)

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.

Bernalillo County and Parts of Sandoval and Valencia Counties, New Mexico

BKD—Bluepoint-Kokan association, hilly

Map Unit Setting

National map unit symbol: 1vwd
Elevation: 1,400 to 6,000 feet
Mean annual precipitation: 4 to 10 inches
Mean annual air temperature: 58 to 60 degrees F
Frost-free period: 170 to 290 days
Farmland classification: Not prime farmland

Map Unit Composition

Bluepoint and similar soils: 50 percent
Kokan and similar soils: 40 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Bluepoint

Setting

Landform: Flood plains, alluvial flats
Landform position (three-dimensional): Talf, rise
Down-slope shape: Concave
Across-slope shape: Linear
Parent material: Sandy alluvium and/or eolian sands

Typical profile

H1 - 0 to 8 inches: loamy fine sand
H2 - 8 to 60 inches: stratified fine sand to gravelly loamy fine sand

Properties and qualities

Slope: 5 to 15 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Somewhat excessively drained
Runoff class: Very low
Capacity of the most limiting layer to transmit water (Ksat): High to very high (6.00 to 20.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum in profile: 3 percent
Salinity, maximum in profile: Nonsaline to slightly saline (0.0 to 4.0 mmhos/cm)
Sodium adsorption ratio, maximum in profile: 2.0
Available water storage in profile: Low (about 4.3 inches)

Interpretive groups

Land capability classification (irrigated): 4s
Land capability classification (nonirrigated): 7s
Hydrologic Soil Group: A
Ecological site: Deep Sand (R042XA054NM)
Hydric soil rating: No

Description of Kokan

Setting

Landform: Fan piedmonts, hillslopes
Landform position (two-dimensional): Footslope, backslope, shoulder
Landform position (three-dimensional): Side slope, rise
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Alluvium derived from igneous and sedimentary rock

Typical profile

H1 - 0 to 4 inches: gravelly sand
H2 - 4 to 60 inches: stratified very gravelly sand to extremely gravelly loamy coarse sand

Properties and qualities

Slope: 15 to 40 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Excessively drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): Very high (20.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum in profile: 2 percent
Salinity, maximum in profile: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum in profile: 2.0
Available water storage in profile: Very low (about 2.4 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7e
Hydrologic Soil Group: A
Ecological site: Gravelly Sand (R042XA053NM)
Hydric soil rating: No

Minor Components

Unnamed

Percent of map unit:
Ecological site: Deep Sand (R042XA054NM)
Hydric soil rating: No

MWA—Madurez-Wink associatin, gently sloping

Map Unit Setting

National map unit symbol: 1vxn
Elevation: 1,400 to 6,000 feet

Mean annual precipitation: 4 to 13 inches
Mean annual air temperature: 57 to 70 degrees F
Frost-free period: 170 to 290 days
Farmland classification: Not prime farmland

Map Unit Composition

Madurez and similar soils: 55 percent
Wink and similar soils: 25 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Madurez

Setting

Landform: Alluvial fans, fan piedmonts
Landform position (three-dimensional): Rise
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Alluvium derived from igneous and sedimentary rock

Typical profile

H1 - 0 to 4 inches: fine sandy loam
H2 - 4 to 21 inches: fine sandy loam
H3 - 21 to 60 inches: sandy loam

Properties and qualities

Slope: 1 to 5 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Well drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.60 to 2.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum in profile: 7 percent
Salinity, maximum in profile: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum in profile: 2.0
Available water storage in profile: Moderate (about 8.9 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7e
Hydrologic Soil Group: B
Ecological site: Loamy (R042XA052NM)
Hydric soil rating: No

Description of Wink

Setting

Landform: Fan piedmonts, alluvial fans
Landform position (three-dimensional): Rise
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Alluvium derived from igneous and sedimentary rock

Typical profile

H1 - 0 to 4 inches: fine sandy loam
H2 - 4 to 60 inches: sandy loam

Properties and qualities

Slope: 1 to 7 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Well drained
Runoff class: Very low
Capacity of the most limiting layer to transmit water (Ksat): High (2.00 to 6.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum in profile: 10 percent
Salinity, maximum in profile: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum in profile: 2.0
Available water storage in profile: Moderate (about 7.7 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7e
Hydrologic Soil Group: A
Ecological site: Loamy (R042XA052NM)
Hydric soil rating: No

Minor Components

Latene

Percent of map unit:
Ecological site: Loamy (R042XA052NM)
Hydric soil rating: No

Bluepoint

Percent of map unit:
Ecological site: Deep Sand (R042XA054NM)
Hydric soil rating: No

Pajarito

Percent of map unit:
Ecological site: Sandy (R042XA051NM)
Hydric soil rating: No

Soil Information for All Uses

Soil Properties and Qualities

The Soil Properties and Qualities section includes various soil properties and qualities displayed as thematic maps with a summary table for the soil map units in the selected area of interest. A single value or rating for each map unit is generated by aggregating the interpretive ratings of individual map unit components. This aggregation process is defined for each property or quality.

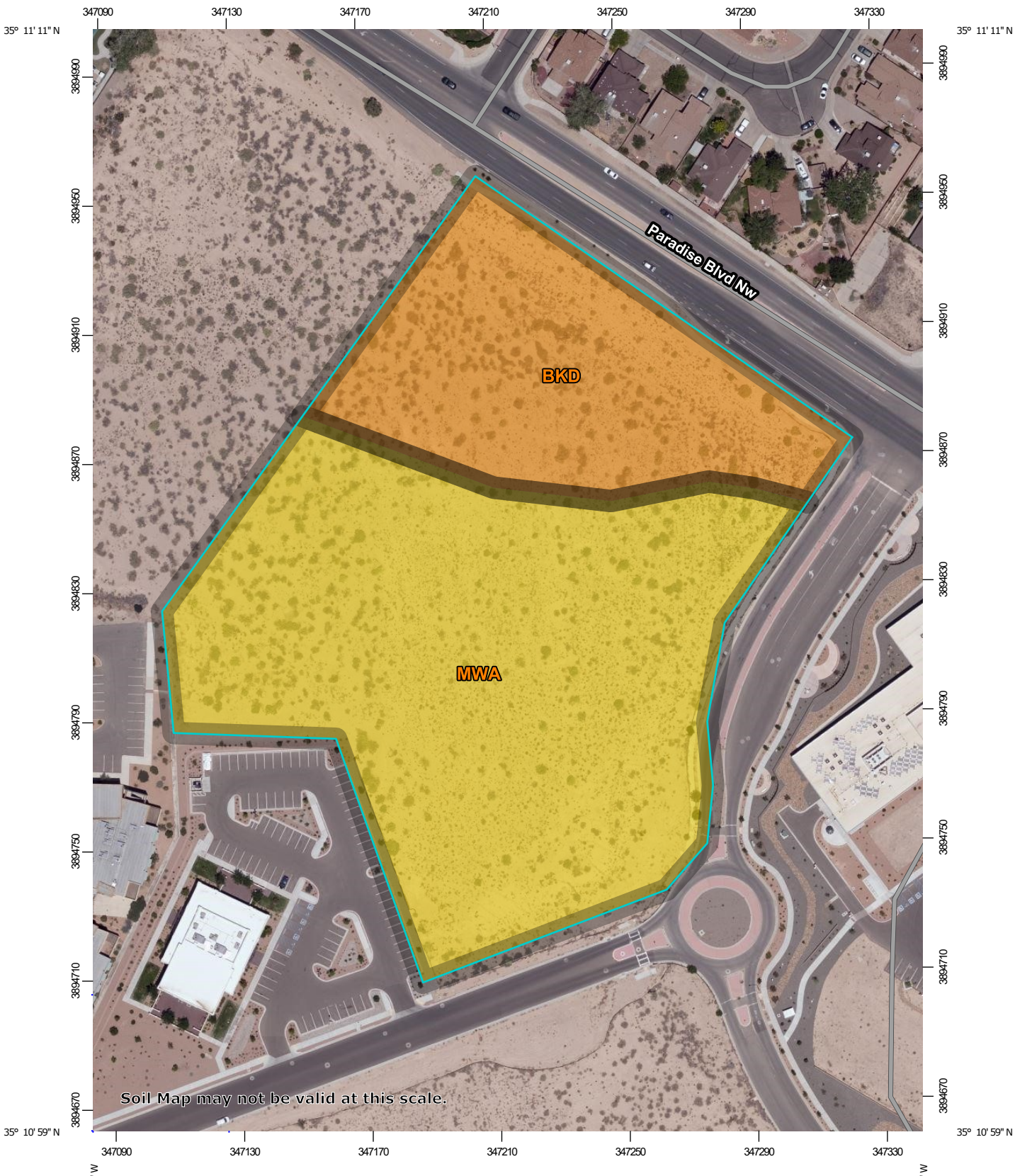
Soil Qualities and Features

Soil qualities are behavior and performance attributes that are not directly measured, but are inferred from observations of dynamic conditions and from soil properties. Example soil qualities include natural drainage, and frost action. Soil features are attributes that are not directly part of the soil. Example soil features include slope and depth to restrictive layer. These features can greatly impact the use and management of the soil.

Drainage Class (Fountain Hills Assisted Living)

"Drainage class (natural)" refers to the frequency and duration of wet periods under conditions similar to those under which the soil formed. Alterations of the water regime by human activities, either through drainage or irrigation, are not a consideration unless they have significantly changed the morphology of the soil. Seven classes of natural soil drainage are recognized-excessively drained, somewhat excessively drained, well drained, moderately well drained, somewhat poorly drained, poorly drained, and very poorly drained. These classes are defined in the "Soil Survey Manual."

Custom Soil Resource Report
Map—Drainage Class (Fountain Hills Assisted Living)



Map Scale: 1:1,660 if printed on A portrait (8.5" x 11") sheet.

N

Meters
0 20 40 80 120

Feet
0 50 100 200 300

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 13N WGS84

MAP LEGEND

Area of Interest (AOI)

Area of Interest (AOI)

Soils

Soil Rating Polygons

- Excessively drained
- Somewhat excessively drained
- Well drained
- Moderately well drained
- Somewhat poorly drained
- Poorly drained
- Very poorly drained
- Subaqueous
- Not rated or not available

Soil Rating Lines

- Excessively drained
- Somewhat excessively drained
- Well drained
- Moderately well drained
- Somewhat poorly drained
- Poorly drained
- Very poorly drained
- Subaqueous
- Not rated or not available

Soil Rating Points

- Excessively drained
- Somewhat excessively drained
- Well drained
- Moderately well drained
- Somewhat poorly drained
- Poorly drained
- Very poorly drained
- Subaqueous
- Not rated or not available

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:
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: Bernalillo County and Parts of Sandoval and Valencia Counties, New Mexico
Survey Area Data: Version 13, Sep 12, 2018

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Jun 23, 2018—Sep 9, 2018

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background

MAP LEGEND	MAP INFORMATION
	imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Table—Drainage Class (Fountain Hills Assisted Living)

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
BKD	Bluepoint-Kokan association, hilly	Somewhat excessively drained	2.3	31.1%
MWA	Madurez-Wink associatin, gently sloping	Well drained	5.0	68.9%
Totals for Area of Interest			**7.3**	**100.0%**

Rating Options—Drainage Class (Fountain Hills Assisted Living)

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Higher

Hydrologic Soil Group (Fountain Hills Assisted Living)

Hydrologic soil groups are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long-duration storms.

The soils in the United States are assigned to four groups (A, B, C, and D) and three dual classes (A/D, B/D, and C/D). The groups are defined as follows:

Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

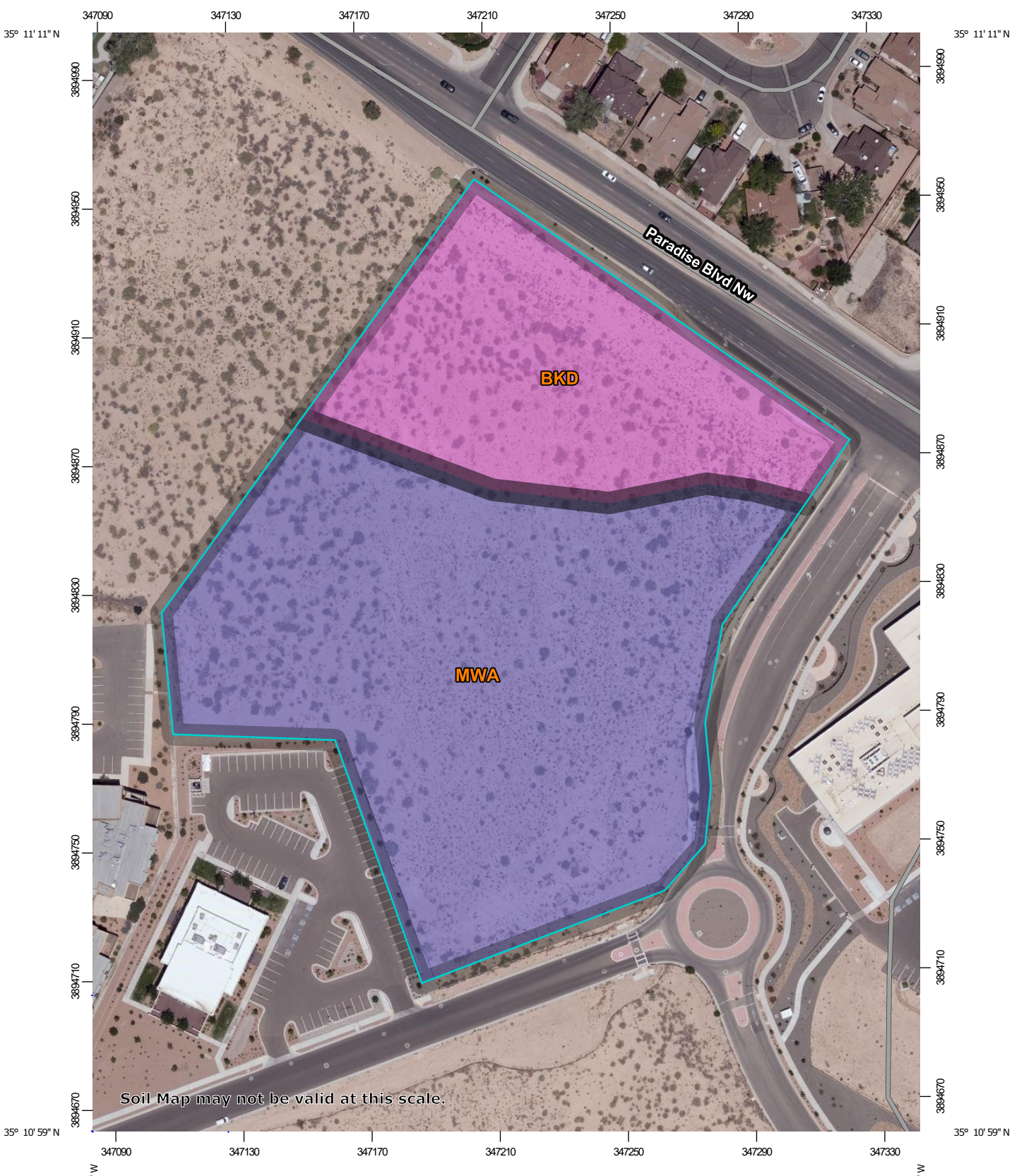
Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

If a soil is assigned to a dual hydrologic group (A/D, B/D, or C/D), the first letter is for drained areas and the second is for undrained areas. Only the soils that in their natural condition are in group D are assigned to dual classes.

Custom Soil Resource Report
Map—Hydrologic Soil Group (Fountain Hills Assisted Living)



Map Scale: 1:1,660 if printed on A portrait (8.5" x 11") sheet.

N

Meters: 0 20 40 80 120

Feet: 0 50 100 200 300

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 13N WGS84

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils

Soil Rating Polygons
- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Soil Rating Lines
- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Soil Rating Points
- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

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:
Coordinate System: Web Mercator (EPSG:3857)

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Survey Area Data: Version 13, Sep 12, 2018

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Jun 23, 2018—Sep 9, 2018

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background

MAP LEGEND	MAP INFORMATION
	imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Table—Hydrologic Soil Group (Fountain Hills Assisted Living)

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
BKD	Bluepoint-Kokan association, hilly	A	2.3	31.1%
MWA	Madurez-Wink associatin, gently sloping	B	5.0	68.9%
Totals for Area of Interest			**7.3**	**100.0%**

Rating Options—Hydrologic Soil Group (Fountain Hills Assisted Living)

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Higher

Representative Slope (Fountain Hills Assisted Living)

Slope gradient is the difference in elevation between two points, expressed as a percentage of the distance between those points.

The slope gradient is actually recorded as three separate values in the database. A low value and a high value indicate the range of this attribute for the soil component. A "representative" value indicates the expected value of this attribute for the component. For this soil property, only the representative value is used.

Custom Soil Resource Report
Map—Representative Slope (Fountain Hills Assisted Living)

Map Scale: 1:1,660 if printed on A portrait (8.5" x 11") sheet.

N

Meters: 0 20 40 80 120

Feet: 0 50 100 200 300

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 13N WGS84

MAP LEGEND

Area of Interest (AOI)

- Area of Interest (AOI)

Soils

Soil Rating Polygons

- 0 - 5
- 5 - 15
- 15 - 45
- 45 - 60
- 60 - 100
- Not rated or not available

Soil Rating Lines

- 0 - 5
- 5 - 15
- 15 - 45
- 45 - 60
- 60 - 100
- Not rated or not available

Soil Rating Points

- 0 - 5
- 5 - 15
- 15 - 45
- 45 - 60
- 60 - 100
- Not rated or not available

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.

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Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

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The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background

MAP LEGEND	MAP INFORMATION
	imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Table—Representative Slope (Fountain Hills Assisted Living)

Map unit symbol	Map unit name	Rating (percent)	Acres in AOI	Percent of AOI
BKD	Bluepoint-Kokan association, hilly	10.0	2.3	31.1%
MWA	Madurez-Wink associatin, gently sloping	3.0	5.0	68.9%
Totals for Area of Interest			**7.3**	**100.0%**

Rating Options—Representative Slope (Fountain Hills Assisted Living)

Units of Measure: percent

Aggregation Method: Dominant Component

Component Percent Cutoff: None Specified

Tie-break Rule: Higher

Interpret Nulls as Zero: No

Ecological Site Assessment

Individual soil map unit components can be correlated to a particular ecological site. The Ecological Site Assessment section includes ecological site descriptions, plant growth curves, state and transition models, and selected National Plants database information.

Ecological Site Information for: R042XA052NM — Loamy (Fountain Hills Assisted Living)

MLRA-42, SD-1: Loamy

Overview

The loamy site occurs largely on relatively level, lower portions of piedmont slopes. Soils classified as loamy vary continuously in texture and soil moisture regime such that different potential communities occupy different soil series and different landscape positions within soil series. Loamy soils intergrade with sandy soils and clayey soils.

The historic community type is usually dominated by black grama (Bouteloua eriopoda). In lower positions and depressions blue grama (Bouteloua gracilis) may dominate. Dropseeds (Sporobolus cryptandrus), galleta (Pleuraphis jamesii), and burrograss (Scleropogon brevifolius) are commonly subdominant. Continuous heavy grazing leads to reductions of black grama. If black grama cover is reduced to trace levels, it may not recover leaving a galleta-dominated state. Continued poor grazing management may eliminate most galleta and dropseeds, leaving a burrograss-dominated state. On soils where blue grama is common, it may also be driven to a burrograss state. Although soil-sealing may occur in some loamy soils (especially in the burrograss state), shrub invasion is not usually observed.

Catalog of states and community pathways

State Containing Historic Plant Community

Grama Grassland: Black grama, followed by galleta, and dropseeds, was likely to have dominated most areas included within this site. In slight depressions and shallow swales (Turney loam) or areas near to mountain footslopes (e.g., Latene loam) that receive more rainfall, blue grama may have been co-dominant or

dominant. On the ungrazed (for 35 yr) Sevilleta NWR, soils where blue grama was dominant within areas mapped as Turney loam or loamy sand were more heavy textured than where black grama occurred5. Shifts between black and blue grama dominance may also occur through time on some soils due to variation in the seasonality of soil moisture6. Blue grama tends to recover more quickly from disturbances such as grazing and fire and may be favored by disturbance4. Where blue grama does not occur, galleta and dropseeds increase in representation as black grama declines with heavy grazing pressure. With prolonged heavy grazing, burrograss may become dominant.

Diagnosis: Grass cover is uniform with bare patches typically > 30 cm in width. Black grama and/or blue grama is dominant. Litter covers much of interspaces such that raindrop impact on the soil surface is low.

Additional States:

Galleta-dominated: Black grama abundance is persistently depressed or eliminated, leaving galleta, dropseeds, and burrograss as dominants. Blue grama may also be present. Burrograss tends to increase with grazing pressure. Overall grass cover may be somewhat reduced, but galleta and other grass growth may compensate black grama’s absence. This state is not frequently observed.

Diagnosis: Black grama is very rare or absent. Galleta, dropseeds, or burrograss are dominant. Bare ground patches up to 1 m across may be observed, with patchy evidence of soil sealing on some soils.

Transition to Galleta-dominated (1a) Loss of black grama grass cover due to continuous heavy grazing through drought periods causes the transition. Once most plants are eliminated, recovery of black grama cover via stolons would require periods of high summer rainfall, and be very slow even with grazing rest. Establishment by seed appears to be limited.

Key indicators of approach to transition:

? Overutilization, decadence, and mortality of black grama.

? Absence of stolons

? Increasing size of bare ground patches

Transition back to Grama Grassland (1b) The recolonization of black grama may be facilitated by prescribed grazing and seeding in SD-1, although establishment rates are low.

Burrograss fluctuates from 15-28%cover or 5-14% without other species colonizing

Bare ground returns slowly to burrograss in extreme cases (35-40 yrs)

Burrograss-Dominated: Burrograss is dominant and interspaces between plants are sealed. Erosion may have stripped away surface soils. Galleta, dropseeds, and other perennial grasses are rare or absent. Burrograss seeds are well adapted to establishment in soils that have developed physical crusts due to raindrop impact1,3. These plants also reproduce by stolons. Long-term monitoring within the Sevilleta NWR indicates that the burrograss-dominated state may be quite stable. Over 20 years in ungrazed conditions on the Turney loam map unit, burrograss canopy cover fluctuated between 15-28% in one transect and 5-14% in another, with very little or no recruitment of other species 5, 6. Burrograss cover may decline to very low levels with drought and continuous grazing and take decades to recover. Burrograss is relatively tolerant of drought3.

Diagnosis: Burrograss is dominant, other grasses are usually rare, and soil sealing in exposed soil is extensive.

Transition to Burrograss state (2a, 3) Intense, continuous heavy grazing, possibly with drought, drives blue grama, galleta and other grasses to low overall cover. Exposed soils (loam and sandy clay loam surface) seal due to raindrop impact or surface horizons are eroded away during this low-cover period. Persisting burrograss recovers over time and other species do not.

Key indicators of approach to transition:

? Overutilization, decadence, and mortality of perennial grasses

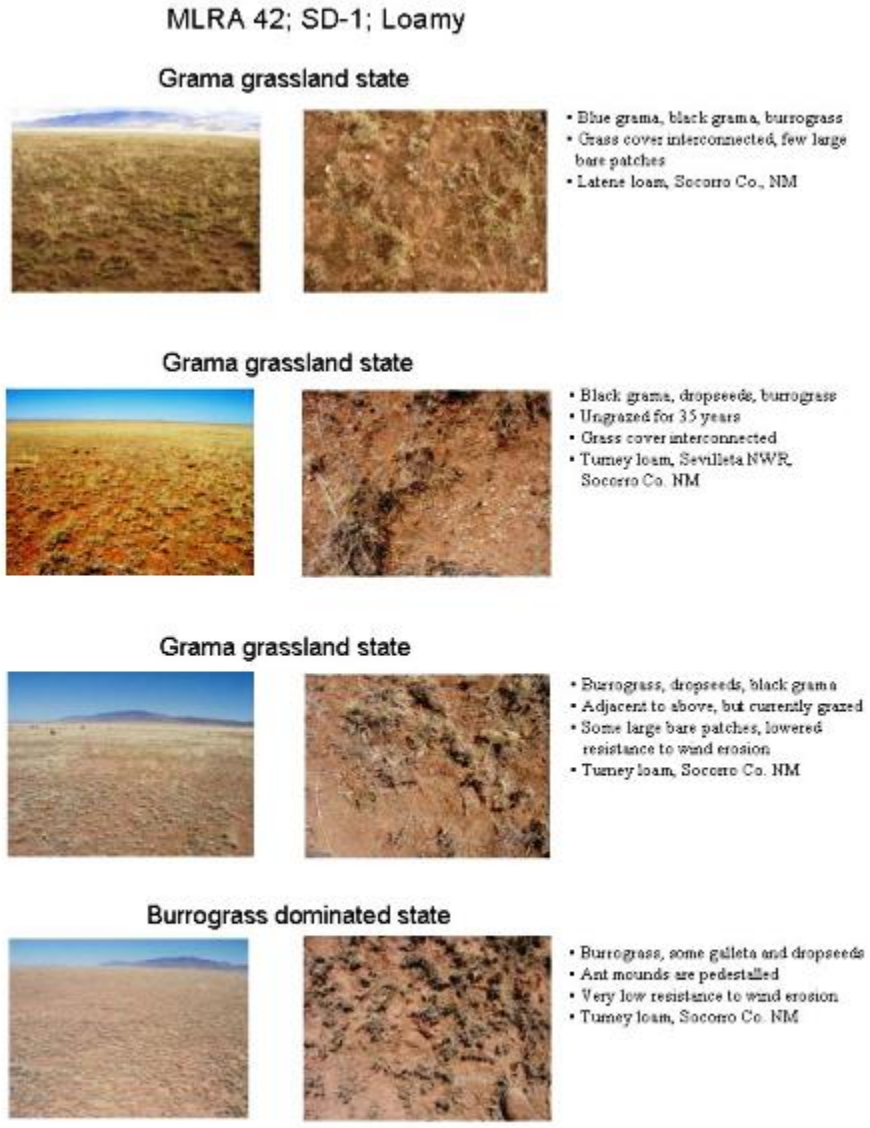
? Increase in size and frequency of bare patches

? Evidence of soil physical crusts, lack of cryptobiotic crust.

Transition back to Grama Grassland (2b) Seeding with grazing deferment and soil-surface disturbance would be necessary. If erosion has stripped away part or all of the A horizon, then soil addition would be necessary.

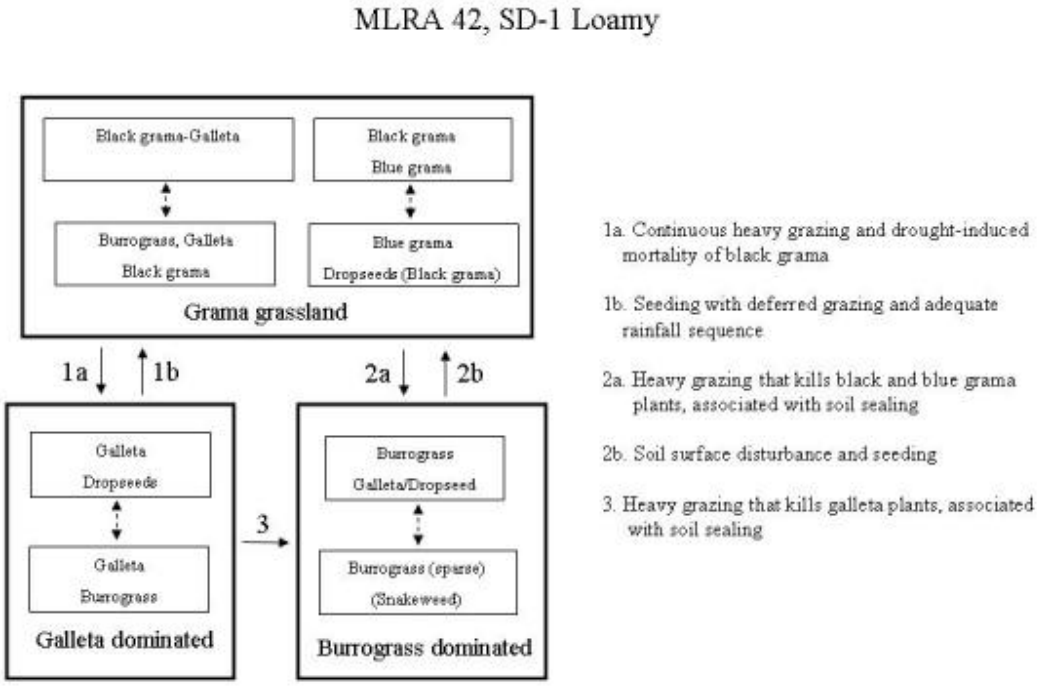
Contributors. Data and ideas were provided by Darrel Reasner, Gary Garrison, George Chavez, Elizabeth Wright, Will Hooper, and David Trujillo.

All Plant Community Photos— R042XA052NM — Loamy (Fountain Hills Assisted Living)



Historic Climax Plant Community

State Transition Diagram— R042XA052NM — Loamy (Fountain Hills Assisted Living)



R042XA052NM — Loamy— Historic Climax Plant Community (Fountain Hills Assisted Living)

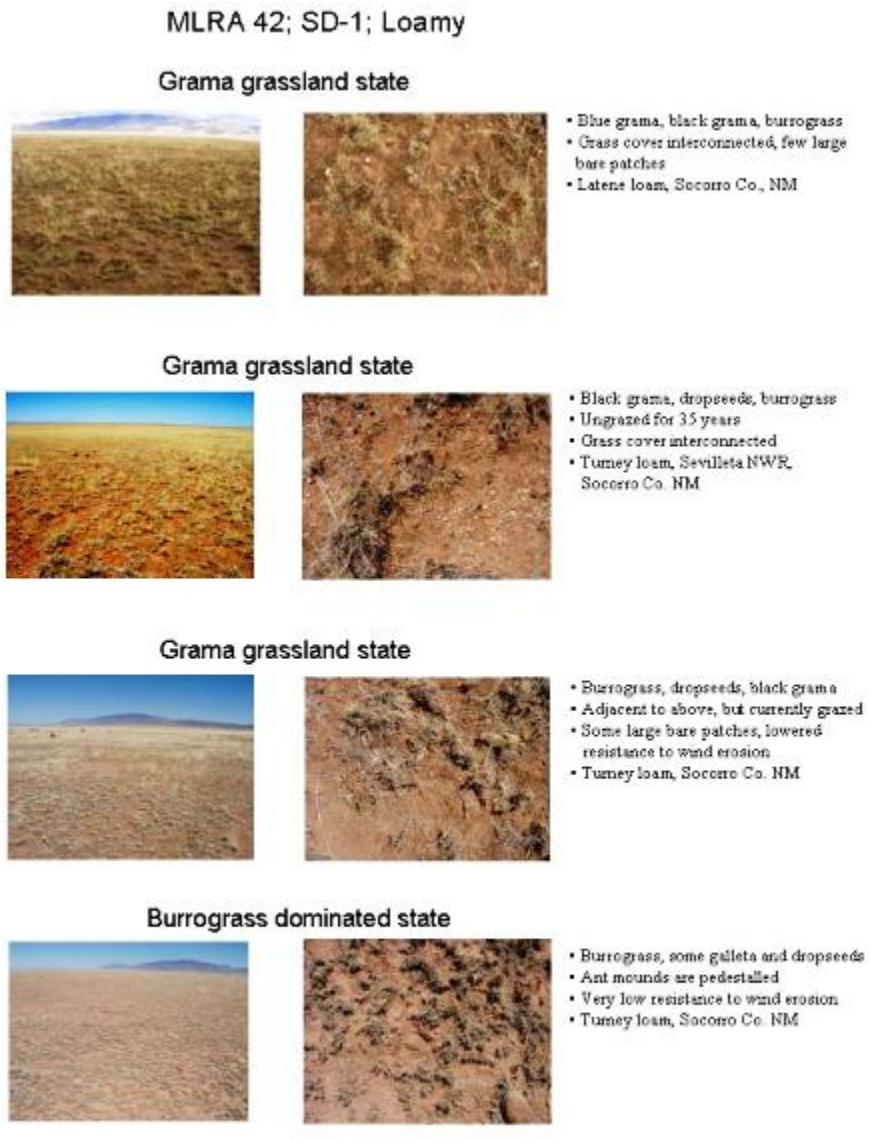
The aspect and biomass of vegetation on this site is predominately grassland characterized by short grasses. Perennial shrubs, half-shrubs, and forbs comprise a minor component of the plant community. Annual forbs are present in relatively large amounts during spring and summer in years of above-average plant-growing conditions. When the plant community deteriorates, there is a marked increase in amounts of half-shrubs, forbs, and cacti.

Other grasses that could appear on this site include: fluff grass, ring muhly, and six-weeks grama.

Other woody plants include wolfberry and broom baccaris.

Other forbs include: fiddleneck, verbena, fleabane, desertsenna, wolly groundsel, locoweed, mentzelia, globemallow, pricklypoppy, hoffmanseggia, and yerba-de-pasmo.

Plant Community Photos—
R042XA052NM — Loamy (Fountain Hills Assisted Living)



Historic Climax Plant Community

Plant Community Tables—
R042XA052NM — Loamy—
Historic Climax Plant Community (Fountain Hills Assisted Living)

Plant Type	Low	Representative Value	High
Grass/Grasslike	320	480	640
Forb	60	90	120
Shrub/Vine	20	30	40
Totals	**400**	**600**	**800**

Grass/Grasslike				
Group	**Plant Common Name**	**Plant Scientific Name**	**Annual Production Pounds Per Acre**	
			Low	**High**
1: Warm Season			180	240
	black grama	Bouteloua eriopoda	180	240
2: Warm Season			60	120
	bush muhly	Muhlenbergia porteri	60	120
3: Warm Season			60	120
	galleta	Pleuraphis jamesii	60	120
4: Cool Season			12	60
	bottlebrush squirreltail	Elymus elymoides	12	60
5: Warm Season			12	60
	perennial threeawn spp.	Aristida	12	60
6: Cool Season			30	60
	indian ricegrass	Achnatherum hymenoides	30	60
7: Warm Season			30	60
	blue grama	Bouteloua gracilis	30	60
8: Warm Season			6	30
	spike dropseed	Sporobolus contractus	6	30
	sand dropseed	Sporobolus cryptandrus	6	30
	mesa dropseed	Sporobolus flexuosus	6	30
9: Warm Season			6	30
	silver bluestem	Bothriochloa saccharoides	6	30
10: Warm Season			6	30

Forb				
Group	Plant Common Name	Plant Scientific Name	Annual Production Pounds Per Acre	
			Low	High
17: Forb			6	30
	wild buckwheat	Eriogonum	6	30
18: Forb			6	18
	Russian thistle	Salsola kali	6	18
19: Forb			6	18
	western ragweed	Ambrosia psilostachya	6	18
20: Forb			6	30
	kochia	Bassia scoparia	6	30
21: Forb			6	18
	tansymustard	Descurainia sophia	6	18
22: Forb			6	18

Shrub/Vine				
Group	Plant Common Name	Plant Scientific Name	Annual Production Pounds Per Acre	
			Low	High
11: Shrub			0	30
	fourwing saltbush	Atriplex canescens	0	30
12: Shrub			12	30
	winterfat	Krascheninnikovia lanata	12	30
13: Shrub			6	18
	mormon-tea	Ephedra viridis	6	18
14: Shrub			12	30
	broom snakeweed	Gutierrezia sarothrae	12	30
15: Shrub			12	18
	plains pricklypear	Opuntia polyacantha	12	18
	walkingstick cactus	Cylindropuntia spinosior	12	18
16: Shrub			12	18

Growth Curve Name
R042XA052NM-Loamy-Warm Season-HCPC

Growth Curve Description
SD-1 Loamy HCPC Warm Season Plant Community

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
0%	0%	3%	5%	10%	10%	25%	30%	12%	5%	0%	0%

Vegetative Cover Type	Minimum	Maximum
Grass/grasslike	20.000%	20.000%
Forb	—	—
Shrub/vine/liana	3.000%	3.000%
Tree	—	—
Non-vascular plants	—	—
Biological crust	—	—
Non-Vegetative Cover Type	**Minimum**	**Maximum**
Litter	10.000%	10.000%
Surface fragments > 0.25" and <= 3"	—	—
Surface fragments > 3"	—	—
Bedrock	—	—
Water	—	—
Bare ground	70.000%	70.000%
Down wood, fine-small	—	—
Down wood, fine-medium	—	—
Down wood, fine-large	—	—
Down wood, coarse-small	—	—
Down wood, coarse-large	—	—
Tree snags	—	—
Hard snags	—	—
Soft snags	—	—

Soil Reports

The Soil Reports section includes various formatted tabular and narrative reports (tables) containing data for each selected soil map unit and each component of each unit. No aggregation of data has occurred as is done in reports in the Soil Properties and Qualities and Suitabilities and Limitations sections.

The reports contain soil interpretive information as well as basic soil properties and qualities. A description of each report (table) is included.

Soil Erosion

This folder contains a collection of tabular reports that present soil erosion factors and groupings. The reports (tables) include all selected map units and components for each map unit. Soil erosion factors are soil properties and interpretations used in evaluating the soil for potential erosion. Example soil erosion factors can include K factor for the whole soil or on a rock free basis, T factor, wind erodibility group and wind erodibility index.

RUSLE2 Related Attributes (Fountain Hills Assisted Living)

This report summarizes those soil attributes used by the Revised Universal Soil Loss Equation Version 2 (RUSLE2) for the map units in the selected area. The report includes the map unit symbol, the component name, and the percent of the component in the map unit. Soil property data for each map unit component include the hydrologic soil group, erosion factors Kf for the surface horizon, erosion factor T, and the representative percentage of sand, silt, and clay in the mineral surface horizon. Missing surface data may indicate the presence of an organic surface layer. .

Report—RUSLE2 Related Attributes (Fountain Hills Assisted Living)

Soil properties and interpretations for erosion runoff calculations. The surface mineral horizon properties are displayed. Organic surface horizons are not displayed.

RUSLE2 Related Attributes–Bernalillo County and Parts of Sandoval and Valencia Counties, New Mexico

Map symbol and soil name	Pct. of map unit	Slope length (ft)	Hydrologic group	Kf	T factor	Representative value		
						% Sand	% Silt	% Clay
BKD—Bluepoint-Kokan association, hilly								
Bluepoint	50	49	A	.17	5	79.4	16.6	4.0
Kokan	40	49	A	.05	5	90.7	1.8	7.5

RUSLE2 Related Attributes–Bernalillo County and Parts of Sandoval and Valencia Counties, New Mexico								
Map symbol and soil name	Pct. of map unit	Slope length (ft)	Hydrologic group	Kf	T factor	Representative value		
						% Sand	% Silt	% Clay
MWA—Madurez-Wink associatin, gently sloping								
Madurez	55	180	B	.24	5	70.9	16.6	12.5
Wink	25	180	A	.28	5	70.5	16.5	13.0

Water Features

This folder contains tabular reports that present soil hydrology information. The reports (tables) include all selected map units and components for each map unit. Water Features include ponding frequency, flooding frequency, and depth to water table.

Hydrologic Soil Group and Surface Runoff (Fountain Hills Assisted Living)

This table gives estimates of various soil water features. The estimates are used in land use planning that involves engineering considerations.

Hydrologic soil groups are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long-duration storms.

The four hydrologic soil groups are:

Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

If a soil is assigned to a dual hydrologic group (A/D, B/D, or C/D), the first letter is for drained areas and the second is for undrained areas.

Surface runoff refers to the loss of water from an area by flow over the land surface. Surface runoff classes are based on slope, climate, and vegetative cover. The concept indicates relative runoff for very specific conditions. It is assumed that the surface of the soil is bare and that the retention of surface water resulting from irregularities in the ground surface is minimal. The classes are negligible, very low, low, medium, high, and very high.

Report—Hydrologic Soil Group and Surface Runoff (Fountain Hills Assisted Living)

Absence of an entry indicates that the data were not estimated. The dash indicates no documented presence.

Hydrologic Soil Group and Surface Runoff–Bernalillo County and Parts of Sandoval and Valencia Counties, New Mexico			
Map symbol and soil name	**Pct. of map unit**	**Surface Runoff**	**Hydrologic Soil Group**
BKD—Bluepoint-Kokan association, hilly			
Bluepoint	50	Very low	A
Kokan	40	Low	A
MWA—Madurez-Wink associatin, gently sloping			
Madurez	55	Low	B
Wink	25	Very low	A

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NOAA Atlas 14, Volume 1, Version 5
Location name: Albuquerque, New Mexico, USA*
Latitude: 35.1849°, Longitude: -106.678°
Elevation: 5139.39 ft**
* source: ESRI Maps
** source: USGS

POINT PRECIPITATION FREQUENCY ESTIMATES

Sanja Perica, Sarah Dietz, Sarah Heim, Lillian Hiner, Kazungu Maitaria, Deborah Martin, Sandra Pavlovic, Ishani Roy, Carl Trypaluk, Dale Unruh, Fenglin Yan, Michael Yekta, Tan Zhao, Geoffrey Bonnin, Daniel Brewer, Li-Chuan Chen, Tye Parzybok, John Yarchoan

NOAA, National Weather Service, Silver Spring, Maryland

PF_tabular | PF_graphical | Maps_&_aerials

PF tabular

PDS-based point precipitation frequency estimates with 90% confidence intervals (in inches)[1]

Duration	Average recurrence interval (years)									
	1	2	5	10	25	50	100	200	500	1000
5-min	**0.163** (0.140-0.192)	**0.212** (0.181-0.248)	**0.285** (0.243-0.335)	**0.343** (0.291-0.401)	**0.422** (0.356-0.493)	**0.484** (0.407-0.565)	**0.550** (0.459-0.641)	**0.619** (0.513-0.722)	**0.714** (0.585-0.834)	**0.790** (0.643-0.921)
10-min	**0.249** (0.213-0.292)	**0.323** (0.275-0.378)	**0.434** (0.369-0.510)	**0.522** (0.443-0.610)	**0.642** (0.542-0.750)	**0.737** (0.619-0.860)	**0.836** (0.698-0.976)	**0.942** (0.781-1.10)	**1.09** (0.891-1.27)	**1.20** (0.978-1.40)
15-min	**0.308** (0.264-0.362)	**0.400** (0.341-0.469)	**0.538** (0.457-0.632)	**0.647** (0.549-0.757)	**0.796** (0.671-0.930)	**0.913** (0.768-1.07)	**1.04** (0.865-1.21)	**1.17** (0.968-1.36)	**1.35** (1.11-1.57)	**1.49** (1.21-1.74)
30-min	**0.415** (0.356-0.487)	**0.539** (0.459-0.631)	**0.725** (0.616-0.851)	**0.871** (0.739-1.02)	**1.07** (0.904-1.25)	**1.23** (1.03-1.44)	**1.40** (1.17-1.63)	**1.57** (1.30-1.84)	**1.82** (1.49-2.12)	**2.01** (1.63-2.34)
60-min	**0.514** (0.440-0.603)	**0.667** (0.568-0.781)	**0.897** (0.762-1.05)	**1.08** (0.915-1.26)	**1.33** (1.12-1.55)	**1.52** (1.28-1.78)	**1.73** (1.44-2.02)	**1.95** (1.61-2.27)	**2.25** (1.84-2.62)	**2.48** (2.02-2.90)
2-hr	**0.604** (0.512-0.721)	**0.773** (0.655-0.925)	**1.02** (0.867-1.22)	**1.23** (1.03-1.46)	**1.51** (1.26-1.79)	**1.74** (1.45-2.06)	**1.98** (1.64-2.34)	**2.24** (1.83-2.64)	**2.60** (2.11-3.06)	**2.89** (2.32-3.41)
3-hr	**0.650** (0.559-0.773)	**0.828** (0.708-0.983)	**1.09** (0.931-1.29)	**1.29** (1.10-1.53)	**1.58** (1.34-1.86)	**1.81** (1.53-2.13)	**2.06** (1.72-2.42)	**2.33** (1.93-2.73)	**2.69** (2.20-3.16)	**2.99** (2.43-3.52)
6-hr	**0.752** (0.649-0.883)	**0.950** (0.823-1.12)	**1.23** (1.06-1.44)	**1.45** (1.25-1.69)	**1.75** (1.50-2.04)	**1.98** (1.69-2.31)	**2.23** (1.89-2.60)	**2.49** (2.10-2.90)	**2.85** (2.38-3.32)	**3.15** (2.60-3.67)
12-hr	**0.834** (0.729-0.957)	**1.05** (0.920-1.21)	**1.34** (1.16-1.53)	**1.56** (1.36-1.79)	**1.87** (1.61-2.13)	**2.10** (1.81-2.39)	**2.34** (2.00-2.67)	**2.60** (2.20-2.96)	**2.94** (2.47-3.36)	**3.22** (2.68-3.68)
24-hr	**0.942** (0.829-1.08)	**1.18** (1.04-1.35)	**1.48** (1.30-1.69)	**1.72** (1.51-1.96)	**2.04** (1.78-2.32)	**2.28** (1.99-2.60)	**2.54** (2.21-2.89)	**2.80** (2.42-3.18)	**3.15** (2.71-3.57)	**3.42** (2.93-3.89)
2-day	**0.986** (0.873-1.11)	**1.24** (1.10-1.40)	**1.55** (1.37-1.74)	**1.79** (1.58-2.01)	**2.11** (1.86-2.38)	**2.36** (2.07-2.65)	**2.62** (2.29-2.94)	**2.88** (2.50-3.24)	**3.22** (2.79-3.63)	**3.49** (3.01-3.94)
3-day	**1.11** (1.00-1.23)	**1.39** (1.25-1.54)	**1.72** (1.55-1.90)	**1.97** (1.78-2.18)	**2.32** (2.08-2.56)	**2.58** (2.31-2.84)	**2.84** (2.54-3.14)	**3.11** (2.77-3.43)	**3.46** (3.07-3.83)	**3.73** (3.29-4.13)
4-day	**1.24** (1.14-1.36)	**1.54** (1.41-1.68)	**1.89** (1.73-2.05)	**2.16** (1.97-2.34)	**2.52** (2.30-2.74)	**2.79** (2.55-3.03)	**3.07** (2.79-3.33)	**3.34** (3.03-3.63)	**3.70** (3.34-4.02)	**3.97** (3.57-4.32)
7-day	**1.42** (1.30-1.54)	**1.76** (1.61-1.91)	**2.13** (1.96-2.31)	**2.42** (2.23-2.62)	**2.80** (2.58-3.03)	**3.08** (2.83-3.33)	**3.36** (3.09-3.63)	**3.63** (3.33-3.91)	**3.97** (3.63-4.28)	**4.21** (3.85-4.55)
10-day	**1.56** (1.43-1.69)	**1.93** (1.78-2.09)	**2.35** (2.17-2.54)	**2.68** (2.48-2.90)	**3.12** (2.87-3.36)	**3.44** (3.17-3.71)	**3.77** (3.46-4.05)	**4.08** (3.74-4.39)	**4.49** (4.10-4.83)	**4.78** (4.35-5.16)
20-day	**1.93** (1.78-2.10)	**2.40** (2.21-2.61)	**2.90** (2.67-3.14)	**3.28** (3.02-3.55)	**3.76** (3.46-4.06)	**4.11** (3.77-4.43)	**4.44** (4.07-4.78)	**4.74** (4.35-5.11)	**5.12** (4.69-5.52)	**5.38** (4.93-5.81)
30-day	**2.31** (2.12-2.49)	**2.85** (2.63-3.08)	**3.42** (3.16-3.69)	**3.84** (3.54-4.13)	**4.36** (4.01-4.68)	**4.72** (4.35-5.07)	**5.06** (4.66-5.43)	**5.38** (4.94-5.76)	**5.74** (5.28-6.16)	**5.99** (5.51-6.43)
45-day	**2.81** (2.60-3.04)	**3.48** (3.22-3.75)	**4.13** (3.82-4.44)	**4.59** (4.25-4.93)	**5.14** (4.76-5.51)	**5.51** (5.11-5.90)	**5.83** (5.41-6.24)	**6.10** (5.67-6.52)	**6.39** (5.96-6.82)	**6.55** (6.13-6.97)
60-day	**3.23** (2.99-3.49)	**3.99** (3.69-4.31)	**4.74** (4.39-5.10)	**5.27** (4.89-5.67)	**5.91** (5.48-6.34)	**6.33** (5.88-6.80)	**6.71** (6.24-7.21)	**7.04** (6.56-7.56)	**7.40** (6.91-7.94)	**7.60** (7.12-8.15)

[1] Precipitation frequency (PF) estimates in this table are based on frequency analysis of partial duration series (PDS).

Numbers in parenthesis are PF estimates at lower and upper bounds of the 90% confidence interval. The probability that precipitation frequency estimates (for a given duration and average recurrence interval) will be greater than the upper bound (or less than the lower bound) is 5%. Estimates at upper bounds are not checked against probable maximum precipitation (PMP) estimates and may be higher than currently valid PMP values.

Please refer to NOAA Atlas 14 document for more information.

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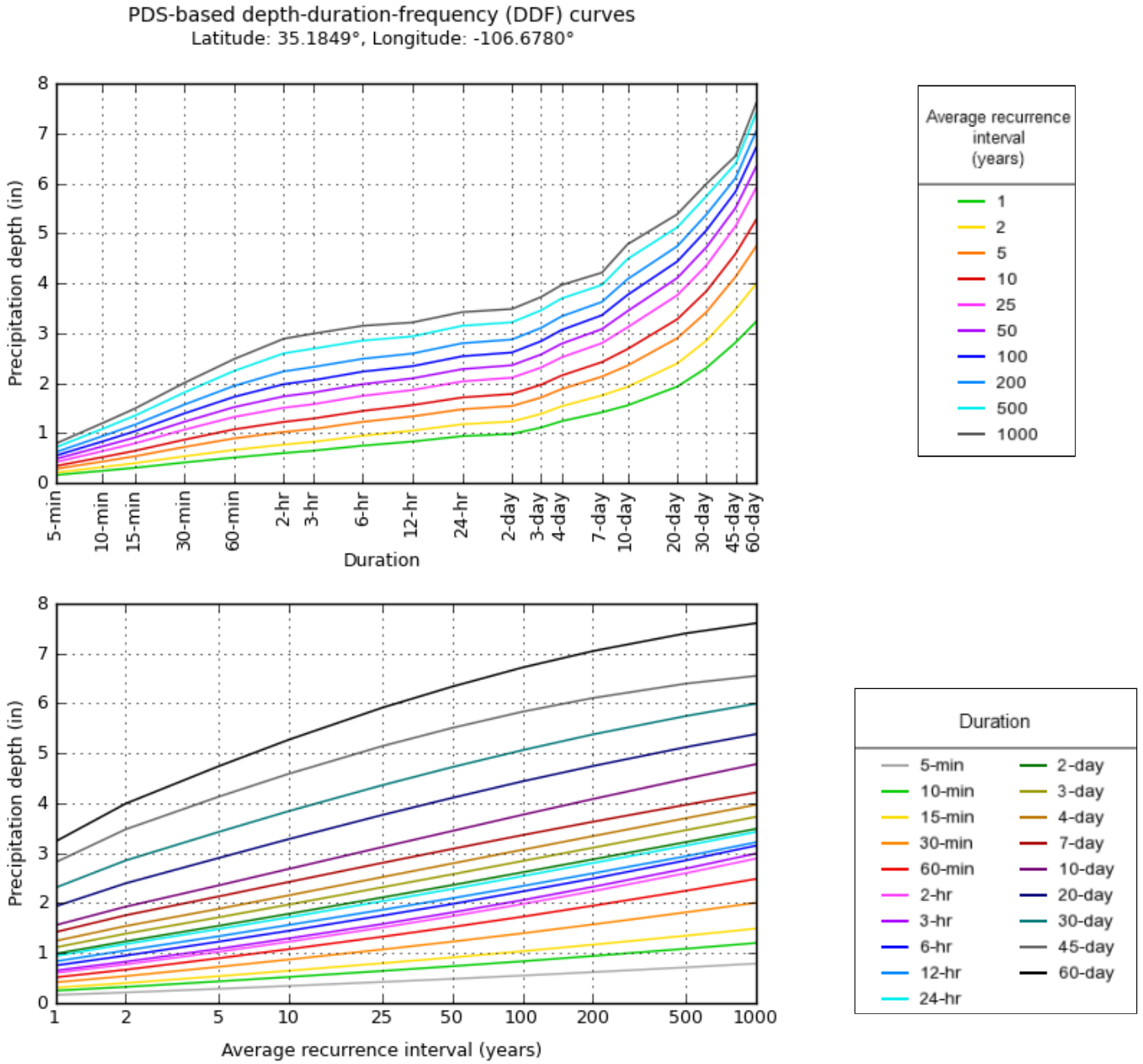
PF graphical



NOAA Atlas 14, Volume 1, Version 5

Created (GMT): Fri Aug 16 14:57:57 2019

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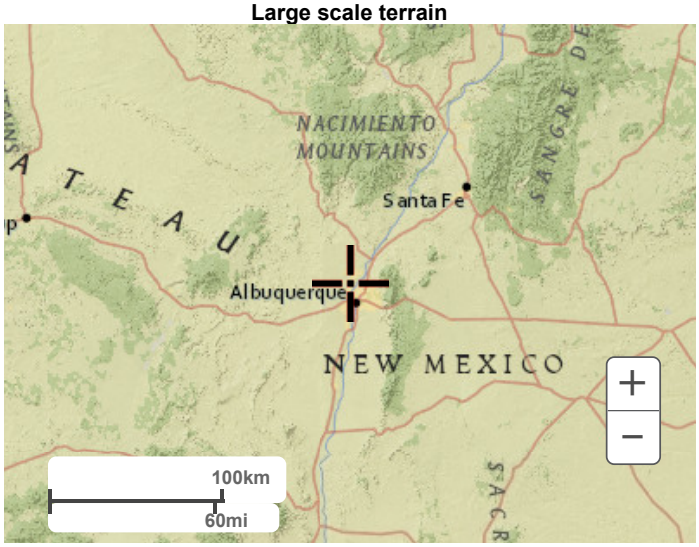
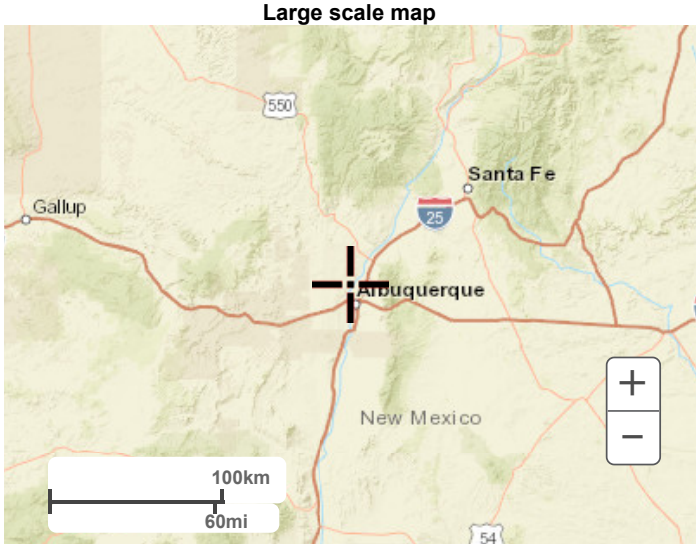
Maps & aerials

Small scale terrain

Large scale terrain



Large scale map



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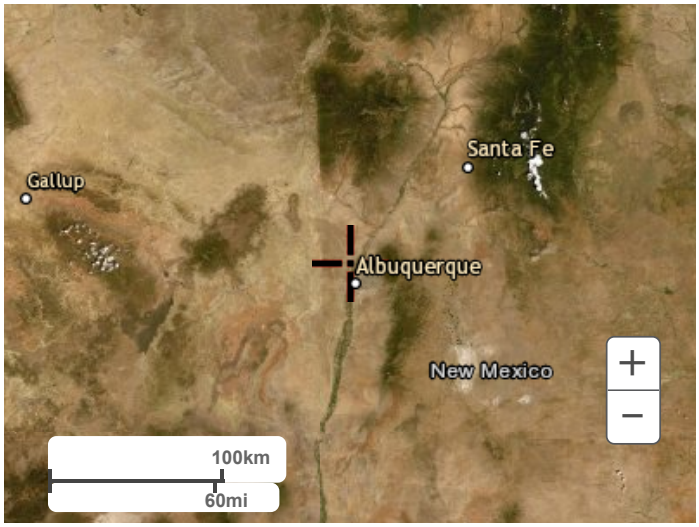

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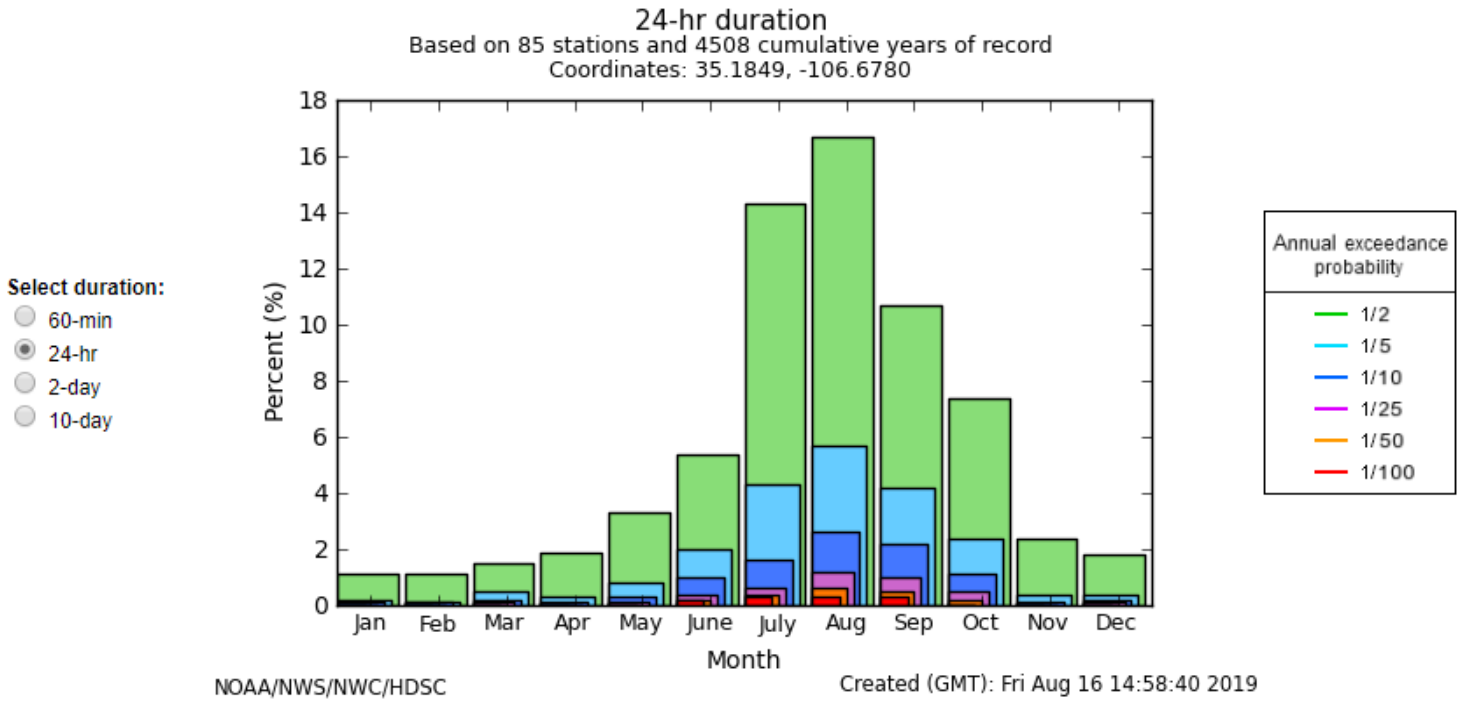
US Department of Commerce
National Oceanic and Atmospheric Administration
National Weather Service
National Water Center
1325 East West Highway
Silver Spring, MD 20910
Questions?: HDSC.Questions@noaa.gov

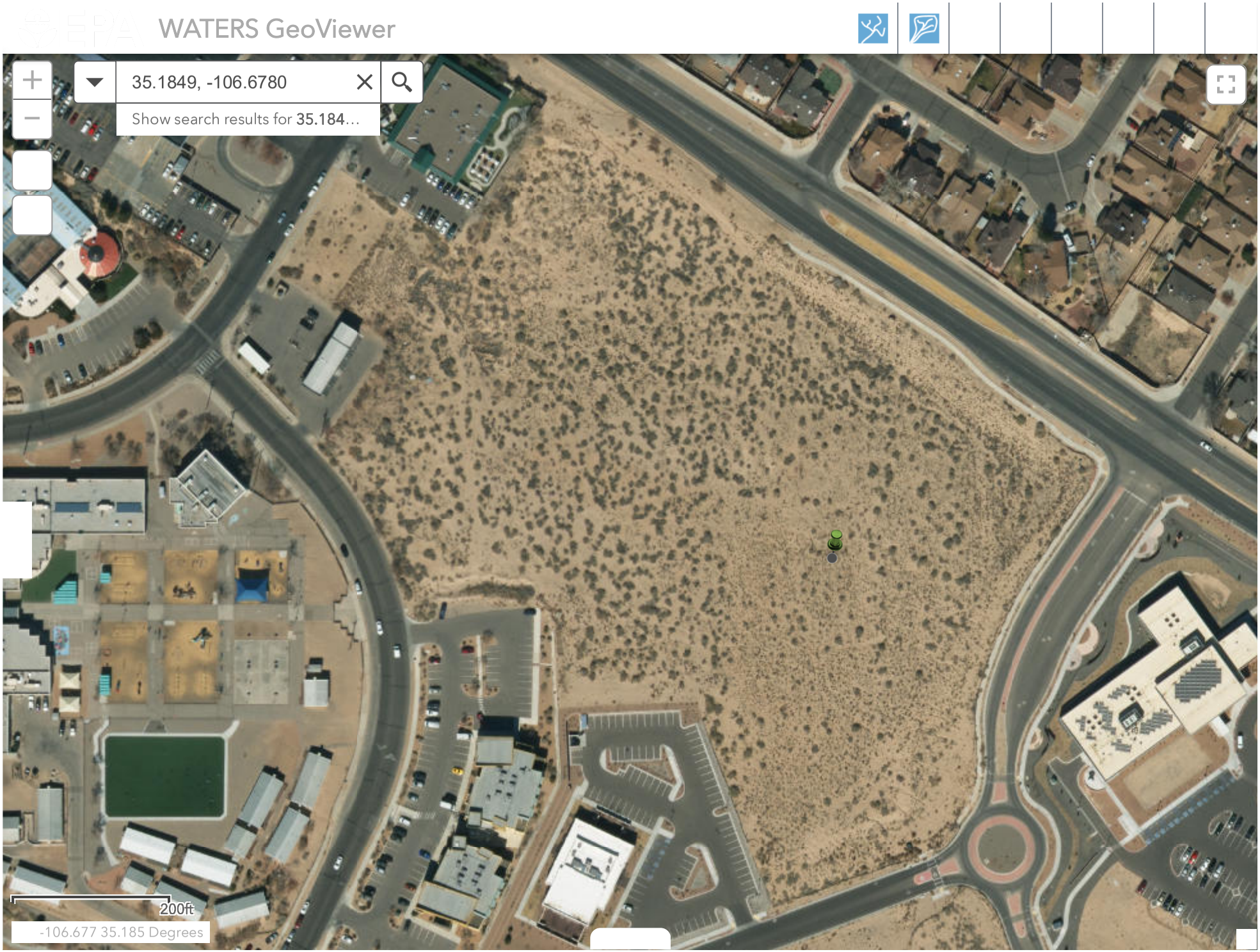
Disclaimer

V. Seasonality analysis

The seasonality graphs show the percentage of precipitation totals for a given duration that exceeded the precipitation frequency estimates for the duration and selected annual exceedance probabilities in each month for each region. The precipitation frequency estimates were derived from annual maximum series at each station in the region (as described in documentation). Results are provided for 60-min, 24-hr, 2-day, and 10-day durations and for annual exceedance probabilities of 1/2 (or 1-in-2), 1/5, 1/10, 1/25, 1/50, and 1/100. Seasonality graphs should not be used to derive seasonal precipitation frequency estimates.



TAB 5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NMED SWQB MAPPER
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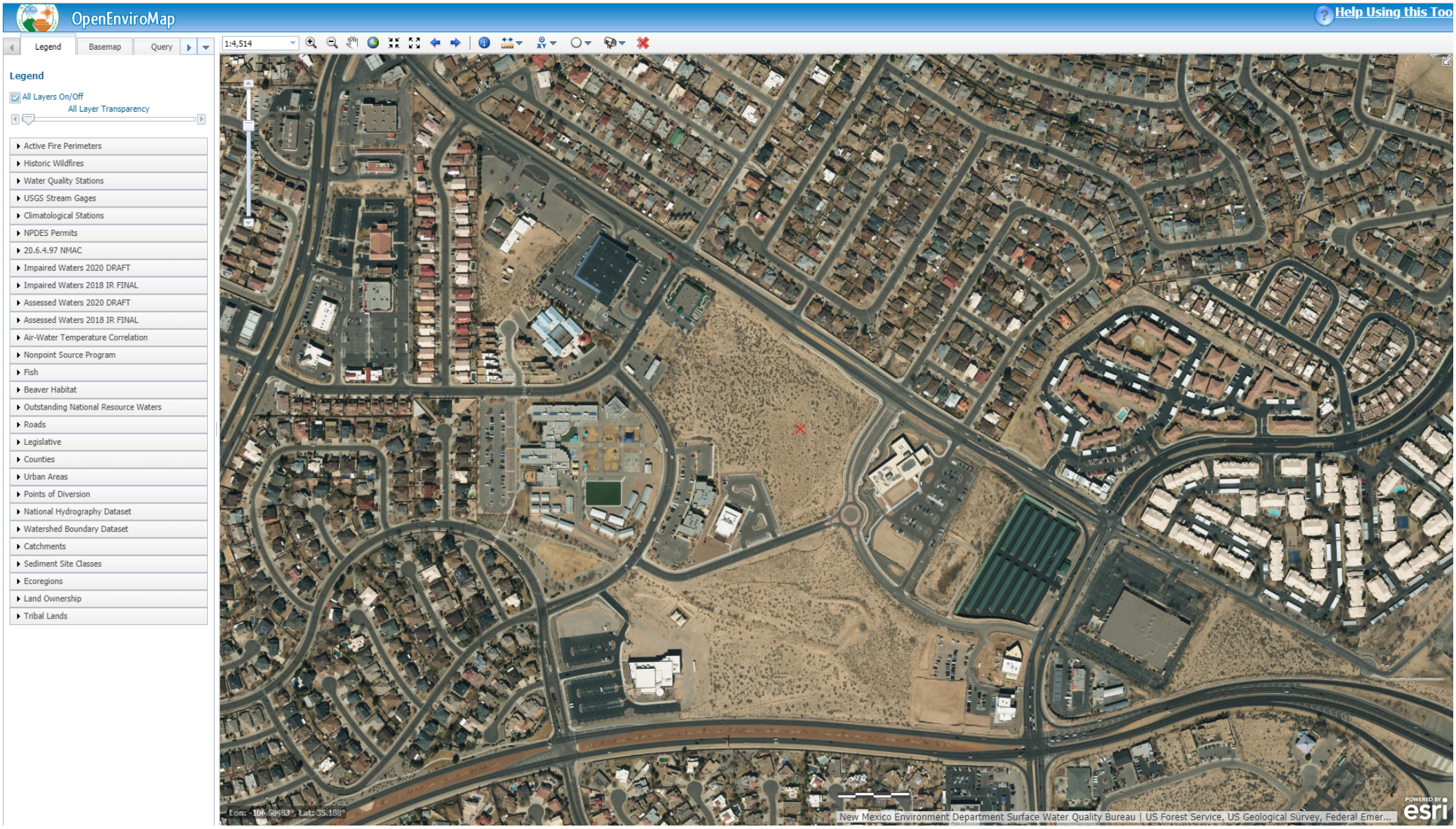

TMDL Report

TMDL Document for RIO GRANDE RIVER 2105_50 E. COLI TMDL

TMDL ID:	38855	**TMDL Name:**	RIO GRANDE RIVER 2105_50 E. COLI TMDL
State/Tribe:	New Mexico	**TMDL Date:**	06/30/2010
EPA Action:	EPA Approved		

TMDL Documents

Click on the underlined Document Type to retrieve the actual document in PDF format.

Document Type	Comments
TMDL Document	

TMDL Pollutant: Escherichia Coli (E. Coli)

Total Waste Load Allocation:	198000000000	**Total Load Allocation:**	566000000000
Explicit Margin Of Safety:	138000000000 CFU/DAY	**Implicit Margin Of Safety:**	N
Units for Total Waste Load Allocation and Total Load Allocation:	CFU/DAY	**TMDL Pollutant Source Type:**	Point/Nonpoint Source
TMDL End Point:	NUMERIC WQS		

NPDES Allocation for Pollutant: Escherichia Coli (E. Coli)

NPDES ID	Other Non PCS Identification	Waste Load Allocation	Units
NM0022250		135000000000	CFU/DAY
NM0027863		13400000	CFU/DAY
NMS000101		56600000000	CFU/DAY
NMR040000		6290000000	CFU/DAY

Listed Water Causes of Impairment for Escherichia Coli (E. Coli)

Click on the underlined Waterbody ID for a Waterbody Report. Click on the underlined "Waterbody Map" literal for a map of the Assessment Unit.

Waterbody ID	Waterbody Name	Map	Cycles Listed	Cause(s) of Impairment Addressed
NM-2105_50	Rio Grande (Isleta Pueblo boundary to Tijeras Arroyo)	Waterbody Map	2002, 2008, 2010	Escherichia Coli (E. Coli)

August 16, 2019

Waterbody Quality Assessment Report

State: New Mexico
Waterbody ID: NM-2105_50
Location: 13020203 - Rio Grande-Albuquerque
State Waterbody Type: River
EPA Waterbody Type: Rivers and Streams
Water Size: 5
Units: miles
Watershed Name: Rio Grande-Albuquerque

2016 Waterbody Report for Rio Grande (Isleta Pueblo boundary to Tijeras Arroyo)

Water Quality Assessment Status for Reporting Year 2016

The overall status of this waterbody is Impaired.

Designated Use	Designated Use Group	Status
Irrigation	Agricultural	Good
Livestock Watering	Agricultural	Good
Marginal Warmwater Aquatic Life	Fish, Shellfish, And Wildlife Protection And Propagation	Impaired
Primary Contact	Recreation	Impaired
Public Water Supply	Public Water Supply	Not Assessed
Wildlife Habitat	Fish, Shellfish, And Wildlife Protection And Propagation	Good

Causes of Impairment for Reporting Year 2016

Cause of Impairment	Cause of Impairment Group	Designated Use(s)	State TMDL Development Status
Dissolved Oxygen	Organic Enrichment/Oxygen Depletion	Marginal Warmwater Aquatic Life	TMDL needed
Escherichia Coli (E. Coli)	Pathogens	Primary Contact	TMDL completed
PCB(s) in Fish Tissue	Polychlorinated Biphenyls (PCBs)	Marginal Warmwater Aquatic Life	TMDL needed
Temperature, Water	Temperature		TMDL needed

Probable Sources Contributing to Impairment for Reporting Year 2016

Probable Source	Probable Source Group	Cause(s) of Impairment
Impervious Surface/Parking Lot Runoff	Urban-Related Runoff/Stormwater	Escherichia Coli (E. Coli)
Municipal (Urbanized High Density Area)	Urban-Related Runoff/Stormwater	Escherichia Coli (E. Coli)
Municipal Point Source Discharges	Municipal Discharges/Sewage	Escherichia Coli (E. Coli)
On-Site Treatment Systems (Septic Systems And Similar Decentralized Systems)	Municipal Discharges/Sewage	Escherichia Coli (E. Coli)
Source Unknown	Unknown	Dissolved Oxygen; Escherichia Coli (E. Coli); PCB(s) in Fish Tissue
Wastes From Pets	Urban-Related Runoff/Stormwater	Escherichia Coli (E. Coli)
Waterfowl	Natural/Wildlife	Escherichia Coli (E. Coli)

TMDLs That Apply to this waterbody

TMDL Document Name	TMDL Date	TMDL Pollutant Description	TMDL Pollutant Source Type	Cause(s) of Impairment Addressed
Rio Grande River 2105_50 E. Coli Tmdl	Jun-30-2010	Escherichia Coli (E. Coli)	Point/Nonpoint Source	Fecal Coliform; Pathogens; Escherichia Coli (E. Coli)

Previous Causes of Impairments Now Attaining All Uses

Cause of Impairment	Cycles Listed	WQS Attainment Date	WQS Attainment Reason	WQS Attainment Comments
Pathogens	2002, 2008, 2010	Feb-06-2009	Applicable WQS attained, due to change in WQS.	
Temperature, Water	2010, 2012, 2014, 2016	Sep-23-2016	Applicable WQS attained; reason for recovery unspecified.	

2018-2020
State of New Mexico
Clean Water Act
Section 303(d)/
Section 305(b)
Integrated Report

Appendix A
303(d)/305(b) List

Prepared by:
New Mexico Environment Department
Surface Water Quality Bureau
1190 St. Francis Drive
Santa Fe, New Mexico 87505
https://www.env.nm.gov/surface-water-quality/

PREFACE

I. Format and Organization of Integrated List and Assessment Rationale

In 2013, the New Mexico Environment Department (NMED) merged Surface Water Quality Bureau's (SWQB) in-house water quality database with NMED's *Assessment Database* to create the *Surface water QUality Information Database* (SQUID) so both data and assessment conclusions could be housed in one database. SWQB took this opportunity to also re-design and streamline the *CWA §303(d)/§305(b) Integrated Report: Appendix A List of Assessed Waters* (Integrated List) format for ease of review, to incorporate additional information, and to reduce the total number of pages. The associated Assessment Rationale (previously called the *Record of Decision* or ROD) that houses additional details on any water body or Assessment Unit (AU) that is currently or has ever been documented as "impaired" is also now housed in SQUID. If there was no action on a specific impaired AU during a particular listing cycle, there may be no entry for that cycle.

The Canadian and Dry Cimarron River watersheds were surveyed by the SWQB in 2015-2016 and hence are the focus of revised or retained assessment conclusions in the Integrated List. Other datasets that were either submitted or acquired this cycle and assessed as reported include:

- 2015-2017 EPA-collated Gold King Mine dataset,
- 2012-2017 Pajarito Plateau data collected by Los Alamos National Laboratory staff and contractors,
- 2014-2016 data for various stream reaches in and around Taos and Red River collected by Sentinels-Rio de Taos and submitted by Amigos Bravos, and
- 2015 data collected and submitted by the Hermit's Peak Watershed Alliance.

The assessment conclusions in non-focus areas based on data from previous rotational surveys and previously submitted outside data are typically carried over to the next list until more current data are available to assess unless, for example, a water quality standard change necessitates a re-assessment. This was the case with several historic dissolved aluminum listings with concurrent pH > 6.5 because the previous dissolved aluminum criteria are no longer applicable in these waterbodies.

All AUs are assigned IR categories as described in New Mexico's CALM (NMED/SWQB 2017). Assessment units noted with IR Category 5A, 5B, or 5C on the Integrated List in Appendix A comprise New Mexico's official CWA §303(d) List of Impaired Waters. A listing of Category 5-only waters is included in the beginning of Appendix A. To see details on a specific AU, refer to the particular AU entry on the full Integrated List in Appendix A and associated assessment rationale entry. Starting with the 2018-2020 IR, each AU entry on the Integrated List now also contains a "PARAMETER IR CATEGORY." This useful field provides additional planning information regarding each particular cause of impairment or AU_cause pair. For example, a parameter IR category of 5B lets the user know that a review of the applicable water quality standard is needed prior to scheduling TMDL development. New Mexico has several temperature listings that fall under the 5B parameter IR category.

New Mexico's Integrated List also includes an estimated year in the "TMDL DATE" field for all parameter IR category 5A AU_cause pairs. The estimated year is generally based on the SWQB's rotational

monitoring schedule, prioritization strategy in the SWQB's long-term vision document (NMED/SWQB 2015), and severity of the impairment. The "TMDL DATE", as well as the projected "MONITORING SCHEDULE" year, is ultimately dependent upon personnel and financial resources which can change on an annual basis. If a TMDL has already been developed for the noted cause of impairment, the EPA TMDL approval date (MM/DD/YYYY) is reported in the TMDL date field.

II. Useful Definitions

INTEGRATED LIST FIELD HEADINGS AND CODES --

ASSESSED	This field generally notes the last Integrated Reporting Cycle when data for this particular watershed were assessed and reported.
Assessment Unit (AU)	Descriptive name of a specific waterbody (stream reach or lake). Limited to 60 characters.
ATTAINMENT	The use attainment status for the associated USE (Fully Supporting, Not Supporting, Not Assessed)
ASSESSED	This field generally notes the last Integrated Report Cycle when data for this particular watershed were assessed and reported.
AU ID	An internal database code that is unique to an assessment unit, and is not intended to provide any specific information to the reader of the list.
CAUSE(S)	Parameters and/or constituents that are causing non-attainment of the associated USE
DO	The amount of dissolved oxygen in the water; usually reported in mg/L.
E. coli	Abbreviation of *Escherichia coli*. These bacteria found in the environment, foods, and intestines of people and animals.
FIRST LISTED	This field generally notes the first Integrated Reporting Cycle when the associated impairment was noted.
HUC	8-digit Hydrologic Unit Codes (HUC) that identify various watersheds. The US Geologic Survey defines these codes and associated watershed names.
IR	Integrated Report
IR Category (AU)	Overall water quality standards attainment category for each assessment unit as determined by combining individual designated use support decisions. The unique IR categories for New Mexico are described as

follows as follows:

IR Category (Parameter)	Water quality standards attainment category for each listed cause of impairment. The unique IR categories for New Mexico are described as follows as follows:
IR Category 1	Attaining the water quality standards for all designated and existing uses. AUs are listed in this category if there are data and information that meet all requirements of the assessment and listing methodology and support a determination that the water quality criteria are attained.
IR Category 2	Attaining some of the designated or existing uses based on numeric and narrative parameters that were tested, and no reliable monitored data is available to determine if the remaining uses are attained or threatened. AUs are listed in this category if there are data and information that meet requirements of the assessment and listing methodology to support a determination that some, but not all, uses are attained based on numeric and narrative water quality criteria that were tested. Attainment status of the remaining uses is unknown because there is no reliable monitored data with which to make a determination.
IR Category 3/3A	Insufficient of no reliable monitored data and/or information to determine if any designated or existing use is attained. AUs are listed in this category when there are limited data (n = 0 to 1) available no exceedence. These are considered lower priority than IR Category 3/3B for follow up monitoring.
IR Category 3/3B	Insufficient monitored data and/or information to determine if any designated or existing use is attained. AUs are listed in this category when there are limited data (n = 1) available with an exceedence. These are considered high priority for follow up monitoring.
IR Category 4A	Impaired for one or more designated uses, but does not require development of a TMDL because TMDL has been completed. AUs are listed in this subcategory once all TMDL(s) have been developed and approved by USEPA that, when implemented, are expected to result in full attainment of the standard. Where more than one pollutant is associated with the impairment of an AU, the AU remains in IR Category 5A (see below) until all TMDLs for each pollutant have been completed and approved by USEPA.
IR Category 4B	Impaired for one or more designated uses, but does not require development of a TMDL because other pollution control requirements are reasonably expected to result in attainment of the water quality standard in the near future. Consistent with the regulation under 40 CFR 130.7(b)(i),(ii), and (iii), AUs are listed in this subcategory where other pollution control requirements required by local, state, or federal authority are stringent enough to implement any water quality standard

	(WQS) applicable to such waters.
IR Category 4C	Impaired for one or more designated uses, but does not require development of a TMDL because impairment is not caused by a pollutant. AUs are listed in this subcategory if a pollutant does not cause the impairment. For example, USEPA considers flow alteration to be "pollution" vs. a "pollutant."
IR Category 5/5A	Impaired for one or more designated or existing uses and a TMDL is underway or scheduled. AUs are listed in this category if the AU is impaired for one or more designated uses by a pollutant. Where more than one pollutant is associated with the impairment of a single AU, the AU remains in IR Category 5A until TMDLs for all pollutants have been completed and approved by USEPA.
IR Category 5/5B	Impaired for one or more designated or existing uses and a review of the water quality standard will be conducted. AUs are listed in this category when it is possible that water quality standards are not being met because one or more current designated use is inappropriate. After a review of the water quality standard is conducted, a Use Attainability Analysis (UAA) will be developed and submitted to USEPA for consideration, or the AU will be moved to IR Category 5A and a TMDL will be scheduled.
IR Category5/5C	Impaired for one or more designated or existing uses and Additional data will be collected before a TMDL is scheduled. AUs are listed in this category if there is not enough data to determine the pollutant of concern or there is not adequate data to develop a TMDL. For example, AUs with biological impairment will be listed in this category until further research can determine the particular pollutant(s) of concern. When the pollutant(s) are determined, the AU will be moved to IR Category 5A and a TMDL will be scheduled. If it is determined that the current designated uses are inappropriate, it will be moved to IR Category 5B and a UAA will be developed. If it is determined that "pollution" is causing the impairment (vs. a "pollutant"), the AU will be moved to IR Category 4C.
LOCATION DESCRIPTION	The name of the 8-digit Hydrologic Unit Code (HUC) watershed of the assessment unit as defined by the United States Geologic Survey.
MONITORING SCHEDULE	These proposed dates are primarily based on SWQB's most recent rotational watershed monitoring schedule. This date, as well as the "TMDL DATE" date, is ultimately dependent upon personnel, financial, and laboratory resources which change on an annual basis.
NS	Non Support or Not Supporting
PCBs	Polychlorinated biphenyls; highly-persistent compounds that are fat soluble and accumulate in the food chain

PROBABLE SOURCE(S)	This field contains either 1) "Source Unknown" if no TMDLs have yet been developed, or 2) the Probable Sources noted in associated TMDLs that may be contributing to the noted impairment(s).
SIZE	Streams and/or rivers = Miles, Lakes and/or playas = Acres, per EPA's current reporting requirement
TMDL	Total Maximum Daily Load
TMDL DATE	This field contains either 1) future estimated ("est.") TMDL development year primarily based on SWQB's rotational monitoring schedule, prioritization schedule, date since last intensively surveyed, upcoming permit renewals, etc.; 2) the EPA TMDL approval date (MM/DD/YYYY) if a TMDL has already been developed and approved; or 3) nothing if the water quality standard is under review (IR Category 5B) or additional data are needed (IR Category 5C). This date, as well as the "Monitoring Schedule" date, is ultimately dependent upon personnel and financial resources which change on an annual basis.
USE	Any designated uses specified in the State of New Mexico Standards for Interstate and Intrastate Surface Waters (20.6.4 NMAC) that apply to the given assessment unit and/or any documented existing uses that apply to the given assessment unit. Uses that exist but are not officially designated in NMAC are also listed here with a note in "Assessment Unit Comments."
WATER TYPE	This field contains the EPA-defined water type that most accurately describes the "normal" hydrologic character of the assessment unit to the best of SWQB's knowledge given available flow data, GIS layers, and Hydrology Protocol survey results (where available).
WQS REF	Applicable Water Quality Standard segment as described in the most recent State of New Mexico Standards for Interstate and Intrastate Surface Waters (20.6.4 NMAC) that applies to the given assessment unit.

III. Abbreviations in Assessment Unit Names

The size of the assessment unit name is limited to 60 characters by the database. Therefore, the following abbreviations were used when necessary:

abv	=	above
AZ	=	Arizona
blw	=	below
bnd	=	boundary
BNSF	=	Burlington Northern – Santa Fe
Campgrd	=	Campground
Ck	=	Creek
Cny	=	Canyon
CO	=	Colorado
CR	=	County Road
confl	=	confluence
Div	=	Diversion
E	=	East
Fk	=	Fork
FS	=	Forest Service (usually road)
hdwtrs	=	headwaters
HWY	=	Highway
I	=	Interstate highway
Irr	=	irrigation
LANL	=	Los Alamos National Laboratory
M	=	Middle
mi	=	mile
N	=	North
NM	=	New Mexico
nr	=	near
NWR	=	National Wildlife Refuge
OK	=	Oklahoma
prt	=	Portion (i.e., reaches)
R	=	River or Rio
rd	=	road
RR	=	railroad
Rsvr	=	Reservoir
S	=	South
SFNF	=	Santa Fe National Forest
Spr	=	Spring
SR	=	state road
trib	=	tributary
TX	=	Texas
VCNP	=	Valles Caldera National Preserve
xing	=	crossing
USFS	=	United States Forest Service
W	=	West
WWTP	=	waste water treatment plant

(Table of Contents of Category 5 waters on the following Integrated §303(d)/§305(b) List)

HUC: 11040001 - Cimarron Headwaters

- Dry Cimarron R (Perennial reaches OK bnd to Long Canyon)
- Dry Cimarron River (Long Canyon to Oak Ck)
- Dry Cimarron River (Oak Creek to headwaters)
- Long Canyon (Perennial reaches abv Dry Cimarron)

HUC: 11080001 - Canadian Headwaters

- Canadian River (Chicorica Creek to CO border)
- Doggett Creek (Raton Creek to headwaters)
- East Fork Chicorica Creek (Chicorica Creek to headwaters)
- Lake Maloya
- Maxwell Lake 13
- Raton Creek (Chicorica Creek to headwaters)
- Stubblefield Lake
- Tinaja Creek (West Fork Tinaja Creek to headwaters)
- VanBremmer Creek (HWY 64 to headwaters)
- Vermejo River (Rail Canyon to York Canyon)
- York Canyon (Vermejo R to Left Fork York Canyon)

HUC: 11080002 - Cimarron

- American Creek (Cieneguilla Creek to headwaters)
- Cimarron River (Canadian River to Ponil Creek)
- Cimarron River (Cimarron Village to Turkey Creek)
- Cimarron River (Turkey Creek to Eagle Nest Lake)
- Eagle Nest Lake
- Greenwood Creek (Middle Ponil Creek to headwaters)
- McCrystal Creek (North Ponil to headwaters)
- Middle Ponil Creek (Greenwood Creek to headwaters)
- North Ponil Creek (Seally Canyon to headwaters)
- Ponil Creek (Cimarron River to HWY 64)
- Ponil Creek (HWY 64 to confl of North and South Ponil)
- Rayado Creek (Cimarron River to Miami Lake Diversion)
- Saladon Creek (Cieneguilla Creek to headwaters
- Shuree Pond (North)
- Springer Lake

HUC: 11080003 - Upper Canadian

- Charette Lake (Lower)

- Charette Lake (Upper)
- Wheaton Creek (Manuelas Creek to headwaters)

HUC: 11080004 - Mora

- Coyote Creek (Black Lake to headwaters)
- Coyote Creek (Mora River to Williams Canyon)
- Coyote Creek (Williams Canyon to Black Lake)
- Mora River (USGS gage east of Shoemaker to HWY 434)
- Rito Cebolla (Mora River to Rito Morphy)
- Sapello River (Mora River to Arroyo Jara)

HUC: 11080005 - Conchas

- Conchas Reservoir
- Conchas River (Conchas Reservoir to Salitre Creek)

HUC: 11080006 - Upper Canadian-Ute Reservoir

- Canadian River (TX border to Ute Reservoir)
- Canadian River (Ute Reservoir to Conchas Reservoir)
- Pajarito Creek (Perennial prt Canadian R to Vigil Canyon)
- Ute Reservoir

HUC: 11080008 - Revuelto

- Revuelto Creek (Canadian River to headwaters)

HUC: 11100101 - Upper Beaver

- Clayton Lake

HUC: 13010005 - Conejos

- Canada Tio Grande (Rio San Antonio to headwaters)
- Rio San Antonio (CO border to Montoya Canyon)
- Rio San Antonio (Montoya Canyon to headwaters)

HUC: 13020101 - Upper Rio Grande

- Acid Canyon (Pueblo to headwaters)
- Arroyo del Palacio (Rio Grande to headwaters)
- Bitter Creek (Red River to headwaters)
- Canada Aqua (Arroyo La Mina to headwaters)
- DP Canyon (Grade control to upper LANL bnd)
- DP Canyon (Los Alamos Canyon to grade control)
- Embudo Creek (Canada de Ojo Sarco to Picuris Pueblo bnd)

- Embudo Creek (Rio Grande to Canada de Ojo Sarco)
- Graduation Canyon (Pueblo Canyon to headwaters)
- Grassy Creek (Comanche Creek to headwaters)
- Los Alamos Canyon (DP Canyon to upper LANL bnd)
- Los Alamos Canyon (NM-4 to DP Canyon)
- Pioneer Creek (Red River to headwaters)
- Pojoaque River (San Ildefonso bnd to Pojoaque bnd)
- Pueblo Canyon (Acid Canyon to headwaters)
- Pueblo Canyon (Los Alamos Canyon to Los Alamos WWTP)
- Pueblo Canyon (Los Alamos WWTP to Acid Canyon)
- Red River (Placer Creek to headwaters)
- Red River (Rio Grande to Placer Creek)
- Rio Fernando de Taos (R Pueblo d Taos to USFS bnd at canyon)
- Rio Grande (Embudo Creek to Rio Pueblo de Taos)
- Rio Grande (Ohkay Owingeh bnd to Embudo Creek)
- Rio Grande (Red River to CO border)
- Rio Grande (Santa Clara Pueblo bnd to Ohkay Owingeh bnd)
- Rio Grande del Rancho (R Pueblo de Taos to Rito de la Olla)
- Rio Pueblo (Picuris Pueblo bnd to headwaters)
- Rio Pueblo de Taos (Arroyo del Alamo to R Grande del Rancho)
- Rio Pueblo de Taos (Rio Grande to Arroyo del Alamo)
- Rio Santa Barbara (non-pueblo Embudo Ck to USFS bnd)
- Santa Cruz Lake
- Santa Cruz River (San Clara Pueblo bnd to Santa Cruz Dam)
- South Fork Acid Canyon (Acid Canyon to headwaters)
- Unnamed Arroyo (Rio Pueblo de Taos to Taos WWTP)
- Vidal Creek (Comanche Creek to headwaters)
- Walnut Canyon (Pueblo Canyon to headwaters)

HUC: 13020102 - Rio Chama

- Abiquiu Creek (Rio Chama to headwaters)
- Abiquiu Reservoir
- Arroyo del Toro (Rio Chama to headwaters)
- Burns Lake (Rio Arriba)
- Canada de Horno (Rio Chama to headwaters)
- Canjilon Ck (Perennial portions Abiquiu Rsrv to headwaters)
- Canones Creek (Abiquiu Rsvr to Chihuahuenos Ck)
- Canones Creek (Rio Chama to Jicarilla Apache bnd)
- Chihuahuenos Creek (Canones Creek to headwaters)

- Coyote Creek (Rio Puerco de Chama to headwaters)
- El Rito Creek (Perennial reaches above HWY 554)
- El Rito Creek (Perennial reaches below HWY 554)
- Heron Reservoir
- Hopewell Lake
- Placer Creek (Hopewell Lake to headwaters)
- Poleo Creek (Rio Puerco de Chama to headwaters)
- Rio Nutrias (Perennial prt Rio Chama to headwaters)
- Rio Ojo Caliente (Arroyo El Rito to Rio Vallecitos)
- Rio Puerco de Chama (Abiquiu Reservoir to HWY 96)
- Rio Tusas (Perennial prt Rio Vallecitos to headwaters)
- Rio Vallecitos (Rio Tusas to headwaters)
- Rio del Oso (Perennial prt Rio Chama to headwaters)
- Rito Encino (Rio Puerco de Chama to headwaters)
- Rito de Tierra Amarilla (HWY 64 to headwaters)
- Rito de Tierra Amarilla (Rio Chama to HWY 64)
- Sixto Creek (Rio Chamita to CO border)

HUC: 13020201 - Rio Grande-Santa Fe

- Ancho Canyon (North Fork to headwaters)
- Ancho Canyon (Rio Grande to North Fork Ancho)
- Arroyo de la Delfe (Pajarito Canyon to headwaters)
- Canada del Buey (within LANL)
- Canon de Valle (LANL gage E256 to Burning Ground Spr)
- Canon de Valle (below LANL gage E256)
- Canon de Valle (upper LANL bnd to headwaters)
- Chaquehui Canyon (within LANL)
- Mortandad Canyon (within LANL)
- North Fork Ancho Canyon (Ancho Canyon to headwaters)
- Pajarito Canyon (Lower LANL bnd to Two Mile Canyon)
- Pajarito Canyon (Two Mile Canyon to Arroyo de La Delfe)
- Pajarito Canyon (upper LANL bnd to headwaters)
- Pajarito Canyon (within LANL above Starmers Gulch)
- Potrillo Canyon (above Water Canyon)
- Rio Grande (Cochiti Reservoir to San Ildefonso bnd)
- Rio Grande (non-pueblo Angostura Div to Cochiti Rsrv)
- Rito de los Frijoles (Rio Grande to headwaters)
- Sandia Canyon (Sigma Canyon to NPDES outfall 001)
- Sandia Canyon (within LANL below Sigma Canyon)

- Santa Fe River (Cienega Creek to Santa Fe WWTP)
- Santa Fe River (Cochiti Pueblo bnd to Cienega Creek)
- Santa Fe River (Guadalupe St to Nichols Rsvr)
- Santa Fe River (Nichols Reservoir to headwaters)
- Santa Fe River (Santa Fe WWTP to Guadalupe St)
- Ten Site Canyon (Mortandad Canyon to headwaters)
- Three Mile Canyon (Pajarito Canyon to headwaters)
- Two Mile Canyon (Pajarito to headwaters)
- Water Canyon (upper LANL bnd to headwaters)
- Water Canyon (within LANL below Area-A Cyn)

HUC: 13020202 - Jemez

- Calaveras Creek (Rio Cebolla to headwaters)
- Clear Creek (Rio de las Vacas to San Gregorio Lake)
- Clear Creek (San Gregorio Lake to headwaters)
- East Fork Jemez (San Antonio Creek to VCNP bnd)
- East Fork Jemez (VCNP to headwaters)
- Fenton Lake
- Jaramillo Creek (East Fork Jemez to headwaters)
- Jemez River (Jemez Pueblo bnd to Rio Guadalupe)
- Jemez River (Soda Dam nr Jemez Springs to East Fork)
- Jemez River (Zia Pueblo bnd to Jemez Pueblo bnd)
- La Jara Creek (East Fork Jemez to headwaters)
- Redondo Creek (Sulphur Creek to headwaters)
- Rio Cebolla (Fenton Lake to headwaters)
- Rio Cebolla (Rio de las Vacas to Fenton Lake)
- Rio Guadalupe (Jemez River to confl with Rio Cebolla)
- Rio de las Vacas (Clear Creek to headwaters)
- Rito Penas Negras (Rio de las Vacas to headwaters)
- Rito de las Palomas (Rio de las Vacas to headwaters)
- Rito de los Indios (San Antonio Creek to headwaters)
- San Antonio Creek (East Fork Jemez to VCNP bnd)
- San Antonio Creek (VCNP bnd to headwaters)
- San Gregorio Lake
- Sulphur Creek (Redondo Creek to headwaters)
- Sulphur Creek (San Antonio Creek to Redondo Creek)
- Vallecito Ck (Jemez Pueblo bnd to Div abv Ponderosa)
- Vallecito Ck (Perennial Prt Div abv Ponderosa to headwaters)

HUC: 13020203 - Rio Grande-Albuquerque

- Rio Grande (Arroyo de las Canas to Rio Puerco)
- Rio Grande (Isleta Pueblo boundary to Tijeras Arroyo)
- Rio Grande (Rio Puerco to Isleta Pueblo bnd)
- Rio Grande (San Marcial at USGS gage to Arroyo de las Canas)
- Rio Grande (Tijeras Arroyo to Alameda Bridge)
- Rio Grande (non-pueblo Alameda Bridge to HWY 550 Bridge)

HUC: 13020204 - Rio Puerco

- Rio Puerco (non-pueblo Rio Grande to Arroyo Chico)

HUC: 13020207 - Rio San Jose

- Arroyo del Valle (Laguna Pueblo bnd to headwaters)
- Bluewater Lake

HUC: 13020209 - Rio Salado

- Rio Salado (Rio Grande to Alamo Navajo bnd)

HUC: 13020211 - Elephant Butte Reservoir

- Elephant Butte Reservoir
- Rio Grande (Elephant Butte Rsvr to San Marcial at USGS)

HUC: 13030101 - Caballo

- Caballo Reservoir
- Las Animas Ck (perennial prt Animas Gulch to headwaters)
- Rio Grande (Caballo Reservoir to Elephant Butte Reservoir)

HUC: 13030102 - El Paso-Las Cruces

- Rio Grande (International Mexico bnd to Anthony Bridge)

HUC: 13030202 - Mimbres

- Bear Canyon Reservoir
- Gallinas Creek (Mimbres River to headwaters)
- San Vicente Creek (Perennial prt Maudes Cny to Silva Creek)

HUC: 13050003 - Tularosa Valley

- Dog Canyon Creek (perennial portions)
- Fresnal Canyon (La Luz Creek to Salado Canyon)
- Karr Canyon (Fresnal Canyon to headwaters)
- Lake Holloman

- Nogal Creek (Tularosa Creek to Mescalero Apache bnd)

HUC: 13050004 - Salt Basin

- Sacramento R (Perennial prt Scott Able Canyon to headwaters)

HUC: 13060001 - Pecos Headwaters

- El Porvenir Creek (Gallinas River to SFNF bnd)
- El Rito (Pecos River to headwaters)
- Gallinas River (Pecos River to Aguilar Creek)
- Gallinas River (Perennial prt Aguilar Creek to Pecos Arroyo)
- Glorieta Ck (Perennial prt Pecos R to Glorieta CC WWTP)
- McAllister Lake
- Pecos River (Sumner Reservoir to Santa Rosa Reservoir)
- Pecos River (Tecolote Creek to Villanueva State Park)
- Santa Rosa Reservoir
- Storrie Lake
- Sumner Reservoir
- Tecolote Creek (I-25 to Blue Creek)
- Tres Lagunas (Northeast)

HUC: 13060003 - Upper Pecos

- Pecos River (Salt Creek to Crockett Draw)

HUC: 13060007 - Upper Pecos-Long Arroyo

- Figure Eight Lake
- Lake Van
- Pecos River (Eagle Creek to Rio Felix)
- Pecos River (Rio Felix to Rio Hondo)
- Pecos River (Rio Hondo to Salt Creek)
- Pecos River (Rio Penasco to Eagle Creek)

HUC: 13060008 - Rio Hondo

- Grindstone Canyon Reservoir
- Rio Bonito (Perennial prt NM 48 near Angus to headwaters)

HUC: 13060010 - Rio Penasco

- Agua Chiquita (perennial portions McEwan Cny to headwaters)

HUC: 13060011 - Upper Pecos-Black

- Brantley Reservoir

- Lower Tansil Lake/Lake Carlsbad (Carlsbad Municipal Lake)
- Pecos River (Avalon Reservoir to Brantley Reservoir)
- Pecos River (Black River to Six Mile Dam Lake)
- Pecos River (Brantley Reservoir to Rio Penasco)
- Pecos River (Six Mile Dam Lake to Lower Tansil Lake)
- Pecos River (TX border to Black River)
- Six Mile Dam Lake

HUC: 14080101 - Upper San Juan

- Navajo Reservoir
- Navajo River (Jicarilla Apache Nation to CO border)

HUC: 14080104 - Animas

- Animas River (Estes Arroyo to So. Ute Indian Tribe bnd)
- Lake Farmington (Beeline Reservoir)

HUC: 14080105 - Middle San Juan

- La Plata R (McDermott Arroyo to So. Ute Indian Tribe bnd)
- La Plata River (San Juan River to McDermott Arroyo)
- San Juan River (Navajo bnd at Hogback to Animas River)

HUC: 15020003 - Carrizo Wash

- Quemado Lake

HUC: 15020004 - Zuni

- McGaffey Lake
- Ramah Reservoir

HUC: 15020006 - Upper Puerco

- Puerco River (non-tribal AZ border to Gallup WWTP)

HUC: 15040001 - Upper Gila

- Beaver Creek (Perennial prt Taylor Ck to Mule Canyon)
- East Fork Gila River (Gila River to headwaters)
- Gila River (Mogollon Ck to East and West Forks of Gila R)
- Gilita Creek (Middle Fork Gila R to Willow Creek)
- Iron Creek (Middle Fork Gila R to headwaters)
- Lake Roberts
- Middle Fork Gila River (Canyon Creek to headwaters)
- Middle Fork Gila River (West Fork Gila R to Canyon Creek)

- Snow Lake
- Taylor Creek (Perennial reaches Beaver Creek to headwaters)
- Turkey Creek (Gila River to headwaters)
- West Fork Gila R (East Fork to Middle Fork)
- West Fork Gila R (Middle Fork to headwaters)
- Willow Creek (Gilita Creek to headwaters)

HUC: 15040002 - Upper Gila-Mangas

- Bill Evans Lake
- Gila River (AZ border to Red Rock)
- Gila River (Mangas Creek to Mogollon Creek)
- Gila River (Red Rock to Mangas Creek)
- Mangas Creek (Gila River to Mangas Springs)

HUC: 15040004 - San Francisco

- Centerfire Creek (San Francisco R to headwaters)
- Mule Creek (San Francisco R to Mule Springs)
- Negrito Creek (Tularosa River to confl of N and S forks)
- San Francisco River (Box Canyon to Whitewater Creek)
- San Francisco River (Centerfire Creek to AZ border)
- San Francisco River (NM 12 at Reserve to Centerfire Creek)
- San Francisco River (Whitewater Ck to Pueblo Ck)
- Trout Creek (Perennial prt San Francisco R to headwaters)
- Tularosa River (San Francisco R to Apache Creek)

Uses Abbreviation Key	
ColdWAL	Coldwater Aquatic Life
CoolWAL	Coolwater Aquatic Life
DWS	Domestic Water Supply
FC	Fish Culture
HQColdWAL	High Quality Coldwater Aquatic Life
IW Storage	Industrial Water Storage
IW Supply	Industrial Water Supply
IRR	Irrigation
IRR Storage	Irrigation Storage
LAL	Limited Aquatic Life
LW	Livestock Watering
MCWAL	Marginal Coldwater Aquatic Life
MWWAL	Marginal Warmwater Aquatic Life
MWS	Municipal Water Storage
PC	Primary Contact
PWS	Public Water Supply
SC	Secondary Contact
WWAL	Warmwater Aquatic Life
WH	Wildlife Habitat

Rio Grande (Arroyo de las Canas to Rio Puerco)			AU IR CATEGORY	LOCATION DESCRIPTION	
			5/5A	HUC: 13020203 Rio Grande-Albuquerque	
AU ID	**WQS REF**	**WATER TYPE**	**SIZE**	**ASSESSED**	**MONITORING SCHEDULE**
NM-2105_11	20.6.4.105	RIVER	28.04 MILES	2016	2023
USE	**ATTAINMENT**	**CAUSE(S)**	**FIRST LISTED**	**TMDL DATE**	**PARAMETER IR CATEGORY**
IRR	Fully Supporting				
LW	Fully Supporting				
MWWAL	Not Supporting	Aluminum, Total Recoverable	2016	6/30/2010	4A
		Copper, Dissolved	2016	2019 (est.)	5/5A
PC	Not Supporting	E. coli	2008	6/30/2010	4A
PWS	Not Assessed				
WH	Fully Supporting				

AU Comment: TMDLs for e. coli and dissolved aluminum (2010). The dissolved aluminum TMDL was revised to a total recoverable aluminum TMDL in 2018 using more recent data.

Rio Grande (Isleta Pueblo boundary to Tijeras Arroyo)			AU IR CATEGORY	LOCATION DESCRIPTION	
			5/5A	HUC: 13020203 Rio Grande-Albuquerque	
AU ID	**WQS REF**	**WATER TYPE**	**SIZE**	**ASSESSED**	**MONITORING SCHEDULE**
NM-2105_50	20.6.4.105	RIVER	8.26 MILES	2016	2023
USE	**ATTAINMENT**	**CAUSE(S)**	**FIRST LISTED**	**TMDL DATE**	**PARAMETER IR CATEGORY**
IRR	Fully Supporting				
LW	Fully Supporting				
MWWAL	Not Supporting	PCBS - Fish Consumption Advisory	2010		5/5C
		Dissolved oxygen	2008		5/5C
PC	Not Supporting	E. coli	2008	6/30/2010	4A
PWS	Not Assessed				
WH	Fully Supporting				

AU Comment: TMDL for E. coli. The "PCB in fish tissue" listing is based on NMs current fish consumption advisories for this water body. Per USEPA guidance, these advisories demonstrate non-attainment of CWA goals stating that all waters should be "fishable." Therefore, the impaired designated use is the associated aquatic life even though human consumption of the fish is the actual concern.

TAB 6

Critical Habitat for Threatened & Endangered Species [USFWS]

Final Linear Features

Final Polygon Features

Proposed Linear Features

Proposed Polygon Features

A specific geographic area(s) that contains features essential for the conservation of a threatened or endangered species and that may require special management and protection.

U.S. Fish and Wildlife Service | Sanborn Mapping Company, MRCOG-NM, Atlantic Group, USDA FSA

United States Department of the Interior

FISH AND WILDLIFE SERVICE
New Mexico Ecological Services Field Office
2105 Osuna Road Ne
Albuquerque, NM 87113-1001
Phone: (505) 346-2525 Fax: (505) 346-2542
http://www.fws.gov/southwest/es/NewMexico/
http://www.fws.gov/southwest/es/ES_Lists_Main2.html

In Reply Refer To: August 16, 2019
Consultation Code: 02ENNM00-2019-SLI-1261
Event Code: 02ENNM00-2019-E-02666
Project Name: Fountain Hills assisted Living

Subject: List of threatened and endangered species that may occur in your proposed project location, and/or may be affected by your proposed project

To Whom It May Concern:

Thank you for your recent request for information on federally listed species and important wildlife habitats that may occur in your project area. The U.S. Fish and Wildlife Service (Service) has responsibility for certain species of New Mexico wildlife under the Endangered Species Act (ESA) of 1973 as amended (16 USC 1531 et seq.), the Migratory Bird Treaty Act (MBTA) as amended (16 USC 701-715), and the Bald and Golden Eagle Protection Act (BGEPA) as amended (16 USC 668-668c). We are providing the following guidance to assist you in determining which federally imperiled species may or may not occur within your project area and to recommend some conservation measures that can be included in your project design.

FEDERALLY-LISTED SPECIES AND DESIGNATED CRITICAL HABITAT

Attached is a list of endangered, threatened, and proposed species that may occur in your project area. Your project area may not necessarily include all or any of these species. Under the ESA, it is the responsibility of the Federal action agency or its designated representative to determine if a proposed action "may affect" endangered, threatened, or proposed species, or designated critical habitat, and if so, to consult with the Service further. Similarly, it is the responsibility of the Federal action agency or project proponent, not the Service, to make "no effect" determinations. If you determine that your proposed action will have "no effect" on threatened or endangered species or their respective critical habitat, you do not need to seek concurrence with the Service. Nevertheless, it is a violation of Federal law to harm or harass any federally-listed threatened or endangered fish or wildlife species without the appropriate permit.

If you determine that your proposed action may affect federally-listed species, consultation with the Service will be necessary. Through the consultation process, we will analyze information contained in a biological assessment that you provide. If your proposed action is associated with Federal funding or permitting, consultation will occur with the Federal agency under section 7(a)(2) of the ESA. Otherwise, an incidental take permit pursuant to section 10(a)(1)(B) of the ESA (also known as a habitat conservation plan) is necessary to harm or harass federally listed threatened or endangered fish or wildlife species. In either case, there is no mechanism for authorizing incidental take "after-the-fact." For more information regarding formal consultation and HCPs, please see the Service's Consultation Handbook and Habitat Conservation Plans at www.fws.gov/endangered/esa-library/index.html#consultations.

The scope of federally listed species compliance not only includes direct effects, but also any interrelated or interdependent project activities (e.g., equipment staging areas, offsite borrow material areas, or utility relocations) and any indirect or cumulative effects that may occur in the action area. The action area includes all areas to be affected, not merely the immediate area involved in the action. Large projects may have effects outside the immediate area to species not listed here that should be addressed. If your action area has suitable habitat for any of the attached species, we recommend that species-specific surveys be conducted during the flowering season for plants and at the appropriate time for wildlife to evaluate any possible project-related impacts.

Candidate Species and Other Sensitive Species

A list of candidate and other sensitive species in your area is also attached. Candidate species and other sensitive species are species that have no legal protection under the ESA, although we recommend that candidate and other sensitive species be included in your surveys and considered for planning purposes. The Service monitors the status of these species. If significant declines occur, these species could potentially be listed. Therefore, actions that may contribute to their decline should be avoided.

Lists of sensitive species including State-listed endangered and threatened species are compiled by New Mexico state agencies. These lists, along with species information, can be found at the following websites:

Biota Information System of New Mexico (BISON-M): www.bison-m.org

New Mexico State Forestry. The New Mexico Endangered Plant Program: www.emnrd.state.nm.us/SFD/ForestMgt/Endangered.html

New Mexico Rare Plant Technical Council, New Mexico Rare Plants: nmrareplants.unm.edu

Natural Heritage New Mexico, online species database: nhnm.unm.edu

WETLANDS AND FLOODPLAINS

Under Executive Orders 11988 and 11990, Federal agencies are required to minimize the destruction, loss, or degradation of wetlands and floodplains, and preserve and enhance their natural and beneficial values. These habitats should be conserved through avoidance, or mitigated to ensure that there would be no net loss of wetlands function and value.

We encourage you to use the National Wetland Inventory (NWI) maps in conjunction with ground-truthing to identify wetlands occurring in your project area. The Service's NWI program website, www.fws.gov/wetlands/Data/Mapper.html integrates digital map data with other resource information. We also recommend you contact the U.S. Army Corps of Engineers for permitting requirements under section 404 of the Clean Water Act if your proposed action could impact floodplains or wetlands.

MIGRATORY BIRDS

The MBTA prohibits the taking of migratory birds, nests, and eggs, except as permitted by the Service's Migratory Bird Office. To minimize the likelihood of adverse impacts to migratory birds, we recommend construction activities occur outside the general bird nesting season from March through August, or that areas proposed for construction during the nesting season be surveyed, and when occupied, avoided until the young have fledged.

We recommend review of Birds of Conservation Concern at website www.fws.gov/migratorybirds/CurrentBirdIssues/Management/BCC.html to fully evaluate the effects to the birds at your site. This list identifies birds that are potentially threatened by disturbance and construction.

BALD AND GOLDEN EAGLES

The bald eagle (*Haliaeetus leucocephalus*) was delisted under the ESA on August 9, 2007. Both the bald eagle and golden eagle (*Aquila chrysaetos*) are still protected under the MBTA and BGEPA. The BGEPA affords both eagles protection in addition to that provided by the MBTA, in particular, by making it unlawful to "disturb" eagles. Under the BGEPA, the Service may issue limited permits to incidentally "take" eagles (e.g., injury, interfering with normal breeding, feeding, or sheltering behavior nest abandonment). For information on bald and golden eagle management guidelines, we recommend you review information provided at www.fws.gov/midwest/eagle/guidelines/bgepa.html.

On our web site www.fws.gov/southwest/es/NewMexico/SBC_intro.cfm, we have included conservation measures that can minimize impacts to federally listed and other sensitive species. These include measures for communication towers, power line safety for raptors, road and highway improvements, spring developments and livestock watering facilities, wastewater facilities, and trenching operations.

We also suggest you contact the New Mexico Department of Game and Fish, and the New Mexico Energy, Minerals, and Natural Resources Department, Forestry Division for information regarding State fish, wildlife, and plants.

Thank you for your concern for endangered and threatened species and New Mexico's wildlife habitats. We appreciate your efforts to identify and avoid impacts to listed and sensitive species in your project area. For further consultation on your proposed activity, please call 505-346-2525 or email nmesfo@fws.gov and reference your Service Consultation Tracking Number.

Attachment(s):

- Official Species List
- Migratory Birds

Official Species List

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

New Mexico Ecological Services Field Office
2105 Osuna Road Ne
Albuquerque, NM 87113-1001
(505) 346-2525

Project Summary

Consultation Code: 02ENNM00-2019-SLI-1261

Event Code: 02ENNM00-2019-E-02666

Project Name: Fountain Hills assisted Living

Project Type: DEVELOPMENT

Project Description: 7 acre project for the construction of a new assisted living facility to last approximately 12 months

Project Location:

Approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/place/35.18482029056696N106.6781686844896W

Counties: Bernalillo, NM

Endangered Species Act Species

There is a total of 5 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries[1], as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

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1. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

Mammals

NAME	STATUS
New Mexico Meadow Jumping Mouse *Zapus hudsonius luteus* There is **final** critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/7965	Endangered

Birds

NAME	STATUS
Mexican Spotted Owl *Strix occidentalis lucida* There is **final** critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/8196	Threatened
Southwestern Willow Flycatcher *Empidonax traillii extimus* There is **final** critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/6749	Endangered
Yellow-billed Cuckoo *Coccyzus americanus* Population: Western U.S. DPS There is **proposed** critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/3911	Threatened

Fishes

NAME	STATUS
Rio Grande Silvery Minnow *Hybognathus amarus*	Endangered

Population: Wherever found, except where listed as an experimental population
There is **final** critical habitat for this species. Your location is outside the critical habitat.
Species profile: https://ecos.fws.gov/ecp/species/1391

Critical habitats

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

Migratory Birds

Certain birds are protected under the Migratory Bird Treaty Act[1] and the Bald and Golden Eagle Protection Act[2].

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described below.

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1. The Migratory Birds Treaty Act of 1918.
2. The Bald and Golden Eagle Protection Act of 1940.
3. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

The birds listed below are birds of particular concern either because they occur on the USFWS Birds of Conservation Concern (BCC) list or warrant special attention in your project location. To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ below. This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit the E-bird data mapping tool (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found below.

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
Bald Eagle *Haliaeetus leucocephalus* This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1626	Breeds Dec 1 to Aug 31
Brewer's Sparrow *Spizella breweri* This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/9291	Breeds May 15 to Aug 10

NAME	BREEDING SEASON
Burrowing Owl *Athene cunicularia* This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/9737	Breeds Mar 15 to Aug 31
Chestnut-collared Longspur *Calcarius ornatus* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds elsewhere
Golden Eagle *Aquila chrysaetos* This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/1680	Breeds Jan 1 to Aug 31
Grace's Warbler *Dendroica graciae* This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA	Breeds May 20 to Jul 20
Long-billed Curlew *Numenius americanus* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/5511	Breeds Apr 1 to Jul 31
Marbled Godwit *Limosa fedoa* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9481	Breeds elsewhere
Olive-sided Flycatcher *Contopus cooperi* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/3914	Breeds May 20 to Aug 31
Pinyon Jay *Gymnorhinus cyanocephalus* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9420	Breeds Feb 15 to Jul 15
Rufous Hummingbird *selasphorus rufus* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/8002	Breeds elsewhere
Virginia's Warbler *Vermivora virginiae* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9441	Breeds May 1 to Jul 31

NAME	BREEDING SEASON
Willow Flycatcher *Empidonax traillii* This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/3482	Breeds May 20 to Aug 31

Probability Of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read and understand the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is 0.25/0.25 = 1; at week 20 it is 0.05/0.25 = 0.2.
3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

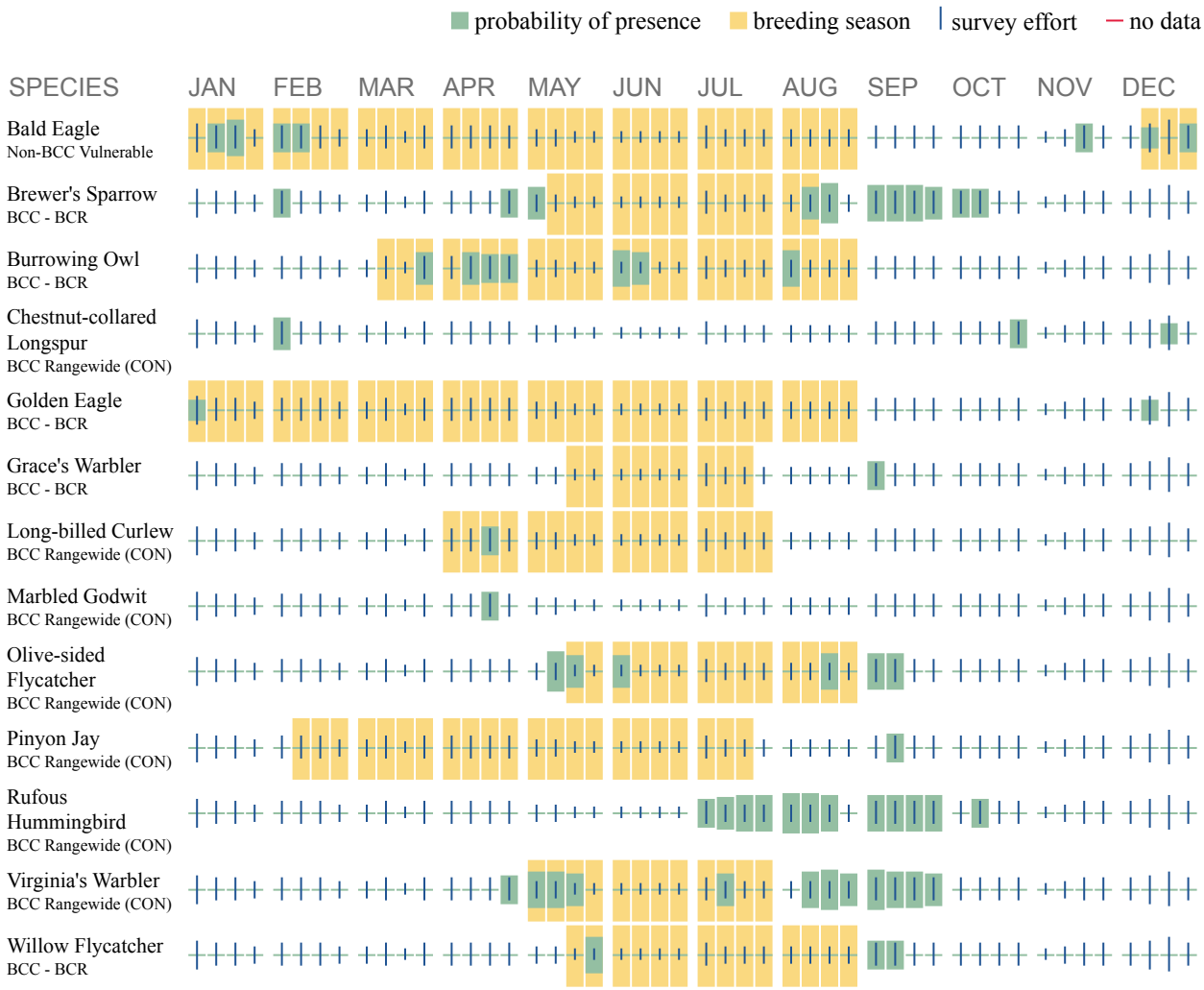
Breeding Season (■)
Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort (|)

Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

No Data (–)
A week is marked as having no data if there were no survey events for that week.

Survey Timeframe
Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.



Additional information can be found using the following links:

- Birds of Conservation Concern http://www.fws.gov/birds/management/managed-species/birds-of-conservation-concern.php
- Measures for avoiding and minimizing impacts to birds http://www.fws.gov/birds/management/project-assessment-tools-and-guidance/conservation-measures.php
- Nationwide conservation measures for birds http://www.fws.gov/migratorybirds/pdf/management/nationwidestandardconservationmeasures.pdf

Migratory Birds FAQ

Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.
Nationwide Conservation Measures describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. Additional measures and/or permits may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

What does IPaC use to generate the migratory birds potentially occurring in my specified location?
The Migratory Bird Resource List is comprised of USFWS Birds of Conservation Concern (BCC) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the Avian Knowledge Network (AKN). The AKN data is based on a growing collection of survey, banding, and citizen science datasets and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle (Eagle Act requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the AKN Phenology Tool.

What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?

The probability of presence graphs associated with your migratory bird list are based on data provided by the Avian Knowledge Network (AKN). This data is derived from a growing collection of survey, banding, and citizen science datasets .

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

How do I know if a bird is breeding, wintering, migrating or present year-round in my project area?
To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may refer to the following resources: The Cornell Lab of Ornithology All About Birds Bird Guide, or (if you are unsuccessful in locating the bird of interest there), the Cornell Lab of Ornithology Neotropical Birds guide. If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?
Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are Birds of Conservation Concern (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the Eagle Act requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

Details about birds that are potentially affected by offshore projects
For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the Northeast Ocean Data Portal. The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the NOAA NCCOS Integrative Statistical

Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the Diving Bird Study and the nanotag studies or contact Caleb Spiegel or Pam Loring.

What if I have eagles on my list?
If your project has the potential to disturb or kill eagles, you may need to obtain a permit to avoid violating the Eagle Act should such impacts occur.

Proper Interpretation and Use of Your Migratory Bird Report
The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no data" indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

INSPECTIONS PLUS

August 16, 2019

NM Historic Preservation Division
407 Galisteo Street, Suite 236
Santa Fe, NM 87501

RE: Historic Properties and Archeological Sites

Project: Fountain Hills Assisted Living
GPS Coordinates: 35.1849, -106.6780

Greetings,

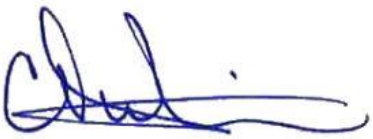
We are in the process of preparing a Storm Water Pollution Prevention Plan (SWPPP) for the Fountain Hills Assisted Living project located in Albuquerque, NM. The project will consist of the development of access, infrastructure, utilities, permanent drainage and permanent stabilization for the construction of a new assisted living facility. With Respect to the General Construction Permit, would you please send any specific information on Historic Properties and Archeological sites that may exist or be affected by this project? Please find attached a map with project location.

Please send your reply via e-mail or fax.

If you would like future correspondence via e-mail please let me know.

Please feel free to contact me at 505-344-9410 with any questions.

Thank You,



Cassandra Durkin, CPESC, CESSWI
SWPPP Compliance Manager
Inspections Plus
504 El Paraiso Rd NE, Suite B
Albuquerque, NM 87113
cassandra@inspectionsplus.com

Historical Preservation Index by County and City report

Row	COUNTY	RESOURCE NAME	ADDRESS	CITY	LISTED	MULTIPLE
1	Bernalillo	Albuquerque Municipal Airport Building, Old	2920 Yale Blvd. SE.	Albuquerque	1989-05-05	
2	Bernalillo	Albuquerque Veterans Administration Medical Center	2100 Ridgecrest, SE	Albuquerque	1983-08-19	
3	Bernalillo	Aldo Leopold Neighborhood Historic District	105-135 Fourteenth St., SW	Albuquerque	2002-10-16	Twentieth Century Suburban Growth of Albuquerque MPS
4	Bernalillo	Anaya, Gavino, House	2939 Duranes Rd., NW	Albuquerque	1984-02-09	Albuquerque North Valley MRA
5	Bernalillo	Armijo, Juan Cristobal, Homestead	207 Griegos Rd., NE	Albuquerque	1982-09-30	Albuquerque North Valley MRA
6	Bernalillo	Armijo, Salvador, House	618 Rio Grande Blvd., NW	Albuquerque	1976-10-08	
7	Bernalillo	Art Annex	NE corner of Central Ave. and Terrace St., UNM	Albuquerque	1988-09-22	New Mexico Campus Buildings Built 1906--1937 TR
8	Bernalillo	Aztec Auto Court	3821 Central Ave. NE.	Albuquerque	1993-11-22	Route 66 through New Mexico MPS
9	Bernalillo	Barela, Adrian, House	7618 Guadalupe Trail, NW	Albuquerque	1984-02-09	Albuquerque North Valley MRA
10	Bernalillo	Barela-Bledsoe House	7017 Edith Blvd., NE	Albuquerque	1979-03-12	Albuquerque North Valley MRA
11	Bernalillo	Barelas--South Fourth Street Historic District	4th St. from Stover Ave. to Bridge St.	Albuquerque	1997-07-24	Auto-oriented Commercial Development in Albuquerque MPS
12	Bernalillo	Bottger, Charles A., House	110 San Felipe, NW	Albuquerque	1983-03-07	
13	Bernalillo	Building at 701 Roma NW	701 Roma, NW	Albuquerque	1985-02-28	
14	Bernalillo	Carlisle Gymnasium	UNM campus W of Yale Blvd.	Albuquerque	1988-09-22	New Mexico Campus Buildings Built 1906--1937 TR
15	Bernalillo	Carnes, Chester, House	701 13th St., NW	Albuquerque	1980-12-01	Albuquerque Downtown Neighborhoods MRA
16	Bernalillo	Castle Apartments	1410 Central SW	Albuquerque	1986-02-13	
17	Bernalillo	Chavez, Juan de Dios, House	205 Griegos Rd., NW	Albuquerque	1984-02-09	Albuquerque North Valley MRA

Row	COUNTY	RESOURCE NAME	ADDRESS	CITY	LISTED	MULTIPLE
18	Bernalillo	Chavez, Juan, House	7809 4th St., NW	Albuquerque	1984-02-09	Albuquerque North Valley MRA
19	Bernalillo	Chavez, Rumaldo, House	10023 Edith Blvd., NE	Albuquerque	1980-11-24	Albuquerque North Valley MRA
20	Bernalillo	Coronado School	601 4th St., SW	Albuquerque	1996-11-22	New Deal in New Mexico MPS
21	Bernalillo	Cottage Bakery	2000 Central Ave. SE.	Albuquerque	1993-11-22	Route 66 through New Mexico MPS
22	Bernalillo	Davis House	704 Parkland Circle, SE	Albuquerque	1980-11-17	
23	Bernalillo	De Anza Motor Lodge	4301 Central Ave. NE	Albuquerque	2004-04-30	Route 66 through New Mexico MPS
24	Bernalillo	De Garcia, Tomasa Griego, House	6939 Edith Blvd., NE	Albuquerque	1979-06-19	Albuquerque North Valley MRA
25	Bernalillo	Dietz, Robert, Farmhouse	4117 Rio Grande Blvd., NW	Albuquerque	1984-02-09	Albuquerque North Valley MRA
26	Bernalillo	Eighth Street-Forrester District	Roughly bounded by Mountain Rd., Lomas Blvd., Forrester and 7th Sts.	Albuquerque	1980-12-01	Albuquerque Downtown Neighborhoods MRA
27	Bernalillo	El Campo Tourist Courts	5800 Central Ave. SW	Albuquerque	1994-01-13	Route 66 through New Mexico MPS
28	Bernalillo	El Vado Auto Court	2500 Central Ave. SW.	Albuquerque	1993-11-22	Route 66 through New Mexico MPS
29	Bernalillo	Eller Apartments	113-127 8th St., SW	Albuquerque	1984-01-12	
30	Bernalillo	Employees' New Dormitory and Club	Albuquerque Indian School Campus	Albuquerque	1982-07-26	
31	Bernalillo	Enchanted Mesa Trading Post	9612 Central Ave. SE.	Albuquerque	1998-01-09	Route 66 through New Mexico MPS
32	Bernalillo	Estufa	SE corner of University Blvd. and Grand Ave., UNM	Albuquerque	1988-09-22	New Mexico Campus Buildings Built 1906--1937 TR
33	Bernalillo	Federal Building	421 Gold Ave., SW	Albuquerque	1980-11-22	
34	Bernalillo	First Methodist Episcopal Church	3rd St. and Lead Ave.	Albuquerque	1976-11-07	

Row	COUNTY	RESOURCE NAME	ADDRESS	CITY	LISTED	MULTIPLE
35	Bernalillo	First National Bank Building	217-233 Central Ave., NW	Albuquerque	1979-02-02	
36	Bernalillo	Foraker, C. M., Farmhouse	905 Menaul Blvd., NW	Albuquerque	1984-02-09	Albuquerque North Valley MRA
37	Bernalillo	Fourth Ward District	Roughly bounded by Central Ave., Lomas Blvd., 8th and 15th Sts.	Albuquerque	1980-12-01	Albuquerque Downtown Neighborhoods MRA
38	Bernalillo	Garcia, Juan Antonio, House	7442 Edith Blvd., NE	Albuquerque	1982-09-28	Albuquerque North Valley MRA
39	Bernalillo	Gladding, James N., House	643 Cedar St., NE	Albuquerque	1980-11-17	
40	Bernalillo	Gomez, Refugio, House	7604 Guadalupe Trail, NW	Albuquerque	1984-02-09	Albuquerque North Valley MRA
41	Bernalillo	Grande, Charles, House	4317 Grande St., NW	Albuquerque	1984-02-09	Albuquerque North Valley MRA
42	Bernalillo	Gurule, Delfinia, House	306 16th St., NW	Albuquerque	1980-12-01	Albuquerque Downtown Neighborhoods MRA
43	Bernalillo	Harwood School	1114 7th St., NW	Albuquerque	1980-12-01	Albuquerque Downtown Neighborhoods MRA
44	Bernalillo	Hayden, A. W., House	609 Marble St., NW	Albuquerque	1980-12-01	Albuquerque Downtown Neighborhoods MRA
45	Bernalillo	Hendren Building	3001 Monte Vista Blvd. NE	Albuquerque	2000-01-27	Auto-oriented Commercial Development in Albuquerque MPS
46	Bernalillo	Hilltop Lodge	5410 Central Ave. SW.	Albuquerque	1998-01-09	Route 66 through New Mexico MPS
47	Bernalillo	Hope Building	220 Gold St., SW	Albuquerque	1980-08-29	
48	Bernalillo	Horn Oil Co. and Lodge	1720 Central Ave.	Albuquerque	1998-01-09	Route 66 through New Mexico MPS
49	Bernalillo	Hudson House	817 Gold Ave., SW	Albuquerque	1982-02-24	
50	Bernalillo	Huning Highlands Historic District	Bounded by Grand Ave., I-25, Iron Ave. and AT & SF RR	Albuquerque	1978-11-17	

Row	COUNTY	RESOURCE NAME	ADDRESS	CITY	LISTED	MULTIPLE
51	Bernalillo	Jones Motor Company	3226 Central Ave. SE.	Albuquerque	1993-11-22	Route 66 through New Mexico MPS
52	Bernalillo	Jonson Gallery and House	1909 Las Lomas Rd. NE	Albuquerque	2002-02-22	
53	Bernalillo	Kimo Theater	421 Central Ave.	Albuquerque	1977-05-02	
54	Bernalillo	Kress, S. H., Building	414--416 Central Ave., SW	Albuquerque	1984-04-19	
55	Bernalillo	Kromer House	1024 El Pueblo Rd., NW	Albuquerque	1982-10-04	Albuquerque North Valley MRA
56	Bernalillo	La Mesa Motel	7407 Central Ave. NE.	Albuquerque	1993-11-22	Route 66 through New Mexico MPS
57	Bernalillo	La Puerta Lodge	9710 Central Ave. SE.	Albuquerque	1998-01-09	Route 66 through New Mexico MPS
58	Bernalillo	LaGlorieta House	1801 Central Ave., NW	Albuquerque	1983-08-19	Albuquerque Downtown Neighborhoods MRA
59	Bernalillo	Las Imagines Archeological District--Albuquerque West Mesa Escarpment	Address Restricted	Albuquerque	1986-11-19	
60	Bernalillo	LeFeber, Charles, House	313 5th St.	Albuquerque	1980-12-01	Albuquerque Downtown Neighborhoods MRA
61	Bernalillo	Lembke House	312 Laguna St., SW	Albuquerque	1980-11-25	
62	Bernalillo	Leverett, William J., House	301 Dartmouth NE	Albuquerque	1986-02-13	
63	Bernalillo	Lewis, Charles W. Building	1405--1407 2nd St., SW	Albuquerque	1979-07-03	
64	Bernalillo	Lopez, Hilario, House	208 16th St., NW	Albuquerque	1980-12-01	Albuquerque Downtown Neighborhoods MRA
65	Bernalillo	Los Candelarias Chapel-San Antonio Chapel	1934 Candelaria Rd., NW	Albuquerque	1984-02-09	Albuquerque North Valley MRA
66	Bernalillo	Los Duranes Chapel	2601 Indian School Rd., NW	Albuquerque	1984-02-09	Albuquerque North Valley MRA
67	Bernalillo	Los Griegos Historic District	Griegos Rd. and Rio Grande Blvd.	Albuquerque	1984-02-09	Albuquerque North Valley MRA

Row	COUNTY	RESOURCE NAME	ADDRESS	CITY	LISTED	MULTIPLE
68	Bernalillo	Los Tomases Chapel	3101 Los Tomases, NW	Albuquerque	1984-02-09	Albuquerque North Valley MRA
69	Bernalillo	Lucero y Montoya, Francisco, House	9742 4th St., NW	Albuquerque	1984-02-09	Albuquerque North Valley MRA
70	Bernalillo	Luna Lodge	9019 Central Ave. NE	Albuquerque	1998-06-11	Route 66 through New Mexico MPS
71	Bernalillo	Maisel's Indian Trading Post	510 Central Ave. SW.	Albuquerque	1993-11-22	Route 66 through New Mexico MPS
72	Bernalillo	Mann, Henry, House	723 14th St., NW	Albuquerque	1980-12-01	Albuquerque Downtown Neighborhoods MRA
73	Bernalillo	Manzano Court Addition Historic District	1000-1025 Manzano Court NW	Albuquerque	2004-10-14	Twentieth Century Suburban Growth of Albuquerque MPS
74	Bernalillo	McCanna-Hubbell Building	418--424 Central, SW	Albuquerque	1982-05-13	
75	Bernalillo	Menaul School Historic District	Roughly bounded by Broadway, Claremont, Edith, and Menaul Aves. and 301 Menaul Blvd., NE	Albuquerque	1983-02-14	Albuquerque North Valley MRA
76	Bernalillo	Milne, John, House	804 Park Ave. SW	Albuquerque	1986-02-13	
77	Bernalillo	Modern Auto Court	3712 Central Ave. SE.	Albuquerque	1993-11-22	Route 66 through New Mexico MPS
78	Bernalillo	Monte Vista and College View Historic District	Roughly bounded by Girard and Lomas Blvds, Morningside Dr., Copper Ave., Campus and Monte Vista Blvds.	Albuquerque	2001-08-03	Twentieth Century Suburban Growth of Albuquerque MPS
79	Bernalillo	Monte Vista School	3211 Monte Vista Blvd., NE	Albuquerque	1981-08-12	
80	Bernalillo	National Humane Alliance Animal Fountain	615 Virginia Ave. SE	Albuquerque	1986-09-30	
81	Bernalillo	New Mexico-Arizona Wool Warehouse	520 1st St., NW	Albuquerque	1981-07-23	

Row	COUNTY	RESOURCE NAME	ADDRESS	CITY	LISTED	MULTIPLE
82	Bernalillo	Newlander Apartments	616 Coal Ave.	Albuquerque	2000-01-27	Multi-unit Dwellings in Albuquerque, New Mexico MPS
83	Bernalillo	Nob Hill Business District	3500 Central Ave. SE	Albuquerque	1994-03-18	
84	Bernalillo	Nordhaus, Robert, House	6900 Rio Grande Blvd., NW	Albuquerque	1984-02-09	Albuquerque North Valley MRA
85	Bernalillo	O'Rielly, J. H., House	220 9th St., NW	Albuquerque	1979-01-29	
86	Bernalillo	Occidental Life Building	119 3rd Ave., SW	Albuquerque	1978-01-30	
87	Bernalillo	Old Armijo School	1021 Isleta Blvd., SE	Albuquerque	1982-09-16	
88	Bernalillo	Old Hilton Hotel	125 2nd St., NW	Albuquerque	1984-03-02	
89	Bernalillo	Old Post Office	123 4th St.	Albuquerque	1980-11-17	
90	Bernalillo	Our Lady of Mt. Carmel Church	7813 Edith Blvd., NE	Albuquerque	1984-02-09	Albuquerque North Valley MRA
91	Bernalillo	Our Lady of the Angels School	320 Romero St., NW	Albuquerque	1984-11-29	
92	Bernalillo	Pacific Desk Building	213-215 Gold Ave., SW	Albuquerque	1980-09-30	
93	Bernalillo	Pearce, John, House	718 Central Ave., SW	Albuquerque	1980-11-22	
94	Bernalillo	Petroglyph National Monument	6001 Unser Blvd. NW	Albuquerque	1990-06-27	
95	Bernalillo	Piedras Marcadas Pueblo (LA 290)	Address Restricted	Albuquerque	1990-03-02	
96	Bernalillo	Pig 'n Calf Lunch	2106 Central Ave. SE.	Albuquerque	1994-02-15	Route 66 through New Mexico MPS
97	Bernalillo	President's House	NE corner of Roma Ave. and Yale Blvd., UNM	Albuquerque	1988-09-22	New Mexico Campus Buildings Built 1906--1937 TR
98	Bernalillo	Pyle, Ernie, House	900 Girard Blvd., SE	Albuquerque	1997-09-22	
99	Bernalillo	Rancho de Carnue Site	Address Restricted	Albuquerque	1977-05-04	
100	Bernalillo	Raynolds, Sara, Hall	UNM campus on Terrace St. north of Central Ave.	Albuquerque	1988-09-22	New Mexico Campus Buildings Built 1906--1937 TR
101	Bernalillo	Rio Puerco Bridge	I-40 over the Rio Puerco	Albuquerque	1997-07-15	Historic Highway Bridges of New Mexico MPS

Row	COUNTY	RESOURCE NAME	ADDRESS	CITY	LISTED	MULTIPLE
102	Bernalillo	Romero, Felipe, House	7522 Edith Blvd., NE	Albuquerque	1984-02-09	Albuquerque North Valley MRA
103	Bernalillo	Roosevelt Park	Jct. of Coal and Spruce Aves., SE	Albuquerque	1996-11-22	New Deal in New Mexico MPS
104	Bernalillo	Rosenwald Building	320 Central Ave., SW	Albuquerque	1978-06-29	
105	Bernalillo	Route 66, State maintained from Albuquerque to Rio Puerco	Rte. 66. West Central exit at I-40 to the Rio Puerco Bridge	Albuquerque	1997-11-19	Route 66 through New Mexico MPS
106	Bernalillo	Saint Joseph 1930 Hospital	715 Grand, NE	Albuquerque	1982-05-27	
107	Bernalillo	San Felipe de Neri Church	Old Town Plaza, NW	Albuquerque	1969-10-01	
108	Bernalillo	San Ignacio Church	1300 Walter St., NE	Albuquerque	1979-08-21	
109	Bernalillo	Santa Barbara School	1420 Edith Blvd., NE.	Albuquerque	1989-09-28	
110	Bernalillo	Scholes Hall	UNM campus S of Roma Ave.	Albuquerque	1988-09-22	New Mexico Campus Buildings Built 1906--1937 TR
111	Bernalillo	Second United Presbyterian Church	812 Edith Blvd., NE	Albuquerque	1984-12-06	
112	Bernalillo	Shalit, Samuel, House	5209 4th St., NW	Albuquerque	1984-02-09	Albuquerque North Valley MRA
113	Bernalillo	Shoup Boardinghouse	707 1st St., SW	Albuquerque	1983-02-17	
114	Bernalillo	Silver Hill Historic District	Roughly bounded by Central Ave., Yale Blvd., Lead Ave., and Sycamore St.	Albuquerque	1986-09-18	
115	Bernalillo	Simms Building	400 Gold Ave. SW	Albuquerque	1998-02-02	
116	Bernalillo	Skinner Building	722--724 Central Ave. and 108 8th St., SW	Albuquerque	1980-11-22	
117	Bernalillo	Solar Building	213 Truman St., NE.	Albuquerque	1989-10-10	
118	Bernalillo	Southern Union Gas Company Building	723 Silver Ave. SW	Albuquerque	2004-03-31	Buildings Designed by John Gaw Meem MPS
119	Bernalillo	Southwestern Brewery and Ice Company	601 Commercial St., NE	Albuquerque	1978-03-30	

Row	COUNTY	RESOURCE NAME	ADDRESS	CITY	LISTED	MULTIPLE
120	Bernalillo	Spitz, Berthold, House	323 N. 10th St.	Albuquerque	1977-12-22	Albuquerque Downtown Neighborhoods MRA
121	Bernalillo	Springer Building	121 Tijeras Ave., NE	Albuquerque	1980-11-18	
122	Bernalillo	Spruce Park Historic District	Roughly bounded by University Blvd., Grand Ave., Las Lomas Rd. and Cedar St.	Albuquerque	1982-07-06	
123	Bernalillo	Superintendent's House, Atlantic & Pacific Railroad	1023 S. 2nd St.	Albuquerque	1978-01-20	
124	Bernalillo	Tewa Lodge	5715 Central Ave. NE	Albuquerque	1998-06-11	Route 66 through New Mexico MPS
125	Bernalillo	Tower Courts	2210 Central Ave. SW.	Albuquerque	1993-11-22	Route 66 through New Mexico MPS
126	Bernalillo	Vigil, Antonio, House	413 Romero St.	Albuquerque	1978-05-05	
127	Bernalillo	Washington Apartments	1002--1008 Central Ave., SW	Albuquerque	1982-02-19	
128	Bernalillo	Werner-Gilchrist House	202 Cornell, SE	Albuquerque	1982-08-02	
129	Bernalillo	West San Jose School	1701 4th St., SW	Albuquerque	1996-11-22	New Deal in New Mexico MPS
130	Bernalillo	Zeiger, Charles, House	3200 Edith Blvd., NE	Albuquerque	1984-04-27	Albuquerque North Valley MRA
131	Sandoval	Pueblo of Santo Domingo (Kiua)	35 mi. NE of Albuquerque, off I-25	Albuquerque	1973-12-12	
132	Valencia	Laguna Pueblo	45 mi. W of Albuquerque off U.S. 66	Albuquerque	1973-06-19	

TAB 7

BMP Maintenance Log

Project:	**Fountain Hills Assisted Living**	Date	

BMP Location	Action Performed	Date Performed	Inspection Report	Signature

Notes:

Rain Event Log

Project:	**Fountain Hills Assisted Living**		
Date	Time Start	Time Stopped	Rain Gauge Reading (inches)
Notes:			

Sweeping Log

Project:	**Fountain Hills Assisted Living**		
Date	Location	Time Duration	Preformed By

Watering Schedule

Project:	**Fountain Hill Assisted Living**		
Date	Location	Time Duration	Performed By

Spill Report Form

NMED Incident# _____ District Code _____ Country: _____

*Received by: _____ *Date received: _____ Time: _____

Date spill occurred _____ Time: _____

*Date spill discovered _____ Time: _____

Date spill stopped _____ Time: _____

Caller Name: _____ Title: _____

Address: _____ City: _____

Telephone No. _____ State: _____ Zip Code _____

*Spiller (RP) _____

Address: _____ City: _____

Telephone No. _____ State: _____ Zip Code _____

*Spill Location _____
(such as highway, street names, etc.)

Source/Cause: _____

_____

Materials spilled: _____ Amount: _____

2) _____ Amount: _____

Weather Conditions: _____ Injuries: _____

Environmental Damage: _____

Mitigate Actions: _____

Nearest waterbody affected: _____

Depth to Groundwater: _____

More Info Menu

1) NMED contacts

Offices contacted: SWQB _____ GWB _____ USTB _____ SWB _____

District/Field Office: _____

NPDES Permits # _____ Groundwater Permit # _____

2) Other contacts (other agencies)

U.S. Fish & Wildlife _____ NM Game & Fish _____ USEPA _____

Epidemiology _____ Downstream Users_____

Other: _____
(Fire Department, Police, City Officials, Indian Pueblos, etc.)

Other _____

3) Communication & Correspondence _____

4) HWB detail ...(nothing in there)

5) SWQB 1-203 Detail

Agency Jurisdiction _____
(Private, Municipality, Doe, DOD, Parks, etc...has a lookup)

Latitude _____ Longitude _____

And/or

Township, Range, Section _____
(Very important for future GIS use)

Cleanup started: Yes o No o Date: _____ Time: _____

Cleanup completed: Yes o No o Date: _____ Time: _____

Comments: _____

Spill Response Plan

Point of Contact in case of a reportable quantity release:

EPA National Response Center (800) 424-8802

NM Environmental Department
Emergency (505) 827-9329
Non-Emergency (866) 428-6535

Leak or Spill

- **Report spills immediately to owner**
- **Employees will not be punished for reporting spills**
- **Contain spill, start cleanup, report if over reportable quantity**

Reportable Quantities		
Material	Media Released To	Reportable Quantity
Engine oil, fuel, hydraulic & brake fluid	Land	25 gallons
Engine oil, fuel, hydraulic & brake fluid	Water	Visible Sheen
Antifreeze	Land	100 lbs (13 Gal.)
Battery Acid	Land, Water	100 lbs
Refrigerant	Air	1 lb
Gasoline	Air, Land, Water	100 lbs
Engine Degreasers	Air, Land, Water	100 lbs

Acknowledgement of SWPPP Requirements

This jobsite is subject to permit coverage under the National Pollutant discharge Elimination System (NPDES) Program and has implemented the required Storm Water Pollution Prevention Plan (SWPPP). The purpose of training is to make each person on the job site aware of the consequences of pollution and actions taken to reduce or eliminate pollution from the job site. Training is mandated by federal regulations and your signature on this page signifies that the subcontractor named herein understands and is aware of the SWPPP requirements outlined in the Construction General Permit. The Construction General Permit (CGP) can be accessed at this website - https://www.epa.gov/npdes/epas-2017-construction-general-permit-cgp-and-related-documents

Best management Practices:

Inspections: The SWPPP inspector will inspect the job site for compliance at least every 7 or 14 calendar days and with in 24 hours after any rain event of 0.25" or more. Any questions or notification of problems related to the SWPPP should be Reported to the site Superintendent.

Washout Area: An identified Washout Area will be present at each job site. Painters, concrete workers, stucco workers and other who need to clean tools and equipment are expected to do so in the designated area.

Hazardous materials: Spills or release of hazardous material will be immediately contained and properly disposed of. A log for all such spills and releases at each jobsite will be maintained by the Superintendent.

Material Storage Area (i.e. Conex Box): An identified Material Storage Area or Conex Box may be present at each job site. Chemicals will be stored inside to eliminate contaminates exposure to storm water.

Portable Chemical Toilets: Chemical toilets will be furnished at each jobsite for the use of all subcontractors, suppliers and their employees. They are required to be set-back behind the curb

Structural Controls: Silt fencing, wattles, straw bales, drive pads, storm inlet covers or other controls will be present on the jobsite. All subcontractors, suppliers and their employees shall immediately report any disturbance of or damage to these items to the Superintendent.

I hereby acknowledge that this jobsite is subject to NPDES coverage and that any disturbance of or modification to the Best Management Practices (BMPs) must be reported to the onsite Superintendent. I also acknowledge I have reviewed the CGP. It is the responsibility of this subcontractor to pass this information to his/her employees.

Site: _____

Date: _____ Company: _____

Signature: _____ Printed Name _____

STORM WATER POLLUTION PREVENTION PLAN
TRAINING LOG

(The Contractor shall provide training sessions at least every 30 days per)

Training Session 1 (TOPIC: EROSION AND SEDIMENT CONTROL PLAN)

Date: _____ Project: _____

Superintendent Signature :_____ _____

Agenda:

Purpose + Objectives

The Erosion and Sediment Control Plan (ESC Plan) and SWPPP guide the process of environmental compliance for this Project. The plan is designed to meet certain performance objectives to limit erosion from disturbed soils and capture sediment from those soils before it leaves the site. The permit covers a specific project location and may include additional local jurisdictional requirements and allows the notice holder (the Operator at this construction site) to discharge storm water from areas where soil disturbing and other Construction Activities are occurring.

Methods + Procedures

- The ESC Plan includes an implementation sequence that follows the Project in logical sequence toward completion.
- The ESC Plan consists of structural and non structural BMP's for runoff control, Erosion Control, Sediment Control, and materials management. The locations for these measures, details for installation, and specifications for maintenance are included in the SWPPP and are shown on the plan.
- Changes in construction sequence or BMPs outlined on the plan are called modifications and must be documented.
- The ESC Plan and Permit require inspections by a Qualified Inspector once every seven (7) calendar days or every fourteen (14) calendar days - depend on that regions requirements - and within 24 hours of a .25 inch rain or more within 24 hour period (or more frequently if required by the local jurisdiction).
- Inspections require accurate rainfall reporting (Rain Gage to be located on site or localized weather stations), and accurate reporting of any corrective actions necessary to bring the Project into compliance. Any corrective actions required that are noted on the inspection report must be initiated within 24 hours and completed within 48 hours.
- All inspection reports must be signed by the inspector and/sometimes by the Project Manager or superintendent. Signatures must be original if required by the regulatory agency for the project area.

NPDES Compliance Issues + Common Mistakes

- Changes in construction sequence must be documented in the SWPPP. Change in sequence may result in compliance problems that were not addressed by the design engineer.
- Best Management Practices should be installed according to detail, specification and sequence. Changing BMPs is allowed provided approval is obtained from the Project Manager.
- A missed inspection is a severe violation of the NPDES permit. Assure accurate rainfall, inspector's qualifications, and signature is provided.
- If the corrective action noted on the inspection report is not dated then it didn't occur (in the eyes of the EPA). Assure all implementation dates for corrective actions are completed on the inspection report. Corrective actions must be initiated within 24 hours of report and completed within seven (7) days of report.

Summary

The ESC Plan and Permit serve as a guide for the environmental compliance of the Project. Changes are often needed and necessary. The plan construction sequence, installation, inspection and maintenance of BMPs and documentation for the Project must be kept up-to-date at all times.

STORM WATER POLLUTION PREVENTION PLAN
TRAINING LOG
(The Contractor shall provide training sessions at least every 30 days)

Training Session 2 (TOPIC: TEMPORARY SEDIMENT CONTROL)

Date: _____ Location: _____

Superintendent Signature:_____ _____

Agenda:
Purpose + Objectives
Temporary Sediment Control is any practice that traps soil particles after they have been detached and moved by wind or water. These practices work to settle particles out of water and reduce turbidity. Turbidity is a measure of the amount of material suspended in water; high turbidity decreases the amount of light that can penetrate water and is harmful to aquatic life. Larger materials settle quicker, finer particles stay suspended in water longer and are harder to settle out.

Methods + Procedures
- Silt fence is possibly the most common and most incorrectly used sediment control measure. Silt fence traps sediment by detaining storm water in sheet flow. Silt fence is limited by steepness and length of slope behind it and may not be used in areas of concentrated flow. **Sediment behind silt fences must be cleaned out when 50% full.**
- Inlet protection is a measure used to detain storm water flow long enough for sediment particles to settle out. Several different types of inlet protection may be used for this site. Different types of inlet protection should be used for different phases of the Project. Inlet protection measures should not completely block storm water from flowing into storm drainage system. **Sediment trapped in inlet protection measures must be cleaned when 25% full.**
- Sediment traps are used trap water long enough for sediment to settle out. Sediment traps should a large surface area as apposed to more depth. The larger the surface area the more efficient the trap. **Sediment should be cleaned out of traps when 50% full.**
- Sediment basins are larger traps designed with pipe outlets. It's important to provide and maintain inlet protection for the outlet to the sediment basin. Sediment basins should always be designed with an emergency spillway as part of the conduit or cut into natural ground. **Again, the sediment basin detains water long enough for soil particles to settle out. Sediment should be cleaned out of basins when 50% full.**

NPDES Compliance Issues + Common Mistakes
- Typical compliance issues with silt fence are posts too widely spaced, inappropriate post type (not meeting the manufature's criteria), and bottoms not anchored to the soil. Silt fences should always be placed on contour, minimize the amount of Drainage Area behind the fence, minimize the length of slope behind the fence, and never be placed in areas of concentrated flow.
- Typical compliance issues with inlet protection include not providing it where specified on the plan, allowing the flow to bypass the measure and run into the inlet, and not accepting enough flow and causing flooding downstream.
- Sediment traps should be of adequate size (volume) to contain expected sediment yield from upstream. Often the trap is too small or has too little surface area to be effective, the trap or sump is too deep, the width is greater than length, flow short circuits the measure, and has an inadequate spillway, no access for maintenance or inadequate freeboard or a low point in the embankment.
- Sediment basins should be located where temporary Diversions can bring sediment laden water into the basin with a minimum Velocity and turbulence. Common problems with sediment basins include inadequate volume or surface area, head cuts at the inflow, turbulent flow, width greater than length, inadequate dewatering to allow proper maintenance.

STORM WATER POLLUTION PREVENTION PLAN
TRAINING LOG
(The Contractor shall provide training sessions at least every 30 days per)

Training Session 3 (TOPIC: WIND EROSION CONTROL)

Date: _____ Project: _____

Superintendent Signature:_____

Agenda:
Purpose + Objectives
The purpose of wind Erosion Control is to prevent erosion on disturbed soils where wind Velocity is able to suspend sediments due to low soil moisture content (dry conditions). Suspended sediments are fine particles that cause air pollution and deposition of sediment on areas down-wind from the source. As soil particles fall they damage plants and destroy other stable soil particles.

Methods + Procedures
- The most common method used to control wind erosion is applying water to the surface of Disturbed Areas. Care should be exercised to provide enough water to prevent wind erosion but not too much to cause water erosion.
- Surface manipulation by roughening the surface perpendicular to prevailing winds can reduce wind erosion by 80%.
- Mulch with straw with a 30% ground coverage along with tackifier can reduce wind erosion by 80%.
- Chemical soil stabilization and dust control may be used. Common chemicals include calcium chloride, magnesium chloride, acrylic co-polymers, and polymer emulsion and soybean bio-polymers. The Project Manager should be consulted before using any chemical control. **EPA does not permit the use of petroleum resins for dust/wind Erosion Control.**
- Wind barriers can be constructed perpendicular to the prevailing wind. Sediment deposition will occur down wind from the fence five to fifteen times the height of the barrier.

NPDES Compliance Issues + Common Mistakes
- Not using enough water to prevent wind erosion or using to much which causes water erosion.
- Surface manipulation not perpendicular to the prevailing winds.
- Mulch not anchored to the ground with tackifier or by crimping.
- Deposition will occur down wind from the wind barrier. Assure deposition is not on the adjacent property.
- Distance between wind barriers is to great to be effective.

Summary
Only five to ten percent of the total volume of sediment carried by the wind is in the form of suspended particles yet these are the most visible and draw the most complaints. Clouds of dust and sediment at the construction site are a red flag to the public and regulators. The most simple control method is by spraying enough water on the surface to suppress the dust.

STORM WATER POLLUTION PREVENTION PLAN
TRAINING LOG
(The Contractor shall provide training sessions at least every 30 days)

Training Session 4 (TOPIC: TRACKING CONTROL)

Date: _____ Location: _____

Superintendent Signature:_____

Agenda:
Purpose + Objectives
Control of off-site vehicle tracking of sediments onto paved surfaces is a requirement of this plan. Tracking control consists of minimizing off-site vehicle tracking of sediments and the generation of dust. Dust is a concern where sediments dry on the pavement and passing vehicles help suspend it or storm water transports the contaminants to an active drop inlet.

Methods + Procedures

- A temporary gravel construction entrance/exit is a gravel strip or pad located at the entrance and exit points of the construction site. The pad provides an un-even surface to help remove mud and sediment from tires prior to leaving the site.
- A clean and functional construction entrance that keeps the public's roadway free of sediment, mud, and dust can enhance the public's perception of the Project. Failure to install or properly maintain the construction entrance can be one of the first areas the public will complain about when sediment, mud, and dust are tracked onto the roadway.
- The construction entrance should be installed as part of the ESC Plan. All future driveway entrances used for construction that can be adequately graded as part of the initial grading work should receive this BMP. Future driveway entrances without this BMP should be barricaded and not used.
- Construction entrances should be wide enough for vehicles to easily enter and long enough to maximize tire contact with the stone. Minimum width should be 20 feet, minimum length 50 feet or four times the diameter of the largest vehicle on the site whichever is greater. A 25 foot radius should be provided where the stone meets the public roadway. If due to site limitations, a project is incapable of accepting a track out pad, then frequent street sweeping to control the track out must be implemented.
- Temporary gravel construction entrances should be constructed of a **minimum of 6 inches of 3-5 inch stone**. Water should be controlled so it does not run down the entrance onto the public roadway.
- Where site conditions are especially muddy and wet, the construction entrance/exit stone by itself may not be adequate to remove sediment and mud from tires. A wash rack may be used where tires can be hosed off over a drainage channel that leads to a sediment trap.
- Where the gravel construction entrance fails to keep sediment from tracking on the public roadway, sweeping must be performed at the frequency required to keep the roadway clean.

NPDES Compliance Issues + Common Mistakes

- The gravel pad maintenance is often neglected and track out increases.
- The surface of the construction entrance/exit is allowed to become compacted. Periodic roughening of the stone is required to maintain function of the construction entrance.
- Gravel construction entrance/exits does not meet criteria for width, length, thickness, and stone size.
- Gravel pad/construction entrance/exits not constructed at all drives that serve as construction entrances.
- Sweeping not be performed where construction entrances fail to keep all sediment off the roadway.

Summary
Maintaining tracking control of the public highway should be a key priority. Often sediment tracked on the highway provides the incentive for a public complaint against the Project.

STORM WATER POLLUTION PREVENTION PLAN
TRAINING LOG
(The Contractor shall provide training sessions at least every 30 days)

Training Session 5 (TOPIC: TEMPORARY SOIL STABILIZATION)

Date: _____ Location: _____

Superintendent Signature:_____ Telephone: _____

Agenda:
Purpose + Objectives
Temporary soil stabilization is a practice used to reduce erosion and sediment discharge from Disturbed Areas. The practice is used to temporarily stabilize an area where grading has ceased but will resume later. NPDES requires temporary soil stabilization to occur on any disturbed soil where grading work has ceased for more than 14 days.

Methods + Procedures
- Methods of temporary soil stabilization include polymers, erosion control mats, seeding using either temporary or permanent seed, mulching and straw crimping. Mulch or straw crimping may be used alone when out of seeding season. Some type of tackifier or method of securing the Mulch to the ground must be used.
- Surface roughening may also be used as a method of temporary soil stabilization, especially for steeper slopes. Roughening perpendicular to the grade can reduce sediment yield by as much as 52%.
- Slope length and steepness are significant factors in total sediment volume. Slope Terraces may be used on steep cut or fill slopes higher than 20 feet. One 8 foot wide Terrace should be provided for every 20 feet vertical.
- Existing vegetation protection may also be considered a soil stabilization method where areas of the site remain vegetated until ready to be graded or disturbed. It is best for areas to be cleared no more than 7 days prior to grading.

NPDES Compliance Issues + Common Mistakes
- Failure to seed a Disturbed Area 14 days after temporary or permanent cease of grading and improper calculation of seeding rate is a common construction mistake. Too much seed, not enough seed, and/or inadequate coverage are also common problems. Mulch should be applied at 2 tons per acre (use 1/2 to 1 ton per acre in arid landscapes with less than 12" annual rainfall) and crimped or tacked to prevent blowing or washing.
- Surface roughening a slope the improper direction (parallel to grade) will 'build-in' rills and accelerate erosion.
- Long steep disturbed slopes produce the most sediment yield. Failure to provide any slope break, like a Terrace or wattle at the mid slope causes additional erosion and sedimentation.
- Clearing the entire site prior to beginning grading operations on the entire site, installing tree protection fencing inside the drip line of a tree or not installing tree protection as indicated on the plan are also common mistakes.

Summary
Providing temporary soil stabilization on Disturbed Areas where Construction Activity and grading have ceased reduces the amount of erosion from these areas and also reduces the volume of sediment storage required. Stabilizing a site from the 'outside-in' is a practice that will reduce Disturbed Area and the man hours necessary to maintain sediment control practices.

STORM WATER POLLUTION PREVENTION PLAN
TRAINING LOG
(The Contractor shall provide training sessions at least every 30 days)

FORM E-6 (TOPIC: NON-STORM WATER MANAGEMENT)

Date: _____ Project _____

Superintendent Signature:_____ _____

Agenda:
Purpose + Objectives
Allowable non-storm water discharges associated with the Construction Activity are listed in the Storm Water Pollution Prevention Plan (SWPPP) for this Project. These discharges are allowed only under the conditions that no pollutants are allowed to come into contact with surface waters prior to or after its discharge. Appropriate pollution prevention measures for these discharges include reduction and elimination of these sources.

Methods + Procedures
- Allowable non-storm water discharges are listed in the SWPPP. The following non-storm water discharges are commonly allowed by the EPA (some states and/or local jurisdictions do not allow any non-storm water discharge):
- Discharges from fire-fighting activities;
- Fire hydrant flushing;
- Waters used to wash vehicles where detergents are not used;
- Water used to control dust;
- Potable water including uncontaminated water line flushing;
- Routine external building wash down that does not use detergents;
- Pavement wash waters where spills or leaks of toxic or Hazardous Substances have not occurred (unless all spilled material has been removed) and where detergents are not used;
- Uncontaminated air condition or compressor condensate;
- Uncontaminated ground water or spring water;
- Foundation or footing drains where flows are not contaminated with process materials such as solvents;
- Uncontaminated excavation dewatering
- Landscape irrigation.

NPDES Compliance Issues + Common Mistakes
- Compliance issues include discharges other than what the jurisdiction allows as a non-storm water discharge (note the list above is the EPA list, other jurisdictions will vary).
- Check to see if state requires Contractor to neutralize any super-chlorinated water from distribution pipes before releasing it into the environment.
- Some states require a separate permit for groundwater discharge.

Summary
Non-storm water discharge management is required as a part of the NPDES permit. These discharges are allowed only under the conditions that no pollutants are allowed to come into contact with surface waters prior to or after its discharge. Subcontractors should become aware of what discharges are and are not permitted on the site.

STORM WATER POLLUTION PREVENTION PLAN
TRAINING LOG
(The Contractor shall provide training sessions at least every 30 days)

Training Session 7 (TOPIC: WASTE MANAGEMENT AND MATERIALS POLLUTION CONTROL)

Date: _____ Project _____

Superintendent Signature:_____ _____

Agenda:
Purpose + Objectives
The SWPPP includes a list of construction and waste materials and substances expected to be stored on site during construction, a description of controls, including storage practices, to minimize exposure of the materials to storm water, and spill prevention and response practices. In addition the SWPPP addresses measures to prevent the discharge of solid materials, including building materials, to surface waters.

Methods + Procedures
- Concrete wash water has a pH of 12 and is considered a Hazardous Waste due to its caustic nature. Concrete wash water is not allowed to flow into drainage ways, inlets, receiving waters, or highway rights-of-ways and must be located at least 100 feet from these features. Washout facility must have sufficient volume to contain solids, wash water, and have a minimum of 12" freeboard. Facility is not to be filled beyond 95% capacity and shall be cleaned out once 75% full unless a new facility is constructed.
- Any petroleum tank stored on site is required to have a containment area designed with an impervious surface between the tank and ground that equals or exceeds 110% volume of the largest tank.
- On site refueling should have portable second containment on hand in case of equipment failure.
- The maximum aggregate above ground storage capacity shall not exceed 1,320 gallons (which includes both bulk and equipment operational storage volumes in tanks 55 gallons and greater) unless a SPCC Plan is prepared and implemented. Total aggregate petroleum storage exceeding 1,320 gallons shall require preparation, certification and implementation of a Spill Prevention Control and Countermeasures Plan on or before July 1, 2009.
- Oil handling personnel must be trained in the operation and maintenance of equipment to prevent discharges; discharge procedure protocols; applicable pollution control laws, rules and regulations; general facility operations; and the contents of the SPCC Plan if prepared.. Training should discuss and describe known discharges or failures, malfunctioning equipment, and any recently developed precautionary measures.
- Oil or Hazardous Waste spills must be reported. 'Spill Prevention and Response Procedures' should be followed. Spills of petroleum and other products under the threshold of a "reportable spill" shall be immediately cleaned up and stored in sealed containers until disposed of by a licensed waste disposal company.
- All construction debris and trash shall be disposed of in a metal dumpster provided on site. Construction debris and trash should be picked up and placed in the dumpster daily. Dumpsters will be emptied at least once per week or when 95% full, or more often when necessary to prevent overflow. All dumpsters must be located at minimum 50 feet from any storm inlet, drainage way, or surface water.
- All containers of liquid building materials must be covered or stored in a covered area when not in use. Paints, solvents, diamond-hard, dry fall, saw joint material, etc… must be disposed of properly. Used material containers must be disposed of properly (and may be considered Hazardous Waste).

NPDES Compliance Issues + Common Mistakes
- Failure to provide a liner for concrete washout, washout full of liquid and overflowing, discharging to surface waters or no washout provided are common issues of non-compliance. Not having proper signage of the concrete washout can cause washout to occurring outside the designated area.

- Fuel secondary containment is required for any fuel container and containment must be at least 110% of the size of the largest tank. Secondary containment must be impervious, plastic lining must be continuous with no lap joints, and total stored on site (containers 55 gallons or more including operational equipment) must not exceed 1,320 gallons unless a SPCC Plan is prepared.
- Construction waste and trash is often allowed to accumulate and is not cleaned up daily and deposited in dumpsters provided. Dumpsters not emptied at least once per week or more often if necessary and are allowed to be more than 95% full. Dumpsters not covered in conditions where wind will blow trash and debris out of the facility.
- Empty containers of liquid building materials, spray paint for marking utility lines, and other waste disposed of properly. Empty containers can be considered Hazardous Waste.
- Mortar mixing stations not provided with adequate BMPs to contain all mix water and grout dust.

Summary

Construction and waste materials used on the site must be stored, used and disposed of properly. Many if not all these substances are considered pollution when exposed to storm water. Concrete wash water, petroleum products, paints, solvents, fertilizers, and empty containers must be managed so there is no contact with surface waters. Areas where these products are stored and used should be inspected daily. Construction debris and trash (including lunch and break trash) must be disposed of properly.

TAB 8

BMP Phasing Page For Fountain Hills Assisted Living	
BMP Used	**When Installed**
Silt Fence	Install as soon as practical. Before clearing and grubbing if feasible or after the perimeter is grubbed to make an access lane.
Stabilized construction trackout pad	Install after grubbing and the elevation has been graded for the entrance
Concrete washout	Install the washout before pouring the first load of cement.
Chemical toilet	Have the toilet onsite when construction begins
Maintain existing vegetation	Limit soil disturbance to the grading limits so as to keep existing vegetation in place.
Retention pond	Install the retention pond during rough grading

HANES GEO COMPONENTS
A Leggett & Platt COMPANY

Wire Backed Silt Fence

SF-90 w 36" 2x4 14ga welded wire

Silt Fence Fabric is a preassembled silt fence with 36" TerraTex SF-90 woven geotextile attached to 36" 14 gauge 2x4 welded wire. The TerraTex SF-90 is made up of polypropylene filaments. These filaments are woven to form a stable and durable network such that the filaments retain their relative position. It is non-biodegradable and resistant to most soil chemicals, acids, and alkali with a pH range of 3 to 12. TerraTex SF-90 is manufactured to meet or exceed the following minimum average roll values:

Property	Test Method	Minimum Average Roll Value English	Minimum Average Roll Value Metric
Grab Tensile	ASTM D-4632	100 x 100 lb	0.445 x 0.445 kN
Elongation	ASTM D-4632	15% x 20%	15% x 20%
Mullen Burst	ASTM D-3786	250 psi	1723 kPa
Puncture	ASTM D-4833	50 lb	0.223 kN
Trap Tear	ASTM D-4533	50 lb	0.223 kN
UV Resistance	ASTM D-4355	80% @ 500 hr	80% @ 500 hr
AOS	ASTM D-4751	20 - 50 US Sieve	0.85 - 0.300 mm
Permittivity	ASTM D-4491	0.10 sec-1	0.10 sec-1
Flow Rate	ASTM D-4491	8 gal/min/ft^2	325.6 l/min/m^2

11/2009

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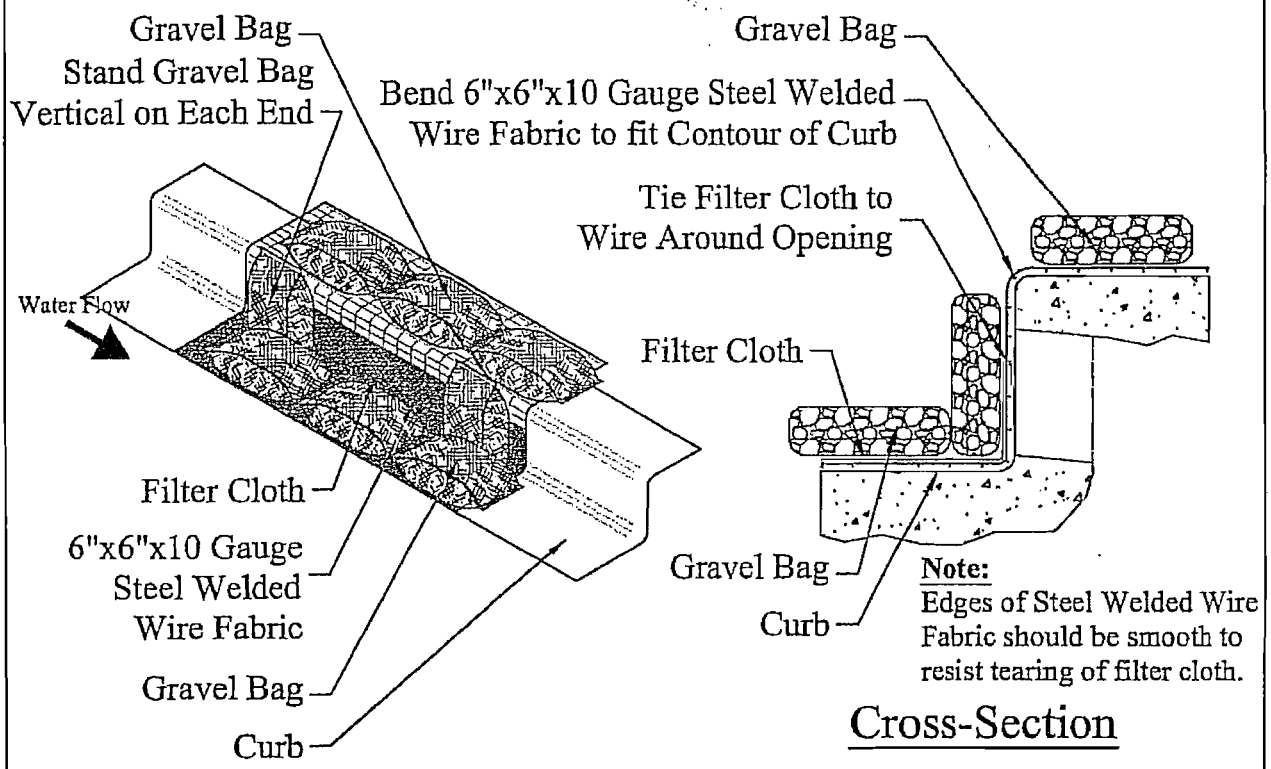
Curb Storm Drain Inlet Protection



Definition

A filter constructed around a storm drain inlet.

Purpose

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

Conditions where the Practice Applies

Storm drain inlet protection is a secondary sediment control device and is not to be used in place of a sediment trapping device unless approved by the appropriated approval authority.

Design Criteria

Storm drain inlet protection shall be used when the drainage area to an inlet is disturbed and the following conditions prevail:

1. It is not possible to temporarily divert the storm drain outfall into a sediment trapping device.
2. Watertight blocking of the inlets is not advisable.
3. Drainage area is less than 1/4 acre for curb or standard inlet protections and 1 acre for elevated or yard inlets. For yard inlets, the total for inlets in series must be 1 acre or less and the contributing drainage area must have slopes flatter than 5 percent. **Maintenence requirements for storm drain inlet protection are intense, due to the susceptibility to clogging. When the structure does not drain completely within 24 hours after a storm event, it is clogged. When this occurs, accumulated sediment must be removed and the geotextile fabric or filtering device must be cleaned and replaced.**

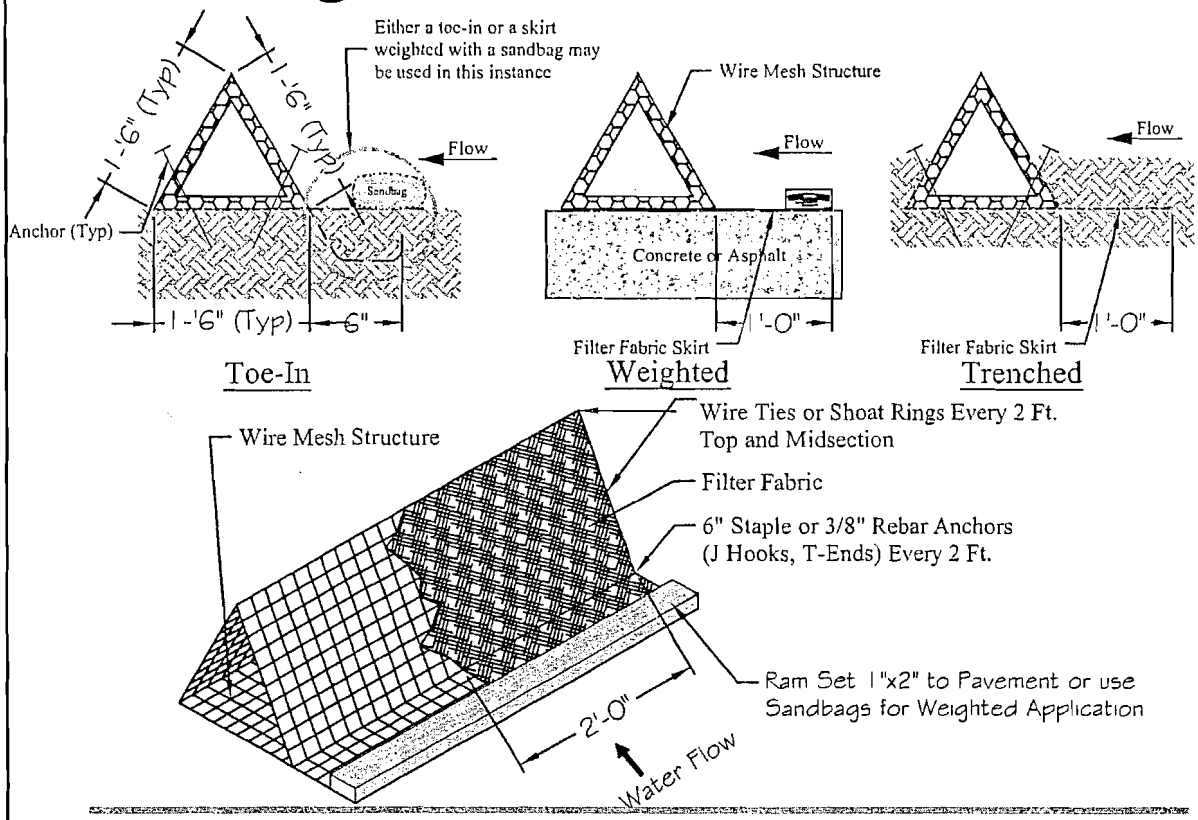
Several methods of covering inlets have been developed recently. It is important to use methods that have been proven effective. Follow local ordinances. Some communities do not allow covering of storm inlets due to the possibility of increased flooding. Several other important design considerations include traffic safety, elimination of seepage at the ends and underneath the filter cloth, and prevention of the filter entering the inlet.

CURB STORM DRAIN INLET PROTECTION

Construction Specifications

1. Bend a continuous piece of 6" X 6" 10 gauge welded wire fabric to form a "Z" shape as shown on the drawing. The width of the wire should extend at least 6 inches past the left and right sides of the drain opening.
2. Attach a continuous piece of approved Geotextile fabric the same width as the wire mesh. Fold the fabric along the top for added tie strength.
3. The Geotextile should extend out from the curb the same distance as the wire fabric and should extend up the wire fabric so that approximately 2/3 of the drain opening is covered. This allows for sediment storage and overflow during periods of high rainfall. **Note: The Geotextile opening size should be selected based on the filtered soil gradation testing.**
4. Place the assembly against the inlet throat. The top of wire fabric is held in place by sand/gravel bags. Place gravel bags against the curb and the fabric to prevent seepage between the curb and the filter cloth. Place small gravel bags around the opening to prevent seepage under the filter cloth and also to form a sediment trap. Graded gravel is preferable for primary filtering. The infiltration rate through the bag should permit the allowable flow rate. **Caution: Gravel bags should be placed off the street surface unless a suitable reflector is used for traffic safety.**

Triangular Filter Fabric Fence



Definition

A temporary sediment barrier used where laden runoff from small drainage areas occurs.

Purpose

The purpose is to reduce runoff velocity and filter sediment from construction areas.

Conditions where the Practice Applies

A triangular filter fabric fence is effective on all sites with concrete or asphalt surfaces where runoff will flow onto adjacent properties from parking lots or similar areas.

Design Criteria

1. Dikes are to be installed along a line of constant elevation (along a contour line).
2. Maximum slope perpendicular to the dike is 1:1.
3. Maximum drainage flow to the dike shall be 11 CFS per 100 linear feet of dike.
4. Maximum distance of flow to dike should be 200 feet or less.
5. Maximum concentrated flow to dike shall be 1 CFS.
6. If 50% or less of soil, by weight, passes the U.S. Standard sieve #200, select the equivalent opening size (E.O.S.) to retain 85% of the soil.
7. Maximum equivalent opening size shall be 70 (#70 Sieve).
8. Minimum equivalent opening size shall be 100 (#100 Sieve).
9. If 85% or more of soil, by weight, passes the U.S. Standard sieve #200, triangular sediment dike shall not be used due to clogging.
10. Sufficient room for the operation of sediment removal equipment shall be provided between the dike and other obstructions in order to properly remove sediment.
11. The ends of the dike shall be turned upgrade to prevent bypass of stormwater.

TRIANGULAR FILTER FABRIC FENCE

Limitations

Ponding will likely occur directly adjacent to the dike, which may possibly cause flooding.

Triangular sediment filter dikes are not effective for conditions, which include substantial concentrated flows or when they are not constructed along a contour line due to the potential for flow concentration and overtopping.

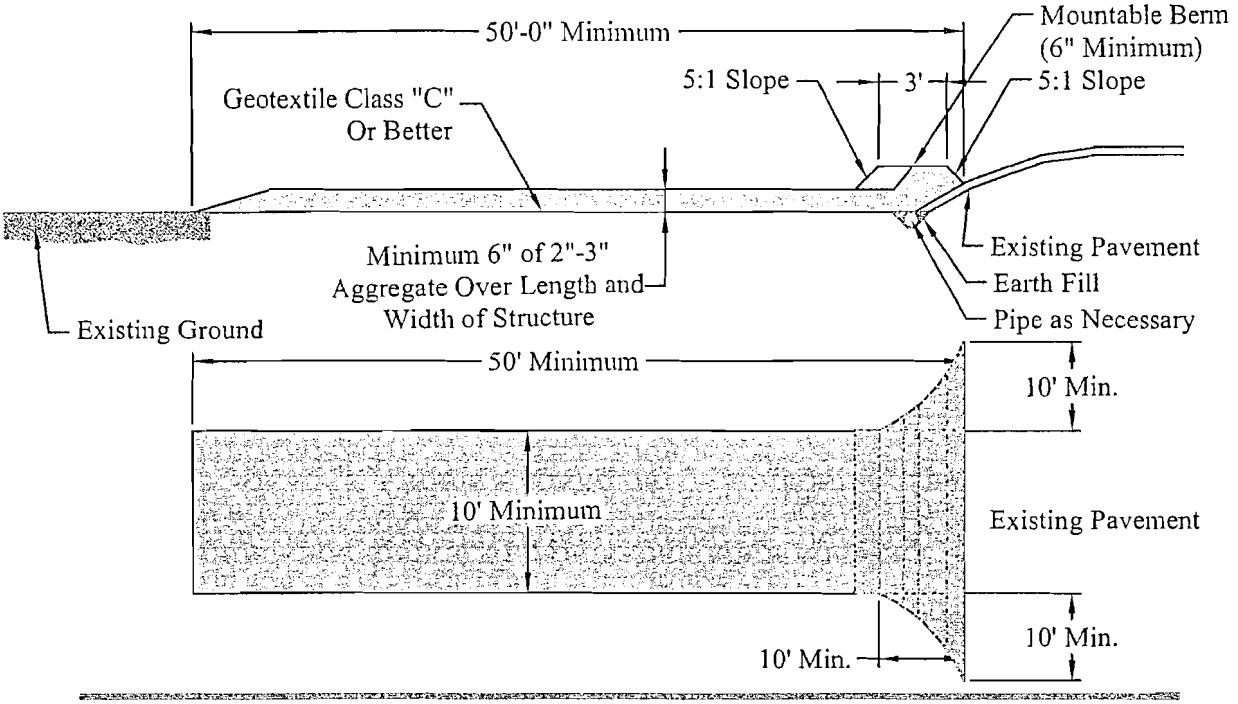
Maintenance Requirements

Inspection should be made on a regular basis, especially after large (>0.5") storm events. If the fabric becomes clogged, it should be cleaned or if necessary, replaced.

Sediment should be removed when it reaches approximately 6" in depth. In addition, inspections should be made on a regular basis to check the structural integrity of the dike. If structural deficiencies are found, the dike should become immediately repaired or replaced.

As with silt fence, integrity of the filter fabric is important to the effectiveness of the dike. Overlap between dike sections must be checked on a regular basis and repaired if deficient.

Stabilized Construction Entrance



Definition

A stabilized layer of aggregate that is underlain with Geotextile Class "C" (See Standards for Geotextile). Stabilized entrances are located at any point where traffic enters or leaves a construction site.

Purpose

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. For single family residences, the entrance should be located at the permanent driveway.
3. Stabilized construction entrances should not be used on existing pavement.

Design Criteria

1. Length - Minimum of 50'-0" (30'-0" for single residence lot).
2. Width - Minimum of 10'-0", should be flared at the existing road to provide a turning radius.
3. Geotextile Class "C" shall be placed over the exiting ground prior to placing stone. The Plan approval authority may not require geotextile fabric for single family residence.
4. Stone-crushed aggregate 2"-3" (See Standards for Geotextile and Rock). Recycled concrete equivalent may be used also. 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 of leaves a construction site. Vehicles leaving the site must travel over the entire length of the stabilized construction entrance.

STABILIZED CONSTRUCTION ENTRANCE

Construction Specifications

1. Length - minimum of 50' (30' for single residence lot).

2. Width - 10' minimum, should be flared at the existing road to provide a turning radius.

3. Geotextile fabric (filter cloth) shall be placed over the existing ground prior to placing stone. **The plan approval authority may not require single-family residences to use geotextile.

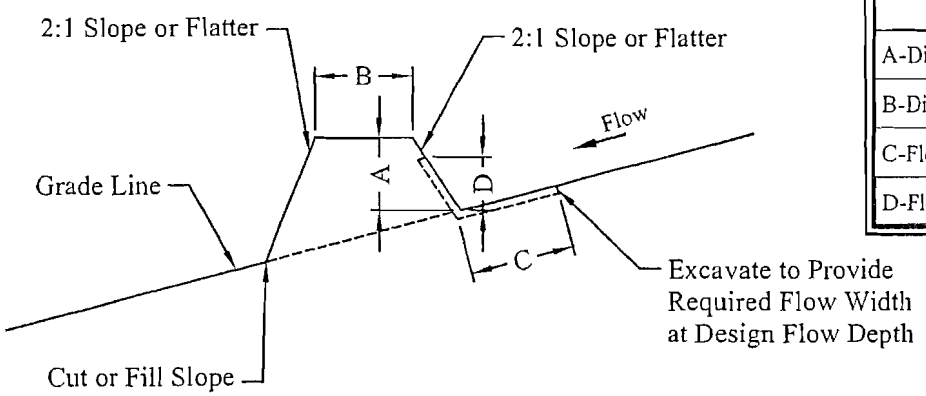
4. Stone - crushed aggregate (2" to 3") or reclaimed or recycled concrete equivalent shall be placed at least 6" deep over the length and width of the entrance.

5. Surface Water – all surface water flowing to or diverted toward construction entrances shall be piped through the entrance, maintaining positive drainage. Pipe installed through the stabilized construction entrance shall be protected with a mountable berm with 5:1 slopes and a minimum of 6" of stone over the pipe. Pipe has to be sized according to the drainage. When the stabilized construction entrance is located at the high spot and has no drainage to convey a pipe will not be necessary. Pipe should be sized according to the amount of runoff to be conveyed. A 6" minimum will be required.

Location

A stabilized construction entrance shall be located at every point where construction traffic enters or leaves a construction site. Vehicles leaving the site must travel over the entire length of the stabilized construction entrance.

Earth Dike



	Dike A	Dike B
A-Dike Height	18"	30"
B-Dike Width	24"	36"
C-Flow Width	4'	6'
D-Flow Depth	12"	24"

Definition

A temporary berm or ridge of soil, compacted, stabilized, and located in such a manner as to direct storm water to a desired location.

Purpose

The purpose of the earth dike is to direct runoff to a sediment trapping device which reduces the potential for erosion and sedimentation. Earth dikes can also be used for diverting clean water away from disturbed areas.

Conditions where the Practice Applies

Earth dikes are often constructed across disturbed areas and around construction sites such as parking lots and subdivisions. The dikes shall remain in place until the disturbed ares are permanently stabilized.

Earth dikes are constructed:

1. To divert sediment laden runoff from a disturbed area to a sediment trapping device.
2. Across disturbed areas to shorten overland flow distances.
3. To direct sediment laden water along the base of slopes to a trapping device.
4. To divert clear water from an undisturbed area to a stabilized outlet. Runoff shall be discharged at a non-erosive velocity.

Design Criteria

The basis for the engineering design shall be the 2-year 24-hour duration storm using NRCS criteria, assuming the worst soil cover conditions to prevail in the contributing drainage area over the life of the earth dike. Manning's Equation shall be used to determine earth dike flow channel velocities associated with the developed discharges. The Manning's Roughness coefficients to be used in the equation are 0.025 for seed and mulch, 0.03 for soil stabilization matting or sod, and 4"-7" stone use 0.045 for flow depths up to 1' (Dike A) and 0.038 for flow depths between 1 and 2 feet (Dike B). Allowable flow channel velocities shall be less than 4 fps for seed and mulch, less than 6 fps for stabilization matting or sod, and less than 8 fps for 4"-7" stone.

EARTH DIKE

Construction Specifications

1. All temporary earth dikes shall have uninterrupted positive grade to an outlet. Earth dikes having longitudinal slopes flatter than 1% should have spot elevations along the flow line.

2. Diverted runoff from the disturbed areas shall be directed to a sediment trapping devices.

3. Diverted runoff from undisturbed areas shall outlet directly onto an undisturbed, stabilized area at a non-erosive velocity (<4 fps for grass).

4. All trees, brush, stumps, and obstructions shall be removed and disposed of so as not to interfere with the proper functioning of the earth dike berm and flow channel.

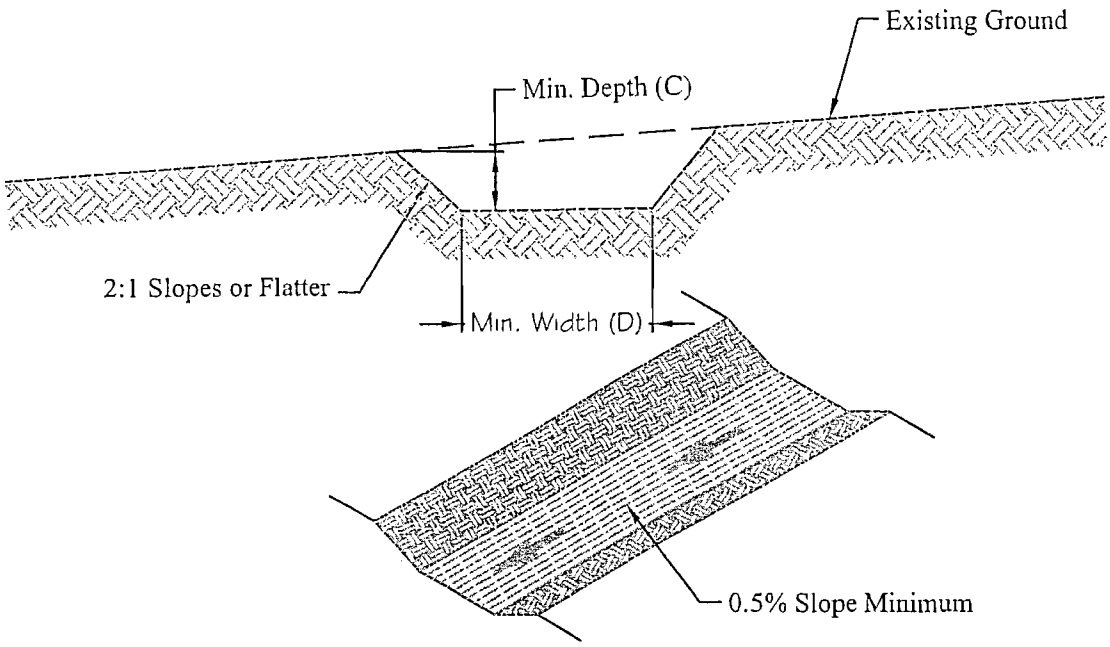
5. The dike shall be excavated or shaped to line, grade and cross section as required to meet the criteria specified herein and be free of bank projections or other irregularities, which will impede normal flow.

6. Fill shall be compacted by earth moving equipment.

7. All earth removed and not needed for construction shall be placed so that it will not interfere with the functioning of the earth dike berm and flow channel.

8. Inspection and maintenance must be provided periodically and after each rain event.

Temporary Swale



Definition

A temporary swale is a temporary, excavated drainage way constructed and located to convey runoff to a desired location.

Purpose

The purpose of a temporary swale is to prevent runoff from entering disturbed areas by intercepting and diverting it to a stabilized outlet or to intercept sediment laden water and divert it to a sediment trapping device.

Conditions Where Practice Applies

Temporary swales are constructed:

1. To divert sediment laden runoff from a disturbed area to a sediment trapping device.
2. Across disturbed areas to shorten overland flow distances.
3. To direct sediment laden water along the base of slopes to a trapping device.
4. To divert clear water from an undisturbed area to a stabilized outlet. Runoff shall be discharged at non-erosive velocities.

Design Criteria

The basis for engineering design shall be the 2-year, 24-hour duration storm using N.R.C.S. criteria, a ssuming the worst soil cover conditions to prevail in the contributing drainage area over the life of the earth dike. Manning's Equation shall be used to determine earth dike flow channel velocities associated with the developed discharges. The Manning's Roughness coefficients to be used in the equation are 0.025 for seed and mulch, 0.03 for soil stabilization matting or sod, and 4"-7" stone use 0.045 for flow depths up to 1 foot (Dike A) and 0.038 for flow depths between 1 and 2 feet (Dike B, See earth Dike). Allowable flow channel velocities shall be less than 4 fps for seed and mulch, less than 6 fps for stabilization matting or sod, and less than 8 fps for 4"-7" stone.

TEMPORARY SWALE

Construction Specifications

1. Swales and ditches shall be prepared in accordance with the construction specifications described in Section A-2, Standards and Specifications for Temporary Swale.

2. The check dam shall be constructed of 4" to 7" stone. The stone shall be placed so that it completely covers the width of the channel and keyed into the channel banks.

3. The top of the check dam shall be constructed so that the center is approximately 6 inches lower than the outer edges, forming a weir that water can flow across.

4. The maximum height of the check dam at the center shall not exceed 2'.

5. The upstream side of the check dam shall be lined with approximately 1' of 0.75" – 1.5" aggregate.

6. Accumulated sediment shall be removed when it has built up to half of the original height of the weir crest.

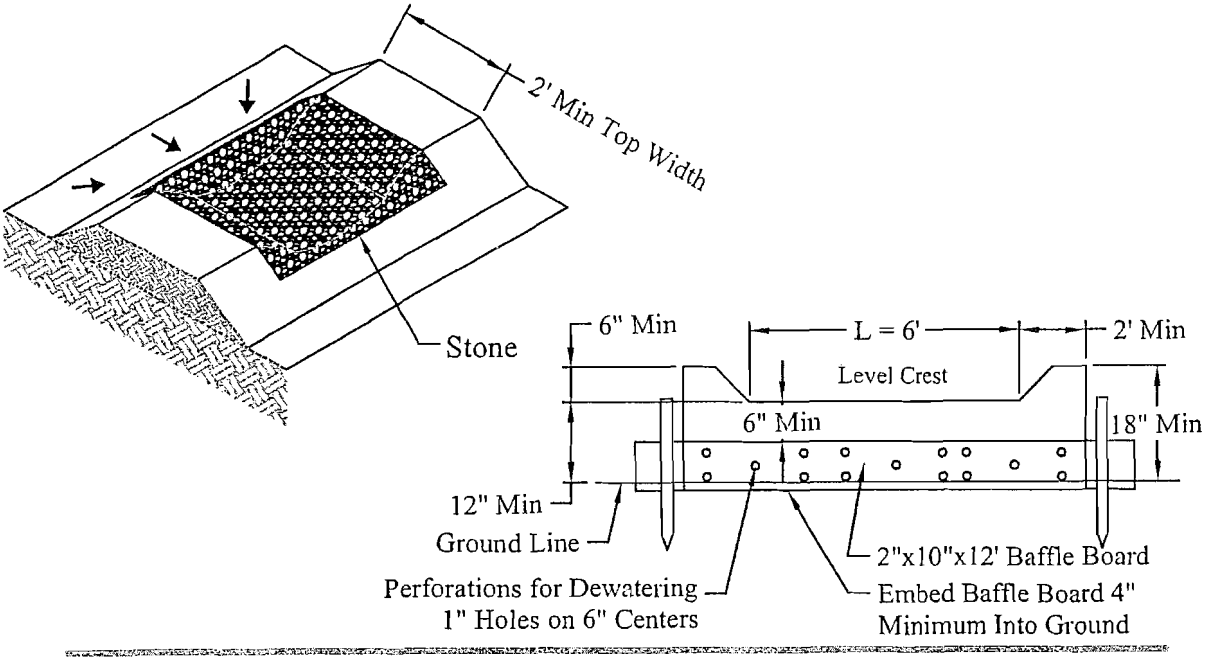
Sediment Removal

While this practice is not intended to be used for sediment trapping, some sediment will accumulate behind the check dam. Check dams should be checked periodically and after each significant rainfall. Accumulated sediment should be removed when it has reached half of the original height of the weir crest.

Check Dam Removal

In temporary swales and channels, check dams should be removed and the ditch filled in when it is no longer needed. In permanent channel structures, check dams may be removed when a permanent lining can be installed. In the case of grass-lined ditches, check dams may be removed when the grass has matured sufficiently to protect the swale or channel. The area beneath the check dams should be seeded and mulched immediately after they are removed.

Stone Outlet Structure



Definition

A temporary stone dike installed in conjunction with and as a part of an earth dike.

Purpose

The purpose of the Stone Outlet Structure is to filter sediment laden runoff, provide a protected outlet for an earth dike, provide for diffusion of concentrated flow, and allow the area behind the dike to dewater.

Conditions where the Practice Applies

Stone outlet structures apply to any point of discharge where there is a need to dispose of runoff at a protected outlet or to diffuse concentrated flow for the duration of the period of construction.

The drainage area to this practice shall be 1/2 acre or less.

Outlet

The stone outlet structure shall be located so as to discharge onto an already stabilized area or into a stable watercourse. Stabilization shall consist of complete vegetative cover, paving, etc., sufficiently established to be erosion resistant.

Design Criteria

1. Refer to Material Specifications, Stone. Stone 2" to 3" diameter or recycled concrete equivalent is preferred but clean gravel may be used if stone is not available.
2. The crest of the stone dike shall be at least 6" lower than the lowest elevation of the top of the earth dike and shall be level.
3. The stone outlet structure shall be embedded into the soil a minimum of 4"
4. The minimum legth of the crest of the stone outlet structure shall be 6'.
5. The baffle board shall extend 1' into the dike and 4" into the ground and be staked in place.
6. The drainage area to this structure shall be less than 1/2 acre.

STONE OUTLET STRUCTURE

Construction Specifications

1. 2" to 3" stone or recycled concrete equivalent is preferred but clean gravel may be used if stone is not available.

2. The crest of the stone dike shall be at least 6" lower that the lowest elevation of the top of the earth dike and shall be level.

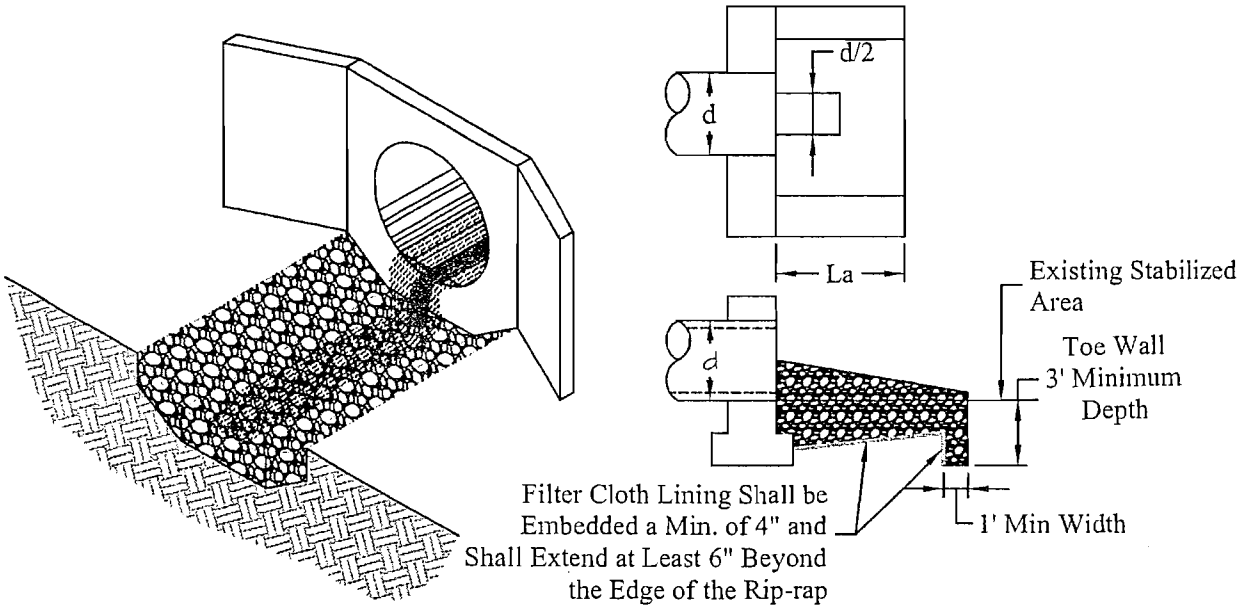
3. The stone outlet structure shall be embedded into the soil a minimum of 4".

4. The minimum length of the crest of the stone outlet structure shall be 6'.

5. The baffle board shall extend 1' into the dike and 4" into the ground and be staked in place.

6. The drainage area to this structure shall be less that 0.5 acre.

Rock Outlet Protection



Definition

Rock placed at the outfall of channels or culverts.

Purpose

The purpose of rock outlet protection is to reduce the velocity of flow to non-erosive rates in the receiving channel.

Conditions Where Practice Applies

This practice applies where discharge velocities and energies at the outlets of culverts are sufficient to erode the next downstream reach. This applies to outlets of all types such as sediment basins, storm water management ponds, and road culverts.

Design Criteria

The design method applies to sizing rock rip-rap and gabions to protect a downstream area. It does not apply to rock lining of channels or streams. Many counties and state agencies have regulations and design procedures established for dimensions, type, and size of materials, and locations where outlet protection is required.

Design Procedures

1. Investigate the downstream channel to assure that non-erosive velocities can be maintained.
2. Determine the tailwater condition at the outlet.
3. Using the discharge velocity and depth of flow, determine the rip-rap size and apron length required.
4. Calculate apron width at the downstream end if a flared section is to be used.

There are three classifications of rock outlet protection: (1.) Discharge to semi-confined section (maximum tailwater condition); (2.) Discharge to a confined channel section; (3.) Discharge to a flat area with no tailwater influence.

The outlet protection may be done using rock rip-rap, or gabions. Rip-rap thickness is 19", 32", and 46" for Class I, II, and III respectively. The stone chall consist of field stone and hewn quarry stone. The filter is a layer of material placed between the rip-rap and the underlaying soil surface to prevent soil movement into and through the rip-rap. Rip-rap shall have a filter placed under it in all cases. A filter can be gravel or Geotextile Class "C". Gabion baskets may be substituted for rock rip-rap. Gabions shall be of single unit construction. Place Geotextile under all gabions and follow manufacturer's specifications.

ROCK OUTLET PROTECTION

Construction Specifications

1. The subgrade for the filter, rip-rap, or gabion shall be prepared to the required lines and grades. Any fill required in the subgrade shall be compacted to a density of approximately that of the surrounding undisturbed material.

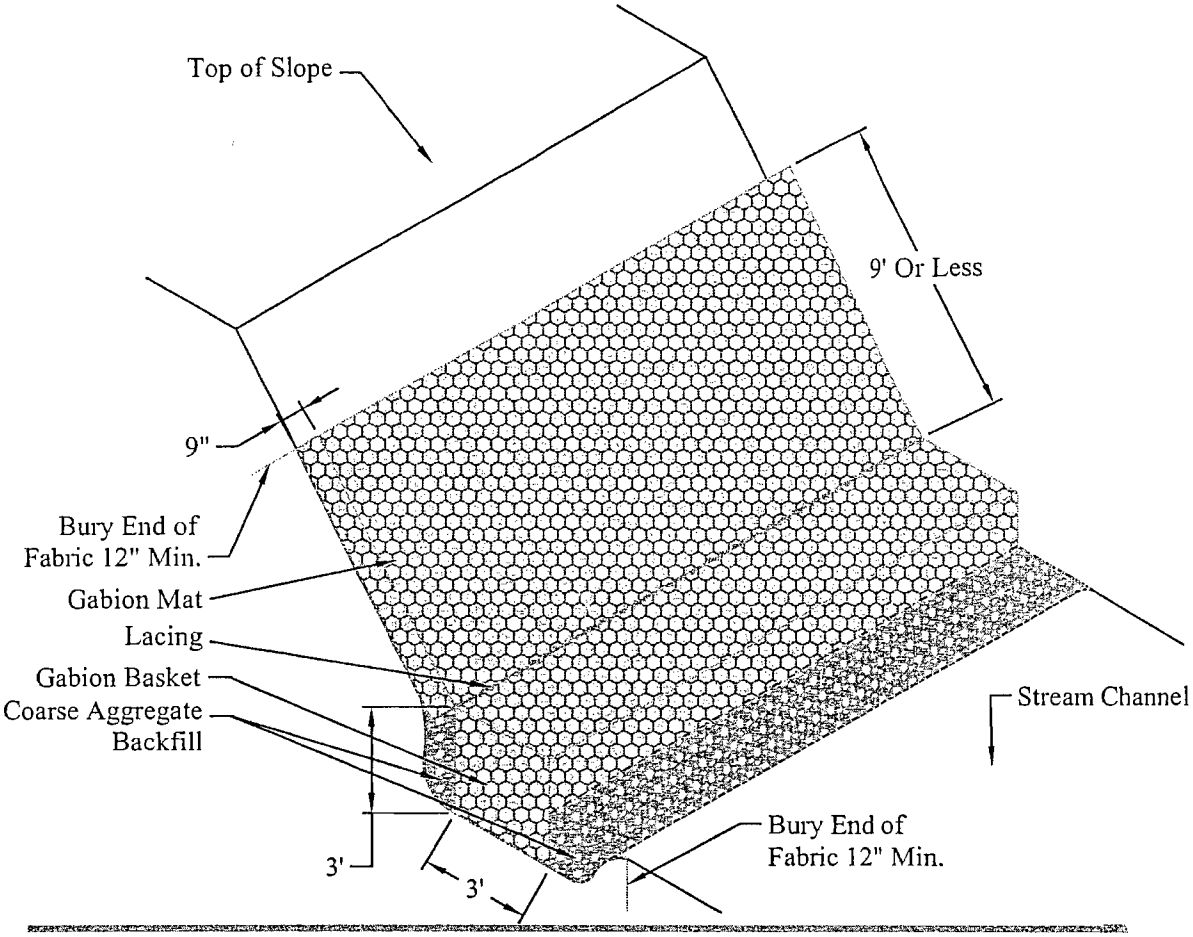
2. The rock or gravel shall conform to the specified grading limits when installed respectively in the rip-rap or filter.

3. Geotextile Class C or better shall be protected from punching, cutting, or tearing. Any damage other than an occasional small hole shall be repaired by placing another piece of geotextile fabric over the damaged part or by completely replacing the geotextile fabric. All overlaps whether for repairs or for joining two pieces of geotextile fabric shall be a minimum of one foot.

4. Stone for the rip-rap or gabion outlets may be placed by equipment. They shall be constructed to the full course thickness in one operation and in such a manner as to avoid displacement of underlying materials. The stone rip-rap or gabion outlets shall be delivered and placed in a manner that will ensure that it is reasonably homogenous with the smaller stones and spalls filling the voids between the larger stones. Rip-rap shall be placed in a manner to prevent damage to the filter blanket or geotextile fabric. Hand placement will be required to the extent necessary to prevent damage to the permanent works.

5. The stone shall be placed so that it blends in with the existing ground. If the stone is placed too high then the flow will be forced out of the channel and scour adjacent to the stone will occur.

Gabion Inflow Protection



Definition

A temporary or permanent, lined drainage way installed to convey concentrated runoff into sediment traps and basins or down steep slopes as applicable. Rip-rap inflow protection consists of the installation of rock or recycled concrete equivalent in a flow channel for stabilization.

Purpose

The purpose of rip-rap inflow protection is to provide stable conveyance of concentrated runoff down steep slopes, (I.e. into temporary sediment traps and basins) thereby preventing erosion of the flow channel.

Conditions Where Practice Applies

Rip-rap inflow protection is required where the flow velocities of a drainage waycause erosion along the bottom or sides of the drainage way. Runoff may be directed to the inflow device by means of dikes or swales.

Design Criteria

Rip-rap inflow protection shall be 4"-12" rip-rap (minimum), underlain with Geotextile Class "C" (See Material Specifications, Geotextile Fabrics) and placed from the the ditch overfall elevation to the bottom of the trap or basin when the inflow slope is between 4:1 and 10:1. Slopes flatter than 10:1 shall be stabiliezed in accordance with Temporary Swale or Earth Dike criteria as applicable. For slopes steeper than 4:1, see Gabion Inflow Protection.

STONE SIZE

	SIZE RANGE	D_{50}	D_{100}	AASHTO	WEIGHT
NUMBER 57*	3/8" – 1 1/2"	1/2"	1 1/2"	M-43	N/A
NUMBER 1	2" – 3"	2 1/2"	3"	M-43	N/A
RIP-RAP**	4" – 7"	5 1/2"	7"	N/A	N/A
CLASS I	N/A	9.5"	15"	N/A	150 lb. max
CLASS II	N/A	16"	24"	N/A	700 lb max
CLASS III	N/A	23"	34"	N/A	2,000 lb max

* This classification is to be used on the inside face of stone outlets and check dams.

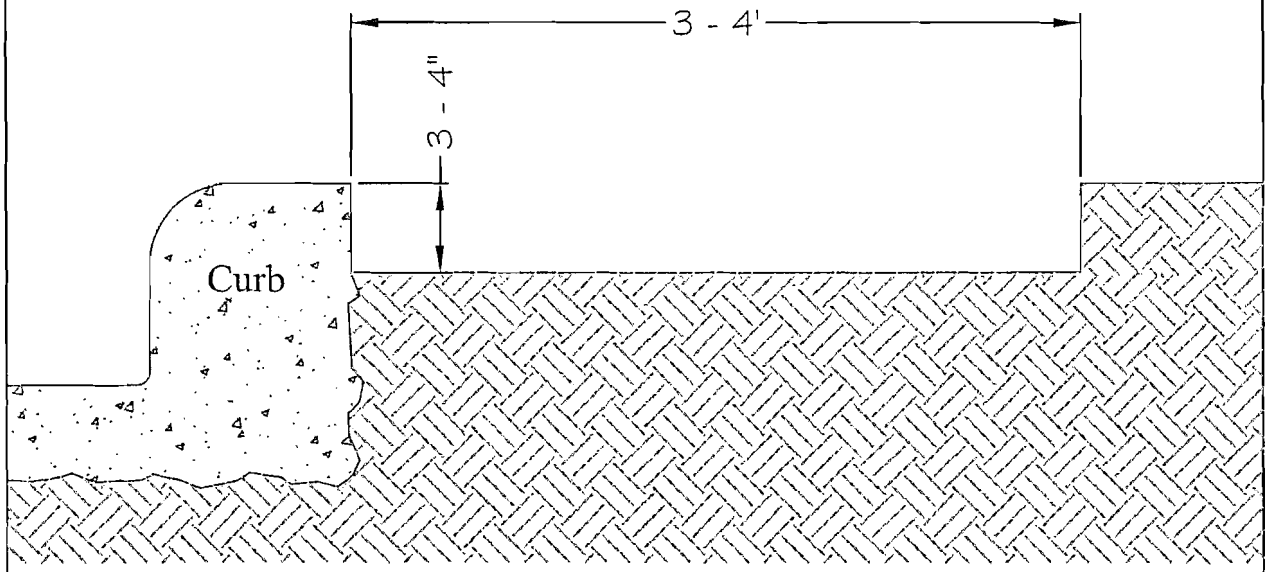
** This classification is to be used whenever small rip-rap is required. The State Highway Administration designation for this stone is Stone For Gabions (§905.01.04).

STONE FOR GABION BASKETS

BASKET THICKNESS		SIZE OF INDIVIDUAL STONES	
INCHES	MM	INCHES	MM
6	150	3 – 5	75 – 125
9	225	4 – 7	100 – 175
12	300	4 – 7	100 – 175
18	460	4 – 7	100 – 175
36	910	4 – 12	100 - 300

NOTE: Recycled concrete equivalent may be substituted for all stone classifications. Recycled concrete equivalent shall be concrete broken into the sizes meeting the appropriate classification, shall contain no steel reinforcement, and shall have a density of 150 pounds per cubic foot.

Cut Back Curb



Definition

A temporary sediment trap formed by excavation behind the curb.

Purpose

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

Conditions where the Practice Applies

A cutback curb is installed when discharge from the lot runs over the curb.

Design Criteria

1. Cut back soil from behind curb 3 - 4" deep to form a temporary sediment trap.
2. Installing the sidewalk will form a two stage sediment trap that will be more effective.

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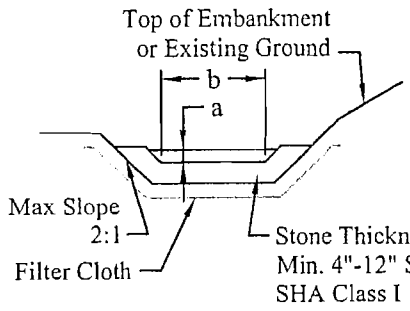
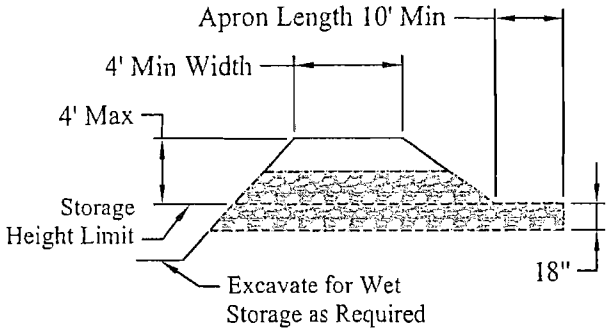
Sediment Trap



Top of Compacted Embankment Minimum 1' Above Top of Stone Lining. Maximum 4' Above Existing Ground. Bottom Width of Weir (b) Minimum Depth of Channel (a)

Cross Section



Filter Cloth Shall be Embedded at Least 6" Into the Existing Ground at Entrance to the Outlet Channel

Profile

Definition

A temporary sediment control device formed by excavated and/or an embankment with an approved outlet used to intercept sediment laden runoff and to retain the sediment.

Purpose

The purpose of a sediment trap is to intercept sediment laden runoff and trap the sediment in order to protect drainage ways, properties, and rights-of-way downstream, of the sediment trap from sedimentation.

Conditions where the Practice Applies

A sediment trap is installed at points of discharge from a disturbed area.

Wet and Dry Storage

The storage requirement for sediment traps and sediment basins is 3600 cubic feet per acre of contributory drainage area. The sediment traps and basins storage volume of 3600 cubic feet minimum per acre shall be divided equally into "dry" or dewatered storage and "wet" or retention storage. The basins and traps will be dewatered to the wet pool elevation corresponding to 1800 cubic feet of storage per acre of drainage.

Design Criteria

1. The maximum drainage area for each type sediment trap shall be as follows:

Practice Type	Maximum Drainage Area
Pipe Outlet	5 Acres
Stone Outlet	5 Acres
Rip-rap Outlet	10 Acres
Stone Outlet / Rip-rap	10 Acres

2. To estimate the present volume of sediment available in a trap use the following:

Volume (Cubic Feet) = 0.4 [Surface Area (sq. ft.) times the Maximum Depth (ft.)]

3. **All embankment for sediment traps shall not exceed 4 feet in height as measured at the low point of the original ground along centerline of the embankment. If any of the design criteria for traps are exceeded, standards for basins must be used.**

RIP-RAP OUTLET SEDIMENT TRAP

Construction Specifications

1. The area under embankment shall be cleared, grubbed and stripped of any vegetation and root mat. The pool area shall be cleared.

2. The fill material for the embankment shall be free of roots or other woody vegetation as well as over-sized stones, rocks, organic material or other objectionable material. The embankment shall be compacted by traversing with equipment while it is being constructed. Maximum height of embankment shall be 4', measured at centerline of embankment.

3. All cut and fill slopes shall be 2:1 or flatter.

4. Elevation of the top of any dike directing water into trap must equal or exceed the height of trap embankment.

5. Storage area provided shall be figured by computing the volume measured from top of excavation.

6. Filter cloth shall be placed over the bottom and sides of the outlet channel prior to placement of stone. Section of fabric must overlap at least 1' with section nearest the entrance placed on top. Fabric shall be embedded at least 6" into existing ground at entrance of outlet channel.

7. Stone used in the outlet channel shall be 4" – 7" placed 18" thick.

8. Outlet – An outlet shall be provided, which includes a means of conveying the discharge in an erosion free manner to an existing stable channel. Protection against scour at the discharge end shall be provided as necessary.

9. Outlet channel must have positive drainage from the trap.

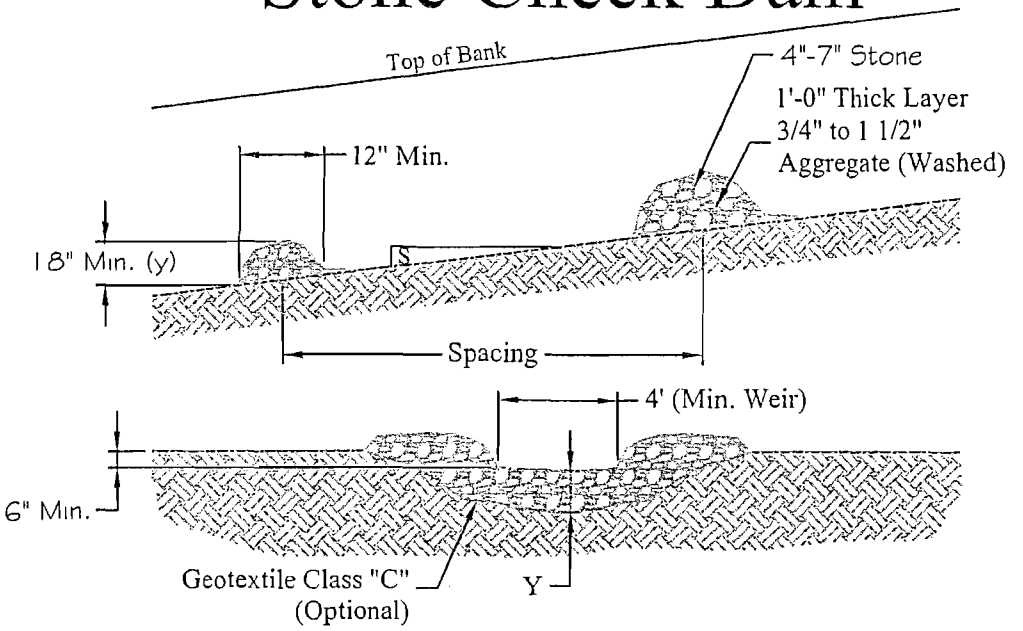
10. Sediment shall be removed and trap restored to its original dimensions when the sediment has accumulated to ¼ of the wet storage depth of the trap (1350 cf/ac). Removed sediment shall be deposited in a suitable area and in such a manner that it will not erode.

11. The structure shall be inspected periodically after each rain and repaired as needed.

12. Construction of traps shall be carried out in such a manner that sediment pollution is abated. Once constructed, the top and outside face of the embankment shall be stabilized with seed and mulch. Points of concentrated inflow shall be protected in accordance with Grade Stabilization Structure criteria. The remainder of the interior slopes should be stabilized (one time) with seed and mulch upon trap completion and monitored and maintained erosion free during the life of the trap.

13. The structure shall be dewatered by approved methods, removed and the area stabilized when the drainage area has been properly stabilized.

Stone Check Dam



Definition

Stone check dams are stone weirs in series in swales and ditches.

Purpose

Stone check dams are constructed to reduce runoff velocities to non-erosive rates and to prevent channel erosion in drainage courses.

Design Criteria

1. Stone check dams shall be located so as to provide maximum velocity reduction. This may be acheived by considering the volume of runoff, the drainage area and the slope. The check dams should be placed in reasonably straight ditch sections to minimize the potential for erosion in the channel bend. All stone check dams should be keyed into the sides and bottom of the channel. **This is not to be used as a sediment trapping device. Sediment laden runoff must pass through a sediment trapping device prior to being discharged from the site.**
2. The distance between the stone check dams will vary with the longitudinal ditch slope. Stone check dams shall be constructed using 4"-7" stone (See Materials Specifications, Stone Size), or recycled concrete equivalent and shall be placed to form a weir. The outlet crest or top of the stone weir shall be approximately 6 feet lower than the outer edges. The inside or upstream side of the weir shall be lined with a 1 foot thick layer of washed (3/4" to 1 1/2") crushed aggregate. Geotextile Class "E" (See Materials Specifications, Geotextiles) or better under the bottom and sides of the dam prior to placement of stone is optional.
3. The height of the stone outlet weir should not exceed 1/2 the ditch or swale. Additionally, the maximum height of the weir must not exceed 2 feet to prevent scour of the toe of the dam. If the check dam exceeds this, these provisions do not apply and an engineering analysis should be conducted. The stone check dam should be wide enough to reach from bank to bank of the ditch or swale with the weir section length in the center of the dam.
4. The number of check dams will depend on the length and slope of the ditch or swale. The required spacing is determined as:

x=y/S where
x = Check dam spacing in Feet
y = Check dam height in Feet
S = Natural Channel Slope Ft./Ft.
The spacing is most sensitive to channel slope and height of dam.

STONE CHECK DAM

Construction Specifications

1. Swales and ditches shall be prepared in accordance with the construction specifications described in Section A-2. Standards and Specifications for Temporary Swale.

2. The check dam shall be constructed of 4"-7" stone. The stone shall be placed so that it completely covers the width of the channel and is key into the channel banks.

3. The top of the check dam shall be constructed so the center is approximately 6" lower than the outer edges, forming a weir that water can flow across.

4. The maximum height of the check dam at the center shall not exceed 2'.

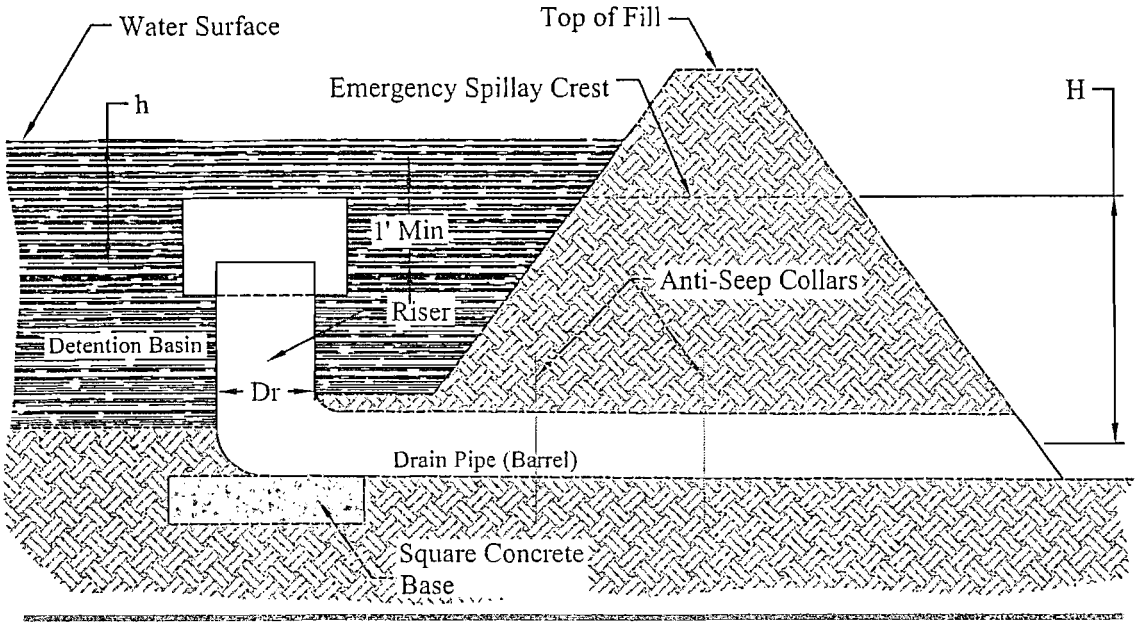
5. The upstream side of the check dam shall be lined with approximately 1' of 0.75" to 1.5" aggregate.

6. Accumulated sediment shall be removed when it has built up to half of the original height of the weir crest.

Standard Stone Check Dam Design

Slope	Spacing
2% or less	80'
2.1% to 4%	40'
4.1% to 7%	25'
7.1% to 10%	15'
Over 10%	Used lined waterway design

Sediment Basin with Riser



Definition

A temporary barrier or dam constructed across a drainage way to intercept sediment laden runoff. Excavation to build may be used to achieve the required storage.

Purpose

The purpose of a sediment basin is to protect downstream properties and drainage ways by trapping sediment and controlling the release of storm water runoff.

Wet and Dry Storage

The minimum storage volume requirement for sediment basins in 3600 cubic feet per acre of contributory drainage area. The basin storage volume of 3600 cubic feet per acre shall be divided equally into "dry" or dewatered storage and "wet" or retention storage. Basins shall be dewatered to the wet pool elevation corresponding to 1800 cubic feet of storage per acre of drainage area.

Conditions where the Practice Applies

A sediment basin is required to control runoff and sediment from large areas where sediment traps are not appropriate. Detention ponds may be used as sediment basins provided that they meet the requirements of and the construction sequence addresses converting the sediment basin to a permanent storm water detention pond.

Conditions of Use

This standard applies to the installation of temporary sediment basins on sites where: (A.) failure of the structure would not result in the loss of life, damage to homes or buildings, or interruption of use or service of public roads or utilities; (B.) the drainage area does not exceed 100 acres; (C.) the maximum embankment height does not exceed 15 feet measured from the natural ground to the embankment top along the centerline of the embankment; (D.) the basin is to be removed within 36 months after the beginning of construction of the basin. Where these criteria cannot be met, the structure shall be designed to conform with the U.S.D.A., Natural Resource Conservation Service, formerly Soil Conservation Service standard for farm ponds (378).

Design Criteria

Design and construction shall comply with the state and local safety laws, ordinances, rules, and regulations. Contact Paradigm Engineering for detailed design assistance.

SEDIMENT BASIN WITH RISER

Construction Specifications

1. Site Preparation: Perimeter sediment control devices must be installed prior to clearing and grubbing. Areas where the embankment is to be placed shall be cleared, grubbed, and stripped of topsoil to remove trees, vegetation, roots or other objectionable material. The pool area shall not be cleared until completion of the dam embankment unless the pool area is to be used for borrow. In order to facilitate clean-out and restoration, the pool area (measured at the top of the pipe spillway) shall be cleared of all brush, trees, and other objectionable materials.

2. Cut-off Trench: A cut-off trench shall be excavated along the centerline of earth fill embankments. The minimum depth shall be four feet. The cut-off trench shall extend up both abutments to the riser crest elevation. The minimum bottom width shall be two feet, but wide enough to permit operation of excavation and compaction equipment. The side slopes shall be no steeper than 1:1. Compaction requirements shall be the same as those for the embankment. The trench shall be dewatered during the backfilling-compaction operations.

3. Embankment: The fill material shall be taken from approved areas shown on the plans. It shall be clean mineral soil free of roots, woody vegetation, oversized stones, rocks, or other objectionable material. Relatively pervious materials such as sand or gravel (Unified Soil Classes GW, GP, SW & SP) or organic materials (Unified Soil Classes OL and OH) shall not be placed in the embankment. Areas on which fill is to be placed shall be scarified prior to placement of fill. The fill material shall contain sufficient moisture so that it can be formed by hand into a ball without crumbling. If water can be squeezed out of the ball, it is too wet for proper compaction. Fill material shall be placed in six-inch to eight-inch thick continuous lifts over the entire length of the fill. Compaction shall be obtained by routing and hauling the construction equipment over the fill so that the entire surface of each layer of the fill is traversed by at least one wheel or tread track of the equipment or by the use of a compactor. **The embankment shall be constructed to an elevation 10 percent higher than the design height to allow for settlement.**

4. Principal Spillway: Steel risers shall be securely attached to the barrel or barrel stub by welding the full circumference making a watertight structural connection. Concrete risers shall be poured with the principal spillway in place or precast with voids around the principal spillway filled with concrete or shrink proof grout for watertight connection. The barrel stub must be attached to the riser at the same percent (angle) of grade as the outlet conduit. The connection between the riser and the riser base shall be watertight. All connections between barrel sections must be achieved by approved watertight band assemblies. The barrel and riser shall be placed on a firm, smooth foundation of impervious soil as the embankment is constructed. **Breaching the embankment to install the barrel is unacceptable.** Pervious materials such as sand, gravel or crushed stone shall not be used as backfill around the pipe or anti-seep collars. The fill material around the pipe spillway shall be placed in four inch lifts and hand compacted under and around the pipe to at least the same density as the adjacent embankment. A depth of 1.5 times the pipe diameter (min.) shall be backfilled over the principal spillway and hand compacted before crossing it with construction equipment.

5. Emergency Spillway: **The emergency spillway shall be installed in undisturbed ground.** The achievement of planned elevations, grades, design width, entrance and exit channel slopes are critical to the successful operation of the emergency spillway and must be constructed within a tolerance of ± 0.2 feet.

6. Vegetative Treatment: Stabilize the embankment in accordance with the appropriate vegetative Standard and Specifications immediately following construction. In no case shall the embankment remain unstabilized for more than seven (7) days. Once constructed, the top and outside face of the embankment shall be stabilized with seed and mulch. The remainder of the interior slopes should be stabilized (one time) with seed and mulch upon basin completion and monitored and maintained erosion free during the life of the basin.

7. **Safety: Local requirement concerning fencing and signs shall be met, warning the public of hazards of soft sediment and floodwater.**

8. Maintenance: Repair all damage caused by soil erosion and construction equipment at or before the end of each working day. Sediment shall be removed from the basin when it reaches the specified distance below the top of the riser as shown on the riser. This sediment shall be placed in such a manner that it will not erode from the site. The sediment shall not be deposited downstream from the embankment, adjacent to a stream or floodplain. Disposal areas must be stabilized.

9. Final Disposal: When temporary structures have served their intended purpose and the contributing drainage area has been properly stabilized, the embankment and resulting sediment deposits are to be leveled or otherwise disposed of in accordance with the approved sediment control plan. The proposed use of a sediment basin site will often dictate final disposition of the basin and any sediment contained therein. If the site is scheduled for future construction, then the basin material and trapped sediments must be removed and safely disposed of and the basin shall be backfilled with a structural fill. When the basin area is to remain open space, the pond may be pumped dry (using Dewatering methods), graded, and back filled.

10. Conversion to Stormwater Management Structure: After permanent stabilization of all disturbed contributory drainage areas, temporary sediment basins, if initially built and certified to meet permanent standards, may be converted to permanent stormwater management structures. To convert the basin from temporary to permanent use, the outlet structure must be modified in accordance with approved stormwater management design plans. Additional grading may also be necessary to provide the required storage volume in the basin. **Conversion can only take place after all disturbed areas have been permanently stabilized to the satisfaction of the inspection authority and storm drains have been flushed.**

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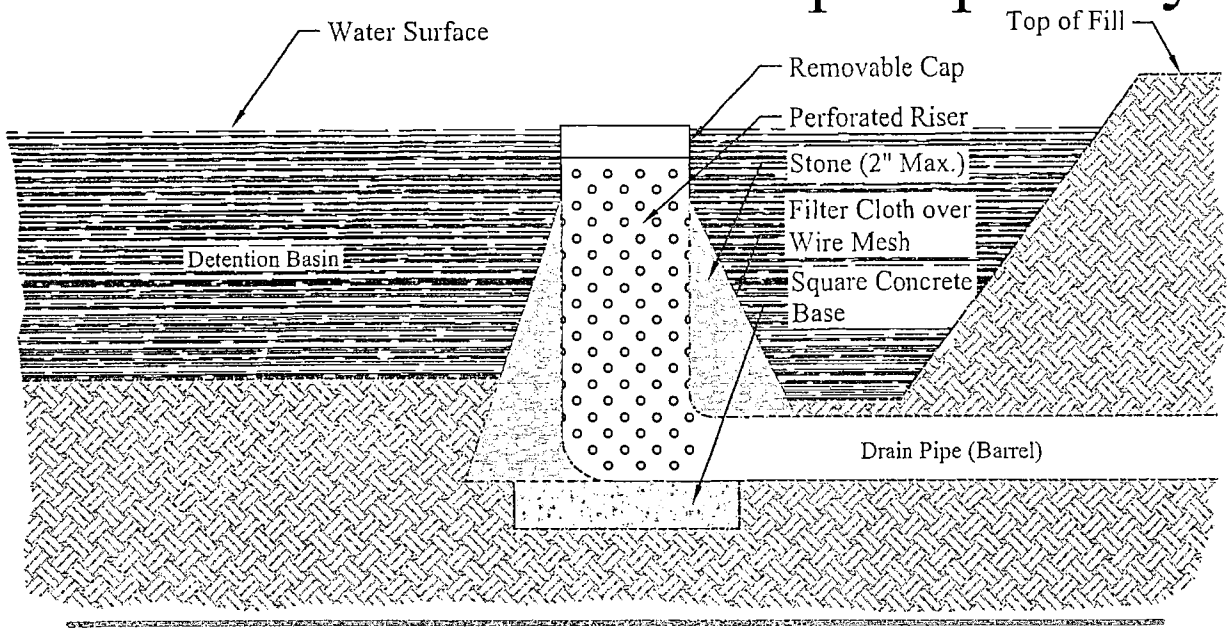
Sediment Basin with Pipe Spillway



Definition

A temporary barrier or dam constructed across a drainage way to intercept sediment laden runoff. Excavation to build may be used to achieve the required storage.

Purpose

The purpose of a sediment basin is to protect downstream properties and drainage ways by trapping sediment and controlling the release of storm water runoff.

Wet and Dry Storage

The minimum storage volume requirement for sediment basins in 3600 cubic feet per acre of contributory drainage area. The basin storage volume of 3600 cubic feet per acre shall be divided equally into "dry" or dewatered storage and "wet" or retention storage. Basins shall be dewatered to the wet pool elevation corresponding to 1800 cubic feet of storage per acre of drainage area.

Conditions where the Practice Applies

A sediment basin is required to control runoff and sediment from large areas where sediment traps are not appropriate. Detention ponds may be used as sediment basins provided that they meet the requirements of and the construction sequence addresses converting the sediment basin to a permanent storm water detention pond.

Conditions of Use

This standard applies to the installation of temporary sediment basins on sites where: (A.) failure of the structure would not result in the loss of life, damage to homes or buildings, or interruption of use or service of public roads or utilities; (B.) the drainage area does not exceed 100 acres; (C.) the maximum embankment height does not exceed 15 feet measured from the natural ground to the embankment top along the centerline of the embankment; (D.) the basin is to be removed within 36 months after the beginning of construction of the basin. Where these criteria cannot be met, the structure shall be designed to conform with the U.S.D.A., Natural Resource Conservation Service, formerly Soil Conservation Service standard for farm ponds (378).

Design Criteria

Design and construction shall comply with the state and local safety laws, ordinances, rules, and regulations. Contact Paradigm Engineering for detailed design assistance.

SEDIMENT BASIN WITH PIPE SPILLWAY

Construction Specifications

1. The total area of the perforations must be greater than 2 times the area of the internal orifice.

2. The perforated portion of the draw-down devise shall be wrapped with 0.5" hardware cloth and geotextile fabric. The geotextile fabric shall meet the specifications for Geotextile Class E.

3. Provide support of draw-down device to prevent sagging and floatation. An acceptable preventative measure is to stake both sides of draw-down device with 1" steel angle, or 1' by 4" square or 2" round wooden posts set 3' minimum into the ground then joining them to the device by wrapping with 12 gauge minimum wire.

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PRODUCT DATA SHEET
AEC PREMIER COCONUT™ FIBRENET™

DESCRIPTION

AEC Premier Coconut FibreNet erosion control blanket (ECB) consists of coconut fibers. The fibers are evenly distributed throughout the entire area of the blanket. The top and bottom of each blanket is covered with 100% biodegradable jute netting. The product is 100% biodegradable when biodegradable thread is ordered. AEC Premier Coconut FibreNet shall be manufactured in the U.S.A.

AEC Premier Coconut FibreNet has a design soil loss ratio (event-based RUSLE C factor) of .05 and is typically suitable for slopes up to 1H:1V. AEC Premier Coconut is rated for channel flows up to 9.0 ft/s (2.7 m/s) and 2.25 lb/ft^2 (108 Pa) shear stress.

PHYSICAL PROPERTIES

AEC Premier Coconut FibreNet measurements at time of manufacturing:

Width	8.0 ft (2.4 m)
Length	112.5 ft (34.3 m)
Area	100.0 yd^2 (83.6 m^2)
Weight[a]	50.0 lb (22.7 kg)
Mass per Unit Area (± 10%)	0.50 lb/yd^2 (0.27 kg/m^2)
Net Openings	≈ 0.5 in x 1.0 in (12.7 mm x 25.4 mm)

TYPICAL INDEX VALUES

Index Property	Test Method	Value
Thickness	ASTM D 6525	0.294 in (7.47 mm)
Light Penetration	ASTM D 6567	19.4%
Mass per Unit Area	ASTM D 6475	0.57 lb/yd^2 (0.307 kg/m^2)
MD-Tensile Strength Max.	ASTM D 6818	356.4 lb/ft (5.20 kN/m)
TD-Tensile Strength Max.	ASTM D 6818	169.2 lb/ft (2.47 kN/m)
MD-Elongation	ASTM D 6818	3.2%
TD-Elongation	ASTM D 6818	4.3%
Water Absorption	ASTM D 1117/ECTC	334%
Bench-Scale Rain Splash	ECTC Method 2	SLR = 12.61 @ 2 in/hr [b,c]
Bench-Scale Rain Splash	ECTC Method 2	SLR = 17.95 @ 4 in/hr [b,c]
Bench-Scale Rain Splash	ECTC Method 2	SLR = 25.55 @ 6 in/hr [b,c]
Bench-Scale Shear	ECTC Method 3	2.56 lb/ft^2 @ 0.5 in soil loss [c]
Germination Improvement	ECTC Method 4	496%

[a] Weight is based on a dry fiber weight basis at time of manufacture. Baseline moisture content of AEC Premier Coconut fibers is 20%.

[b] SLR is the Soil Loss Ratio, as reported by NTPEP/AASHTO. [b] Bench-scale index values should not be used for design purposes.

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DUST CONTROL

Definition
Controlling dust blowing and movement on construction sites and roads.

Purpose
To prevent blowing and movement of dust from exposed soil surfaces, reduce on and off-site damage, health hazards, and improve traffic safety.

Conditions Where Practice Applies
This practice is applicable to areas subject to dust blowing and movement where on and off-site damage is likely without treatment.

Specifications
Temporary Methods

Vegetative Cover – See standards for temporary vegetative cover.

Tillage – To roughen surface and bring clods to the surface. This is an emergency measure, which should be used before soil blowing starts. Begin plowing on windward side of site. Chisel-type plows spaced about 12" apart, spring-toothed harrows, and similar plows are examples of equipment, which may produce the desired effect.

Irrigation – This is generally done as an emergency treatment. Site is sprinkled with water until the surface is moist. Repeat as needed. At no time should the site be irrigated to the point that runoff begins to flow.

Barriers – Solid board fences, silt fences, snow fences, burlap fences, straw bales, and similar material can be used to control air currents and soils blowing. Barriers placed at right angles to prevailing currents at intervals of about 10 times their height are effective in controlling soil blowing.

Permanent Methods

1. Permanent Vegetation – See standards for permanent vegetative cover and permanent stabilization with sod. Existing trees or large shrubs may afford valuable protection if left in place.

2. Topsoiling – Covering with less erosive soil materials. See standards for topsoiling.

3. Stone – Cover surface with crushed stone or coarse gravel.

References

1. Agriculture Handbook 346. Wind Erosion Forces in the United States and Their Use in Predicting Soil Loss.

2. Agriculture Information Bulletin 354. How to Control Wind Erosion, USDA-ARS.

SOLID WASTE MANAGEMENT

Description

Large volumes of solid waste are often generated at construction sites including; packaging, pallets, wood waste, concrete waste, soil, electrical wiring, cuttings, and a variety of other materials. The solid waste management practice lists techniques to minimize the potential of storm water contamination from solid waste through appropriate storage and disposal practices.

Primary Use

The practices should be a part of all construction practices. By limiting the trash and debris on site, storm water quality is improved along with reduced clean up requirements at the completion of the projects.

Applications

The solid waste management practice for construction sites is based on proper storage and disposal practices by construction workers and supervisors. Key elements of the program are education and modification of improper disposal habits. Cooperation and vigilance is required on the part of supervisors and workers to ensure that the recommendations and procedures are followed. Following are lists describing the targeted materials and recommended procedures:

Targeted Solid Waste Materials

- Paper and cardboard containers
- Plastic packaging
- Styrofoam packing and forms
- Insulation materials (non-hazardous)
- Wood pallets
- Wood cuttings
- Pipe and electrical cuttings
- Concrete, brick, and mortar waste
- Shingle cuttings and waste
- Roofing tar
- Steel (cuttings, nails, rust residue)
- Gypsum board cuttings and waste
- Sheathing cuttings and waste
- Miscellaneous cutting and waste
- Food waste
- Demolition waste

Storage Procedures

- Wherever possible, minimize production of solid waste materials.
- Designate a foreman or supervisor to oversee and enforce proper solid waste procedures.
- Instruct construction workers in proper waste procedures.
- Segregate potentially hazardous waste from non-hazardous construction site debris.
- Keep solid waste materials under cover in either a closed dumpster or other enclosed trash container that limits contact with rain and runoff.
- Store waste materials away from drainage ditches, swales and catch basins.
- Do not allow trash containers to overflow.
- Do not allow waste materials to accumulate on the ground.
- Prohibit littering by workers and visitors.

- Police site daily for litter and debris.
- Enforce solid waste handling and storage procedures.

Disposal Procedures

- If feasible, segregate recyclable wastes from non-recyclables waste materials and dispose of properly.
- General construction debris may be hauled to a licensed construction debris landfill (typically less expensive that a sanitary landfill).
- Use waste facilities approved by local jurisdiction.
- Runoff which comes into contact with unprotected waste shall be directed into structural treatment such as silt fence to remove debris.

Education

- Educate all workers on solid waste storage and disposal procedures.
- Instruct workers in identification of solid waste and hazardous waste.
- Having regular meetings to discuss and reinforce disposal procedures (incorporate in regular safety seminars).
- Clearly mark on all solid waste containers which materials are acceptable.

Quality Control

- Foreman and/or construction supervisor shall monitor on-site solid waste storage and disposal procedures.
- Discipline workers who repeatedly violate procedures.

Requirements

- Job-site waste handling and disposal education and awareness program.
- Commitment by management to implement and enforce Solid Waste Management Program.
- Compliance by workers.
- Sufficient and appropriate waste storage containers.
- Timely removal of stored solid waste materials.
- Possible modest cost impact for additional waste storage containers.
- Small cost impact for training and monitoring.
- Minimal overall cost impact.

Limitations

Only addresses non-hazardous solid waste.
One part of a comprehensive construction site management program.

Corrugate Washout

Outpak Corrugate Washout is a Universal, “portable” washout. Good for mixer truck and wheel barrow washout containment. Dispose of after job completion.

Easy Setup

Pump Truck Washout

Outpak’s largest 6’x6’ corrugate washout is specifically designed to accommodate pump trucks. It has a greater capacity (1.33 cu. yds.) and a slightly lower rim to easily fit under the trap door and elbow.

PVC Washout

PVC Washouts are designed for larger volume of containment for pump trucks and mixer trucks.

The high UV resistance of the PVC Washout allows for longer job life and higher tolerance to weather conditions.

Since 1981...

We have been in the concrete construction business since 1981 specializing in foundation and flatwork. In 2008 local inspection agencies began enforcement of the Federal Clean Water Act resulting in the implementation of Best Management Practices (BMP’s) for erosion control and sediment containment. The most significant change was the requirement of an onsite washout prior to footing inspection.

Many contractors and job sites began building lined pits or above ground straw bale containment. This obviously took time, money and focus away from the actual construction work. After analyzing other washout solutions, we saw the need for a universal washout that was easy to procure, store and deploy. One that also would be able to accommodate mixer trucks, pump trucks, wheelbarrows and other equipment.

So at Outpak, Inc., we created Outpak TM Washout Systems to offer a wide variety of concrete washout and other spill containment solutions. Over time contractors saw the ease and convenience of Outpak Washouts and began using them for other construction materials including paint, stucco, drywall mud and mortar. Outpak Washout – A Better Solution for Construction Site Washout.

Distributed By:

Outpak Washout System®
PO Box 190738, Boise, Idaho 83719
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fax: 208-562-8868 email: sales@outpak.com
www.outpak.com

Outpak® Washout

A Better Solution for Construction Site Washout

Outpak Concrete Washout® unit is designed to be a portable solution for harmful industrial concrete sediment, paint, dry wall mud, stucco and mortar. With Outpak Concrete Washouts your job site will be organized, eco-friendly and BMP compliant to avoid costly fines. They are designed for a simple and quick set-up in minutes and can remain for the duration of the project. Outpak Concrete Washout is compatible for both mixer, pump trucks and wheel barrows. Dispose of after evaporation and job completion.

AVOID COSTLY EPA FINES

The maximum fine levied by the Environmental Protection Agency per the Federal Clean Water Act, is $11,000.00 PER DAY, PER PROJECT. A large national retailer recently paid $7 million in fines. Don't be the government's next victim. Prepare for enforcement within the city or county you are working in. Purchase Outpak Washout products and begin cost-effective construction site washout today.

LIMIT YOUR ONSITE LIABILITY

Some construction companies are resorting to "kiddy" pools for their concrete washout needs. Imagine the legal problems you could face if a child ever found his or her way into a pool with a water pH balance equal to Liquid Drano. Can you say, "lawsuit?"

SAVE TIME & MONEY

There is no faster or cost-effective way to manage construction site washout.

Outpak Washouts are:

- Easy to store
- Easy to deploy
- Easy to dispose

DO THE RIGHT THING!

The president and founder is a veteran of the concrete construction business, and he's a native Idahoan. That means he appreciates what Mother Nature has provided. He values being a good steward of the land, by providing affordable and efficient eco-friendly development.

6x6 Outpak Pump Washout holds up to 1.3 cubic yards of concrete and waste water.

Other Outpak Products

Outpak Spill Kits

The Outpak Spill Kit is a universal spill kit good for hydrolic oil, fuel and radiator spills. It is compact and conveniently stores behind or under the seat of your truck.

Contents of 5 gallon kit

Contents of 25 gallon kit

5 and 25 gallon kits

Outpak Plan Bag

The Outpak plan bag protects blueprints from the elements. They are made from a durable 20oz PVC to guarantee a long life of the product. The bag has sleeves for no. 4 rebar to keep them flat in windy conditions. They also have tabs to hang from a wall.

Outpak Plan Bag

Plans slide into protected pocket

plans are completely protected

Outpak Slurry Solution

Outpak Slurry Solution is specifically designed to help you save time, money and labor at your job site.

Our innovative product makes your slurry waste cleanup easy and efficient. Just solidify the slurry waste and throw it away in any standard waste container. The material becomes EPA compliant and landfill ready.

HAZARDOUS WASTE MANAGEMENT

Description

The hazardous waste management BMP addresses the problem of the storm water polluted with hazardous waste through spill or other forms of contact. The objective of the Management Program is to minimize the potential of stormwater contamination from common construction site hazardous wastes through appropriate recognition, handling storage and disposal practices.

It is not the intent of this Management Program to supercede or replace normal site assessment and remediation procedures. Significant spills and/or contamination warrant immediate response by trained professionals. Suspected job-site contamination should be immediately reported to regulatory authorities and protective actions taken. The General Permit requires reporting of significant spills to the National Response Center (NCR) at (800) 424-8802.

Primary Use

These management practices along with applicable OSHA and EPA guidelines should be incorporated at all construction sites, which use or generate hazardous waste. Many wastes such as fuel, oil, grease, fertilizer and pesticide are present at most construction sites.

Installation, Application and Disposal Criteria

The hazardous waste management techniques presented here are based on proper recognition, handling , and disposal practices by construction workers and supervisors. Key elements of the management program are education, proper disposal practices, as well as provisions for safe storage and disposal. Following are lists describing the targeted materials and recommended procedures:

Targeted Hazardous Waste Materials

- Paints
- Solvents
- Stains
- Wood preservatives
- Cutting oils
- Greases
- Roofing tar
- Pesticides
- Fuels & lube oils
- Lead based paints (Demolition)

Storage Procedures

- Wherever possible minimize use of hazardous materials.
- Minimize generation of hazardous wastes on the job-site.
- Segregate potentially hazardous waste from non-hazardous construction site debris.
- Designate a foreman or supervisor to oversee hazardous materials handling procedures.
- Keep liquid or semi-liquid hazardous waste in appropriate containers (closed drums or similar) and under cover.
- Store waste materials away from drainage ditches, swales and catch basins.
- Use containment berms in fueling and maintenance areas and where the potential for spills is high.
- Ensure that adequate hazardous waste storage volume is available.
- Ensure that hazardous waste collection containers are conviently located.
- Do not allow potentially hazardous waste handling and disposal procedures.

- Clearly mark on all hazardous waste containers which materials are acceptable for the container.

Disposal Procedures

- Regularly schedule hazardous waste removal to minimize on-site storage.
- Use reputable, licensed hazardous waste haulers.

Education

- Instruct workers in identification of hazardous waste.
- Educate workers of potential dangers to humans and the environment from hazardous wastes
- Instruct workers on safety procedures for common construction site hazardous wastes
- Educate all workers on hazardous waste storage and disposal procedures.
- Have regular meetings to discuss and reinforce identification, handling aand disposal procedures (incorporate in regular safety seminars).
- Establish a continuing education program to indoctrinate new employees.

Quality Assurance

- Foreman and/or construction supervisor shall monitor on-site hazardous waste storage and disposal procedures.
- Educate and if necessary, discipline workers who violate procedures.
- Ensure that the hazardous waste disposal contractor is reputable and licensed.

Requirements

- Job-site hazardous waste handling and disposal education and awareness program.
- Commitment by management to implement hazardous waste management practices.
- Compliance by workers
- Sufficient and appropriate hazardous waste storage containers.
- Timely removal of stored hazardous waste materials.

Costs

- Possible modest cost impact for additional hazardous storage containers.
- Small cost impact for training and monitoring.
- Potential cost impact for hazardous waste collection and disposal by licensed hauler-actual cost depends on type of material and volume.

Limitations

This practice is not intended to address site-assessments and pre-existing contamination. Major contamination, large spills or other serious hazardous waste incidents require immediate response from specialists. Demolition activities and potential pre-existing materials, such as asbestos, are not addressed by this program. Site specific information on plans is necessary. Contaminated soils are not addressed. One part of a comprehensive construction site waste management program.

TAB 9

National Pollutant Discharge Elimination System
General Permit for Discharges from
Construction Activities

In compliance with the provisions of the Clean Water Act, 33 U.S.C. §1251 et. seq., (hereafter CWA), as amended by the Water Quality Act of 1987, P.L. 100-4, "operators" of construction activities (defined in Appendix A) that meet the requirements of Part 1.1 of this National Pollutant Discharge Elimination System (NPDES) general permit, are authorized to discharge pollutants in accordance with the effluent limitations and conditions set forth herein. Permit coverage is required from the "commencement of construction activities" (see Appendix A) until one of the conditions for terminating CGP coverage has been met (see Part 8.2).

This permit becomes effective on **February 16, 2017**.

This permit and the authorization to discharge expire at 11:59pm, **February 16, 2022.**

Signed and issued this 11th day of January 2017

Deborah Szaro,
Acting Regional Administrator, EPA Region 1

Signed and issued this 11th day of January 2017

William K. Honker, P.E.,
Director, Water Division, EPA Region 6

Signed and issued this 11th day of January 2017

Javier Laureano, Ph.D.,
Director, Clean Water Division, EPA Region 2

Signed and issued this 11th day of January 2017

Karen Flournoy,
Director, Water, Wetlands, and Pesticides Division, EPA Region 7

Signed and issued this 11th day of January 2017

Jose C. Font,
Acting Director, Caribbean Environmental Protection Division, EPA Region 2.

Signed and issued this 11th day of January 2017

Darcy O'Connor,
Assistant Regional Administrator, Office of Water Protection, EPA Region 8

Signed and issued this 11th day of January 2017

Dominique Lueckenhoff,
Acting Director, Water Protection Division, EPA Region 3

Signed and issued this 11th day of January 2017

Kristin Gullatt
Deputy Director, Water Division, EPA Region 9

Signed and issued this 11th day of January 2017

César A. Zapata,
Deputy Director, Water Protection Division, EPA Region 4

Signed and issued this 11th day of January 2017

Daniel D. Opalski,
Director, Office of Water and Watersheds, EPA Region 10

Signed and issued this 11th day of January 2017

Christopher Korleski,
Director, Water Division, EPA Region 5

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1 HOW TO OBTAIN COVERAGE UNDER THE CONSTRUCTION GENERAL PERMIT (CGP)

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

1.1 ELIGIBILITY CONDITIONS

1.1.1 You are an "operator" of a construction site for which discharges will be covered under this permit. For the purposes of this permit and in the context of stormwater discharges associated with construction activity, an "operator" is any party associated with a construction project that meets either of the following two criteria:

a. The party has operational control over construction plans and specifications, including the ability to make modifications to those plans and specifications *(e.g., in most cases this is the owner of the site);* or

b. The party 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; in most cases this is the general contractor (as defined in Appendix A) of the project).*

Where there are multiple operators associated with the same project, all operators must obtain permit coverage.[1] Subcontractors generally are not considered operators for the purposes of this permit.

1.1.2 Your site's construction activities:

a. Will disturb one or more acres of land, or will disturb less than one acre of land but are part of a common plan of development or sale that will ultimately disturb one or more acres of land; or

b. Have been designated by EPA as needing permit coverage under 40 CFR 122.26(a)(1)(v) or 40 CFR 122.26(b)(15)(ii);

1.1.3 Your site is located in an area where EPA is the permitting authority (see Appendix B);

1.1.4 Discharges from your site are not:

a. Already covered by a different NPDES permit for the same discharge; or

b. In the process of having coverage under a different NPDES permit for the same discharge denied, terminated, or revoked.[2,3]

1.1.5 You are able to demonstrate that you meet one of the criteria listed in Appendix D with respect to the protection of species that are federally listed as endangered or threatened under the Endangered Species Act (ESA) and federally designated critical habitat;

---

[1] If the operator of a "construction support activity" (see Part 1.2.1c) is different than the operator of the main site, that operator must also obtain permit coverage. See Part 7.1 for clarification on the sharing of liability between and among operators on the same site and for conditions that apply to developing a SWPPP for multiple operators associated with the same site.

[2] Parts 1.1.4a and 1.1.4b do not include sites currently covered under the 2012 CGP that are in the process of obtaining coverage under this permit, nor sites covered under this permit that are transferring coverage to a different operator.

[3] Notwithstanding a site being made ineligible for coverage under this permit because it falls under the description of Parts 1.1.4a or 1.1.4b, above, EPA may waive the applicable eligibility requirement after specific review if it determines that coverage under this permit is appropriate.

1.1.6 You have completed the screening process in Appendix E relating to the protection of historic properties; and

1.1.7 You have complied with all requirements in Part 9 imposed by the applicable state, Indian tribe, or territory in which your construction activities and/or discharge will occur.

1.1.8 For "new sources" (as defined in Appendix A) only:

a. EPA has not, prior to authorization under this permit, determined that discharges from your site will cause, have the reasonable potential to cause, or contribute to an excursion above any applicable water quality standard. Where such a determination is made prior to authorization, EPA may notify you that an individual permit application is necessary. However, EPA may authorize your coverage under this permit after you have included appropriate controls and implementation procedures designed to bring your discharge into compliance with this permit, specifically the requirement to meet water quality standards. In the absence of information demonstrating otherwise, EPA expects that compliance with the requirements of this permit, including the requirements applicable to such discharges in Part 3, 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.

b. Discharges from your site to a Tier 2, Tier 2.5, or Tier 3 water[4] will not lower the water quality of the applicable water. In the absence of information demonstrating otherwise, EPA expects that compliance with the requirements of this permit, including the requirements applicable to such discharges in Part 3.2, will result in discharges that will not lower the water quality of such waters.

1.1.9 If you plan to add "cationic treatment chemicals" (as defined in Appendix A) to stormwater and/or authorized non-stormwater prior to discharge, you may not submit your Notice of Intent (NOI) unless and until you notify your applicable EPA Regional Office (see Appendix L) in advance and the EPA Regional Office authorizes coverage under this permit after you have included appropriate controls and implementation procedures designed to ensure that your use of cationic treatment chemicals will not lead to discharges that cause an exceedance of water quality standards.

1.2 TYPES OF DISCHARGES AUTHORIZED[5]

1.2.1 The following stormwater discharges are authorized under this permit provided that appropriate stormwater controls are designed, installed, and maintained (see Parts 2 and 3):

a. Stormwater discharges, including stormwater runoff, snowmelt runoff, and surface runoff and drainage, associated with construction activity under 40 CFR 122.26(b)(14) or 122.26(b)(15)(i);

[4] Note: Your site will be considered to discharge to a Tier 2, Tier 2.5, or Tier 3 water if the first water to which you discharge is identified by a state, tribe, or EPA as a Tier 2, Tier 2.5, or Tier 3 water. For discharges that enter a storm sewer system prior to discharge, the first water of the U.S. to which you discharge is the waterbody that receives the stormwater discharge from the storm sewer system. See list of Tier 2, Tier 2.5, and Tier 3 waters in Appendix F.

[5] See "Discharge" as defined in Appendix A. Note: Any discharges not expressly authorized in this permit cannot become authorized or shielded from liability under CWA section 402(k) by disclosure to EPA, state, or local authorities after issuance of this permit via any means, including the Notice of Intent (NOI) to be covered by the permit, the SWPPP, or during an inspection.

b. Stormwater discharges designated by EPA as needing a permit under 40 CFR 122.26(a)(1)(v) or 122.26(b)(15)(ii);

c. Stormwater 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 that:

   i. The support activity is directly related to the construction site required to have permit coverage for stormwater discharges;

   ii. The support activity is not a commercial operation, nor does it serve multiple unrelated construction sites;

   iii. The support activity does not continue to operate beyond the completion of the construction activity at the site it supports; and

   iv. Stormwater controls are implemented in accordance with Part 2 and Part 3 for discharges from the support activity areas.

d. Stormwater discharges from earth-disturbing activities associated with the construction of staging areas and the construction of access roads conducted prior to active mining.

1.2.2 The following non-stormwater discharges associated with your construction activity are authorized under this permit provided that, with the exception of water used to control dust and to irrigate vegetation in stabilized areas, these discharges are not routed to areas of exposed soil on your site and you comply with any applicable requirements for these discharges in Parts 2 and 3:

a. Discharges from emergency fire-fighting activities;

b. Fire hydrant flushings;

c. 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. External building washdown, provided soaps, solvents, and detergents are not used, and external surfaces do not contain hazardous substances (as defined in Appendix A) *(e.g., paint or caulk containing polychlorinated biphenyls (PCBs));*

h. Pavement wash waters, provided spills or leaks of toxic or hazardous substances have not occurred (unless all spill material has been removed) and where soaps, solvents, and detergents are not used. You are prohibited from directing pavement wash waters directly into any water of the U.S., storm drain inlet, or stormwater conveyance, unless the conveyance is connected to a sediment basin, sediment trap, or similarly effective control;

i. Uncontaminated air conditioning or compressor condensate;

j. Uncontaminated, non-turbid discharges of ground water or spring water;

k. Foundation or footing drains where flows are not contaminated with process materials such as solvents or contaminated ground water; and

l. Construction dewatering water discharged in accordance with Part 2.4.

1.2.3 Also authorized under this permit are discharges of stormwater listed above in Part 1.2.1, or authorized non-stormwater discharges listed above in Part 1.2.2, commingled with a discharge authorized by a different NPDES permit and/or a discharge that does not require NPDES permit authorization.

1.3 PROHIBITED DISCHARGES[6]

1.3.1 Wastewater from washout of concrete, unless managed by an appropriate control as described in Part 2.3.4;

1.3.2 Wastewater from washout and cleanout of stucco, paint, form release oils, curing compounds, and other construction materials;

1.3.3 Fuels, oils, or other pollutants used in vehicle and equipment operation and maintenance;

1.3.4 Soaps, solvents, or detergents used in vehicle and equipment washing or external building washdown; and

1.3.5 Toxic or hazardous substances from a spill or other release.

To prevent the above-listed prohibited non-stormwater discharges, operators must comply with the applicable pollution prevention requirements in Part 2.3.

1.4 SUBMITTING YOUR NOTICE OF INTENT (NOI)

All "operators" (as defined in Appendix A) associated with your construction site, who meet the Part 1.1 eligibility requirements, and who seek coverage under this permit, must submit to EPA a complete and accurate NOI in accordance with the deadlines in **Table 1** prior to commencing construction activities.

Exception: If you are conducting construction activities in response to a public emergency *(e.g., mud slides, earthquake, extreme flooding conditions, 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, you may discharge on the condition that a complete and accurate NOI is submitted within 30 calendar days after commencing construction activities (see Table 1) establishing that you are eligible for coverage under this permit. You must also provide documentation in your Stormwater Pollution Prevention Plan (SWPPP) to substantiate the occurrence of the public emergency.

1.4.1 Prerequisite for Submitting Your NOI

You must develop a SWPPP consistent with Part 7 before submitting your NOI for coverage under this permit.

1.4.2 How to Submit Your NOI

You must use EPA's NPDES eReporting Tool (NeT) to electronically prepare and submit your NOI for coverage under the 2017 CGP, unless you received a waiver from your EPA Regional Office.

To access NeT, go to https://www.epa.gov/npdes/stormwater-discharges-construction-activities#ereporting.

[6] EPA includes these prohibited non-stormwater discharges here as a reminder to the operator that the only non-stormwater discharges authorized by this permit are at Part 1.2.2. Any unauthorized non-stormwater discharges must be covered under an individual permit or alternative general permit.

Waivers from electronic reporting may be granted based on one of the following conditions:

a. If your operational headquarters is physically located in a geographic area (*i.e., ZIP code or census tract*) that is identified as under-served for broadband Internet access in the most recent report from the Federal Communications Commission; or

b. If you have limitations regarding available computer access or computer capability.

If the EPA Regional Office grants you approval to use a paper NOI, and you elect to use it, you must complete the form in Appendix J.

1.4.3 Deadlines for Submitting Your NOI and Your Official Date of Permit Coverage

Table 1 provides the deadlines for submitting your NOI and the official start date of your permit coverage, which differ depending on when you commence construction activities.

Table 1 NOI Submittal Deadlines and Official Start Date for Permit Coverage.

Type of Operator	NOI Submittal Deadline[7]	Permit Authorization Date[8]
Operator of a new site (*i.e., a site where construction activities commence on or after February 16, 2017*)	At least 14 calendar days before commencing construction activities.	14 calendar days after EPA notifies you that it has received a complete NOI, unless EPA notifies you that your authorization is delayed or denied.
Operator of an existing site *(i.e., a site with 2012 CGP coverage where construction activities commenced prior to February 16, 2017*)	No later than **May 17, 2017**.	
New operator of a permitted site (*i.e., an operator that through transfer of ownership and/or operation replaces the operator of an already permitted construction site that is either a "new site" or an "existing site"*)	At least 14 calendar days before the date the transfer to the new operator will take place.	
Operator of an "emergency-related project" (*i.e., a project initiated in response to a public emergency (e.g., mud slides, earthquake, extreme flooding conditions, 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*)	No later than 30 calendar days after commencing construction activities.	You are considered provisionally covered under the terms and conditions of this permit immediately, and fully covered 14 calendar days after EPA notifies you that it has received a complete NOI, unless EPA notifies you that your authorization is delayed or denied.

[7] If you miss the deadline to submit your NOI, any and all discharges from your construction activities will continue to be unauthorized under the CWA until they are covered by this or a different NPDES permit. EPA may take enforcement action for any unpermitted discharges that occur between the commencement of construction activities and discharge authorization.

[8] Discharges are not authorized if your NOI is incomplete or inaccurate or if you are not eligible for permit coverage.

1.4.4 Modifying your NOI

If after submitting your NOI you need to correct or update any fields, you may do so by submitting a "Change NOI" form using NeT. Waivers from electronic reporting may be granted as specified in Part 1.4.1. If the EPA Regional Office has granted you approval to submit a paper NOI modification, you may indicate any NOI changes on the same NOI form in Appendix J.

When there is a change to the site's operator, the new operator must submit a new NOI, and the previous operator must submit a Notice of Termination (NOT) form as specified in Part 8.3.

1.4.5 Your Official End Date of Permit Coverage

Once covered under this permit, your coverage will last until the date that:

a. You terminate permit coverage consistent with Part 8; or

b. You receive permit coverage under a different NPDES permit or a reissued or replacement version of this permit after expiring on February 16, 2022; or

c. You fail to submit an NOI for coverage under a revised or replacement version of this permit before the deadline for existing construction sites where construction activities continue after this permit has expired.

1.5 REQUIREMENT TO POST A NOTICE OF YOUR PERMIT COVERAGE

You must post a sign or other notice of your permit coverage at a safe, publicly accessible location in close proximity to the construction site. The notice must be located so that it is visible from the public road 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.[9] At a minimum, the notice must include:

a. The NPDES ID (*i.e., permit tracking number assigned to your NOI*);

b. A contact name and phone number for obtaining additional construction site information;

c. The Uniform Resource Locator (URL) for the SWPPP (if available), or the following statement: "If you would like to obtain a copy of the Stormwater Pollution Prevention Plan (SWPPP) for this site, contact the EPA Regional Office at [*include the appropriate CGP Regional Office contact information found at https://www.epa.gov/npdes/contact-us-stormwater#regional*];" and

d. The following statement "If you observe indicators of stormwater pollutants in the discharge or in the receiving waterbody, contact the EPA through the following website: https://www.epa.gov/enforcement/report-environmental-violations."

[9] If the active part of the construction site is not visible from a public road, then place the notice of permit coverage in a position that is visible from the nearest public road and as close as possible to the construction site.

2 TECHNOLOGY-BASED EFFLUENT LIMITATIONS

You must comply with the following technology-based effluent limitations in this Part for all authorized discharges.[10]

2.1 GENERAL STORMWATER CONTROL DESIGN, INSTALLATION, AND MAINTENANCE REQUIREMENTS

You must design, install, and maintain stormwater controls required in Parts 2.2 and 2.3 to minimize the discharge of pollutants in stormwater from construction activities. To meet this requirement, you must:

2.1.1 Account for the following factors in designing your stormwater controls:

a. The expected amount, frequency, intensity, and duration of precipitation;

b. The nature of stormwater runoff and run-on at the site, including factors such as expected flow from impervious surfaces, slopes, and site drainage features. You must design stormwater controls to control stormwater volume, velocity, and peak flow rates to minimize discharges of pollutants in stormwater and to minimize channel and streambank erosion and scour in the immediate vicinity of discharge points; and

c. The soil type and range of soil particle sizes expected to be present on the site.

2.1.2 Design and install all stormwater controls in accordance with good engineering practices, including applicable design specifications.[11]

2.1.3 Complete installation of stormwater controls by the time each phase of construction activities has begun.

a. By the time construction activity in any given portion of the site begins, install and make operational any downgradient sediment controls (*e.g., buffers, perimeter controls, exit point controls, storm drain inlet protection*) that control discharges from the initial site clearing, grading, excavating, and other earth-disturbing activities.[12]

b. Following the installation of these initial controls, install and make operational all stormwater controls needed to control discharges prior to subsequent earth-disturbing activities.

[10] For each of the effluent limits in Part 2, as applicable to your site, you must include in your SWPPP (1) a description of the specific control(s) to be implemented to meet the effluent limit; (2) any applicable design specifications; (3) routine maintenance specifications; and (4) the projected schedule for its (their) installation/implementation. See Part 7.2.6.

[11] 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 practices and must be explained in your SWPPP. You must also comply with any additional design and installation requirements specified for the effluent limits in Parts 2.2 and 2.3.

[12] Note that the requirement to install stormwater controls prior to each phase of construction activities for the site does not apply to the earth disturbance associated with the actual installation of these controls. Operators should take all reasonable actions to minimize the discharges of pollutants during the installation of stormwater controls.

2.1.4 Ensure that all stormwater controls are maintained and remain in effective operating condition during permit coverage and are protected from activities that would reduce their effectiveness.

a. Comply with any specific maintenance requirements for the stormwater controls listed in this permit, as well as any recommended by the manufacturer.[13]

b. If at any time you find that a stormwater control needs routine maintenance, you must immediately initiate the needed maintenance work, and complete such work by the close of the next business day.

c. If at any time you find that a stormwater control needs repair or replacement, you must comply with the corrective action requirements in Part 5.

2.2 EROSION AND SEDIMENT CONTROL REQUIREMENTS

You must implement erosion and sediment controls in accordance with the following requirements to minimize the discharge of pollutants in stormwater from construction activities.

2.2.1 Provide and maintain natural buffers and/or equivalent erosion and sediment controls when a water of the U.S. is located within 50 feet of the site's earth disturbances.

a. **Compliance Alternatives.** For any discharges to waters of the U.S. located within 50 feet of your site's earth disturbances, you must comply with one of the following alternatives:

i. Provide and maintain a 50-foot undisturbed natural buffer; or

ii. Provide and maintain an undisturbed natural buffer that is less than 50 feet and is supplemented by erosion and sediment controls that achieve, in combination, the sediment load reduction equivalent to a 50-foot undisturbed natural buffer; or

iii. If infeasible to provide and maintain an undisturbed natural buffer of any size, implement erosion and sediment controls to achieve the sediment load reduction equivalent to a 50-foot undisturbed natural buffer.

See Appendix G, Part G.2 for additional conditions applicable to each compliance alternative.

b. **Exceptions.** See Appendix G, Part G.2 for exceptions to the compliance alternatives.

2.2.2 Direct stormwater to vegetated areas and maximize stormwater infiltration and filtering to reduce pollutant discharges, unless infeasible.

2.2.3 Install sediment controls along any perimeter areas of the site that will receive pollutant discharges.[14]

a. Remove sediment before it has accumulated to one-half of the above-ground height of any perimeter control.

b. **Exception**. For areas at "linear construction sites" (as defined in Appendix A) where perimeter controls are infeasible *(e.g., due to a limited or restricted right-of-way),*

[13] Any departures from such maintenance recommendations made by the manufacturer must reflect good engineering practices and must be explained in your SWPPP.

[14] Examples of perimeter controls include filter berms, silt fences, vegetative strips, and temporary diversion dikes.

implement other practices as necessary to minimize pollutant discharges to perimeter areas of the site.

2.2.4 Minimize sediment track-out.

a. **Restrict vehicle use to properly designated exit points;**

b. Use appropriate stabilization techniques[15] at all points that exit onto paved roads.

   i. **Exception**: Stabilization is not required for exit points at linear utility construction sites that are used only episodically and for very short durations over the life of the project, provided other exit point controls[16] are implemented to minimize sediment track-out;

c. Implement additional track-out controls[17] as necessary to ensure that sediment removal occurs prior to vehicle exit; and

d. Where sediment has been tracked-out from your site onto paved roads, sidewalks, or other paved areas outside of your site, remove the deposited sediment by the end of the same business day in which the track-out occurs or by the end of the next business day if track-out occurs on a non-business day. 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 stormwater conveyance, storm drain inlet, or water of the U.S.[18]

2.2.5 Manage stockpiles or land clearing debris piles composed, in whole or in part, of sediment and/or soil:

a. Locate the piles outside of any natural buffers established under Part 2.2.1 and away from any stormwater conveyances, drain inlets, and areas where stormwater flow is concentrated;

b. Install a sediment barrier along all downgradient perimeter areas;[19]

c. For piles that will be unused for 14 or more days, provide cover[20] or appropriate temporary stabilization (consistent with Part 2.2.14);

d. You are prohibited from hosing down or sweeping soil or sediment accumulated on pavement or other impervious surfaces into any stormwater conveyance, storm drain inlet, or water of the U.S.

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

[16] Examples of other exit point controls include preventing the use of exit points during wet periods; minimizing exit point use by keeping vehicles on site to the extent possible; limiting exit point size to the width needed for vehicle and equipment usage; using scarifying and compaction techniques on the soil; and avoiding establishing exit points in environmentally sensitive areas (*e.g., karst areas; steep slopes).*

[17] Examples of additional track-out controls include the use of wheel washing, rumble strips, and rattle plates.

[18] Fine grains that remain visible *(i.e., staining)* on the surfaces of off-site streets, other paved areas, and sidewalks after you have implemented sediment removal practices are not a violation of Part 2.2.4.

[19] Examples of sediment barriers include berms, dikes, fiber rolls, silt fences, sandbags, gravel bags, or straw bale.

[20] Examples of cover include tarps, blown straw and hydroseeding.

2.2.6 Minimize dust. On areas of exposed soil, minimize the generation of dust through the appropriate application of water or other dust suppression techniques.

2.2.7 Minimize steep slope disturbances. Minimize the disturbance of "steep slopes" (as defined in Appendix A).

2.2.8 Preserve native topsoil, unless infeasible.[21]

2.2.9 Minimize soil compaction.[22] In areas of your site where final vegetative stabilization will occur or where infiltration practices will be installed:

a. Restrict vehicle and equipment use in these locations to avoid soil compaction; and

b. Before seeding or planting areas of exposed soil that have been compacted, use techniques that rehabilitate and condition the soils as necessary to support vegetative growth.

2.2.10 Protect storm drain inlets.

a. Install inlet protection measures that remove sediment from discharges prior to entry into any storm drain inlet that carries stormwater flow from your site to a water of the U.S., provided you have authority to access the storm drain inlet;[23] and

b. Clean, or remove and replace, the protection measures as sediment accumulates, the filter becomes clogged, and/or performance is compromised. Where there is evidence of sediment accumulation adjacent to the inlet protection measure, remove the deposited sediment by the end of the same business day in which it is found or by the end of the following business day if removal by the same business day is not feasible.

2.2.11 Minimize erosion of stormwater conveyance channels and their embankments, outlets, adjacent streambanks, slopes, and downstream waters. Use erosion controls and velocity dissipation devices[24] within and along the length of any stormwater conveyance channel and at any outlet to slow down runoff to minimize erosion.

2.2.12 If you install a sediment basin or similar impoundment:

a. Situate the basin or impoundment outside of any water of the U.S. and any natural buffers established under Part 2.2.1;

b. Design the basin or impoundment to avoid collecting water from wetlands;

c. Design the basin or impoundment to provide storage for either:

[21] Stockpiling topsoil at off-site locations, or transferring topsoil to other locations, is an example of a practice that is consistent with the requirements in Part 2.2.8. Preserving native topsoil is not required where the intended function of a specific area of the site dictates that the topsoil be disturbed or removed. For example, some sites may be designed to be highly impervious after construction, and therefore little or no vegetation is intended to remain, or may not have space to stockpile native topsoil on site for later use, in which case, it may not be feasible to preserve topsoil.

[22] Minimizing soil compaction is not required where the intended function of a specific area of the site dictates that it be compacted.

[23] Inlet protection measures can be removed in the event of flood conditions or to prevent erosion.

[24] Examples of velocity dissipation devices include check dams, sediment traps, riprap, and grouted riprap at outlets.

ii. The calculated volume of runoff from a 2-year, 24-hour storm (see Appendix H); or

iii. 3,600 cubic feet per acre drained.

d. Utilize outlet structures that withdraw water from the surface of the sediment basin or similar impoundment, unless infeasible;[25]

e. Use erosion controls and velocity dissipation devices to prevent erosion at inlets and outlets; and

f. Remove accumulated sediment to maintain at least one-half of the design capacity and conduct all other appropriate maintenance to ensure the basin or impoundment remains in effective operating condition.

2.2.13 If using treatment chemicals (*e.g., polymers, flocculants, coagulants*):

a. **Use conventional erosion and sediment controls before and after the application of treatment chemicals.** Chemicals may only be applied where treated stormwater is directed to a sediment control *(e.g., sediment basin, perimeter control)* before discharge.

b. **Select appropriate treatment chemicals***.* Chemicals must be appropriately suited to the types of soils likely to be exposed during construction and present in the discharges being treated *(i.e., the expected turbidity, pH, and flow rate of stormwater flowing into the chemical treatment system or area).*

c. **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 stormwater or by any other means *(e.g., storing chemicals in a covered area, having a spill kit available on site and ensuring personnel are available to respond expeditiously in the event of a leak or spill)*.

d. **Comply with state/local requirements.** Comply with applicable state and local requirements regarding the use of treatment chemicals.

e. **Use chemicals in accordance with good engineering practices and specifications of the chemical provider/supplier.** 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 in your SWPPP specific departures from these specifications and how they reflect good engineering practice.

f. **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.

g. **Perform additional measures specified by the EPA Regional Office for the authorized use of cationic chemicals.** If you have been authorized to use cationic chemicals at your site pursuant to Part 1.1.9, you must perform all additional measures as

[25] 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 using surface outlets may not be feasible during certain time periods (although they must be used during other periods). If you determine that it is infeasible to meet this requirement, you must provide documentation in your SWPPP to support your determination, including the specific conditions or time periods when this exception will apply.

conditioned by your authorization to ensure that the use of such chemicals will not cause an exceedance of water quality standards.

2.2.14 Stabilize exposed portions of the site. Implement and maintain stabilization measures (e.g., seeding protected by erosion controls until vegetation is established, sodding, mulching, erosion control blankets, hydromulch, gravel) that minimize erosion from exposed portions of the site in accordance with Parts 2.2.14a and 2.2.14b.

a. **Stabilization Deadlines:**[26]

Total Amount of Land Disturbance Occurring At Any One Time[27]	**Deadline**
i. **Five acres or less (≤5.0)** **Note: this includes sites disturbing more than five acres (>5.0) total over the course of a project, but that limit disturbance at any one time *(i.e., phase the disturbance)* to five acres or less (≤5.0)**	• Initiate the installation of stabilization measures immediately[28] in any areas of exposed soil where construction activities have permanently ceased or will be temporarily inactive for 14 or more calendar days;[29] and • Complete the installation of stabilization measures as soon as practicable, but no later than 14 calendar days after stabilization has been initiated.[30]

[26] EPA may determine, based on an inspection carried out under Part 4.8 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 stormwater controls, EPA may require stabilization to correct this problem.

[27] Limiting disturbances to five (5) acres or less at any one time means that at no time during the project do the cumulative earth disturbances exceed five (5) acres. The following examples would qualify as limiting disturbances at any one time to five (5) acres or less:

1. The total area of disturbance for a project is five (5) acres or less.
2. The total area of disturbance for a project will exceed five (5) acres, but the operator ensures that no more than five (5) acres will be disturbed at any one time through implementation of stabilization measures. In this way, site stabilization can be used to "free up" land that can be disturbed without exceeding the five (5)-acre cap to qualify for the 14-day stabilization deadline. For instance, if an operator completes stabilization of two (2) acres of land on a five (5)-acre disturbance, then two (2) additional acres could be disturbed while still qualifying for the longer 14-day stabilization deadline.

[28] The following are examples of activities that would constitute the immediate initiation of stabilization:

1. Prepping the soil for vegetative or non-vegetative stabilization as long as seeding, planting, and/or installation of non-vegetative stabilization products takes place as soon as practicable, but no later than one (1) calendar day of completing soil preparation;
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 – 3 on a portion of the entire area that will be stabilized; and
5. Finalizing arrangements to have stabilization product fully installed in compliance with the deadlines for completing stabilization.

[29] The requirement to initiate stabilization immediately is triggered as soon as you know that construction work on a portion of the site is temporarily ceased and will not resume for 14 or more days, or as soon as you know that construction work is permanently ceased. In the context of this provision, "immediately" means as soon as practicable, but no later than the end of the next business day, following the day when the construction activities have temporarily or permanently ceased.

[30] If vegetative stabilization measures are being implemented, stabilization is considered "installed" when all activities necessary to seed or plant the area are completed. If non-vegetative stabilization measures are being implemented, stabilization is considered "installed" when all such measures are implemented or applied.

Total Amount of Land Disturbance Occurring At Any One Time[27]	Deadline
ii. **More than five acres (>5.0)**	• Initiate the installation of stabilization measures immediately[31] in any areas of exposed soil where construction activities have permanently ceased or will be temporarily inactive for 14 or more calendar days;[32] and • Complete the installation of stabilization measures as soon as practicable, but no later than seven (7) calendar days after stabilization has been initiated.[33]

iii. **Exceptions:**

(a) Arid, semi-arid, and drought-stricken areas (as defined in Appendix A)**.** If it is the seasonally dry period or a period in which drought is occurring, and vegetative stabilization measures are being used:

(i) Immediately initiate and, within 14 calendar days of a temporary or permanent cessation of work in any portion of your site, complete the installation of temporary non-vegetative stabilization measures to the extent necessary to prevent erosion;

(ii) As soon as practicable, given conditions or circumstances on the site, complete all activities necessary to seed or plant the area to be stabilized; and

(iii) If construction is occurring during the seasonally dry period, indicate in your SWPPP the beginning and ending dates of the seasonally dry period and your site conditions. Also include the schedule you will follow for initiating and completing vegetative stabilization.

(b) Operators that are affected by unforeseen circumstances[34] that delay the initiation and/or completion of vegetative stabilization:

(i) Immediately initiate and, within 14 calendar days, complete the installation of temporary non-vegetative stabilization measures to prevent erosion;

(ii) Complete all soil conditioning, seeding, watering or irrigation installation, mulching, and other required activities related to the planting and initial establishment of vegetation as soon as conditions or circumstances allow it on your site; and

(iii) Document in the SWPPP the circumstances that prevent you from meeting the deadlines in Part 2.2.14a and the schedule you will follow for initiating and completing stabilization.

(c) Discharges to a sediment- or nutrient-impaired water or to a water that is identified by your state, tribe, or EPA as Tier 2, Tier 2.5, or Tier 3 for antidegradation purposes. Complete stabilization as soon as practicable, but no later than seven (7) calendar days after stabilization has been initiated.

[31] See footnote 27

[32] See footnote 28

[33] See footnote 29

[34] Examples include problems with the supply of seed stock or with the availability of specialized equipment and unsuitability of soil conditions due to excessive precipitation and/or flooding.

b. **Final Stabilization Criteria** (for any areas not covered by permanent structures)**:**

i. Establish uniform, perennial vegetation *(i.e., evenly distributed, without large bare areas)* that provides 70 percent or more of the cover that is provided by vegetation native to local undisturbed areas; and/or

ii. Implement permanent non-vegetative stabilization measures[35] to provide effective cover.

iii. **Exceptions:**

(a) Arid, semi-arid, and drought-stricken areas (as defined in Appendix A). Final stabilization is met if the area has been seeded or planted to establish vegetation that provides 70 percent or more of the cover that is provided by vegetation native to local undisturbed areas within three (3) years and, to the extent necessary to prevent erosion on the seeded or planted area, non-vegetative erosion controls have been applied that provide cover for at least three years without active maintenance.

(b) Disturbed areas on agricultural land that are restored to their preconstruction agricultural use. The Part 2.2.14b final stabilization criteria does not apply.

(c) Areas that need to remain disturbed. In limited circumstances, stabilization may not be required if the intended function of a specific area of the site necessitates that it remain disturbed, and only the minimum area needed remains disturbed *(e.g., dirt access roads, utility pole pads, areas being used for storage of vehicles, equipment, materials).*

2.3 POLLUTION PREVENTION REQUIREMENTS[36]

You must implement pollution prevention controls in accordance with the following requirements to minimize the discharge of pollutants in stormwater and to prevent the discharge of pollutants from spilled or leaked materials from construction activities.

2.3.1 For equipment and vehicle fueling and maintenance:

a. Provide an effective means of eliminating the discharge of spilled or leaked chemicals, including fuels and oils, from these activities;[37]

[35] Examples of permanent non-vegetative stabilization measures include riprap, gravel, gabions, and geotextiles.

[36] Under this permit, you are not required to minimize exposure for any products or materials where the exposure to precipitation and to stormwater will not result in a discharge of pollutants, or where exposure of a specific material or product poses little risk of stormwater contamination (such as final products and materials intended for outdoor use).

[37] Examples of effective means include:

- Locating activities away from waters of the U.S. and stormwater inlets or conveyances so that stormwater coming into contact with these activities cannot reach waters of the U.S.;
- Providing secondary containment (*e.g., spill berms, decks, spill containment pallets*) and cover where appropriate; and
- Having a spill kit available on site and ensuring personnel are available to respond expeditiously in the event of a leak or spill.

b. If applicable, comply with the Spill Prevention Control and Countermeasures (SPCC) requirements in 40 CFR part 112 and Section 311 of the CWA;

c. Ensure adequate supplies are available at all times to handle spills, leaks, and disposal of used liquids;

d. Use drip pans and absorbents under or around leaky vehicles;

e. Dispose of or recycle oil and oily wastes in accordance with other federal, state, tribal, or local requirements; and

f. Clean up spills or contaminated surfaces immediately, using dry clean up measures (do not clean contaminated surfaces by hosing the area down), and eliminate the source of the spill to prevent a discharge or a continuation of an ongoing discharge.

2.3.2 For equipment and vehicle washing:

a. Provide an effective means of minimizing the discharge of pollutants from equipment and vehicle washing, wheel wash water, and other types of wash waters;[38]

b. Ensure there is no discharge of soaps, solvents, or detergents in equipment and vehicle wash water; and

c. For storage of soaps, detergents, or solvents, provide either (1) cover *(e.g., plastic sheeting, temporary roofs)* to minimize the exposure of these detergents to precipitation and to stormwater, or (2) a similarly effective means designed to minimize the discharge of pollutants from these areas.

2.3.3 For storage, handling, and disposal of building products, materials, and wastes:

a. *For building materials and building products*[39], provide either (1) cover (*e.g., plastic sheeting, temporary roofs*) to minimize the exposure of these products to precipitation and to stormwater, or (2) a similarly effective means designed to minimize the discharge of pollutants from these areas.

b. *For pesticides, herbicides, insecticides, fertilizers, and landscape materials:*

   i. In storage areas, provide either (1) cover (*e.g., plastic sheeting, temporary roofs*) to minimize the exposure of these chemicals to precipitation and to stormwater, or (2) a similarly effective means designed to minimize the discharge of pollutants from these areas; and

   ii. Comply with all application and disposal requirements included on the registered pesticide, herbicide, insecticide, and fertilizer label (see also Part 2.3.5).

c. *For diesel fuel, oil, hydraulic fluids, other petroleum products, and other chemicals*:

   i. Store chemicals in water-tight containers, and provide either (1) cover *(e.g., plastic sheeting, temporary roofs)* to minimize the exposure of these containers to precipitation and to stormwater, or (2) a similarly effective means designed to minimize the discharge of pollutants from these areas *(e.g., having a spill kit available on site and ensuring personnel are available to respond expeditiously in*

[38] Examples of effective means include locating activities away from waters of the U.S. and stormwater 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.

[39] Examples of building materials and building products typically present at construction sites include asphalt sealants, copper flashing, roofing materials, adhesives, concrete admixtures, and gravel and mulch stockpiles.

the event of a leak or spill), or provide secondary containment *(e.g., spill berms, decks, spill containment pallets)*; and

ii. Clean up spills immediately, using dry clean-up methods where possible, and dispose of used materials properly. You are prohibited from hosing the area down to clean surfaces or spills. Eliminate the source of the spill to prevent a discharge or a furtherance of an ongoing discharge.

d. *For hazardous or toxic wastes*:[40]

i. Separate hazardous or toxic waste from construction and domestic waste;

ii. Store waste in sealed containers, which are constructed of suitable materials to prevent leakage and corrosion, and which are labeled in accordance with applicable Resource Conservation and Recovery Act (RCRA) requirements and all other applicable federal, state, tribal, or local requirements;

iii. Store all outside containers 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 a covered area, having a spill kit available on site);*

iv. 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;

v. Clean up spills immediately, using dry clean-up methods, and dispose of used materials properly. You are prohibited from hosing the area down to clean surfaces or spills. Eliminate the source of the spill to prevent a discharge or a furtherance of an ongoing discharge; and

vi. Follow all other federal, state, tribal, and local requirements regarding hazardous or toxic waste.

e. *For construction and domestic wastes*:[41]

i. Provide waste containers *(e.g., dumpster, trash receptacle)* of sufficient size and number to contain construction and domestic wastes;

ii. Keep waste container lids closed when not in use and close lids at the end of the business day for those containers that are actively used throughout the day. For waste containers that do not have lids, provide either (1) cover *(e.g., a tarp, plastic sheeting, temporary roof)* to minimize exposure of wastes to precipitation, or (2) a similarly effective means designed to minimize the discharge of pollutants *(e.g., secondary containment)*;

iii. On business days, clean up and dispose of waste in designated waste containers; and

iv. Clean up immediately if containers overflow.

[40] Examples of hazardous or toxic waste that may be present at construction sites include paints, caulks, sealants, fluorescent light ballasts, solvents, petroleum-based products, wood preservatives, additives, curing compounds, and acids.

[41] Examples of construction and domestic waste include packaging materials, scrap construction materials, masonry products, timber, pipe and electrical cuttings, plastics, styrofoam, concrete, demolition debris; and other trash or building materials.

f. *For sanitary waste*, position portable toilets so that they are secure and will not be tipped or knocked over, and located away from waters of the U.S. and stormwater inlets or conveyances.

2.3.4 For washing applicators and containers used for stucco, paint, concrete, form release oils, curing compounds, or other materials:

a. Direct wash water into a leak-proof container or leak-proof and lined pit designed so that no overflows can occur due to inadequate sizing or precipitation;

b. Handle washout or cleanout wastes as follows:

   i. Do not dump liquid wastes in storm sewers or waters of the U.S.;

   ii. Dispose of liquid wastes in accordance with applicable requirements in Part 2.3.3; and

   iii. Remove and dispose of hardened concrete waste consistent with your handling of other construction wastes in Part 2.3.3; and

c. Locate any washout or cleanout activities as far away as possible from waters of the U.S. and stormwater inlets or conveyances, and, to the extent feasible, designate areas to be used for these activities and conduct such activities only in these areas.

2.3.5 For the application of fertilizers:

a. Apply at a rate and in amounts consistent with manufacturer's specifications, or document in the SWPPP departures from the manufacturer specifications where appropriate in accordance with Part 7.2.6.b.ix;

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 stormwater conveyance channels; and

f. Follow all other federal, state, tribal, and local requirements regarding fertilizer application.

2.3.6 Emergency Spill Notification Requirements

Discharges of toxic or hazardous substances from a spill or other release are prohibited, consistent with Part 1.3.5. 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 110, 40 CFR 117, or 40 CFR 302 occurs during a 24-hour period, you must notify the National Response Center (NRC) at (800) 424-8802 or, in the Washington, DC metropolitan area, call (202) 267-2675 in accordance with the requirements of 40 CFR 110, 40 CFR 117, and 40 CFR 302 as soon as you have knowledge of the release. You must also, within seven (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. State, tribal, or local requirements may necessitate additional reporting of spills or discharges to local emergency response, public health, or drinking water supply agencies.

2.4 CONSTRUCTION DEWATERING REQUIREMENTS

Comply with the following requirements to minimize the discharge of pollutants in ground water or accumulated stormwater that is removed from excavations, trenches, foundations, vaults, or other similar points of accumulation, in accordance with Part 1.2.2.[42]

2.4.1 Treat dewatering discharges with controls to minimize discharges of pollutants;[43]

2.4.2 Do not discharge visible floating solids or foam;

2.4.3 Use an oil-water separator or suitable filtration device (such as a cartridge filter) that is designed to remove oil, grease, or other products if dewatering water is found to contain these materials;

2.4.4 To the extent feasible, use vegetated, upland areas of the site to infiltrate dewatering water before discharge. You are prohibited from using waters of the U.S. as part of the treatment area;

2.4.5 At all points where dewatering water is discharged, comply with the velocity dissipation requirements of Part 2.2.11;

2.4.6 With backwash water, either haul it away for disposal or return it to the beginning of the treatment process; and

2.4.7 Replace and clean the filter media used in dewatering devices when the pressure differential equals or exceeds the manufacturer's specifications.

3 WATER QUALITY-BASED EFFLUENT LIMITATIONS

3.1 GENERAL EFFLUENT LIMITATION TO MEET APPLICABLE WATER QUALITY STANDARDS

Discharges must be controlled as necessary to meet applicable water quality standards. Discharges must also comply with any additional state or tribal requirements that are in Part 9.

In the absence of information demonstrating otherwise, EPA expects that compliance with the conditions in this permit will result in stormwater discharges being controlled as necessary to meet applicable water quality standards. If at any time you become aware, or EPA determines, that discharges are not being controlled as necessary to meet applicable water quality standards, you must take corrective action as required in Parts 5.1 and 5.2, and document the corrective actions as required in Part 5.4.

EPA may insist that you install additional controls (to meet the narrative water quality-based effluent limit above) on a site-specific basis, or require you to obtain coverage under an individual permit, if information in your NOI or from other sources indicates that your discharges are not controlled as necessary to meet applicable water quality

[42] Uncontaminated, clear (non-turbid) dewatering water can be discharged without being routed to a control.

[43] Appropriate controls include sediment basins or sediment traps, sediment socks, dewatering tanks, tube settlers, weir tanks, filtration systems (*e.g., bag or sand filters*), and passive treatment systems that are designed to remove sediment. Appropriate controls to use downstream of dewatering controls to minimize erosion include vegetated buffers, check dams, riprap, and grouted riprap at outlets.

standards. This includes situations where additional controls are necessary to comply with a wasteload allocation in an EPA-established or approved TMDL.

If during your coverage under a previous permit, you were required to install and maintain stormwater controls specifically to meet the assumptions and requirements of an EPA-approved or 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 your coverage under this permit.

3.2 DISCHARGE LIMITATIONS FOR SITES DISCHARGING TO SENSITIVE WATERS[44]

For any portion of the site that discharges to a sediment or nutrient-impaired water or to a water that is identified by your state, tribe, or EPA as Tier 2, Tier 2.5, or Tier 3 for antidegradation purposes, you must comply with the inspection frequency specified in 4.3 and you must comply with the stabilization deadline specified in Part 2.2.14.a.iii.(c).[45]

If you discharge to a water that is impaired for a parameter other than a sediment-related parameter or nutrients, EPA will inform you if any additional 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 addition, on a case-by-case basis, EPA may notify operators of new sites or operators of existing sites with increased discharges that additional analyses, stormwater controls, or other measures are necessary to comply with the applicable antidegradation requirements, or notify you that an individual permit application is necessary.

If you discharge to a water that is impaired for polychlorinated biphenyls (PCBs) and are engaging in demolition of any structure with at least 10,000 square feet of floor space built or renovated before January 1, 1980, you must:

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[44] Sensitive waters include waters that are impaired and Tier 2, Tier 2.5, and Tier 3 waters.

"Impaired waters" are those waters identified by the state, tribe, or EPA as not meeting an applicable water quality standard and (1) requires development of a TMDL (pursuant to section 303(d) of the CWA; or (2) is addressed by an EPA-approved or established TMDL; or (3) is not in either of the above categories but the waterbody is covered by a pollution control program that meets the requirements of 40 CFR 130.7(b)(1). Your construction site will be considered to discharge to an impaired water if the first water of the U.S. to which you discharge is an impaired water for the pollutants contained in the discharge from your site. For discharges that enter a storm sewer system prior to discharge, the first water of the U.S. to which you discharge is the waterbody that receives the stormwater discharge from the storm sewer system. For assistance in determining whether your site discharges to impaired waters, EPA has developed a tool that is available both within the electronic NOI form in NeT, and at https://www.epa.gov/npdes/epas-stormwater-discharge-mapping-tools.

Tiers 2, 2.5 and 3 refer to waters either identified by the state as high quality waters or Outstanding National Resource Waters under 40 CFR 131.12(a)(2) and (3). For the purposes of this permit, you are considered to discharge to a Tier 2, Tier 2.5, or Tier 3 water if the first water of the U.S. to which you discharge is identified by a state, tribe, or EPA as Tier 2, Tier 2.5, or Tier 3. For discharges that enter a storm sewer system prior to discharge, the water of the U.S. to which you discharge is the first water of the U.S. that receives the stormwater discharge from the storm sewer system. See list of Tier 2, Tier 2.5, and Tier 3 waters in Appendix F.

EPA may determine on a case-by-case basis that a site discharges to a sensitive water.

[45] If you qualify for any of the reduced inspection frequencies in Part 4.4, you may conduct inspections in accordance with Part 4.4 for any portion of your site that discharges to a sensitive water.

a. Implement controls[46] to minimize the exposure of PCB-containing building materials, including paint, caulk, and pre-1980 fluorescent lighting fixtures, to precipitation and to stormwater; and

b. Ensure that disposal of such materials is performed in compliance with applicable state, federal, and local laws.

4 SITE INSPECTION REQUIREMENTS

4.1 PERSON(S) RESPONSIBLE FOR INSPECTING 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."[47]

4.2 FREQUENCY OF INSPECTIONS.[48]

At a minimum, you must conduct a site inspection in accordance with one of the two schedules listed below, unless you are subject to the Part 4.3 site inspection frequency for discharges to sensitive waters or qualify for a Part 4.4 reduction in the inspection frequency:

4.2.1 At least once every seven (7) calendar days; *or*

4.2.2 Once every 14 calendar days *and* within 24 hours of the occurrence of a storm event of 0.25 inches or greater, or the occurrence of runoff from snowmelt sufficient to cause a discharge.[49] To determine if a storm event of 0.25 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 during normal business hours that measures 0.25 inches or greater, you must record the total rainfall measured for that day in accordance with Part 4.7.1d.

4.3 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 or to a water that is identified by your state, tribe, or EPA as Tier 2, Tier 2.5, or Tier 3 for antidegradation purposes (see Part 3.2), instead of the inspection frequency specified in

[46] Examples of controls to minimize exposure of PCBs to precipitation and stormwater include separating work areas from non-work areas and selecting appropriate personal protective equipment and tools, constructing a containment area so that all dust or debris generated by the work remains within the protected area, using tools that minimize dust and heat (<212°F). For additional information, refer to Part 2.3.3 of the CGP Fact Sheet.

[47] A "qualified person" is a person knowledgeable in the principles and practice of erosion and sediment controls and pollution prevention, who possesses the appropriate skills and training to assess conditions at the construction site that could impact stormwater quality, and the appropriate skills and training to assess the effectiveness of any stormwater controls selected and installed to meet the requirements of this permit.

[48] Inspections are only required during the site's normal working hours.

[49] "Within 24 hours of the occurrence of a storm event" means that you must conduct an inspection within 24 hours once a storm event has produced 0.25 inches within a 24-hour period, even if the storm event is still continuing. Thus, if you have elected to inspect bi-weekly in accordance with Part 4.2.2 and there is a storm event at your site that continues for multiple days, and each day of the storm produces 0.25 inches or more of rain, you must conduct an inspection within 24 hours of the first day of the storm and within 24 hours after the end of the storm.

Part 4.2, you must conduct inspections in accordance with the following inspection frequencies:

Once every seven (7) calendar days *and* within 24 hours of the occurrence of a storm event of 0.25 inches or greater, or the occurrence of runoff from snowmelt sufficient to cause a discharge. To determine if a storm event of 0.25 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 during normal business hours that measures 0.25 inches or greater, you must record the total rainfall measured for that day in accordance with Part 4.7.1d.

4.4 REDUCTIONS IN INSPECTION FREQUENCY

4.4.1 Stabilized areas.

a. You may reduce the frequency of inspections to twice per month for the first month, no more than 14 calendar days apart, then once per month in any area of your site where the stabilization steps in 2.2.14a have been completed. If construction activity resumes in this portion of the site at a later date, the inspection frequency immediately increases to that required in Parts 4.2 and 4.3, as applicable. You must document the beginning and ending dates of this period in your SWPPP.

b. **Exception.** For "linear construction sites" (as defined in Appendix A) where disturbed portions have undergone final stabilization at the same time active construction continues on others, you may reduce the frequency of inspections to twice per month for the first month, no more than 14 calendar days apart, in any area of your site where the stabilization steps in 2.2.14a have been completed. After the first month, inspect once more within 24 hours of the occurrence of a storm event of 0.25 inches or greater. If there are no issues or evidence of stabilization problems, you may suspend further inspections. If "wash-out" of stabilization materials and/or sediment is observed, following re-stabilization, inspections must resume at the inspection frequency required in Part 4.4.1a Inspections must continue until final stabilization is visually confirmed following a storm event of 0.25 inches or greater.

4.4.2 Arid, semi-arid, or drought-stricken areas (as defined in Appendix A). If it is the seasonally dry period or a period in which drought is occurring, you may reduce the frequency of inspections to once per month and within 24 hours of the occurrence of a storm event of 0.25 inches or greater. You must document that you are using this reduced schedule and the beginning and ending dates of the seasonally dry period in your SWPPP. To determine if a storm event of 0.25 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 during normal business hours that measures 0.25 inches or greater, you must record the total rainfall measured for that day in accordance with Part 4.7.1d.

4.4.3 Frozen conditions:

a. If you are suspending construction activities due to frozen conditions, you may temporarily suspend inspections on your site until thawing conditions (as defined in Appendix A) begin to occur if:

i. Runoff is unlikely due to continuous frozen conditions that are likely to continue at your site for at least three (3) months based on historic seasonal averages. If unexpected weather conditions (such as above freezing temperatures or rain events) make discharges likely, you must immediately resume your regular inspection frequency as described in Parts 4.2 and 4.3, as applicable;

ii. Land disturbances have been suspended; and

iii. All disturbed areas of the site have been stabilized in accordance with Part 2.2.14a.

b. If you are still conducting construction activities during frozen conditions, you may reduce your inspection frequency to once per month if:

i. Runoff is unlikely due to continuous frozen conditions that are likely to continue at your site for at least three (3) months based on historic seasonal averages. If unexpected weather conditions (such as above freezing temperatures or rain events) make discharges likely, you must immediately resume your regular inspection frequency as described in Parts 4.2 and 4.3, as applicable; and

ii. Except for areas in which you are actively conducting construction activities, disturbed areas of the site have been stabilized in accordance with Part 2.2.14a.

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

4.5 AREAS THAT MUST BE INSPECTED

During your site inspection, you must at a minimum inspect the following areas of your site:

4.5.1 All areas that have been cleared, graded, or excavated and that have not yet completed stabilization consistent with Part 2.2.14a;

4.5.2 All stormwater controls (including pollution prevention controls) installed at the site to comply with this permit;[50]

4.5.3 Material, waste, borrow, and equipment storage and maintenance areas that are covered by this permit;

4.5.4 All areas where stormwater typically flows within the site, including drainageways designed to divert, convey, and/or treat stormwater;

4.5.5 All points of discharge from the site; and

4.5.6 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 to your inspection personnel.

4.6 REQUIREMENTS FOR INSPECTIONS

During your site inspection, you must at a minimum:

4.6.1 Check whether all stormwater controls *(i.e., erosion and sediment controls and pollution prevention controls)* are properly installed, appear to be operational, and are working as intended to minimize pollutant discharges;

[50] This includes the requirement to inspect for sediment that has been tracked out from the site onto paved roads, sidewalks, or other paved areas consistent with Part 2.2.4.

4.6.2 Check for the presence of conditions that could lead to spills, leaks, or other accumulations of pollutants on the site;

4.6.3 Identify any locations where new or modified stormwater controls are necessary to meet the requirements of Parts 2 and/or 3;

4.6.4 Check for signs of visible erosion and sedimentation *(i.e., sediment deposits)* that have occurred and are attributable to your discharge at points of discharge and, if applicable, the banks of any waters of the U.S. flowing within or immediately adjacent to the site;

4.6.5 Identify any incidents of noncompliance observed;

4.6.6 If a discharge is occurring during your inspection:

a. Identify all discharge points at the site; and

b. Observe and document the visual quality of the discharge, and take note of the characteristics of the stormwater discharge, including color; odor; floating, settled, or suspended solids; foam; oil sheen; and other indicators of stormwater pollutants.

4.6.7 Based on the results of your inspection, complete any necessary maintenance under Part 2.1.4 and corrective action under Part 5.

4.7 INSPECTION REPORT

4.7.1 You must complete an inspection report within 24 hours of completing any site inspection. Each inspection report must include the following:

a. The inspection date;

b. Names and titles of personnel making the inspection;

c. A summary of your inspection findings, covering at a minimum the observations you made in accordance with Part 4.6, including any necessary maintenance or corrective actions;

d. If you are inspecting your site at the frequency specified in Part 4.2.2, Part 4.3, or Part 4.4.1b, and you conducted an inspection because of rainfall measuring 0.25 inches or greater, you must include the applicable rain gauge or weather station readings that triggered the inspection; and

e. If you 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 to which this condition applies.

4.7.2 Each inspection report must be signed in accordance with Appendix I, Part I.11 of this permit.

4.7.3 You must keep a 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 on-site inspection or upon request by EPA.

4.7.4 You must retain all inspection reports completed for this Part for at least three (3) years from the date that your permit coverage expires or is terminated.

4.8 INSPECTIONS BY EPA

You must allow EPA, or an authorized representative of EPA, to conduct the following activities at reasonable times. To the extent that you are utilizing shared controls that are not on site to comply with this permit, you must make arrangements for EPA to have access at all reasonable times to those areas where the shared controls are located.

4.8.1 Enter onto all areas of the site, including any construction support activity areas covered by this permit, any off-site areas where shared controls are utilized to comply with this permit, discharge locations, adjoining waterbodies, and locations where records are kept under the conditions of this permit;

4.8.2 Access and copy any records that must be kept under the conditions of this permit;

4.8.3 Inspect your construction site, including any construction support activity areas covered by this permit (see Part 1.2.1c), any stormwater controls installed and maintained at the site, and any off-site shared controls utilized to comply with this permit; and

4.8.4 Sample or monitor for the purpose of ensuring compliance.

5 CORRECTIVE ACTIONS

5.1 CONDITIONS TRIGGERING CORRECTIVE ACTION.

You must take corrective action to address any of the following conditions identified at your site:

5.1.1 A stormwater control needs repair or replacement (beyond routine maintenance required under Part 2.1.4); or

5.1.2 A stormwater control necessary to comply with the requirements of this permit was never installed, or was installed incorrectly; or

5.1.3 Your discharges are causing an exceedance of applicable water quality standards; or

5.1.4 A prohibited discharge has occurred (see Part 1.3).

5.2 CORRECTIVE ACTION DEADLINES

For any corrective action triggering conditions in Part 5.1, you must:

5.2.1 Immediately take all reasonable steps to address the condition, including cleaning up any contaminated surfaces so the material will not discharge in subsequent storm events;

5.2.2 When the problem does not require a new or replacement control or significant repair, the corrective action must be completed by the close of the next business day;

5.2.3 When the problem requires a new or replacement control or significant repair, install the new or modified control and make it operational, or complete the repair, by no later than seven (7) calendar days from the time of discovery. If it is infeasible to complete the installation or repair within seven (7) calendar days, you must document in your records why it is infeasible to complete the installation or repair within the 7-day timeframe and document your schedule for installing the stormwater control(s) and making it operational as soon as feasible after the 7-day timeframe. Where these actions result in changes to any of the stormwater controls or procedures documented in your SWPPP,

you must modify your SWPPP accordingly within seven (7) calendar days of completing this work.

5.3 CORRECTIVE ACTION REQUIRED BY EPA

You must comply with any corrective actions required by EPA as a result of permit violations found during an inspection carried out under Part 4.8.

5.4 CORRECTIVE ACTION REPORT

For each corrective action taken in accordance with this Part, you must complete a report in accordance with the following:

5.4.1 Within 24 hours of identifying the corrective action condition, document the specific condition and the date and time it was identified.

5.4.2 Within 24 hours of completing the corrective action (in accordance with the deadlines in Part 5.2), document the actions taken to address the condition, including whether any SWPPP modifications are required.

5.4.3 Each corrective action report must be signed in accordance with Appendix I, Part I.11 of this permit.

5.4.4 You must keep a copy of all corrective action reports at the site or at an easily accessible location, so that it can be made available at the time of an on-site inspection or upon request by EPA.

5.4.5 You must retain all corrective action reports completed for this Part for at least three (3) years from the date that your permit coverage expires or is terminated.

6 STAFF TRAINING REQUIREMENTS

Each operator, or group of multiple operators, must assemble a "stormwater team" to carry out compliance activities associated with the requirements in this permit.

6.1 Prior to the commencement of construction activities, you must ensure that the following personnel[51] on the stormwater team understand the requirements of this permit and their specific responsibilities with respect to those requirements:

a. Personnel who are responsible for the design, installation, maintenance, and/or repair of stormwater controls (including pollution prevention controls);

b. Personnel responsible for the application and storage of treatment chemicals (if applicable);

c. Personnel who are responsible for conducting inspections as required in Part 4.1; and

d. Personnel who are responsible for taking corrective actions as required in Part 5.

[51] If the person requiring training is a new employee who starts after you commence construction 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.

For emergency-related projects, the requirement to train personnel prior to commencement of construction activities does not apply, however, such personnel must have the required training prior to NOI submission.

6.2 You are responsible for ensuring that all activities on the site comply with the requirements of this permit. You are not required to provide or document formal training for subcontractors or other outside service providers, but you must ensure that such personnel understand any requirements of this permit that may be affected by the work they are subcontracted to perform.

6.3 At a minimum, members of the stormwater team 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*):

a. The permit deadlines associated with installation, maintenance, and removal of stormwater controls and with stabilization**;**

b. The location of all stormwater controls on the site required by this permit and how they are to be maintained;

c. The proper procedures to follow with respect to the permit's pollution prevention requirements; and

d. When and how to conduct inspections, record applicable findings, and take corrective actions.

6.4 Each member of the stormwater team must have easy 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.

7 STORMWATER POLLUTION PREVENTION PLAN (SWPPP)

7.1 GENERAL REQUIREMENTS

All operators associated with a construction site under this permit must develop a SWPPP consistent with the requirements in Part 7 prior to their submittal of the NOI.[52, 53] The SWPPP must be kept up-to-date throughout coverage under this permit.

[52] 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.

[53] You have the option of developing a group SWPPP where you are one of several operators at your site. For instance, if both the owner and the general contractor of the construction site are operators and thus are both required to obtain a permit, the owner may be the party undertaking SWPPP development, and the general contractor (or any other operator at the site) can choose to use this same SWPPP, as long as the SWPPP addresses the general contractor's (or other operator's) scope of construction work and functions to be performed under the SWPPP. Regardless of whether there is a group SWPPP or several individual SWPPPs, all operators would be jointly and severally liable for compliance with the permit.

Where there are multiple operators associated with the same site through a common plan of development or sale, operators may assign to themselves various permit-related functions under the SWPPP provided that each SWPPP, or a group SWPPP, documents which operator will perform each function under the SWPPP. However, dividing the functions to be performed under each SWPPP, or a single group SWPPP, does not relieve an individual operator from liability for complying with the permit should another operator fail to implement any measures that are necessary for that individual operator to comply with the permit, e.g., the installation and maintenance of any shared controls. In addition, all operators must ensure, either directly or through coordination with other operators, that their activities do not cause a violation and/or render any other operators' controls and/or any shared controls ineffective. All operators who rely on a shared control to comply with the permit are jointly and severally liable for violations of the permit resulting from the failure to properly install, operate and/or maintain the shared control.

If a SWPPP was prepared under a previous version of this permit, the operator must review and update the SWPPP to ensure that this permit's requirements are addressed prior to submitting an NOI for coverage under this permit.

7.2 SWPPP CONTENTS

At a minimum, the SWPPP must include the information specified in this Part and as specified in other parts of this permit.

7.2.1 All Site Operators. Include a list of all other operators who will be engaged in construction activities at the site, and the areas of the site over which each operator has control.

7.2.2 Stormwater Team. Identify the personnel (by name or position) that are part of the stormwater team, as well as their individual responsibilities, including which members are responsible for conducting inspections.

7.2.3 Nature of Construction Activities.[54] Include the following:

a. A description of the nature of your construction activities, including the age or dates of past renovations for structures that are undergoing demolition;

b. The size of the property (in acres or length in miles if a linear construction site);

c. The total area expected to be disturbed by the construction activities (to the nearest quarter acre or nearest quarter mile if a linear construction site);

d. A description of any on-site and off-site construction support activity areas covered by this permit (see Part 1.2.1c);

e. The maximum area expected to be disturbed at any one time, including on-site and off-site construction support activity areas;

f. A description and projected schedule for the following:

   i. Commencement of construction activities in each portion of the site, including clearing and grubbing, mass grading, demolition activities, site preparation (*i.e., excavating, cutting and filling*), final grading, and creation of soil and vegetation stockpiles requiring stabilization;

   ii. Temporary or permanent cessation of construction activities in each portion of the site;

   iii. Temporary or final stabilization of exposed areas for each portion of the site; and

   iv. Removal of temporary stormwater controls and construction equipment or vehicles, and the cessation of construction-related pollutant-generating activities.

g. A list and description of all pollutant-generating activities[55] on the site. For each pollutant-generating activity, include an inventory of pollutants or pollutant constituents (*e.g., sediment, fertilizers, pesticides, paints, caulks, sealants, fluorescent light ballasts, contaminated substrates, solvents, fuels*) associated with that activity, which could be discharged in stormwater from your construction site. You must take

[54] 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 operator to meeting these dates. When departures from initial projections are necessary, this should be documented in the SWPPP itself, or in associated records, as appropriate.

[55] Examples of pollutant-generating activities include paving operations; concrete, paint, and stucco washout and waste disposal; solid waste storage and disposal; and dewatering operations.

into account where potential spills and leaks could occur that contribute pollutants to stormwater discharges, and any known hazardous or toxic substances, such as PCBs and asbestos, that will be disturbed or removed during construction;

h. Business days and hours for the project;

i. If you are conducting construction activities in response to a public emergency (see Part 1.4), a description of the cause of the public emergency *(e.g., mud slides, earthquake, extreme flooding conditions, widespread disruption in essential public services)*, information substantiating its occurrence *(e.g., state disaster declaration or similar state or local declaration)*, and a description of the construction necessary to reestablish affected public services.

7.2.4 Site Map. Include a legible map, or series of maps, showing the following features of the site:

a. Boundaries of the property;

b. Locations where construction activities will occur, including:

   i. Locations where earth-disturbing activities will occur (note any phasing), including any demolition activities;

   ii. Approximate slopes before and after major grading activities (note any steep slopes (as defined in Appendix A));

   iii. Locations where sediment, soil, or other construction materials will be stockpiled;

   iv. Any water of the U.S. crossings;

   v. Designated points where vehicles will exit onto paved roads;

   vi. Locations of structures and other impervious surfaces upon completion of construction; and

   vii. Locations of on-site and off-site construction support activity areas covered by this permit (see Part 1.2.1c).

c. Locations of all waters of the U.S. within and one mile downstream of the site's discharge point. Also identify if any are listed as impaired, or are identified as a Tier 2, Tier 2.5, or Tier 3 water;

d. Areas of federally listed critical habitat within the site and/or at discharge locations;

e. Type and extent of pre-construction cover on the site (*e.g., vegetative cover, forest, pasture, pavement, structures*);

f. Drainage patterns of stormwater and authorized non-stormwater before and after major grading activities;

g. Stormwater and authorized non-stormwater discharge locations, including:

   i. Locations where stormwater and/or authorized non-stormwater will be discharged to storm drain inlets;[56] and

   ii. Locations where stormwater or authorized non-stormwater will be discharged directly to waters of the U.S.

h. Locations of all potential pollutant-generating activities identified in Part 7.2.3g;

[56] 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.

i. Locations of stormwater controls, including natural buffer areas and any shared controls utilized to comply with this permit; and

j. Locations where polymers, flocculants, or other treatment chemicals will be used and stored.

7.2.5 Non-Stormwater Discharges. Identify all authorized non-stormwater discharges in Part 1.2.2 that will or may occur.

7.2.6 Description of Stormwater Controls.

a. For each of the Part 2.2 erosion and sediment control effluent limits, Part 2.3 pollution prevention effluent limits, and Part 2.4 construction dewatering effluent limits, as applicable to your site, you must include the following:

i. A description of the specific control(s) to be implemented to meet the effluent limit;

ii. Any applicable stormwater control design specifications (including references to any manufacturer specifications and/or erosion and sediment control manuals/ordinances relied upon);[57]

iii. Routine stormwater control maintenance specifications; and

iv. The projected schedule for stormwater control installation/implementation.

b. You must also include any of the following additional information as applicable.

i. **Natural buffers and/or equivalent sediment controls** (see Part 2.2.1 and Appendix G). You must include the following:

(a) The compliance alternative to be implemented;

(b) If complying with alternative 2, the width of natural buffer retained;

(c) If complying with alternative 2 or 3, 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;

(d) If complying with alternative 3, a description of why it is infeasible for you to provide and maintain an undisturbed natural buffer of any size;

(e) For "linear construction sites" where it is infeasible to implement compliance alternative 1, 2, or 3, a rationale for this determination, and a description of any buffer width retained and/or supplemental erosion and sediment controls installed; and

(f) A description of any disturbances that are exempt under Part 2.2.1 that occur within 50 feet of a water of the U.S.

ii. **Perimeter controls for a "linear construction site"** (see Part 2.2.3). For areas where perimeter controls are not feasible, include documentation to support this determination and a description of the other practices that will be implemented to minimize discharges of pollutants in stormwater associated with construction activities.

Note: Routine maintenance specifications for perimeter controls documented in the SWPPP must include the Part 2.2.3a requirement that sediment be removed

[57] 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 and must be explained in the SWPPP.

before it has accumulated to one-half of the above-ground height of any perimeter control.

iii. **Sediment track-out controls** (see Parts 2.2.4b and 2.2.4c)**.** Document the specific stabilization techniques and/or controls that will be implemented to remove sediment prior to vehicle exit.

iv. **Sediment basins** (see Part 2.2.12). In circumstances where it is infeasible to utilize outlet structures that withdraw water from the surface, include documentation to support this determination, including the specific conditions or time periods when this exception will apply.

v. **Treatment chemicals** (see Part 2.2.13), you must include the following:

(a) A listing of the soil types that are expected to be exposed during construction in areas of the project that will drain to chemical treatment systems. 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;

(b) 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;

(c) If the applicable EPA Regional Office authorized you to use cationic treatment chemicals for sediment control, include the specific controls and implementation procedures designed to ensure that your use of cationic treatment chemicals will not lead to an exceedance of water quality standards;

(d) The dosage of all treatment chemicals to be used at the site or the methodology to be used to determine dosage;

(e) Information from any applicable Safety Data Sheet (SDS);

(f) Schematic drawings of any chemically enhanced stormwater controls or chemical treatment systems to be used for application of the treatment chemicals;

(g) A description of how chemicals will be stored consistent with Part 2.2.13c;

(h) 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

(i) 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.

vi. **Stabilization measures** (see Part 2.2.14). You must include the following:

(a) The specific vegetative and/or non-vegetative practices that will be used;

(b) The stabilization deadline that will be met in accordance with Part 2.2.14.a.i-ii;

(c) If complying with the deadlines for sites in arid, semi-arid, or drought-stricken areas, the beginning and ending dates of the seasonally dry period and the schedule you will follow for initiating and completing vegetative stabilization; and

(d) If complying with deadlines for sites affected by unforeseen circumstances that delay the initiation and/or completion of vegetative stabilization, document the circumstances and the schedule for initiating and completing stabilization.

vii. **Spill prevention and response procedures** (see Part 1.3.5 and Part 2.3). You must include the following:

(a) 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

(b) 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 2.3.6 and established under either 40 CFR 110, 40 CFR 117, or 40 CFR 302, occurs during a 24-hour period. Contact information must be in locations that are readily accessible and available to all employees.

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 an NPDES permit for the construction activity, provided that you keep a copy of that other plan on site.[58]

viii. **Waste management procedures** (see Part 2.3.3). Describe the procedures you will follow for handling, storing and disposing of all wastes generated at your site consistent with all applicable federal, state, tribal, and local requirements, including clearing and demolition debris, sediment removed from the site, construction and domestic waste, hazardous or toxic waste, and sanitary waste.

ix. **Application of fertilizers** (see Part 2.3.5). Document any departures from the manufacturer specifications where appropriate.

7.2.7 Procedures for Inspection, Maintenance, and Corrective Action. Describe the procedures you will follow for maintaining your stormwater controls, conducting site inspections, and, where necessary, taking corrective actions, in accordance with Part 2.1.4, Part 4, and Part 5 of this permit. Also include:

a. The inspection schedule you will follow, which is based on whether your site is subject to Part 4.2 or Part 4.3, or whether your site qualifies for any of the reduced inspection frequencies in Part 4.4;

b. If you will be conducting inspections in accordance with the inspection schedule in Part 4.2.2, Part 4.3, or Part 4.4.1b, the location of the rain gauge 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 4.4.1b, the beginning and ending dates of the seasonally defined arid period for your area or the valid period of drought;

d. If you will be reducing your inspection frequency in accordance with Part 4.4.3, the beginning and ending dates of frozen conditions on your site; and

e. Any maintenance or inspection checklists or other forms that will be used.

[58] 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.

7.2.8 Staff Training. Include documentation that the required personnel were, or will be, trained in accordance with Part 6.

7.2.9 Compliance with Other Requirements.

a. **Threatened and Endangered Species Protection.** Include documentation required in Appendix D supporting your eligibility with regard to the protection of threatened and endangered species and designated critical habitat.

b. **Historic Properties.** Include documentation required in Appendix E supporting your eligibility with regard to the protection of historic properties.

c. **Safe Drinking Water Act Underground Injection Control (UIC) Requirements for Certain Subsurface Stormwater Controls.** If you are using any of the following stormwater controls at your site, document any contact you have had with the applicable state agency[59] or EPA Regional Office responsible for implementing the requirements for underground injection wells in the Safe Drinking Water Act and EPA's implementing regulations at 40 CFR 144 -147. Such controls would generally be considered Class V UIC wells:

   i. Infiltration trenches (if stormwater 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 stormwater flow; and

   iii. Drywells, seepage pits, or improved sinkholes (if stormwater 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).

7.2.10 SWPPP Certification. You must sign and date your SWPPP in accordance with Appendix I, Part I.11.

7.2.11 Post-Authorization Additions to the SWPPP. Once you are authorized for coverage under this permit, you must include the following documents as part of your SWPPP:

a. A copy of your NOI submitted to EPA along with any correspondence exchanged between you and EPA related to coverage under this permit;

b. A copy of the acknowledgment letter you receive from NeT assigning your NPDES ID (*i.e., permit tracking number*);

c. A copy of this permit (an electronic copy easily available to the stormwater team is also acceptable).

7.3 ON-SITE AVAILABILITY OF YOUR SWPPP

You must keep a current copy of your SWPPP at the site or at an easily accessible location so that it can be made available at the time of an on-site inspection or upon request by EPA; a state, tribal, or local agency approving stormwater management plans; the operator of a storm sewer system receiving discharges from the site; or representatives of the U.S. Fish and Wildlife Service (USFWS) or the National Marine Fisheries Service (NMFS).

[59] For state UIC program contacts, refer to the following EPA website: https://www.epa.gov/uic.

EPA may provide access to portions of your SWPPP to a member of the public upon request. Confidential Business Information (CBI) will be withheld from the public, but may not be withheld from EPA, USFWS, or NMFS.[60]

If an on-site 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 SWPPP MODIFICATIONS

7.4.1 You must modify your SWPPP, including the site map(s), within seven (7) days of any of the following conditions:

a. Whenever new operators become active in construction activities on your site, or you make changes to your construction plans, stormwater controls, 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. You do not need to modify your SWPPP if the estimated dates in Part 7.2.3f change during the course of construction;

b. To reflect areas on your site map where operational control has been transferred (and the date of transfer) since initiating permit coverage;

c. If inspections or investigations by EPA or its authorized representatives determine that SWPPP modifications are necessary for compliance with this permit;

d. Where EPA determines it is necessary to install and/or implement additional controls at your site in order to meet the requirements of this permit, the following must be included in your SWPPP:

   i. A copy of any correspondence describing such measures and requirements; and

   ii. A description of the controls that will be used to meet such requirements.

e. To reflect any revisions to applicable federal, state, tribal, or local requirements that affect the stormwater controls implemented at the site; and

f. If applicable, if a change in chemical treatment systems or chemically enhanced stormwater control is made, including use of a different treatment chemical, different dosage rate, or different area of application.

7.4.2 You must maintain records showing the dates of all SWPPP modifications. The records must include the name of the person authorizing each change (see Part 7.2.10 above) and a brief summary of all changes.

7.4.3 All modifications made to the SWPPP consistent with Part 7.4 must be authorized by a person identified in Appendix I, Part I.11.b.

7.4.4 Upon determining that a modification to your SWPPP is required, if there are multiple operators covered under this permit, you must immediately notify any operators who may be impacted by the change to the SWPPP.

[60] Information covered by a claim of confidentiality will be disclosed by EPA 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 may be disclosed to other employees, officers, or authorized representatives of the United States concerned with implementing the CWA. The authorized representatives, including employees of other executive branch agencies, may review CBI during the course of reviewing draft regulations.

8 HOW TO TERMINATE COVERAGE

Until you terminate coverage under this permit, you must comply with all conditions and effluent limitations in the permit. To terminate permit coverage, you must submit to EPA a complete and accurate Notice of Termination (NOT), which certifies that you have met the requirements for terminating in Part 8.

8.1 MINIMUM INFORMATION REQUIRED IN NOT

8.1.1 NPDES ID (*i.e., permit tracking number)* provided by EPA when you received coverage under this permit;

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

8.1.3 Operator contact information;

8.1.4 Name of site and address (or a description of location if no street address is available); and

8.1.5 NOT certification.

8.2 CONDITIONS FOR TERMINATING CGP COVERAGE

You must terminate CGP coverage only if one or more of the following conditions has occurred:

8.2.1 You have completed all construction activities at your site and, if applicable, construction support activities covered by this permit (see Part 1.2.1c), 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, and (3) over which you had control during the construction activities, you have met the requirements for final vegetative or non-vegetative stabilization in Part 2.2.14b;

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 stormwater 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; 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; or

8.2.2 You have transferred control of all areas of the site for which you are responsible under this permit to another operator, and that operator has submitted an NOI and obtained coverage under this permit; or

8.2.3 Coverage under an individual or alternative general NPDES permit has been obtained.

8.3 HOW TO SUBMIT YOUR NOT

You must use EPA's NPDES eReporting Tool (NeT) to electronically prepare and submit your NOT for the 2017 CGP.

To access NeT, go to https://www.epa.gov/npdes/stormwater-discharges-construction-activities#ereporting.

Waivers from electronic reporting may be granted as specified in Part 1.4.1. If the EPA Regional Office grants you approval to use a paper NOT, and you elect to use it, you must complete the form in Appendix K.

8.4 DEADLINE FOR SUBMITTING THE NOT

You must submit your NOT within 30 calendar days after any one of the conditions in Part 8.2 occurs.

8.5 EFFECTIVE DATE OF TERMINATION OF COVERAGE

Your authorization to discharge under this permit terminates at midnight of the calendar day that a complete NOT is submitted to EPA.

9 PERMIT CONDITIONS APPLICABLE TO SPECIFIC STATES, INDIAN COUNTRY LANDS, OR TERRITORIES

The provisions in this Part provide modifications or additions to the applicable conditions of this permit to reflect specific additional conditions required as part of the state or tribal CWA Section 401 certification process, or the Coastal Zone Management Act (CZMA) certification process, or as otherwise established by the permitting authority. The specific additional revisions and requirements only apply to activities in those specific states, Indian country, and areas in certain states subject to construction projects by Federal Operators. States, Indian country, and areas subject to construction by Federal Operators not included in this Part do not have any modifications or additions to the applicable conditions of this permit.

9.1 EPA REGION 1

9.1.1 NHR100000 State of New Hampshire

a. If you disturb 100,000 square feet or more of contiguous area, you must also apply for an Alteration of Terrain (AoT) permit from DES pursuant to RSA 485- A:17 and Env-Wq 1500. This requirement also applies to a lower disturbance threshold of 50,000 square feet or more when construction occurs within the protected shoreline under the Shoreland Water Quality Protection Act (see RSA 483-B and Env-Wq 1400). A permit application must also be filed if your project disturbs an area of greater than 2,500 square feet, is within 50 feet of any surface water, and has a flow path of 50 feet or longer disturbing a grade of 25 percent or greater. Project sites with disturbances smaller than those discussed above, that have the potential to adversely affect state surface waters, are subject to the conditions of an AoT General Permit by Rule.

b. You must determine that any excavation dewatering discharges are not contaminated before they will be authorized as an allowable non-stormwater discharge under this permit (see Part 1.2.2). The water is considered uncontaminated if there is no groundwater contamination within 1,000 feet of the groundwater dewatering location. Information on groundwater contamination can be generated over the Internet via the NHDES web site http://des.nh.gov/ by using the One Stop Data Mapper at http://des.nh.gov/onestop/gis.htm. If it is determined that the groundwater to be dewatered is near a remediation or other waste site you must

apply for the Remediation General Permit (see https://www3.epa.gov/region1/npdes/rgp.html.)

c. You must treat any uncontaminated excavation dewatering discharges as necessary to remove suspended solids and turbidity. The discharges must be sampled at least once per week during weeks when discharges occur. Samples must be analyzed for total suspended solids (TSS) or turbidity and must meet monthly average and daily maximum limits of 50 milligrams per liter (mg/L) and 100 mg/L, respectively for TSS or 33 mg/l and 67 mg/l, respectively for turbidity. TSS (a.k.a. Residue, Nonfilterable) or turbidity sampling and analysis must be performed in accordance with Tables IB and II in 40 CFR 136.3 (http://www.ecfr.gov/cgi-bin/text-idx?SID=0243e3c4283cbd7d8257eb6afc7ce9a2&mc=true&node=se40.25.136_13&rgn=div8). Records of any sampling and analysis must be maintained and kept with the SWPPP for at least three years after final site stabilization.

d. Construction site owners and operators must consider opportunities for post-construction groundwater recharge using infiltration best management practices (BMPs) during site design and preparation of the SWPPP. If your construction site is in a town that is required to obtain coverage under the NPDES General Permit for discharges from Municipal Separate Storm Sewer Systems (MS4) you may be required to use such practices. The SWPPP must include a description of any on-site infiltration that will be installed as a post-construction stormwater management measure or reasons for not employing such measures such as 1) The facility is located in a wellhead protection area as defined in RSA 485- C:2; or 2) The facility is located in an area where groundwater has been reclassified to GAA, GAI or GA2 pursuant to RSA 485-C and Env-DW 901; or 3) Any areas that would be exempt from the groundwater recharge requirements contained in Env-Wq 1507.04(e), including all land uses or activities considered to be a "High-load Area" (see Env-Wq 1502.26). For design considerations for infiltration measures see Volume II of the NH Stormwater Manual.

e. Appendix F contains a list of Tier 2, or high quality waters. Although there is no official list of tier 2 waters, it can be assumed that all NH surface waters are tier 2 for turbidity unless 1) the surface water that you are proposing to discharge into is listed as impaired for turbidity in the states listing of impaired waters (see Surface Water Quality - Watershed Report Cards at http://des.nh.gov/organization/divisions/water/wmb/swqa/report_cards.htm) or 2) sampling upstream of the proposed discharge location shows turbidity values greater than 10 NTU. A single grab sample collected during dry weather (no precipitation within 48 hours) is acceptable.

f. To ensure compliance with RSA 485-C, RSA 485-A, RSA 485-A:13, I(a), Env-Wq 1700 and Env-Wq 302, the following information may be requested by NHDES. This information must be kept on site unless you receive a written request from NHDES that it be sent to the address shown in Part 9.1.4 (g).

   i. A site map required in Part 7.2.4, showing the type and location of all post-construction infiltration BMPs utilized at the facility or the reason(s) why none were installed;

   ii. A list of all non-stormwater discharges that occur at the facility, including their source locations and the control measures being used (see Part 1.2.2).

iii. Records of sampling and analysis of TSS required for construction dewatering discharges (see Part 9.1.4 (c)).

g. All required or requested documents must be sent to:

NH Department of Environmental Services, Wastewater Engineering Bureau,
Permits & Compliance Section
P.O. Box 95
Concord, NH 03302-0095

9.2 EPA REGION 3

9.2.1 DCR100000 District of Columbia

a. The permittee must comply with the District of Columbia Water Pollution Control Act of 1984, as amended, (D.C. Official Code §8-103.01 *et seq.*) and its implementing regulations in Title 21, Chapters 11 and 19 of the District of Columbia Municipal Regulations. Nothing in this permit will be construed to preclude the institution of any legal action or relieve the permitee from any responsibilities, liabilities, or penalties established pursuant to District of Columbia laws and regulations.

b. The permittee must comply with the District of Columbia Stormwater Management, and Soil Erosion and Sediment Control in Chapter 5 of Title 21 of the District of Columbia Municipal Regulations.

c. The permittee must comply with the District of Columbia Flood Management control in Chapter 31 of Title 20 of the District of Columbia Municipal Regulations.

d. The Department may request a copy of the Stormwater Pollution Prevention Plan (SWPPP) and the permittee is required to submit the SWPPP to the Department with 14 days of such request. The Department may conduct an inspection of any facility covered by this permit to ensure compliance with District's law requirements including water quality.

9.2.2 DER10F000 Areas in the State of Delaware subject to construction by a Federal Operator

a. Federal agencies engaging in construction activities must submit, to DNREC, a sediment and stormwater management (S&S) plan and obtain approval from DNREC in accordance with 7 Del. C. §4010, 7 DE Admin. Code 5101, and 7 DE Admin. Code 7201.

b. Federal agencies engaging in construction activities must provide for construction review by a certified construction reviewer in accordance with 7 Del. C. §§4010 & 4013 and 7 DE Admin. Code 5101, subsection 6.1.6.

c. Federal agencies engaging in construction activities must certify that all responsible personnel involved in the construction project will have attended the blue card training prior to initiation of any land disturbing activity – *see* 7 Del. C. §§ 4002 & 4014 and 7 DE Admin. Code 5101.

9.3 EPA REGION 5

9.3.1 MNR10I000 Indian country within the State of Minnesota

9.3.1.1 Fond du Lac Band of Lake Superior Chippewa. The following conditions apply only to discharges on the Fond du Lac Band of Lake Superior Chippewa Reservation:

a. A copy of the Stormwater Pollution Prevention Plan (SWPPP) must be submitted to the Office of Water Protection at least fifteen (15) days in advance of sending the Notice of Intent (NOI) to EPA. The SWPPP can be submitted electronically to richardgitar@FDLREZ.com or by hardcopy sent to:

   Fond du Lac Reservation
   Office of Water Protection
   1720 Big Lake Road
   Cloquet, MN 55720

   CGP applicants are encouraged to work with the FDL Office of Water Protection in the identification of all proposed receiving.

b. Copies of the Notice of Intent (NOI) and the Notice of Termination (NOT) must be sent to the Fond du Lac Office of Water Protection at the same time they are submitted to EPA.

c. The turbidity limit shall NOT exceed 10% of natural background within the receiving water(s) as determined by Office of Water Protection staff.

d. Turbidity sampling must take place within 24 hours of a ½-inch or greater rainfall event. The results of the sampling must be reported to the Office of Water Protection within 7 days of the sample collection. All sample reporting must include the date and time, location (GPS: UTM/Zone 15), and NTU. CGP applicants are encouraged to work with the Office of Water Protection in determining the most appropriate location(s) for sampling.

e. Receiving waters with open water must be sampled for turbidity prior to any authorized discharge as determined by Office of Water Protection staff. This requirement only applies to receiving waters in which no ambient turbidity data exists.

f. This Certification does not pertain to any new discharge to Outstanding Reservation Resource Waters (ORRW) as described in §105 b.3. of the Fond du Lac Water Quality Standards (Ordinance #12/98, as amended). Although additional waters may be designated in the future, currently Perch Lake, Rice Portage Lake, Miller Lake, Deadfish Lake, and Jaskari Lake are designated as ORRWs. New dischargers wishing to discharge to an ORRW must obtain an individual permit from EPA for stormwater discharges from large and small construction activities.

g. All work shall be carried out in such a manner as will prevent violations of water quality criteria as stated in the Water Quality Standards of the Fond du Lac Reservation, Ordinance 12/98, as amended. This includes, but is not limited to, the prevention of any discharge that causes a condition in which visible solids, bottom deposits, or turbidity impairs the usefulness of water of the Fond du Lac Reservation for any of the uses designated in the Water Quality Standards of the Fond du Lac Reservation. These uses include wildlife, aquatic life, warm water fisheries, cold water fisheries, subsistence fishing (netting), primary contact recreation, secondary contact recreation, cultural, wild rice areas, aesthetic waters, agriculture, navigation, and commercial.

h. Appropriate steps shall be taken to ensure that petroleum products or other chemical pollutants are prevented from entering waters of the Fond du Lac Reservation. All spills must be reported to the appropriate emergency management

agency (National Response Center AND the State Duty Officer), and measures shall be taken immediately to prevent the pollution of waters of the Fond du Lac Reservation, including groundwater. The Fond du Lac Office of Water Protection must also be notified immediately of any spill regardless of size.

i. This certification does not authorize impacts to cultural, historical, or archeological features or sites, or properties that may be eligible for such listing.

9.3.1.2 Grand Portage Band of Lake Superior Chippewa. The following conditions apply only to discharges on the Grand Portage Band of Lake Superior Chippewa Reservation:

a. The CGP authorization is for construction activities that may occur within the exterior boundaries of the Grand Portage Reservation in accordance to the Grand Portage Land Use Ordinance. The CGP regulates stormwater discharges associated with construction sites of one acre or more in size. Only those activities specifically authorized by the CGP are authorized by this certification (the "Certification"). This Certification does not authorize impacts to cultural, historical, or archeological features or sites, or properties that may be eligible for listing as such.

b. All construction stormwater discharges authorized by the CGP must comply with the Water Quality Standards and Water Resources Ordinance, as well as Applicable Federal Standards (as defined in the Water Resources Ordinance). As such, appropriate steps must be taken to ensure that petroleum products or other chemical pollutants are prevented from entering the Waters of the Reservation (as defined in the Water Resources Ordinance). All spills must be reported to the appropriate emergency-management agency, and measures must be taken to prevent the pollution of the Waters of the Reservation, including groundwater.

c. The 2017 CGP requires inspections and monitoring reports of the construction site stormwater discharges by a qualified person. Monitoring and inspection reports must comply with the minimum requirements contained in the 2017 CGP. The monitoring plan must be prepared and incorporated into the Stormwater Pollution Prevention Plan (the "SWPPP"). A copy of the SWPPP must be submitted to the Board at least 30 days in advance of sending the requisite Notice of Intent to EPA. The SWPPP should be sent to:

Grand Portage Environmental Resources Board
P.O. Box 428
Grand Portage, MN 55605

Copies of the Notice of Intent and Notice of Termination required under the CGP must be submitted to the Board at the address above at the same time they are submitted to the EPA.

d. If requested by the Grand Portage Environmental Department, the permittee must provide additional information necessary for a case-by-case eligibility determination to assure compliance with the Water Quality Standards and any Applicable Federal Standards.

e. Discharges that the Board has determined to be or that may reasonably be expected to be contributing to a violation of Water Quality Standards or Applicable Federal Standards are not authorized by this Certification.

f. The Board retains full authority provided by the Water Resources Ordinance to ensure compliance with and to enforce the provisions of the Water Resource Ordinance and Water Quality Standards, Applicable Federal Standards, and these Certification conditions.

g. Appeals related to Board actions taken in accordance with any of the preceding conditions may be heard by the Grand Portage Tribal Court.

9.3.2 WIR10I000 Indian country within the State of Wisconsin, except the Sokaogon Chippewa (Mole Lake) Community

9.3.2.1 Bad River Band of Lake Superior Tribe of Chippewa Indians: The following conditions apply only to discharges on the Bad River Band of the Lake Superior Tribe of Chippewa Indians Reservation:

a. Only those activities specifically authorized by the CGP are authorized by this Certification. This Certification does not authorize impacts to cultural properties, or historical sites, or properties that may be eligible for listing as such.[61, 62]

b. Operators are not eligible to obtain authorization under the CGP for all new discharges to an Outstanding Tribal Resource Water (or Tier 3 water).[63] Outstanding Tribal Resource Waters, or Tier 3 waters, include the following: Kakagon Slough and the lower wetland reaches of its tributaries that support wild rice, Kakagon River, Bad River Slough, Honest John Lake, Bog Lake, a portion of Bad River, from where it enters the Reservation through the confluence with the White River, and Potato River.[64]

c. Projects utilizing cationic treatment chemicals[65] within the Bad River Reservation boundaries are not eligible for coverage under the CGP.[66]

d. All projects which are eligible for coverage under the CGP and are located within the exterior boundaries of the Bad River Reservation shall be implemented in such a manner that is consistent with the Tribe's Water Quality Standards (WQS).[67]

e. An operator proposing to discharge to an Outstanding Resource Water (or Tier 2.5 water) under the CGP must comply with the antidegradation provisions of the Tribe's WQS. Outstanding Resource Waters, or Tier 2.5 waters, include the following: a portion of Bad River, from downstream the confluence with the White River to Lake Superior, White River, Marengo River, Graveyard Creek, Bear Trap Creek, Wood Creek, Brunsweiler River, Tyler Forks, Bell Creek, and Vaughn Creek.[68] The antidegradation

[61] Bad River Band of Lake Superior Tribe of Chippewa Indians Water Quality Standards adopted by Resolution No. 7-6-11-441 (hereafter, Tribe's WQS).

[62] 36 C.F.R. § 800.16(l)(2).

[63] Tribe's WQS: See provisions E.3.ii. and E.4.iv.

[64] Tribe's WQS: See provision E.2.iii.

[65] See definition of cationic treatment chemicals in Appendix A of the CGP.

[66] Tribe's WQS: See provisions E.6.ii.a. and E.6.ii.c.

[67] See footnote 61.

[68] Tribe's WQS: See provision E.2.ii.

demonstration materials described in provision E.4.iii. must be submitted to the following address:

Bad River Tribe's Natural Resources Department
Attn: Water Resources Specialist
P.O. Box 39
Odanah, WI 54861

f. An operator proposing to discharge to an Exceptional Resource Water (or Tier 2 water) under the CGP must comply with the antidegradation provisions of the Tribe's WQS. Exceptional Resource Waters, or Tier 2 waters, include the following: any surface water within the exterior boundaries of the Reservation that is not specifically classified as an Outstanding Resource Water (Tier 2.5 water) or an Outstanding Tribal Resource Water (Tier 3 water).[69] The antidegradation demonstration materials described in provision E.4.ii. must be submitted to the following address:

Bad River Tribe's Natural Resources Department
Attn: Water Resources Specialist
P.O. Box 39
Odanah, WI 54861

g. A discharge to a surface water within the Bad River Reservation boundaries shall not cause or contribute to an exceedance of the turbidity criterion included in the Tribe's WQS, which states: Turbidity shall not exceed 5 NTU over natural background turbidity when the background turbidity is 50 NTU or less, or turbidity shall not increase more than 10% when the background turbidity is more than 50 NTU.[70]

h. All projects which are eligible for coverage under the CGP within the exterior boundaries of the Bad River Reservation must comply with the Bad River Reservation Wetland and Watercourse Protection Ordinance, or Chapter 323 of the Bad River Tribal Ordinances, including the erosion and sedimentation control, natural buffer, and stabilization requirements. Questions regarding Chapter 323 and requests for permit applications can be directed to the Wetlands Specialist in the Tribe's Natural Resources Department at (715) 682-7123 or wetlands@badriver-nsn.gov.

i. An operator of a project, which is eligible for coverage under the CGP, that would result in an allowable discharge under the CGP occurring within the exterior boundaries of the Bad River Reservation must notify the Tribe prior to the commencing earth-disturbing activities.[71, 72] The operator must submit a copy of the Notice of Intent (NOI) to the following addresses at the same time it is submitted to the U.S. EPA:

Bad River Tribe's Natural Resources Department
Attn: Water Resources Specialist
P.O. Box 39
Odanah, WI 54861

[69] Tribe's WQS: See provision E.2.i.

[70] Tribe's WQS: See provision E.7.iii.

[71] See footnote 61.

[72] See footnote 62.

Bad River Tribe's Natural Resources Department
Attn: Tribal Historic Preservation Officer (THPO)
P.O. Box 39
Odanah, WI 54861

The operator must also submit a copy of the Notice of Termination (NOT) to the above addresses at the same time it is submitted to the U.S. EPA.

j. The THPO must be provided 30 days to comment on the project.[73]

k. The operator must obtain THPO concurrence in writing. This written concurrence will outline measures to be taken to prevent or mitigate effects to historic properties. For more information regarding the specifics of the cultural resources process, see 36 CFR Part 800. A best practice for an operator is to consult with the THPO during the planning stages of an undertaking.[74]

l. An operator of a project, which is eligible for coverage under the CGP, that would result in an allowable discharge under the CGP occurring within the exterior boundaries of the Bad River Reservation must submit a copy of the Stormwater Pollution Prevention Plan (SWPPP) to the following address at the same time as submitting the NOI: [75]

Bad River Tribe's Natural Resources Department
Attn: Water Resources Specialist
P.O. Box 39
Odanah, WI 54861

m. Any corrective action reports that are required under the CGP must be submitted to the following address within one (1) working day of the report completion: [76]

Bad River Tribe's Natural Resources Department
P.O. Box 39
Odanah, WI 54861

n. An operator shall be responsible for meeting any additional permit requirements imposed by the U.S. EPA necessary to comply with the Tribe's antidegradation policies if the discharge point is located upstream of waters designated by the Tribe.[77]

9.3.2.2 Lac du Flambeau Band of Lake Superior Tribe of Chippewa Indians: The following conditions apply only to discharges on the Lac du Flambeau Band of the Lake Superior Tribe of Chippewa Indians Reservation:

a. A copy of the Stormwater Pollution Prevention Plan must be submitted to the following office, for the Traival environmental review process, at least thirty (30) days in advance of sending the Notice of Intent (NOI) to EPA:

Lac du Flambeau
Tribal Land Management

[73] 36 C.F.R. § 800.3(c)(4).

[74] 36 C.F.R. § 800.3(b).

[75] See footnote 61.

[76] See footnote 61.

[77] See footnote 61.

P.O. Box 279
Lac du Flambeau, WI 54538

CGP applicants are encouraged to work with the LdF Water Resources Program in the identification of all proposed receiving waters.

b. Copies of the NOI and the Notice of Termination (NOT) must be sent to the LdF Water Resources Program at the same time they are submitted to EPA.

c. All work shall be carried out in such a manner as will prevent violations of water quality criteria as stated in the Water Quality Standards of the Lac du Flambeau Reservation. This includes, but is not limited to, the prevention of any discharge that cause a condition in which visible solids, bottom deposits, or turbidity impairs the usefulness of water of the Lac du Flambeau Reservation for any of the uses designated in the Water Quality Standards of the Lac du Flambeau Reservation.

d. Appropriate steps shall be taken to ensure that petroleum products or other chemical pollutants are prevented from entering waters of the Lac du Flambeau Reservation. All spills must be reported to the appropriate emergency management agency, and measures shall be taken immediately to prevent the pollution of waters of the Lac du Flambeau reservation, including groundwater.

e. This certification does not authorize impacts to cultural, historical, or archeological features or sties, or properties that may be eligible for such listing.

f. Due to the significant ecological and cultural importance of the Lac du Flambeau Reservation, any operator requesting a permit for a point source discharge of pollutants (i.e., discharge) associated with the Stormwater Discharge will need a stormwater pollution prevention plan in place that does not violate Lac du Flambeau Water Quality Standards to protect Reservation Waters.

9.4 EPA REGION 6

9.4.1 NMR100000 State of New Mexico, except Indian country

a. If construction dewatering activities are anticipated at a site, permittees must complete the following steps:

   i. Investigative information must be documented in the facility SWPPP.

   ii. Refer to the GWQB Mapper at https://gis.web.env.nm.gov/GWQB/ AND the PSTB Mapper (Go Mapper) at https://gis.web.env.nm.gov/GoNM/ and check if the following sources are located within the noted distance from your anticipated construct site groundwater dewatering activity:

Project Location Relative to a Source of Potential Groundwater Contamination	***Constituents likely to be required for testing***
Within 0.5 mile of an open Leaking Underground Storage Tank (LUST) site	*BTEX (Benzene, Toluene, Ethylbenzene, and Xylene) plus additional parameters depending on site conditions.**

Project Location Relative to a Source of Potential Groundwater Contamination	***Constituents likely to be required for testing***
Within 0.5 mile of an open Voluntary Remediation site	*All parameters listed in Appendix A (or an alternate list approved by the NMED SWQB)***
Within 0.5 mile of an open RCRA Corrective Action Site	
Within 0.5 mile of an open Abatement Site	
Within 0.5 mile of an open Brownfield Site	
Within 1.0 mile or *more of a Superfund site or National Priorities List (NPL) site with associated groundwater contamination.*	

**For further assistance determining whether dewatering may encounter impacted groundwater, the permittee may contact the NMED Ground Water Quality Bureau at: 505-827-2965.*

***EPA approved-sufficiently sensitive methods must be used - approved methods are listed in 40 CFR Part 136.3.*

iii. If dewatering activities are anticipated, information on flow and potential to encounter impacted groundwater must be provided directly to NMED at the following address:

Program Manager, Point Source Regulation Section
NMED Surface Water Quality Bureau
PO Box 5469, Santa Fe, NM 87502

Information may also be emailed - the contact information for the program manager is located on the website at: www.env.nm.gov/swqb/PSR.

iv. Permittee must test the quality of the water being considered for discharge. Permittees must contact the Point Source Regulation Section Program Manager for information on constituents that must be monitored.

v. Permittee must send test result data to EPA Region 6 and the NMED Surface Water Quality Bureau. If the test data exceed standards, it cannot be discharged from the construction site into surface waters under this permit. Discharge to surface waters must be conducted under a separate NPDES individual permit to ensure proper treatment and disposal.

vi. If disposal will be to the ground surface or in an unlined pond, the permittee must submit an NOI/ to the NMED Ground Water Quality Bureau.

b. Operators are not eligible to obtain authorization under this permit for all new and existing storm water discharges to outstanding national resource waters (ONRWs) (also referred to as "Tier 3" waters.)

i. Although state WQS provide for temporary and short-term degradation of water quality in an ONRW under very limited circumstances if approved by the Water Quality Control Commission as specified at 20.6.4.8.A NMAC, the approval process required for these activities does not lend itself for use for projects covered under this general permit. This condition is necessary to ensure that no degradation is allowed in ONRWs by requiring proposed storm water discharges to be reviewed under the individual permit process. Tier 3 waters are defined in Appendix F of the proposed permit.

c. Operators who intend to obtain authorization under this permit for new and existing storm water discharges from construction sites must satisfy the following condition: The SWPPP must include site-specific interim and permanent stabilization, managerial, and structural solids, erosion and sediment control best management practices (BMPs) and/or other controls that are designed to prevent to the maximum extent practicable an increase in the sediment yield and flow velocity from pre-construction, pre-development conditions to assure that applicable standards in 20.6.4.NMAC, including the antidegradation policy, or TMDL waste load allocations (WLAs) are met. This requirement applies to discharges both during construction and after construction operations have been completed. The SWPPP must identify and document the rationale for selecting these BMPs and/or other controls. The SWPPP must also describe design specifications, construction specifications, maintenance schedules (including a long term maintenance plan), criteria for inspections, and expected performance and longevity of these BMPs. For sites greater than 5 acres in size, BMP selection must be made based on the use of appropriate soil loss prediction models (i.e. SEDCAD, RUSLE, SEDIMOT, MULTISED, etc.) OR equivalent generally accepted (by professional erosion control specialists) soil loss prediction tools.

   i. For all sites, the operator(s) must demonstrate, and include documentation in the SWPPP, that implementation of the site-specific practices will assure that the applicable standards or TMDL WLAs are met, and will result in sediment yields and flow velocities that, to the maximum extent practicable, will not be greater than the sediment yield levels and flow velocities from preconstruction, pre-development conditions.

   ii. All SWPPPs must be prepared in accordance with good engineering practices by qualified (e.g. CPESC certified, engineers with appropriate training) erosion control specialists familiar with the use of soil loss prediction models and design of erosion and sediment control systems based on these models (or equivalent soil loss prediction tools). Qualifications of the preparer (e.g., professional certifications, description of appropriate training) must be documented in the SWPPP. The operator(s) must design, implement, and maintain BMPs in the manner specified in the SWPPP.

d. State regulations at 20.6.2.1203 NMAC state: *With respect to any discharge from any facility of oil or other water contaminant, in such quantity as may with reasonable probability injure or be detrimental to human health, animal or plant life, or property, or unreasonably interfere with the public welfare or the use of property, the following notifications and corrective actions are required*:

   i. As soon as possible after learning of such a discharge, but in no event more than twenty-four (24) hours thereafter, any person in charge of the facility shall orally notify the Chief of the Ground Water Quality Bureau of the department, or his counterpart in any constituent agency delegated responsibility for enforcement of these rules as ta any facility subject to such delegation.

   Permittees can call 505-827-9329 for emergencies at any time and 505-476-6000 for non-emergencies during business hours from 5am-5pm, Monday through Friday.

e. NMED does not allow permittees to use the Equivalent Analysis Waiver.

9.4.2 NMR10I000 Indian country within the State of New Mexico, except Navajo Reservation Lands that are covered under Arizona permit AZR10000I and Ute Mountain Reservation Lands that are covered under Colorado permit COR10000I.

9.4.2.1 Pueblo of Isleta. The following conditions apply only to discharges on the Pueblo of Isleta Reservation:

a. CGP at 1.3 Prohibited discharges: Stormwater discharges associated with construction activity that EPA or the Pueblo of Isleta, prior to authorization under this perm it, determines will cause, have the reasonable potential to cause, or may reasonably be expected to contribute to a violation or excursion of any applicable water quality standard, including the antidegradation policy, or the impairment of a designated use of receiving waters are not authorized by this permit.

b. CGP at 1.4.1 How to Submit Your NOI: The operator shall provide a copy of the Notice of Intent ("NOI") to the Pueblo of Isleta at the same time it is submitted to the U.S. Environmental Protection Agency, for projects occurring within the exterior boundaries of the Pueblo of Isleta. The operator shall also notify the Pueblo of Isleta when it has submitted the Notice of Termination ("NOT"). The NOI and NOT shall be sent to the Pueblo of Isleta at the following address:

Water Quality Control Officer
Pueblo of Isleta
Environment Division
PO Box 1270
Isleta, NM 87022
(505) 869-7565
E-mail: POI36871@isletapueblo.com

Overnight/Express Mail Delivery
Pueblo of Isleta
Environment Division
6 Sagebrush St.
Albuquerque, NM 87105

c. CGP at 1.5 Requirement to post a notice of your permit coverage: Amend to read: "You must post a sign or other notice of your permit coverage at a safe, publicly accessible location in close proximity to the construction site. The notice must be located so that it is visible from the public road or tribal road that is nearest to the active part of the construction site…"

d. CGP at 7.2.6 Description of stormwater controls: The SWPPP will be considered to be incomplete if the operator has not coordinated requirements under this Part with the Pueblo of Isleta Public Services Department.

e. CGP I.12.6.1 at pg.I-6 of 8. The Pueblo of Isleta requests notification within 10 hours (rather than 24 hrs.) if health or the environment become endangered.

f. CGP at I.12.2 Anticipated noncompliance: Amend to read: "You must give advance notice to EPA and the Pueblo of Isleta at the address indicated in 1.4.1(a) of any planned changes in the permitted facility or activity which may results in noncompliance with permit requirements."

g. CGP at I.12.6.1: Any noncompliance for projects within the exterior boundaries of the Pueblo of Isleta which may endanger health or the environment shall be reported directly to the EPA Regional Office [(see contacts at https://www.epa.gov/npdes/contact-us-stormwater#regional) l and to the Pueblo of Isleta Water Quality Control Officer. Any information must be provided orally with n 12 hours of the time you become aware of the circumstances. Other requirements of

this Part for a written submission apply. Electronic communication (E-mail) shall be provided as soon as practical. Verbal notice shall be provided to:

Water Quality Control Officer
Pueblo of Isleta
E-mail: POI36871@isletapueblo.com
(505) 869-7565
(505) 263-5425 cellular
(505) 869-3030 Police Dispatch

h. CGP at 2.2 Erosion and sediment control requirements: Erosion and sediment controls shall be designed to retain sediment on-site.

i. CGP at 2.2 Under Sediment control requirements, Standard Permit Condition Duty to Mitigate Volumes of sediment at or over (five) 5 cubic yards must be removed and placed for disposal within a tribally approved sediment Disposal Site, located on Pueblo of Isleta lands. CGP 2.2 at pg. 8.

j. Under Minimize erosion, a permittee must secure permission from the Pueblo or affected Pueblo of Isleta land assignment owner if a dissipation device needs to be placed up- or down- elevation of a given construction site. CGP 2.2.11 at pg. 11.

k. CGP at 2.3.6 Emergency spill notification requirements: You must notify the Pueblo of Isleta Water Quality Control Officer and National Response Center (NRC) [at (800) 424-8802 or, in the Washington, DC metropolitan area, call (202) 267-2675 in accordance with the requirements of 40 CFR 110, 40 CFR 117, and 40 CFR 302] as soon as you have knowledge of the release. Verbal and electronic notice shall be provided as specified in I.12.6.1

l. CGP at C.3 Equivalent analysis waiver: Parties wishing to apply for an Equivalent Analysis Waiver (see Appendix D, Section C) must provide a copy of the waiver analysis to the Pueblo of Isleta Water Quality Control Officer at the address indicated in 1.4.1 (a).

9.4.2.2 Pueblo of Sandia. The following conditions apply only to discharges on the Pueblo of Sandia Reservation:

a. Only those activities specifically authorized by the CGP are authorized by the Pueblo of Sandia's Water Quality certification. The Pueblo of Sandia's Water Quality Certification does not authorize impact to cultural properties, historical sites or properties that may be eligible as such.

b. Copies of all Notices of Intent (NOI) submitted to the EPA must also be sent concurrently to the Pueblo of Sandia at the following address. Discharges are not authorized by this permit unless an accurate and complete NOI has been submitted to the Pueblo of Sandia, either by mail or electronically.

Regular U.S. Delivery Mail:
Pueblo of Sandia Environment Department
Attention: Scott Bulgrin, Water Quality Manager
481 Sandia Loop
Bernalillo, New Mexico 87004

Electronically:
sbulgrin@sandiapueblo.nsn.us

c. Any correspondences between the applicant and EPA related to analytical data, written reports, corrective action, enforcement, monitoring, or an adverse incident written reports should likewise be routed to the Pueblo of Sandia at the above address.

d. The Stormwater Pollution Prevention Plan (SWPPP) must be available to the Pueblo of Sandia Environment Department either electronically or hard copy upon request for review. The SWPPP must be made available at least fourteen (14) days before construction begins. The fourteen (14) day period will give Pueblo staff time to become familiar with the project site, prepare for construction site inspections, and determine compliance with the Pueblo of Sandia Water Quality Standards. Failure to provide a SWPPP to the Pueblo of Sandia may result in the delay or denial of the construction project.

e. If requested by the Pueblo of Sandia Environment Department, the permittee must provide additional information necessary for a case-by-case eligibility determination to assure compliance with the Pueblo of Sandia Water Quality Standards and/or applicable Federal Standards not authorized by this certification.

f. An "Authorization to Proceed Letter" with site specific mitigation requirements may be sent out to the permittee when a review of the NOI and SWPPP, on a case- by-case basis is completed by the Pueblo of Sandia Environment Department. This approval will allow the application to proceed if all mitigation requirements are met.

g. The Pueblo of Sandia will not allow Small construction Waivers (Appendix C) or the Rainfall Erosivity Waiver (Appendix C.1) to be granted for any small construction activities.

h. Before submitting a Notice of Termination (NOT) to the EPA, permittees must clearly demonstrate to the Pueblo of Sandia Environment Department through a site visit or documentation that requirements for site stabilization have been met and any temporary erosion control structures have been removed. A short letter stating the NOT is acceptable and all requirements have been met will be sent to the permittee to add to the permittee's NOT submission to EPA.

i. Copies of all NOT submitted to the EPA must also be sent concurrently to the Pueblo of Sandia through the mail or electronically.

Regular U.S. Delivery Mail:
Pueblo of Sandia Environment Department
Attention: Scott Bulgrin, Water Quality Manager 481 Sandia Loop
Bernalillo, New Mexico 87004

Electronically:
sbulgrin@sandiapueblo.nsn.us

j. The Pueblo of Sandia may require the permittee to perform water quality monitoring for pH, turbidity, and total suspended solids (TSS) during the permit term if the discharge is to a surface water leading to the Rio Grande for the protection of public health and the environment.

9.4.2.3 Pueblo of Santa Ana. The following conditions apply only to discharges on the Pueblo of Santa Ana Reservation:

a. The operator shall provide a copy of the Notice of Intent (NOI) to the Pueblo of Santa Ana (the Pueblo), at the same time it is submitted to the U.S. Environmental Protection Agency (EPA), for projects with discharges onto the lands of the Pueblo as defined in the Pueblo of Santa Ana Water Quality Standards.

b. The operator shall provide a copy of the Stormwater Pollution Prevention Plan (SWPPP), at the same time that an NOI is submitted to the EPA, to the Pueblo for projects with discharges onto the lands of the Pueblo as defined in the Pueblo of Santa Ana Water Quality Standards.

c. The operator shall provide a copy of the SWPPP, copies of inspections reports, and copies of corrective action reports to the Pueblo at the address below for review, upon request.

d. The NOI, SWPPP and Notice of Termination (NOT) shall be sent to the Pueblo at the following address:

Pueblo of Santa Ana Department of Natural Resources,
Attention: Water Quality Program Specialist
2 Dove Road
Santa Ana Pueblo, NM, 87004

e. Discharges are not authorized by this permit unless an accurate and complete NOI and SWPPP have been submitted to the Pueblo. Failure to provide an accurate and complete NOI and SWPPP may result in a denial of the discharge permit or groundbreaking or construction delay.

f. The operator will not proceed with site work until authorized by the Pueblo. The Pueblo requires review of the complete and final SWPPP by the Pueblo before authorization to proceed. The Pueblo will provide an "authorization to proceed" notice after review and approval of the SWPPP.

g. Before submitting a NOT, permittees must certify to the Pueblo's Department of Natural Resources in writing that requirements for site stabilization have been met, and any temporary erosion control structures have been removed. Documentation of the Pueblo's review that such requirements have been reviewed and met will be provided for the permittee to add to the permittee's NOT submission to EPA. Copies of all NOT submitted to the EPA must also be sent to the Pueblo at the address provided above.

9.4.2.4 Pueblo of Santa Clara. The following conditions apply only to discharges on the Pueblo of Santa Clara Reservation:

a. The operator must provide a copy of the Notice of Intent (NOI) and Notice of Termination (NOT) to the Santa Clara Pueblo Governor's Office at the same time it is provided to the US Environmental Protection Agency.

b. A copy of the Storm water Pollution Prevention Plan shall be made available to the Pueblo of Santa Clara staff upon request.

9.4.2.5 Pueblo of Tesuque. The following conditions apply only to discharges on the Pueblo of Tesuque Reservation:

a. The operator shall provide a copy of the Notice of Intent (NOI) to the Pueblo of Tesuque Governor's Office and Environment Department at same time it is submitted to the Environmental Protection Agency, for projects occurring within the exterior boundaries of our tribal lands. The operator shall also notify the Pueblo of Tesuque Governor's Office and Environment Department when it submitted the Notice of Termination. The NOI and NOT shall be sent to the Pueblo of Tesuque Governor's Office and Environment Department at the following address:

Pueblo of Tesuque
Office of the Governor
Route 42 Box 360-T
Santa Fe, NM 87506 or
email: governor@puebloftesuque.org

b. The operator shall also provide a copy of the Stormwater Pollution Prevention Plan, copies of inspections reports, and copies of corrective action reports to staff in the Pueblo of Tesuque Environment Department.

9.4.2.6 Taos Pueblo. The following conditions apply only to discharges on the Taos Pueblo Reservation:

a. The operator shall provide a copy of the Notice of Intent (NOI) to the Taos Pueblo Governor's Office, War Chief's Office and Environmental Office, at the same time it is submitted to the U.S. Environmental Protection Agency, for projects occurring within the exterior boundaries of Taos Pueblo. The operator shall also notify Taos Pueblo when it has submitted the Notice of Termination (NOT). The NOI and NOT shall be sent to the Taos Pueblo at the following addresses:

i. Taos Pueblo Governor's Office
P.O. Box 1846
Taos NM 87571

ii. Taos Pueblo War Chief's Office
P.O. Box 2596
Taos NM 87571

iii. Environmental Office
Attn: Program Manger
P.O. Box 1846
Taos NM 87571

b. Taos Pueblo requests that in the event Indian artifacts or human remains are inadvertently discovered on projects occurring near or on Taos Pueblo lands that consultation with the tribal Governor's Office occur at the earliest possible time.

c. The operator shall provide a copy of the Stormwater Pollution Prevention Plan, copies of inspections reports, and copies of corrective action reports to staff in the Taos Pueblo Environmental Office for review and copy, upon request.

9.4.2.7 Ohkay Owingeh. The following conditions apply only to discharges on the Ohkay Owingeh Reservation:

a. Prior to commencement of any construction activity on Ohkay Owingeh Lands requiring permit coverage under EPA's Construction General Permit, the operator(s) shall submit to Ohkay Owingeh Office of Environmental Affairs, a copy of the electronic "Notice of Intent," submitted to the Environmental Protection Agency, immediately following EPA's electronic notification that the NOI has been received. A copy of the Stormwater Pollution Prevention Plan(s) must be made available to the Ohkay Owingeh Office of Environmental Affairs upon the tribe's request either electronically or hard copy. Operator(s) shall also submit to Ohkay Owingeh Office of Environmental Affairs a copy of the electronic Notice of Termination (NOT) submitted to the Environmental Protection Agency. Documents shall be submitted to Ohkay Owingeh at the following address:

Ohkay Owingeh Office of Environment Affairs
Attention: Environmental Programs Manager
P.O. Box 717
Ohkay Owingeh, New Mexico 87566
Office # 505.852.4212
Fax # 505.852.1432
Electronic mail: naomi.archuleta@ohkay.org

b. Ohkay Owingeh will not allow the Rainfall Erosivity Waivers (see Appendix C) to be granted for any small construction activities.

c. All vegetation used to prevent soil loss, seeding or planting of the disturbed area(s) to meet the vegetative stabilization requirements must utilize native seeds/vegetation commonly known to the area. All temporary erosion control structures, such as silt fences must be removed as soon as stabilization requirements are met.

9.4.3 OKR10I000 Indian country within the State of Oklahoma

9.4.3.1 Pawnee Nation. The following conditions apply only to discharges within Pawnee Indian country:

a. Copies of the Notice of Intent (NOI) and Notice of Termination (NOT) must be provided to the Pawnee Nation at the same time it is submitted to the Environmental Protection Agency to the following address:

Pawnee Nation Department of Environmental Conservation and Safety
P.O. Box 470
Pawnee, OK 74058
Or email to mmatlock@pawneenation.org

b. The Storm Water Pollution Prevention Plan must be available to Departmental inspectors upon request.

c. The Department must be notified at 918.762.3655 immediately upon discovery of any noncompliance with any provision of the permit conditions.

9.4.4 OKR10F000 Discharges in the State of Oklahoma that are not under the authority of the Oklahoma Department of Environmental Quality, including activities associated with oil and gas exploration, drilling, operations, and pipelines (includes SIC Groups 13 and 46, and SIC codes 492 and 5171), and point source discharges associated with agricultural production, services, and silviculture (includes SIC Groups 01, 02, 07, 08, 09).

a. For activities located within the watershed of any Oklahoma Scenic River, including the Illinois River, Flint Creek, Barren Fork Creek, Upper Mountain Fork, Little Lee Creek, and Lee Creek or any water or watershed designated "ORW" in Oklahoma's Water Quality Standards, this permit may only be used to authorize discharges from temporary construction activities. Certification is denied for any on-going activities such as sand and gravel mining or any other mineral mining.

b. For activities located within the watershed of any Oklahoma Scenic River, including the Illinois River, Flint Creek, Barren Fork Creek, Upper Mountain Fork, Little Lee Creek, and Lee Creek or any water or watershed designated "ORW" in Oklahoma's Water Quality Standards, certification is denied for any discharges originating from support activities, including concrete or asphalt batch plants, equipment staging yards, material storage areas, excavated material disposal areas, or borrow areas.

c. In order to company with Oklahoma's Water Quality Standards, these conditions and restrictions also apply to any construction projects located wholly or partially on Indian Country lands within the State of Oklahoma.

9.5 EPA REGION 8

9.5.1 MTR10I000 Indian country within the State of Montana

9.5.1.1 The Confederated Salish and Kootenai Tribes of the Flathead Nation. The following conditions apply only to discharges on the Confederated Salish and Kootenai Tribes of the Flathead Nation Reservation:

a. Permittees must submit the Stormwater Pollution Prevention Plan (SWPPP) to the Confederated Salish and Kootenai Tribes at least 30 days before construction starts.

b. Before submitting the Notice of Termination (NOT), permittees must clearly demonstrate to an appointed Tribal staff person during an onsite inspection that requirements for site stabilization have been met.

c. The permittee must send a copy of the Notice of Intent (NOI) and the NOT to CSKT.

d. Permittees may submit their SWPPPs, NOIs and NOTs electronically to: clintf@cskt.org.

e. Written SWPPPs, NOIs and NOTs may be mailed to:

Clint Folden, Water Quality Regulatory Specialist
Confederated Salish and Kootenai Tribes
Natural Resources Department
P.O. Box 278
Pablo, MT 59855

9.6 EPA REGION 9

9.6.1 CAR10I000 Indian country within the State of California

9.6.1.1 Twenty-Nine Palms Band of Mission Indians. The following conditions apply only to discharges on the Twenty-Nine Palms Band of Mission Indians Reservation:

a. At the time the applicant submits its Notice of Intent (NOI) to the EPA, the applicant must concurrently submit written notification of the NOI and a copy of the Stormwater Pollution Prevention Plan (SWPPP) to the Twenty-Nine Palms Band of Mission Indians at the address below:

Tribal Environmental Coordinator
Twenty-Nine Palms Band of Mission Indians
46-200 Harrison Place
Coachella, CA 92236

b. The applicant must also concurrently submit to the Tribal Environmental Coordinator written notification of any other forms or information submitted to the EPA, including waivers, reporting, and Notice of Termination (NOT).

c. Permitted entities under the CGP must keep the Tribal EPA informed of authorized discharges under the CGP by submitting written information about the type, quantity, frequency and location, intended purpose, and potential human health and/or environmental effects of their activities. These requirements are pursuant to Section 4 of the Twenty-Nine Palms Band of Mission Indians Water Pollution Control Ordinance (022405A). This information may be submitted to Tribal EPA in the form of Stormwater Pollution Prevention Plans (SWPPPs), monitoring reports, or other reports as required

under the CGP. Spills, leaks, or unpermitted discharges must be reported in writing to Tribal EPA within 24 hours of the incident.

9.6.2 GUR100000 Island of Guam. The following conditions apply only to discharges on the Island of Guam:

a. Any earth-moving operations which require a permit must be obtained from the Department of Public Works (DPW) with clearance approval from various Government of Guam Agencies including Guam EPA prior to the start of any earth-moving activity.

b. In the event that the construction sites are within the Guam Sole Source Aquifer, the construction site owner and operator must consider opportunities to facilitate groundwater recharge for construction and post-construction implementing infiltration Best Management Practices. Stormwater disposal systems shall be designed and operated within the boundaries of the project. Stormwater systems shall not be permitted within any Wellhead Protection Zone unless the discharge meets the Guam Water Quality Standards within the zone. Waters discharged within the identified category G-2 recharge zone shall receive treatment to the degree required to protect the drinking water quality prior to it entering the category G-1 resource zone.

c. All conditions and requirements set forth in the 22 Guam Administrative Rules and Regulations (GARR), Division II, Water Control, Chapter 10, Guam Soil Erosion and Sediment Control Regulations (GSESCR) that are more protective than the CGP regarding construction activities must be complied with.

d. All standards and requirements set forth in the 22 GARR, Division II, Water Control, Chapter 5, *Guam Water Quality Standards (GWQS) 2001 Revisions*, must be complied with to include reporting GWQS exceedance to Guam EPA.

e. All operators/owners of any property development or earth moving activities shall comply with the erosion control pre-construction and post-construction BMP design performance standards and criteria set forth in the 2006 CNMI and Guam Stormwater Management Manual.

f. All conditions and requirements regarding dewatering activities set forth in 22 Guam Administrative Rules and Regulations Chapter 7, Water Resources Development and Operating Regulations must be complied with to include securing permits with Guam EPA prior to the start of any dewatering activities.

g. If a project to be developed is covered under the Federal Stormwater Regulations (40 CFR Parts 122 & 123), a Notice of Intent (NOI) to discharge stormwater to the surface and marine waters of Guam must be submitted to the U.S. EPA and a copy furnished to Guam EPA, pursuant to Section 10, 104(B)(5)(d) 22GAR, Division II, Chapter 10.

h. Guam EPA shall apply the Buffer Requirements listed in Appendix G of the CGP NPDES Permit for construction activities as it pertains to Waters of the U.S. in Guam. Guam EPA shall also apply the same buffer requirements for sinkholes in Guam.

i. When Guam EPA, through its permit review process, identifies that the proposed construction activity is close proximity to marine waters, contractors and owners will be informed that any activity that may impair water quality are required to stop

during peak coral spawning periods as per the Guam Coral Spawning Construction Moratoriums.

j. The Proposed Construction General Permit must set appropriate measures and conditions to protect Guam's Threatened and Endangered Species and Outstanding Resource Waters of exceptional recreational or ecological significance as determined by the Guam EPA Administrator as per *Guam Water Quality Standards 2001 Revisions,* §5102, Categories of Waters, D. Outstanding Resource Waters.

k. When Guam EPA through its permit review process identifies that proposed construction activity is in close proximity to any Section 303d impaired waters, which includes marine waters and surface waters, shall ensure that construction activity does not increase the impaired water's ambient parameters.

l. When Rainfall Erosivity and TMDL Waivers reflected in the CGP, Appendix C, are submitted to the U.S. EPA, Guam EPA will review waivers on a project by project basis.

m. Prior to submission of the Notice of Termination (NOT) to the U.S. EPA, permittees must clearly demonstration to Guam EPA that the project site has met all soil stabilization requirements and removal of any temporary erosion control as outlined in the GSESCR.

9.7 EPA REGION 10

9.7.1 IDR100000 State of Idaho, except Indian country

a. *Idaho's Antidegradation Policy*. The WQS contain an antidegradation policy providing three levels of protection to water bodies in Idaho (IDAPA 58.01.02.051).

1. Tier I Protection. The first level of protection applies to all water bodies subject to Clean Water Act jurisdiction and ensures that existing uses of a water body and the level of water quality necessary to protect those existing uses will be maintained and protected (IDAPA 58.01.02.051.01; 58.01.02.052.01). Additionally, a Tier 1 review is performed for all new or reissued permits or licenses (IDAPA 58.01.02.052.05).

2. Tier II Protection. The second level of protection applies to those water bodies considered high quality and ensures that no lowering of water quality will be allowed unless deemed necessary to accommodate important economic or social development (IDAPA 58.01.02.051.02; 58.01.02.052.08).

3. Tier III Protection. The third level of protection applies to water bodies that have been designated outstanding resource waters and requires that activities not cause a lowering of water quality (IDAPA 58.01.02.051.03; 58.01.02.052.09).

DEQ is employing a water body by water body approach to implementing Idaho's antidegradation policy. This approach means that any water body fully supporting its beneficial uses will be considered high quality (IDAPA 58.01.02.052.05.a). Any water body not fully supporting its beneficial uses will be provided Tier I protection for that use, unless specific circumstances warranting Tier II protection are met (IDAPA 58.01.02.052.05.c). The most recent federally approved Integrated Report and supporting data are used to determine support status and the tier of protection (IDAPA 58.01.02.052.05).

b. *Pollutants of Concern.* The primary pollutants of concern associated with stormwater discharges from construction activities are sediment, typically measured as total suspended solids and turbidity. Other potential pollutants include the following:

phosphorus, nitrogen, pesticides, organics, metals, PCBs, petroleum products, construction chemicals, and solid wastes.

c. *Receiving Water Body Level of Protection.* The CGP provides coverage to construction activities throughout the entire State of Idaho. Because of the statewide applicability, all of the jurisdictional waters within Idaho could potentially receive discharges either directly or indirectly from activities covered under the CGP. DEQ applies a water body by water body approach to determine the level of antidegradation a water body will receive.

All waters in Idaho that receive discharges from activities authorized under the CGP will receive, at minimum Tier I antidegradation protection because Idaho's antidegradation policy applies to all waters of the state. Water bodies that fully support their aquatic life or recreational uses are considered to be *high quality waters* and will receive Tier II antidegradation protection.

Although Idaho does not currently have any Tier III designated outstanding resource waters (ORWs) designated, it is possible for a water body to be designated as an ORW during the life of the CGP. Because of this potential, the antidegradation review also assesses whether the permit complies with the outstanding resource water requirements of Idaho's antidegradation policy.

To determine the support status of the receiving water body, persons filing a Notice of Intent (NOI) for coverage under this general permit must use the most recent EPA-approved Integrated Report, available on Idaho DEQ's website: http://www.deq.idaho.gov/water-quality/surface-water/monitoring-assessment/integrated-report/.

High quality waters are identified in Categories 1 and 2 of the Integrated Report. If a water body is in either Category 1 or 2, it is a Tier II water body.

Unassessed waters are identified as Category 3 of DEQ's Integrated Report. These waters require a case-by-case determination to be made by DEQ based on available information at the time of the application for permit coverage. If a water body is unassessed, the applicant is directed to contact DEQ for assistance in filing the NOI.

Impaired waters are identified in Categories 4 and 5 of the Integrated Report. Category 4(a) contains impaired waters for which a TMDL has been approved by EPA. Category 4(b) contains impaired waters for which controls other than a TMDL have been approved by EPA. Category 5 contains waters which have been identified as "impaired," for which a TMDL is needed. These waters are Tier I waters, for the use which is impaired. With the exception, if the aquatic life uses are impaired for any of these three pollutants—dissolved oxygen, pH, or temperature—and the biological or aquatic habitat parameters show a health, balanced biological community, then the water body shall receive Tier II protection, in addition to Tier I protection, for aquatic life uses (IDAPA 58.01.02.052.05.c.i.).

DEQ's webpage also has a link to the state's map-based Integrated Report which presents information from the Integrated Report in a searchable, map-based format: http://www.deq.idaho.gov/assistance-resources/maps-data/.

Water bodies can be in multiple categories for different causes. If assistance is needed in using these tools, or if additional information/clarification regarding the

support status of the receiving water body is desired, the operator is directed to make contact with the appropriate DEQ regional office of the State office in the table below:

Regional and State Office	Address	Phone Number	Email
Boise	1445 N. Orchard Rd., Boise 83706	208-373-0550	Kati.carberry@deq.idaho.gov
Coeur d'Alene	2110 Ironwood Parkway, Coeur D'Alene 83814	208-769-1422	June.bergquist@deq.idaho.gov
Idaho Falls	900 N. Skyline, Suite B., Idaho Falls 83402	208-528-2650	Troy.saffle@deq.idaho.gov
Lewiston	1118 "F" St., Lewiston 83501	208-799-4370	Mark.sellet@deq.idaho.gov
Pocatello	444 Hospital way, #300 Pocatello 83201	208-236-6160	Lynn.vanevery@deq.idaho.gov
Twin Falls	650 Addison Ave., W., Suite 110, Twin Falls 83301	208-736-2190	Balthasar.buhidar@deq.idaho.gov
State Office	1410 N. Hilton Rd., Boise 83706	208-373-0502	Nicole.deinarowicz@deq.idaho.gov

d. *Turbidity Monitoring.* The permittee must conduct turbidity monitoring during construction activities and thereafter on days where there is a direct discharge of pollutants from an unstabilized portion of the site which is causing a visible plume to a water of the U.S.

A properly and regularly calibrated turbidimeter is required for measurements analyzed in the field (preferred method), but grab samples may be collected and taken to a laboratory for analysis. If the permittee can demonstrate that there will be no direct discharge from the construction site, then turbidity monitoring is not required. When monitoring is required, a sample must be taken at an undisturbed area immediately upstream of the project area to establish background turbidity levels for the monitoring event. Background turbidity, location, date and time must be recorded prior to monitoring downstream of the project area. A sample must also be taken immediately downstream from any point of discharge and *within* any visible plume. The turbidity, location, date and time must be recorded. The downstream sample must be taken immediately following the upstream sample in order to obtain meaningful and representative results.

Results from the compliance point sampling or observation[78] must be compared to the background levels to determine whether project activities are causing an exceedance of state WQS. If the downstream turbidity is 50 NTUs or more than the upstream turbidity, then the project is causing an exceedance of WQS. *Any exceedance of the turbidity standard must be reporting to the appropriate DEQ regional office within 24 hours. The following six (6) steps should be followed to ensure compliance with the turbidity standard:*

1. If a visible plume is observed, quantify the plume by collecting turbidity measurements from within the plume and compare the results to Idaho's instantaneous numeric turbidity criterion (50 NTU over the background).
2. If turbidity is less than 50 NTU instantaneously over the background turbidity; continue monitoring as long as the plume is visible. If turbidity exceeds background turbidity by more than 50 NTU instantaneously then stop all earth disturbing construction activities and proceed to step 3.
3. Take immediate action to address the cause of the exceedance. That may include inspection the condition of project BMPs. If the BMPs are functioning to their fullest capability, then the permittee must modify project activities and/or BMPs to correct the exceedance.
4. Notify the appropriate DEQ regional office within 24 hours.
5. Possibly increase monitoring frequency until state water quality standards are met.
6. Continue earth disturbing construction activities once turbidity readings return to within 50 NTU instantaneously and 25 NTU for more than ten consecutive days over the background turbidity.

Copies of daily logs for turbidity monitoring must be available to DEQ upon request. The report must describe all exceedances and subsequent actions taken, including the effectiveness of the action.

e. *Reporting of Discharges Containing Hazardous Materials or Petroleum Products.* All spills of hazardous material, deleterious material or petroleum products which may impact waters (ground and surface) of the state shall be immediately reported. Call 911 if immediate assistance is required to control, contain or clean up the spill. If no assistance is needed in cleaning up the spill, contact the appropriate DEQ regional office in the table below during normal working hours or Idaho State Communications Center after normal working hours. If the spilled volume is above federal reportable quantities, contact the National Repose Center.

For immediate assistance: Call 911

National Response Center: (800) 424-8802

Idaho State Communications Center: (800) 632-8000

[78] A visual observation is only acceptable to determine whether BMPs are functioning properly. If a plume is observed, the project may be causing an exceedance of WQS and the permittee must collect turbidity data and inspect the condition of the projects BMPs. If the BMPs appear to be functioning to their fullest capability and the turbidity is 50 NTUs or more than the upstream turbidity, then the permittee must modify the activity or implement additional BMPs (this may also include modifying existing BMPs).

Regional office	Toll Free Phone Number	Phone Number
Boise	888-800-3480	208-373-0550
Coeur d'Alene	877-370-0017	208-769-1422
Idaho Falls	800-232-4635	208-528-2650
Lewiston	977-547-3304	208-799-4370
Pocatello	888-655-6160	208-236-6160
Twin Falls	800-270-1663	208-736-2190

9.7.2 IDR10I000 Indian country within the State of Idaho, except Duck Valley Reservation lands (see Region 9)

9.7.2.1 Shoshone-Bannock Tribes. The following conditions apply only to discharges on the Shoshone-Bannock Reservation:

f. Each operator shall submit a signed hard copy of the Notice of Intent (NOI) to the Shoshone-Bannock Tribes Water Resources Department at the same time it is submitted electronically to the Environmental Protection Agency (EPA) and shall provide the Shoshone-Bannock Tribes Water Resources Department the acknowledgement of receipt of the NOI from the EPA within 7 calendar days of receipt from the EPA.

9.7.3 WAR10F000 Areas in the State of Washington, except those located on Indian country, subject to construction activity by a Federal Operator. The following conditions apply only to discharges on federal facilities in the State of Washington:

a. Discharges shall not cause or contribute to a violation of surface water quality standards (Chapter 173-201A WAC), groundwater quality standards (Chapter 173-200 WAC), sediment management standards (Chapter 173-204 WAC), and human health-based criteria in the National Toxics Rule (40 CFR Part 131.36). Discharges that are not in compliance with these standards are not authorized.

b. Prior to the discharge of stormwater and non-storm water to waters of the State, the Permittee must apply all known, available, and reasonable methods of prevention, control, and treatment (AKART). This includes the preparation and implementation of an adequate SWPPP, with all appropriate BMPs installed and maintained in accordance with the SWPPP and the terms and conditions of this permit.

c. Permittees who discharge to segments of waterbodies listed as impaired by the State of Washington under Section 303(d) of the Clean Water Act for turbidity, fine sediment, phosphorus, or pH must comply with the following numeric effluent limits:

Parameter Identified in 303{d) Listing	Parameter Sampled	Unit	Analytical Method	Numeric Effluent Limit
• Turbidity • Fine Sediment • Phosphorus	Turbidity	NTU	SM2130 or EPA 180.1	25 NTUs at the point where the stormwater is discharged from the site.
High pH	pH	Su	pH meter	In the range of 6.5 – 8.5

d. All references and requirements associated with Section 303(d) of the Clean Water Act mean the most current EPA approved listing of impaired waters that exists on February 16, 2017, or the date when the operator's complete permit application is received by EPA, whichever is later.

e. Discharges to waterbodies subject to an applicable Total Maximum Daily Load (TMDL) for turbidity, fine sediment, high pH, or phosphorus, shall be consistent with the assumptions and requirements of the TMDL.

i. Where an applicable TMDL sets specific waste load allocations or requirements for discharges covered by this permit, discharges shall be consistent with any specific waste load allocations or requirements establish by the applicable TMDL.

ii. Where an applicable TMDL has established a general waste load allocation for construction stormwater discharges, but no specific requirements have been identified, compliance with this permit will be assumed to be consistent with the approved TMDL.

iii. Where an applicable TMDL has not specified a waste load allocation for construction stormwater discharges, but has not excluded these discharges, compliance with this permit will be assumed to be consistent with the approved TMDL.

iv. Where an applicable TMDL specifically precludes or prohibits discharges from construction activity, the operator is not eligible for coverage under this permit.

v. Applicable TMDL means a TMDL for turbidity, fine sediment, high pH, or phosphorus, which has been completed and approved by EPA prior to February 16, 2017, or prior to the date the operator's complete NOI is received by EPA, whichever is later.

9.7.4 WAR10I000 Indian country within the State of Washington

9.7.4.1 Confederated Tribes of the Colville Reservation. The following conditions apply only to discharges on the Colville Indian Reservation (CIR) and on other Tribal trust lands or allotments of the Confederated Tribes of the Colville Reservation:

a. A copy of the Stormwater Pollution Prevention Plan must be submitted to the following office at least thirty (30) days in advance of sending the Notice of Intent (NOI) to EPA:

Environmental Trust Department
Confederated Tribes of the Colville Reservation
PO Box 150
Nesepelem, WA 99155

b. Copies of the Notice of Intent (NOI) and Notice of Termination (NOT) must be sent to the ETD at the same time they are submitted to EPA.

c. Discharges to Omak Creek, the Okanogan River, and Columbia River downstream of Chief Joseph Dam may affect threatened or endangered species, and shall only be permitted in adherence with Appendix D of the CGP.

d. All work shall be carried out in such a manner as will prevent violations of water quality criteria as stated in Chapter 4-8 Water Quality Standards of the Colville Law and Order Code, as amended.

e. Appropriate steps shall be taken to ensure that petroleum products or other chemical pollutants are prevented from entering waters of the CIR. All spills must be reported to the appropriate emergency management agency and the ETD, and measures shall be taken immediately to prevent the pollution of waters of the CIR, including groundwater.

f. Stormwater site inspections shall be conducted at least once every 7 calendar days, within 24-hours of the occurrence of a rain event of 0.25 inches or greater in a 24-hour period, and daily during periods of saturated ground surface or snowmelt with accompanying surface runoff.

g. Results of discharge sampling must be reported to the ETD within 7 days of sample collection. All sample reporting must include the date and time, location, and individual performing the sampling.

h. Any corrective action reports that are required under the CGP must be submitted to the ETD at the above address within one (1) working day of the report completion.

i. This certification does not authorize impacts to cultural, historical, or archeological features or sites, or proprieties that may be eligible for such listing.

9.7.4.2 Lummi Nation. The following conditions apply only to discharges on the Lummi Reservation:

a. The Lummi Nation reserves the right to modify this 401 certification if the final version of the NPDES General Permit for Storm Water Discharges Associated with Construction Activity (CGP) on tribal lands in the State of Washington (Permit No. WAR10l000) is substantively different than the draft version of the proposed permit that was made available for public comments during April 2016. The Lummi Nation will determine if the final version of the NPDES CGP is substantively different than the draft version following review of the final version once the EPA makes it available.

b. This certification does not exempt and is provisional upon compliance with other applicable statutes and codes administered by federal and Lummi tribal agencies. Pursuant to Lummi Code of Laws (LCL) 17.05.020(a), the operator must also obtain a land use permit from the Lummi Planning Department as provided in Title 15 of the Lummi Code of Laws and regulations adopted thereunder.

c. Pursuant to LCL 17.05.020(a), each operator shall develop and submit a Storm Water Pollution Prevention Plan to the Lummi Water Resources Division for review and approval by the Water Resources Manager prior to beginning any discharge activities.

d. Pursuant to LCL Title 17, each operator shall be responsible for achieving compliance with the Water Quality Standards for Surface Waters of the Lummi Indian Reservation (Lummi Administrative Regulations [LAR] 17 LAR 07.010 through 17 LAR 07.210 together with supplements and amendments thereto).

e. Each operator shall submit a signed hard copy of the Notice of Intent (NOI) to the Lummi Water Resources Division at the same time it is submitted electronically to the Environmental Protection Agency (EPA) and shall provide the Lummi Water Resources Division the acknowledgement of receipt of the NOI from the EPA and the associated NPDES tracking number provided by the EPA within 7 calendar days of receipt from the EPA.

f. Each operator shall submit a signed hard copy of the Notice of Termination (NOT) to the Lummi Water Resources Division at the same time it is submitted electronically to the EPA and shall provide the Lummi Water Resources Division the EPA acknowledgement of receipt of the NOT.

g. Storm Water Pollution Prevention Plans, Notice of Intent, Notice of Termination and associated correspondence with the EPA shall be submitted to:

Lummi Natural Resources Department
ATTN: Water Resources Manager
2665 Kwina Road
Bellingham, WA 98226-9298

9.7.4.3 Makah Tribe. The following conditions apply only to discharges on the Makah Reservation:

a. The operator shall be responsible for achieving compliance with the Makah Tribe's Water Quality Standards.

b. The operator shall submit a Storm Water Pollution Prevention Plan to the Makah Tribe Water Quality Program and Makah Fisheries Habitat Division for review and approval at least thirty (30) days prior to beginning any discharge activities.

c. The operator shall submit a copy of the Notice of Intent to the Makah Tribe Water Quality Program and Makah Fisheries Habitat Division at the same time it is submitted to EPA.

d. Storm Water Pollution Prevention Plans and Notices of Intent shall be submitted to:

Aaron Parker
Makah Fisheries Management Water Quality Specialist
(360) 645-3162
Cell 206-356-0319
Aaron.parker@makah.com
PO Box 115
Neah Bay WA 98357

9.7.4.4 Puyallup Tribe of Indians. The following conditions apply only to discharges on the Puyallup Tribe of Indians Reservation:

a. Each permittee shall be responsible for achieving compliance with the Puyallup Tribe's Water Quality Standards, including antidegradation provisions. The Puyallup Natural Resources Department will conduct an antidegradation review for permitted activities that have the potential to lower water quality. The antidegradation review will be consistent with the Tribe's Antidegradation Implementation Procedures. The Tribe may also impose additional controls on a site-specific basis, or request EPA to require the operator obtain coverage under an individual permit, if information in the NOI or from other sources indicates that the operator's discharges are not controlled as necessary to meet applicable water quality standards.

b. The permittee shall be responsible for meeting any additional permit requirements imposed by EPA necessary to comply with the Puyallup Tribe's antidegradation policies if the discharge point is located within 1 linear mile upstream of waters designated by the Tribe.

c. Each permittee shall submit a copy of the Notice of Intent (NOI) to be covered by the general permit to Char Naylor (char.naylor@puyalluptribe.com) and Russ Ladley (russ.ladley@puyalluptribe.com) by email or at the address listed below at the same time it is submitted to EPA.

Puyallup Tribe of Indians
3009 E. Portland Avenue
Tacoma, WA 98404
ATTN: Russ Ladley and Char Naylor

d. All supporting documentation and certifications in the NOI related to coverage under the general permit for Endangered Species Act purposes shall be submitted to the Tribe's Resource Protection Manager (russ.ladley@puyalluptribe.com) and Char Naylor (char.naylor@puyalluptribe.com) for review.

e. If EPA requires coverage under an individual or alternative permit, the permittee shall submit a copy of the permit to Russ Ladley and Char Naylor at the address listed above.

f. The permittee shall submit all stormwater pollution prevention plans to Char Naylor for review and approval prior to beginning any activities resulting in a discharge to tribal waters.

g. The permittee shall conduct benchmark monitoring for turbidity (or transparency) and, in the event of significant concrete work or engineered soils, pH monitoring as well. Monitoring, benchmarks, and reporting requirements contained in Condition S.4. (pp.13-20) of the Washington State Construction Stormwater General Permit, effective January 1, 2016, shall apply, as applicable.

h. The permittee shall notify Char Naylor (253-680-5520) and Russ Ladley (253-680-5560) prior to conducting inspections at construction sites generating storm water discharged to tribal waters.

i. Treat dewatering discharges with controls necessary to minimize discharges of pollutants in order to minimize the discharge of pollutants to groundwater or surface waters from stormwater that is removed from excavations, trenches, foundations, vaults, or other storage areas. Examples of appropriate controls include sediment basins or sediment traps, sediment socks, dewatering tanks, tube settlers, weir tanks, and filtration systems (e.g., bag or sand filters) that are designed to remove sediment.

To the extent feasible, utilize vegetated, upland areas of the site to infiltrate dewatering water before discharge. At all points where dewatering water is discharged, comply with the velocity dissipation requirements of Part 2.2.11 of EPA's 2016 General Construction Stormwater Permit. Examples of velocity dissipation devices include check dams, sediment traps, riprap, and grouted riprap at outlets.

j. The permittee shall provide and maintain natural buffers to the maximum extent possible (and/or equivalent erosion and sediment controls) when tribal waters are located within 100 feet of the site's earth disturbances. If infeasible to provide and maintain an undisturbed 100 foot natural buffer, erosion and sediment controls to achieve the sediment load reduction equivalent to a 100-foot undisturbed natural buffer shall be required.

9.7.4.5 Spokane Tribe of Indians. The following conditions apply only to discharges on the Spokane Tribe Reservation:

a. Pursuant to Tribal Law and Order Code (TLOC) Chapter 30 each operator shall be responsible for achieving compliance with the Surface Water Quality Standards of the Spokane Tribe. The operator shall notify the Spokane Tribe, Water Control Board (WCB) of any spills of hazardous material and;

b. Each operator shall submit a signed hard copy of the Notice of Intent (NOI) to the WCB at the same time it is submitted to EPA.

c. The permittee shall allow the Tribal Water Control Board or its designee to inspect and sample at the construction site as needed.

d. Each operator shall submit a signed copy of the Notice of Termination (NOT) to the WCB at the same time it is submitted to EPA.

The correspondence address for the Spokane Tribe Water Control Board is:

Water Control Board
c/o. Brian Crossley
P0 Box 480
Wellpinit WA 99040
(509)626-4409
crossley@spokanetribe.com

9.7.4.6 Swinomish Indian Tribal Community. The following conditions apply only to discharges on the Swinomish Reservation:

a. Owners and operators seeking coverage under this permit who intend to discharge to Regulated Surface Waters must submit a copy of the Notice of Intent (NOI) to the DEP at the same time the NOI is submitted to EPA.

b. Owners and operators seeking coverage under this permit must also submit a Stormwater Pollution Prevention Plan to the DEP for review and approval by DEP prior to beginning any discharge activities.

c. Owners and operators must also submit to the DEP Changes in NOI and/or Notices of Termination at the same time they are submitted to EPA.

9.7.4.7 Tulalip Tribes. The following conditions apply only to discharges on the Tulalip Reservation:

a. This certification does not exempt and is provisional upon compliance with other applicable statues and codes administered by federal and Tulalip tribal agencies. Pursuant to Tulalip Tribes code of law, the operator must also obtain a land use permit from the Tulalip Tribes Planning Department as provided in Title 7 of the Tulalip Tribal Code (http://www.codepublishing.com/WA/Tulalip/?Tulalip02/Tulalip0205.html).

b. Each CGP operator shall be responsible for achieving compliance with Tulalip Tribes Water Quality Standards.

c. Each CGP operator shall submit their Stormwater Pollution Prevention Plan (SWPPP) to the:

Tulalip Natural & Cultural Resources Department
Tulalip Tribes
6406 Marine Drive
Tulalip, WA 98271

Appendix A - Definitions and Acronyms

Definitions

"Action Area" – all areas to be affected directly or indirectly by the federal action and not merely the immediate area involved in the action. See 50 CFR 402. For the purposes of this permit and for application of the threatened and endangered species protection eligibility requirements, the following areas are included in the definition of action area:

- The areas on the construction site where stormwater discharges originate and flow toward the point of discharge into the receiving waters (including areas where excavation, site development, or other ground disturbance activities occur) and the immediate vicinity. (Example: Where bald eagles nest in a tree that is on or bordering a construction site and could be disturbed by the construction activity or where grading causes stormwater to flow into a small wetland or other habitat that is on the site that contains listed species.)
- The areas where stormwater discharges flow from the construction site to the point of discharge into receiving waters. (Example: Where stormwater flows into a ditch, swale, or gully that leads to receiving waters and where listed species (such as listed amphibians) are found in the ditch, swale, or gully.)
- The areas where stormwater from construction activities discharges into receiving waters and the areas in the immediate vicinity of the point of discharge. (Example: Where stormwater from construction activities discharges into a stream segment that is known to harbor listed aquatic species.)
- The areas where stormwater controls will be constructed and operated, including any areas where stormwater flows to and from the stormwater controls. (Example: Where a stormwater retention pond would be built.)
- The areas upstream and/or downstream from the stormwater discharge into a stream segment that may be affected by these discharges. (Example: Where sediment discharged to a receiving stream settles downstream and impacts a breeding area of a listed aquatic species.)

"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 states and tribes to establish a three-tiered antidegradation program:

1. Tier 1 maintains and protects existing uses and water quality conditions necessary to support such uses. An existing use can be established by demonstrating that fishing, swimming, or other uses have actually occurred since November 28, 1975, or that the water quality is suitable to allow such uses to occur. Where an existing use is established, it must be protected even if it is not listed in the water quality standards as a designated use. Tier 1 requirements are applicable to all surface waters.
2. Tier 2 maintains and protects "high quality" waters -- waterbodies where existing conditions are better than necessary to support CWA § 101(a)(2) "fishable/swimmable" uses. Water quality can be lowered in such waters. However, state and tribal Tier 2 programs identify procedures that must be followed and questions that must be

answered before a reduction in water quality can be allowed. In no case may water quality be lowered to a level which would interfere with existing or designated uses.

3. Tier 3 maintains and protects water quality in outstanding national resource waters (ONRWs). Except for certain temporary changes, water quality cannot be lowered in such waters. ONRWs generally include the highest quality waters of the United States. However, the ONRW classification also offers special protection for waters of exceptional ecological significance, i.e., those which are important, unique, or sensitive ecologically. Decisions regarding which water bodies qualify to be ONRWs are made by states and authorized Indian tribes.

"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 U.S.

"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.

"Business day" – for the purposes of this permit, a business day is a calendar day on which construction activities will take place.

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

"Cationic Treatment Chemical" – polymers, flocculants, or other chemicals that contain an overall positive charge. Among other things, they are used to reduce turbidity in stormwater 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 Construction 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; placement of raw materials at the site).

"Common Plan of Development or Sale" – A contiguous area where multiple separate and distinct construction activities may be taking place at different times on different schedules under one common plan. The "common plan" of development or sale is broadly defined as any announcement or piece of documentation (including a sign, public notice or hearing, sales pitch, advertisement, drawing, permit application, zoning request, computer design, etc.) or physical demarcation (including boundary signs, lot stakes, surveyor markings, etc.) indicating construction activities may occur on a specific plot.

"Construction Activities" – earth-disturbing activities, such as the clearing, grading, and excavation of land, and other construction-related activities (e.g., stockpiling of fill material; placement of raw materials at the site) that could lead to the generation of pollutants. 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.

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

"Construction Site" or "Site" – the land or water area where construction activities will occur and where stormwater 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.

"Construction Support Activity" – 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 stormwater flow within and out of a construction site.

"Critical Habitat" – as defined in the Endangered Species Act at 16 U.S.C. 1531 for a threatened or endangered species, (i) the specific areas within the geographical area occupied by the species, at the time it is listed in accordance with the provisions of section 4 of the Endangered Species Act, on which are found those physical or biological features essential to the conservation of the species and which may require special management considerations or protection; and (ii) specific areas outside the geographical area occupied by the species at the time it is listed in accordance with the provisions of section 4 of the Endangered Species Act, upon a determination by the Secretary that such areas are essential for the conservation of the species.

"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 ground water from building foundations, vaults, and trenches.

"Discharge" – when used without qualification, means the "discharge of a pollutant."

"Discharge of a Pollutant" – any addition of any "pollutant" or combination of pollutants to "waters of the United States" from any "point source," or any addition of any pollutant or combination of pollutants to the waters of the "contiguous zone" or the ocean from any point source other than a vessel or other floating craft which is being used as a means of transportation. This includes additions of pollutants into waters of the United States 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 stormwater flows are discharged from the construction site.

"Discharge-Related Activity" – activities that cause, contribute to, or result in stormwater and allowable non-stormwater point source discharges, and measures such as the siting, construction, and operation of stormwater 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 U.S. to which you discharge is identified by a state, tribe, or EPA pursuant to Section 303(d) of the Clean Water Act as not meeting an applicable water quality standard and (1) requires development of a total maximum daily load (TMDL) (pursuant to section 303(d) of the CWA; or (2) is addressed by an EPA-approved or established TMDL; or (3) is not in either of the above categories but the waterbody is covered by a pollution control program that meets the requirements of 40 CFR 130.7(b)(1). For discharges that enter a storm sewer system prior to discharge, the water of the U.S. to which you discharge is the first water of the U.S. that receives the stormwater 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 Atomospheric 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/sdo_summary.php.

"Earth-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.

"Earth-Disturbing Activities Conducted Prior to Active Mining Activities" – Consists of two classes of earth-disturbing (i.e., clearing, grading and excavation) activities:

a. activities performed for purposes of mine site preparation, including: cutting new rights of way (except when related to access road construction); providing access to a mine site for vehicles and equipment (except when related to access road construction); other earth disturbances associated with site preparation activities on any areas where active mining activities have not yet commenced (e.g., for heap leach pads, waste rock facilities, tailings impoundments, wastewater treatment plants); and

b. construction of staging areas to prepare for erecting structures such as to house project personnel and equipment, mill buildings, etc., and construction of access roads.

Note: only earth-disturbing activities associated with the construction of staging areas and the construction of access roads conducted prior to active mining (see (b) above) are considered to be "construction" and therefore stormwater discharges from these activities are eligible for coverage under this permit. See Part 1.2.1.b. The activities described in (a) above are not considered to be "construction" and therefore stormwater discharges associated with this activity are not eligible for coverage under this permit.

"Effective Operating Condition" – for the purposes of this permit, a stormwater 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 Administrator under section 304(b) of the CWA to adopt or revise effluent limitations.

"Eligible" – for the purposes of this permit, refers to stormwater and allowable non-stormwater discharges that are authorized for coverage under this general permit.

"Emergency-Related Project" – a project initiated in response to a public emergency (e.g., mud slides, earthquake, extreme flooding conditions, 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.

"Endangered Species" – defined in the Endangered Species Act at 16 U.S.C. 1531 as any species which is in danger of extinction throughout all or a significant portion of its range other than a species of the Class Insecta determined by the Secretary to constitute a pest whose protection under the provisions of this Act would present an overwhelming and overriding risk to man.

"Excursion" – a measured value that exceeds a specified limit.

"Existing Site" – a site where construction activities commenced prior to February 16, 2017.

"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 left open to the elements.

"Federal Operator" – an entity that meets the definition of "Operator" in this permit and is either any department, agency or instrumentality of the executive, legislative, and judicial branches of the Federal government of the United States, or another entity, such as a private contractor, performing construction activity for any such department, agency, or instrumentality.

"Final Stabilization" – on areas not covered by permanent structures, either (1) uniform, perennial vegetation *(e.g., evenly distributed, without large bare areas)* has been established, or for arid or semi-arid areas, will be established that provides 70 percent or more of the cover that is provided by vegetation native to local undisturbed areas, and/or (2) permanent non-vegetative stabilization measures (e.g., riprap, gravel, gabions, and geotextiles) have been implemented to provide effective cover for exposed portions of the site

"General Contractor" – for the purposes of this permit, the primary individual or company solely accountable to perform a contract. The general contractor typically supervises activities, coordinates the use of subcontractors, and is authorized to direct workers at a site to carry out activities required by the permit.

"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.

"Historic Property" – as defined in the National Historic Preservation Act regulations, means any prehistoric or historic district, site, building, structure, or object included in, or eligible for inclusion in, the National Register of Historic Places maintained by the Secretary of the Interior. This term includes artifacts, records, and remains that are related to and located within such properties. The term includes properties of traditional religious and cultural importance to an Indian tribe or Native Hawaiian organization and that meet the National Register criteria.

"Impaired Water"– a water identified by the state, tribe, or EPA as not meeting an applicable water quality standard and (1) requires development of a TMDL (pursuant to section 303(d) of the CWA; or (2) is addressed by an EPA-approved or established TMDL; or (3) is not in either of the above categories but the waterbody is covered by a pollution control program that meets the requirements of 40 CFR 130.7(b)(1).

"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 with the borders of the United States whether within the originally or subsequently acquired territory thereof, and whether within or without the limits of a state; 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. EPA 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 stormwater controls, to connect or set in position stormwater controls to make them operational.

"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 waterbody, and towards the land.

"Large Construction Activity" – defined at 40 CFR § 122.26(b)(14)(x) and incorporated here by reference. Large construction activity includes clearing, grading, and excavating resulting in a land disturbance that will disturb equal to or greater than five acres of land or will disturb less than five acres 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 five acres. Large 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.

"Linear Construction Site" – 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 stormwater controls that are technologically available and economically practicable and achievable in light of best industry practices.

"Mining Activity" – for the purposes of this permit, includes mining-related construction activities defined at 40 CFR 122.26(b)(14)(x) and 122.26(b)(15)(i), and active mining activities defined at 40 CFR 122.26(b)(14)(iii). Both of these sub categories of activities include earth-disturbing activities, with the latter also including such activities as: extraction, removal or recovery, and beneficiation of mined material from the earth; removal of overburden and waste rock to expose mineable material; and site reclamation and closure activities.

"Mining Operations" – for the purposes of this permit, mining operations are grouped into two distinct categories, with distinct effluent limits and requirements applicable to each: 1) earth-disturbing activities conducted prior to active mining activities; and 2) active mining activities, which includes reclamation.

"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, borough, county, parish, district, association, or other public body (created by or pursuant to State law) having jurisdiction over disposal of sewage, industrial wastes, stormwater, or other wastes, including special

districts under State law such as a sewer district, flood control district or drainage district, or similar entity, or an Indian tribe or an authorized Indian tribal organization, or a designated and approved management agency under section 208 of the CWA that discharges to waters of the United States;

2. Designed or used for collecting or conveying stormwater;
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.

"Natural Buffer" – for the purposes of this permit, an area of undisturbed natural cover surrounding waters of the U.S. 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 or removals, and that generally has a strong component of native species.

"New Operator of a Permitted Site" – an operator that through transfer of ownership and/or operation replaces the operator of an already permitted construction site that is either a "new site" or an "existing site".

"New Site" – a site where construction activities commenced on or after February 16, 2017.

"New Source" – for the purposes of this permit, a construction project that commenced construction activities after February 1, 2010.

"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-Stormwater Discharges" – discharges that do not originate from storm events. They can include, but are not limited to, discharges of process water, air conditioner condensate, non-contact cooling water, vehicle wash water, sanitary wastes, concrete washout water, paint wash water, irrigation water, or pipe testing water.

"Non-Turbid" – a discharge that does not cause or contribute to an exceedence of turbidity-related water quality standards.

"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.

"NPDES eReporting Tool" (NeT) – EPA's online system for submitting electronic Construction General Permit forms.

"Operational" – for the purposes of this permit, stormwater controls are made "operational" when they have been installed and implemented, are functioning as designed, and are properly maintained.

"Operator" – for the purposes of this permit and in the context of stormwater discharges associated with construction activity, any party associated with a construction project that meets either of the following two criteria:

1. The party has operational control over construction plans and specifications, including the ability to make modifications to those plans and specifications *(e.g. in most cases this is the owner of the site)*; or
2. The party 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; in most cases this is the general contractor of the project).*

This definition is provided to inform permittees of EPA's interpretation of how the regulatory definitions of "owner or operator" and "facility or activity" are applied to discharges of stormwater associated with construction activity. Subcontractors generally are not considered operators for the purposes of this permit.

"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.

"Permitting Authority" – for the purposes of this permit, EPA, a Regional Administrator of EPA, 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 stormwater 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.

"Pollution Prevention Controls" – stormwater 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.

"Provisionally Covered Under this Permit" – for the purposes of this permit, EPA 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.

"Qualified Person" – a person knowledgeable in the principles and practice of erosion and sediment controls and pollution prevention, who possesses the appropriate skills and training to assess conditions at the construction site that could impact stormwater quality, and the appropriate skills and training to assess the effectiveness of any stormwater controls selected and installed to meet the requirements of this permit.

"Receiving Water" – a "Water of the United States" as defined in 40 CFR §122.2 into which the regulated stormwater discharges.

"Run-On" – sources of stormwater that drain from land located upslope or upstream from the regulated site in question.

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

"Shared Control" - for the purposes of this permit, a stormwater control, such as a sediment basin or pond, used by two or more operators that is installed and maintained for the purpose of minimizing and controlling pollutant discharges from a construction site with multiple operators associated with a common plan of development or sale. Any operators that are contributing stormwater from their construction activities to a shared control are considered to rely upon a shared control.

"Small Construction Activity" – defined at 40 CFR §122.26(b)(15) 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 stormwater and ground water 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 exposed through the construction process.

"Steep Slopes" – where a state, tribe, local government, or industry technical manual (e.g., stormwater BMP manual) has defined what is to be considered a "steep slope", this permit's definition automatically adopts that definition. Where no such definition exists, steep slopes are automatically 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 stormwater.

"Stormwater" – stormwater runoff, snowmelt runoff, and surface runoff and drainage.

"Stormwater Control" - refers to any best management practice or other method (including narrative effluent limitations) used to prevent or reduce the discharge of pollutants to waters of the United States.

"Stormwater Discharge Associated with Construction Activity" – as used in this permit, a discharge of pollutants in stormwater to waters of the United States from areas where earth-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 washdown, fueling), or other industrial stormwater directly related to the construction process (e.g., concrete or asphalt batch plants), are located.

"Stormwater Inlet" – a structure placed below grade to conduct water used to collect stormwater runoff for conveyance purposes.

"Stormwater 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 "Stormwater 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 stormwater 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.

"SWPPP" (Stormwater Pollution Prevention Plan) – a site-specific, written document that, among other things: (1) identifies potential sources of stormwater pollution at the construction site; (2) describes stormwater controls to reduce or eliminate pollutants in stormwater 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 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).

"Threatened Species" – defined in the Endangered Species Act at 16 U.S.C. 1531 as any species which is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range.

"Tier 2 Waters" – for antidegradation purposes, pursuant to 40 CFR 131.12(a)(2), those waters that are characterized as having water quality that exceeds the levels necessary to support propagation of fish, shellfish, and wildlife and recreation in and on the water.

"Tier 2.5 Waters" – for antidegradation purposes, those waters designated by states or tribes as requiring a level of protection equal to and above that given to Tier 2 waters, but less than that given Tier 3 waters. Some states have special requirements for these waters.

"Tier 3 Waters" – for antidegradation purposes, pursuant to 40 CFR 131.12(a)(3), Tier 3 waters are identified by states as having high quality waters constituting an Outstanding National Resource Water (ONRW), such as waters of National Parks and State Parks, wildlife refuges, and waters of exceptional recreational or ecological significance.

"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 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 mass per time, toxicity, or other appropriate measure.

"Toxic Waste" – see "Hazardous Substances."

"Treatment Chemicals" – polymers, flocculants, or other chemicals used to reduce turbidity in stormwater.

"Turbidity" – a condition of water quality characterized by the presence of suspended solids and/or organic material.

"Uncontaminated Discharge" – in the context of authorized non-stormwater discharges, a discharge that does not cause or contribute to an exceedance 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" – defined in 40 CFR § 131.3, and are provisions of state or federal 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 high-quality waters. Water quality standards protect the public health or welfare, enhance the quality of water and serve the purposes of the Act.

"Waters of the United States" – see definition at 40 CFR 122.2.

"Wetland" – those areas that are inundated or saturated by surface or ground water 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.

Acronyms

ACHP – Advisory Council on Historic Preservation

BMP – Best Management Practice

CBI – Confidential Business Information

CGP – Construction General Permit

CFR – Code of Federal Regulations

CWA – Clean Water Act

CZMA – Coastal Zone Management Act

ECHO – EPA Enforcement and Compliance History Online

ELG – Effluent Limitations Guideline

EPA – United States Environmental Protection Agency

ESA – Endangered Species Act

FR – Federal Register

MS4 – Municipal Separate Storm Sewer System

MSGP – Multi-Sector General Permit

NEPA – National Environmental Policy Act

NeT – NPDES eReporting Tool

NHPA – National Historic Preservation Act

NMFS – United States National Marine Fisheries Service

NPDES – National Pollutant Discharge Elimination System

NOI – Notice of Intent

NOT – Notice of Termination

NPDES – National Pollutant Discharge Elimination System

NRC – National Response Center

NRCS – National Resources Conservation Service

NSPS – New Source Performance Standards

ONRW – Outstanding National Resource Water

PAM – Polyacrylamide

POTW – Publicly Owned Treatment Works

RUSLE – Revised Universal Soil Loss Equation

SDS – Safety Data Sheet

SHPO – State Historic Preservation Office

SPCC – Spill Prevention Control and Countermeasure

SWPPP – Stormwater Pollution Prevention Plan

THPO – Tribal Historic Preservation Office

TMDL – Total Maximum Daily Load

TSS – Total Suspended Solids

UIC – Underground Injection Control

USDA – United States Department of Agriculture

USFWS – United States Fish and Wildlife Service

USGS – United States Geological Survey

WQS – Water Quality Standard

Appendix B - Permit Areas Eligible for Coverage and EPA Regional Addresses

Permit coverage for stormwater discharges from construction activity occurring within the following areas is provided by legally separate and distinctly numbered permits.

B.1 EPA Region 1

The permit offers coverage for stormwater discharges from construction activity from the following areas in EPA Region 1:

Permit No.	Areas of Coverage/Where EPA is Permitting Authority
CTR10I000	Indian country within the State of Connecticut
MAR100000	Commonwealth of Massachusetts (except Indian country)
MAR10I000	Indian country within the State of Massachusetts
NHR100000	State of New Hampshire
RIR10I000	Indian country within the State of Rhode Island
VTR10F000	Areas in the State of Vermont subject to construction by a Federal Operator
01R10I000	All areas of Indian country not identified above that are not already covered by an EPA-approved permitting program

For stormwater discharges in EPA Region 1 outside the areas of coverage identified above, please contact your state NPDES permitting authority to obtain coverage under a state-issued NPDES permit.

EPA Region 1 Address:

U.S. EPA Region 1
Office of Ecosystem Protection
Stormwater and Construction Permits Section
5 Post Office Square, Suite 100
(OEP 06-1)
Boston, MA 02109-3912

B.2 EPA Region 2

The permit offers coverage for stormwater discharges from construction activity from the following areas in EPA Region 2:

Permit No.	Areas of Coverage/Where EPA is Permitting Authority
NYR10I000	Indian country within the State of New York
PRR100000	Commonwealth of Puerto Rico
02R10I000	All areas of Indian country not identified above that are not already covered by an EPA-approved permitting program

For stormwater discharges in EPA Region 2 outside the areas of coverage identified above, please contact your state NPDES permitting authority to obtain coverage under a state-issued NPDES permit.

EPA Region 2 Address:

For Puerto Rico:
U.S. EPA Region 2
Caribbean Environmental Protection Division
NPDES Stormwater Program
City View Plaza II – Suite 7000
48 Rd. 165 Km 1.2
Guaynabo, PR 00968-8069

For New York:
U.S. EPA Region 2
NPDES Stormwater Program
290 Broadway, 24th Floor
New York, NY 10007-1866

B.3 EPA Region 3

The permit offers coverage for stormwater discharges from construction activity from the following areas in EPA Region 3:

Permit No.	Areas of Coverage/Where EPA is Permitting Authority
DCR100000	District of Columbia
DER10F000	Areas in the State of Delaware subject to construction by a Federal Operator
VAR10I000	Indian country within the State of Virginia
03R10I000	All areas of Indian country not identified above that are not already covered by an EPA-approved permitting program

For stormwater discharges in EPA Region 3 outside the areas of coverage identified above, please contact your state NPDES permitting authority to obtain coverage under a state-issued NPDES permit.

EPA Region 3 Address:

U.S. EPA Region 3
Office of NPDES Permits and Enforcement
NPDES Permits Branch, Mailcode 3WP41
1650 Arch Street
Philadelphia, PA 19103

B.4 EPA Region 4

The permit offers coverage for stormwater discharges from construction activity from the following areas in EPA Region 4:

Permit No.	Areas of Coverage/Where EPA is Permitting Authority
ALR10I000	Indian country within the State of Alabama
FLR10I000	Indian country within the State of Florida
MSR10I000	Indian country within the State of Mississippi
NCR10I000	Indian country within the State of North Carolina
04R10I000	All areas of Indian country not identified above that are not already covered by an EPA-approved permitting program (except Catawba lands in South Carolina)

For stormwater discharges in EPA Region 4 outside the areas of coverage identified above, please contact your state NPDES permitting authority to obtain coverage under a state-issued NPDES permit.

EPA Region 4 Address:

U.S. EPA Region 4
Water Protection Division
NPDES Stormwater Program
Atlanta Federal Center
61 Forsyth Street SW
Atlanta, GA 30303-3104

B.5 EPA Region 5

The permit offers coverage for stormwater discharges from construction activity from the following areas in EPA Region 5:

Permit No.	Areas of Coverage/Where EPA is Permitting Authority
MIR10I000	Indian country within the State of Michigan
MNR10I000	Indian country within the State of Minnesota
WIR10I000	Indian country within the State of Wisconsin, except the Sokaogon Chippewa (Mole Lake) Community
05R10I000	All areas of Indian country not identified above that are not already covered by an EPA-approved permitting program

For stormwater discharges in EPA Region 5 outside the areas of coverage identified above, please contact your state NPDES permitting authority to obtain coverage under a state-issued NPDES permit.

EPA Region 5 Address:

U.S. EPA Region 5
NPDES Program Branch
77 W. Jackson Blvd.
Mail Code WN16J
Chicago, IL 60604-3507

B.6 EPA Region 6

The permit offers coverage for stormwater discharges from construction activity from the following areas in EPA Region 6:

Permit No.	Areas of Coverage/Where EPA is Permitting Authority
LAR10I000	Indian country within the State of Louisiana
NMR100000	State of New Mexico, except Indian country
NMR10I000	Indian country within the State of New Mexico, except Navajo Reservation Lands that are covered under Arizona permit AZR10I000 and Ute Mountain Reservation Lands that are covered under Colorado permit COR10I000.
OKR10I000	Indian country within the State of Oklahoma
OKR10F000	Discharges in the State of Oklahoma that are not under the authority of the Oklahoma Department of Environmental Quality, including activities associated with oil and gas exploration, drilling, operations, and

Permit No.	Areas of Coverage/Where EPA is Permitting Authority
	pipelines (includes SIC Groups 13 and 46, and SIC codes 492 and 5171), and point source discharges associated with agricultural production, services, and silviculture (includes SIC Groups 01, 02, 07, 08, 09).
TXR10F000	Discharges in the State of Texas that are not under the authority of the Texas Commission on Environmental Quality (formerly TNRCC), including activities associated with the exploration, development, or production of oil or gas or geothermal resources, including transportation of crude oil or natural gas by pipeline.
TXR10I000	Indian country within the State of Texas
06R10I000	All areas of Indian country not identified above that are not already covered by an EPA-approved permitting program

For stormwater discharges in EPA Region 6 outside the areas of coverage identified above, please contact your state NPDES permitting authority to obtain coverage under a state-issued NPDES permit.

EPA Region 6 Address:

U.S. EPA Region 6
NPDES Stormwater Program (WQ-PP)
1445 Ross Avenue, Suite 1200
Dallas, TX 75202-2733

B.7 EPA Region 7

The permit offers coverage for stormwater discharges from construction activity from the following areas in EPA Region 7:

Permit No.	Areas of Coverage/Where EPA is Permitting Authority
IAR10I000	Indian country within the State of Iowa
KSR10I000	Indian country within the State of Kansas
NER10I000	Indian country within the State of Nebraska, except Pine Ridge Reservation lands (see Region 8)
07R10I000	All areas of Indian country not identified above that are not already covered by an EPA-approved permitting program

For stormwater discharges in EPA Region 7 outside the areas of coverage identified above, please contact your state NPDES permitting authority to obtain coverage under a state-issued NPDES permit.

EPA Region 7 Address:

U.S. EPA Region 7
NPDES Stormwater Program
11201 Renner Blvd
Lenexa, KS 66219

B.8 EPA Region 8

The permit offers coverage for stormwater discharges from construction activity from the following areas in EPA Region 8:

Permit No.	Areas of Coverage/Where EPA is Permitting Authority
COR10F000	Areas in the State of Colorado, except those located on Indian country, subject to construction activity by a Federal Operator
COR10I000	Indian country within the State of Colorado, as well as the portion of the Ute Mountain Reservation located in New Mexico
MTR10I000	Indian country within the State of Montana
NDR10I000	Indian country within the State of North Dakota, as well as that portion of the Standing Rock Reservation located in South Dakota (except for the portion of the lands within the former boundaries of the Lake Traverse Reservation which is covered under South Dakota permit SDR10I000 listed below)
SDR10I000	Indian country within the State of South Dakota, as well as the portion of the Pine Ridge Reservation located in Nebraska and the portion of the lands within the former boundaries of the Lake Traverse Reservation located in North Dakota (except for the Standing Rock Reservation which is covered under North Dakota permit NDR10I000 listed above)
UTR10I000	Indian country within the State of Utah, except Goshute and Navajo Reservation lands (see Region 9)
WYR10I000	Indian country within the State of Wyoming
08R10I000	All areas of Indian country not identified above that are not already covered by an EPA-approved permitting program

For stormwater discharges in EPA Region 8 outside the areas of coverage identified above, please contact your state NPDES permitting authority to obtain coverage under a state-issued NPDES permit.

EPA Region 8 Address:

EPA Region 8 Storm Water Program
Mailcode: 8P-W-WW
1595 Wynkoop Street
Denver, CO 80202-1129

B.9 EPA Region 9

The permit offers coverage for stormwater discharges from construction activity from the following areas in EPA Region 9:

Permit No.	Areas of Coverage/Where EPA is Permitting Authority
ASR100000	Island of American Samoa
AZR10I000	Indian country within the State of Arizona, as well as Navajo Reservation lands in New Mexico and Utah
CAR10I000	Indian country within the State of California
GUR100000	Island of Guam
JAR100000	Johnston Atoll
MPR100000	Commonwealth of the Northern Mariana Islands
MWR100000	Midway Island and Wake Island
NVR10I000	Indian country within the State of Nevada, as well as the Duck Valley Reservation in Idaho, the Fort McDermitt Reservation in Oregon and the Goshute Reservation in Utah
09R10I000	All areas of Indian country not identified above that are not already covered by an EPA-approved permitting program

For stormwater discharges in EPA Region 9 outside the areas of coverage identified above, please contact your state NPDES permitting authority to obtain coverage under a state-issued NPDES permit.

EPA Region 9 Address:

U.S. EPA Region 9
Water Division
NPDES Stormwater Program (WTR-2-3)
75 Hawthorne Street
San Francisco, CA 94105-3901

B.10 EPA Region 10

The permit offers coverage for stormwater discharges from construction activity from the following areas in EPA Region 10:

Permit No.	Areas of Coverage/Where EPA is Permitting Authority
AKR10I000	Indian country lands as defined in 18 U.S.C. 1151 within the State of Alaska
AKR10F000	Denali National Park and Preserve
IDR100000	State of Idaho, except Indian country
IDR10I000	Indian country within the State of Idaho, except Duck Valley Reservation lands (see Region 9)
ORR10I000	Indian country within the State of Oregon, except Fort McDermitt Reservation lands (see Region 9)
WAR10F000	Areas in the State of Washington, except those located on Indian country, subject to construction activity by a Federal Operator
WAR10I000	Indian country within the State of Washington

For stormwater discharges in EPA Region 10 outside the areas of coverage identified above, please contact your state NPDES permitting authority to obtain coverage under a state-issued NPDES permit.

EPA Region 10 Address:

U.S. EPA Region 10
NPDES Stormwater Program
1200 6th Avenue (OWW-191)
Seattle, WA 98101-3140

Appendix C - Small Construction Waivers and Instructions

These waivers are only available to stormwater discharges associated with small construction activities (i.e., 1-5 acres). As the 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) a low rainfall erosivity factor, (B) a TMDL analysis, or (C) an equivalent analysis that determines allocations for small construction sites are not needed. Each operator, otherwise needing permit coverage, must notify EPA of its intention for a 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 operator changes or another is added during the construction project, the new operator must also submit a waiver certification to be waived.

C.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 five during the period of construction activity. The operator must certify to EPA that construction activity will occur only when the rainfall erosivity factor is less than five. 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 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 CGP 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 operator must submit a waiver certification to EPA 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: https://www.epa.gov/npdes/rainfall-erosivity-factor-calculator-small-construction-sites. 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 (https://www.epa.gov/sites/production/files/2015-10/documents/fact3-1.pdf) to assist in determining the R Factor for your small construction site.

If you are the operator of the construction activity and eligible for a waiver based on low erosivity potential, you can submit a rainfall erosivity waiver electronically via EPA's NPDES eReporting Tool (NeT) (https://www.epa.gov/npdes/stormwater-discharges-construction-activities#ereporting), unless you received a waiver from your EPA Regional Office (see Part 1.4.1 of the CGP for information about receiving a waiver from electronic reporting).

Note: If the R factor is five or greater, you do not qualify for the rainfall erosivity waiver, and must obtain coverage under an NPDES permit (e.g., the CGP), unless you qualify for the Water Quality Waiver as described in section B below.

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, 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 five or above, you must obtain NPDES permit coverage.

C.2 TMDL Waiver

This waiver is available if EPA has established or approved a TMDL that addresses the pollutant(s) of concern for the impaired water and has determined that controls on stormwater discharges from small construction activity are not needed to protect water quality. The pollutant(s) of concern include sediment (such as total suspended solids, turbidity or siltation) and any other pollutant that has been identified as a cause of impairment of any waterbody that will receive a discharge from the construction activity. Information on TMDLs that have been established or approved by EPA is available from EPA online at https://www.epa.gov/tmdl and from state and tribal water quality agencies.

If you are the operator of the construction activity and eligible for a waiver based on compliance with an EPA-established or approved TMDL, you must provide the following information in order to be waived from permitting requirements:

1. Name, address and telephone number of the construction site operator(s);
2. Name (or other identifier), address, county or similar governmental subdivision, 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 name of the waterbody(s) that would be receiving stormwater discharges from your construction project;
5. The name and approval date of the TMDL;
6. A statement, signed and dated by an authorized representative as provided in Appendix I, Subsection I.11, that certifies that the construction activity will take place and that the stormwater discharges will occur, within the drainage area addressed by the TMDL.

C.3 Equivalent Analysis Waiver

This waiver is available for discharges to non-impaired waters only. The operator can develop an equivalent analysis that determines allocations for his/her small construction site for the pollutant(s) of concern or determines that such allocations are not needed to protect water quality. This waiver requires a small construction operator to develop an equivalent analysis based on existing in-stream concentrations, expected growth in pollutant concentrations from all sources, and a margin of safety.

If you are a construction operator who wants to use this waiver, you must develop your equivalent analysis and provide the following information to be waived from permitting requirements:

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

2. Name (or other identifier), address, county or similar governmental subdivision, 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 name of the waterbody(s) that would be receiving stormwater discharges from your construction project;
5. Your equivalent analysis;
6. A statement, signed and dated by an authorized representative as provided in Appendix I, Subsection I.11, that certifies that the construction activity will take place and that the stormwater discharges will occur, within the drainage area addressed by the equivalent analysis.

C.4 Waiver Deadlines and Submissions

1. Waiver certifications must be submitted prior to commencement of construction activities.
2. If you submit a TMDL or equivalent analysis waiver request, you are not waived until EPA approves your request. As such, you may not commence construction activities until receipt of approval from EPA.
3. Late Notifications: Operators are not prohibited from submitting waiver certifications after initiating clearing, grading, excavation activities, or other construction activities. The Agency 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 stormwater associated with small construction activity, provided you qualify for the waiver. Any discharge of stormwater 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. As mentioned above, EPA reserves the right to take enforcement for any unpermitted discharges that occur between the time construction commenced and either discharge authorization is granted or a complete and accurate waiver certification is submitted. EPA may notify any operator covered by a waiver that they must obtain NPDES permit coverage. EPA may notify any 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 EPA to take action under this provision by submitting written notice along with supporting justification.

Complete and accurate TMDL or equivalent analysis waiver requests must be sent to the applicable EPA Regional Office address specified in Appendix B.

2017 Construction General Permit (CGP) – Fact Sheet

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I. Background

Congress passed the Federal Water Pollution Control Act of 1972 (Public Law 92-500, October 18, 1972) (hereinafter the "Clean Water Act" or "CWA"), 33 U.S.C. 1251 et seq., with the stated objectives to "restore and maintain the chemical, physical, and biological integrity of the Nation's waters." Section 101(a), 33 U.S.C. 1251(a). To achieve this goal, the CWA provides that "the discharge of any pollutant by any person shall be unlawful" except in compliance with other provisions of the statute. CWA section 301(a). 33 U.S.C. 1311. The CWA defines "discharge of a pollutant" broadly to include "any addition of any pollutant to navigable waters from any point source." CWA section 502(12). 33 U.S.C. 1362(12). EPA is authorized under CWA section 402(a) to issue a National Pollutant Discharge Elimination System (NPDES) permit for the discharge of any pollutant from a point source. These NPDES permits are issued by EPA regional offices or NPDES-authorized state or tribal agencies. Since 1972, EPA and the authorized states have issued NPDES permits to thousands of dischargers, including industrial (e.g., manufacturing, energy and mining facilities) and municipal (e.g., sewage treatment plants) facilities. As required under Title III of the CWA, EPA has promulgated Effluent Limitations Guidelines (ELGs) and New Source Performance Standards (NSPS) for many industrial point source categories, and these requirements must be incorporated into NPDES permits. 33 U.S.C. 1311(b). The Water Quality Act (WQA) of 1987 (Public Law 100-4, February 4, 1987) amended the CWA, adding CWA section 402(p), requiring implementation of a comprehensive program for addressing stormwater discharges. 33 U.S.C. 1342(p).

1. Clean Water Act Stormwater Program

Prior to the Water Quality Act of 1987, there were numerous questions regarding the appropriate means of regulating stormwater discharges within the NPDES program due to the serious water quality impacts of stormwater discharges, the variable nature of stormwater, and the large number of stormwater point sources. EPA undertook multiple regulatory actions in an attempt to address these unique discharges. Congress, with the addition of section 402(p), established a structured and phased approach to address stormwater discharges and fundamentally altered the way stormwater is addressed under the CWA as compared with other point source discharges of pollutants. Section 402(p)(1) created a temporary moratorium on NPDES permits for point source stormwater discharges, except for those listed in section 402(p)(2), including dischargers already required to have a permit and discharges associated with industrial activity. In 1990, pursuant to section 402(p)(4), EPA promulgated the Phase I stormwater regulations for those stormwater discharges listed in 402(p)(2). See 55 FR 47990 (November 16, 1990). The Phase I regulations required NPDES permit coverage for discharges associated with industrial activity and from "large" and "medium" municipal separate storm sewer systems (MS4s). CWA section 402(p)(2). As part of that rulemaking, EPA interpreted stormwater "discharges associated with industrial activity" to include stormwater discharges associated with "construction activity" as defined at 40 CFR 122.26(b)(14)(x). See 55 FR 48033-34. As described in the Phase I regulations, dischargers must obtain authorization to discharge (or "permit coverage"), including discharges associated with construction activity, including clearing, grading, and excavation, if the construction activity:

- will result in the disturbance of five acres or greater; or
- will result in the disturbance of less than five acres of total land area that is part of a larger common plan of development or sale if the larger common plan will ultimately disturb five acres or greater.

See 40 CFR 122.26(b)(14)(x) and (c)(1).

Section 402(p)(5) and (6) establishes a process for EPA to evaluate potential sources of stormwater discharges not included in the Phase I regulations and to designate discharges for regulation in order to protect water quality. Section 402(p)(6) instructs EPA to "issue

regulations... which designate stormwater discharges, other than those discharges described in [section 402(p)(2)], to be regulated to protect water quality and shall establish a comprehensive program to regulate such designated sources." In 1999, pursuant to the broad discretion granted to the agency under section 402(p)(6), EPA promulgated the Phase II stormwater regulations that designated discharges associated with "small" construction activity and "small" MS4s. 64 FR 68722 (December 8, 1999). NPDES permit coverage is required for discharges associated with "small" construction activity, including clearing, grading, and excavation, if the construction activity:

- will result in land disturbance of equal to or greater than one acre and less than five acres; or
- will result in disturbance of less than one acre of total land area that is part of a larger common plan of development or sale if the larger common plan will ultimately disturb equal to or greater than one and less than five acres.

See 40 CFR 122.26(b)(15).

EPA continues to have discretionary authority under section 402(p)(6) to designate additional stormwater discharges for regulation under the CWA in order to protect water quality. EPA has established an adjudicatory process for exercising discretion to designate and require NPDES permits for unregulated stormwater discharges. See 40 CFR 122.26(a)(9)(i)(C)-(D); see also *Envt Defense Ctr. v. EPA*, 344 F.3d 832, 873-76 (9th Cir. 2003).

2. NPDES Permits for Stormwater Discharges Associated With Construction Activity

The NPDES regulations provide two options for obtaining authorization to discharge or "permit coverage": general permits and individual permits. A brief description of these types of permits as they apply to construction and development (C&D) sites follows:

a. ***General NPDES Permits.*** The vast majority of discharges associated with construction activity are covered under NPDES general permits. EPA, states, and tribes use general permits to cover a group of similar dischargers under one permit. See 40 CFR 122.28. General permits simplify the process for dischargers to obtain authorization to discharge, provide permit requirements for any eligible discharger that files a Notice of Intent (NOI) to be covered, and reduce the administrative workload for NPDES permitting authorities. General permits, including the fact sheet describing the rationale for permit conditions, are issued by NPDES permitting authorities after an opportunity for public review of and comment on the proposed general permit. Typically, to obtain authorization to discharge under a construction general permit, a discharger (any operators of the construction site; typically, a developer, builder, and/or contractor) submits to the permitting authority an NOI to be covered under the general permit. An NOI is not a permit or a permit application (see *Texas Independent Producers and Royalty Owners Ass'n v. EPA*, 410 F.3d 964, 977-78 (7th Cir. 2005)), but by submitting the NOI, the discharger asserts and acknowledges that it is eligible for coverage under the general permit and that it agrees to the conditions in the published general permit. Discharges associated with the construction activity are authorized consistent with the terms and conditions established in the general permit.

After reviewing information regarding permit eligibility contained in the NOI, EPA, states and tribes may notify a construction site operator that it must, instead, apply for an individual permit if the permitting authority determines that the operator does not meet the eligibility conditions for coverage under the general permit. Examples of situations that might trigger such a determination are when the proposed discharges will not meet applicable water quality standards, or when they may adversely affect a Federally listed threatened or endangered species. In some cases, the permitting authority may

allow the operator to proceed with coverage under the general permit provided additional control measures designed to address the specific issue at hand are implemented.

b. ***EPA Construction General Permit (CGP).*** Since 1992, EPA has issued a series of Construction General Permits (CGPs) that cover areas where EPA is the NPDES permitting authority. At present, EPA is the permitting authority in four states (Idaho, Massachusetts, New Hampshire, and New Mexico), the District of Columbia, Puerto Rico and all other U.S. territories with the exception of the Virgin Islands, construction projects undertaken by Federal Operators in four states (Colorado, Delaware, Vermont, and Washington), most Indian Country lands and a couple of other specifically designated activities in specific states (*e.g., oil and gas activities in Texas and Oklahoma).* See Appendix B for a complete list of areas covered by EPA's CGP. The 2012 CGP became effective on February 16, 2012 (see 77 FR 12286), and expires at midnight on February 16, 2017. The 2017 CGP replaces the 2012 CGP.

c. Individual NPDES Permits. A permitting authority may require any construction site to apply for an individual permit rather than using the general permit. Likewise, any discharger may apply to be covered under an individual permit rather than seek coverage under an otherwise applicable general permit. See 40 CFR 122.28(b)(3). Unlike a general permit, an individual permit is intended to be issued to one permittee, or a few co-permittees. Individual permits for stormwater discharges from construction sites are rarely used, but when they are, they are most often used for very large projects or projects located in sensitive watersheds. EPA estimates that less than one half of one percent (< 0.5%) of all construction sites in the country are covered under individual permits.

3. Technology-Based Effluent Limitations Guidelines and Standards in NPDES Permits

Effluent limitations guidelines (ELGs) and new source performance standards (NSPSs) are technology-based effluent limitations under CWA sections 301 and 306 for categories of point source discharges. These effluent limitations, which can be either numeric or non-numeric, along with water quality-based effluent limitations, if necessary, must be incorporated into NPDES permits, as appropriate. ELGs and NSPSs are based on the degree of control that can be achieved using various levels of pollutant control technology as defined in Title III of the CWA and summarized as follows:

a. Best Practicable Control Technology Currently Available (BPT). The CWA requires EPA to specify BPT effluent limitations for conventional, toxic, and nonconventional pollutants. In doing so, EPA must determine what level of control is technologically available and economically practicable. CWA section 301(b)(1)(A). In specifying BPT, EPA must look at a number of factors. EPA considers the total cost of application of technology in relation to the effluent reduction benefits to be achieved from such application. The agency also considers the age of the equipment and facilities, the process employed and any required process changes, engineering aspects of the application of the control technologies, non-water quality environmental impacts (including energy requirements), and such other factors as the Administrator deems appropriate. CWA section 304(b)(1)(B).

b. Best Available Technology Economically Achievable (BAT). BAT effluent limitations are applicable to toxic (priority) and nonconventional pollutants. EPA has identified 65 pollutants and classes of pollutants as toxic pollutants, of which 126 specific pollutants have been designated priority toxic pollutants. See 40 CFR 401.15 and 40 CFR part 423, Appendix A. In general, BAT represents the best available performance of facilities through application of the best control measures and practices economically

achievable including treatment techniques, process and procedure innovations, operating methods, and other alternatives within the point source category. CWA section 304(b)(2)(A). The factors EPA considers in assessing BAT include the cost of achieving BAT effluent reductions, the age of equipment and facilities involved, the processes employed, the engineering aspects of the control technology, potential process changes, non-water quality environmental impacts (including energy requirements), and such factors as the Administrator deems appropriate. CWA section 304(b)(2)(B).

c. **Best Conventional Pollutant Control Technology (BCT).** The 1977 amendments to the CWA required EPA to identify effluent reduction levels for conventional pollutants associated with BCT for discharges from existing point sources. BCT is not an additional limitation, but replaces Best Available Technology (BAT) for control of conventional pollutants. In addition to other factors specified in CWA section 304(b)(4)(B), the Act requires that EPA establish BCT limitations after consideration of a two-part "cost-reasonableness" test. EPA explained its methodology for the development of BCT limitations in July 1986. 51 FR 24974 (July 9, 1986). Section 304(a)(4) designates the following as conventional pollutants: biochemical oxygen demand (BOD_5), total suspended solids (TSS), fecal coliform, pH, and any additional pollutants defined by the Administrator as conventional. See 40 CFR 401.16. The Administrator has designated oil and grease as an additional conventional pollutant. 44 FR 44501 (July 30, 1979). CWA section 304(b)(4)(B).

d. **Best Available Demonstrated Control Technology (BADT) for New Source Performance Standards (NSPS).** NSPS apply to all pollutants and reflect effluent reductions that are achievable based on the BADT. New sources, as defined in CWA section 306, have the opportunity to install the best and most efficient production processes and wastewater treatment technologies. As a result, NSPS should represent the greatest degree of effluent reduction attainable through the application of the best available demonstrated control technology. In establishing NSPS, CWA section 306 directs EPA to take into consideration similar factors that EPA considers when establishing BAT, namely the cost of achieving the effluent reduction and any non-water quality, environmental impacts and energy requirements. CWA section 306(1)(B).

NPDES permits issued for construction stormwater discharges are required under Section 402(a)(1) of the CWA to include conditions for meeting technology-based ELGs established under Section 301 and, where applicable, any NSPS established under Section 306. Once an ELG or NSPS is promulgated in accordance with these sections, NPDES permits must incorporate limits based on such limitations and standards. See 40 CFR 122.44(a)(1). Prior to the promulgation of national ELGs and/or NSPS, permitting authorities must establish and include in NPDES permits technology-based effluent limitations case-by-case based on their best professional judgment. See CWA section 402(a)(1)(B); 125.3(a)(2)(ii)(B).

4. EPA's Construction and Development Effluent Limitations Guidelines and New Source Performance Standards

On December 1, 2009, EPA promulgated ELGs and NSPSs to control the discharge of pollutants from construction sites. See 74 Fed. Reg. 62996, and 40 CFR 450.21. These requirements, known as the "Construction and Development Rule" or "C&D rule," became effective on February 1, 2010. Following the promulgation of the C&D rule in 2009, several parties filed petitions for review of the final rule, identifying potential deficiencies with the dataset that the EPA used to support its decision to adopt a numeric turbidity limitation as well as other issues. On March 6, 2014, pursuant to a settlement agreement to resolve the litigation, EPA finalized amendments to the C&D rule that withdrew the numeric turbidity limitation and monitoring requirements, and also provided clarification regarding several other requirements of

the rule. See 79 Fed. Reg. 12661 and 80 Fed. Reg. 25235. Because the 2017 CGP is being issued after the effective date of the 2014 C&D rule amendments, EPA must incorporate these requirements into this permit. Therefore, the 2017 CGP includes revisions that reflect the 2014 C&D rule amendments, as well as maintains existing changes that were made to the 2012 CGP to incorporate the other portions of C&D rule requirements not affected by the 2014 amendments. A summary of the C&D rule requirements is included in Section II below.

II. Summary of C&D Rule Requirements

The C&D rule requirements include non-numeric effluent limitations that apply to all permitted discharges from construction sites (40 CFR 450.21). The effluent limitations are structured to require construction operators to first prevent the discharge of sediment and other pollutants through the use of effective planning and erosion control measures; and second, to control discharges that do occur through the use of effective sediment control measures. Operators must implement a range of pollution control and prevention measures to limit or prevent discharges of pollutants, including those from dry weather discharges as well as wet weather (i.e., stormwater).

The non-numeric effluent limitations are designed to prevent the mobilization and stormwater discharge of sediment and sediment-bound pollutants, such as metals and nutrients, and to prevent or minimize exposure of stormwater to construction materials, debris and other sources of pollutants on construction sites. In addition, these non-numeric effluent limitations limit the generation of dissolved pollutants, such as nutrients, organics, pesticides, herbicides and metals that may be present naturally in the soil on construction sites, such as arsenic or selenium, or may have been contributed by previous activities on the site such as agriculture or industrial activity. These pollutants, once mobilized by rainfall and stormwater, can detach from the soil particles and become dissolved pollutants. Once dissolved, these pollutants would not be removed by down-slope sediment controls. Source control through minimization of soil erosion is therefore the most effective way of controlling the discharge of these pollutants.

The C&D rule's non-numeric effluent limits are as follows (see 40 CFR 450.21):

1. Erosion and Sediment Controls

Operators must design, install and maintain effective erosion controls and sediment controls to minimize the discharge of pollutants. At a minimum, such controls must be designed, installed and maintained to:

- **a.** Control stormwater volume and velocity to minimize soil erosion in order to minimize pollutant discharges;
- **b.** Control stormwater discharges, including both peak flowrates and total stormwater volume, to minimize channel and streambank erosion and scour in the immediate vicinity of discharge points;
- **c.** Minimize the amount of soil exposed during construction activity;
- **d.** Minimize the disturbance of steep slopes;
- **e.** Minimize sediment discharges from the site. The design, installation and maintenance of erosion and sediment controls must address factors such as the amount, frequency, intensity and duration of precipitation, the nature of resulting stormwater discharge, and soil characteristics, including the range of soil particle sizes expected to be present on the site;
- **f.** Provide and maintain natural buffers around waters of the United States, direct stormwater to vegetated areas and maximize stormwater infiltration to reduce pollutant discharges, unless infeasible;

g. Minimize soil compaction. Minimizing soil compaction is not required where the intended function of a specific area of the site dictates that it be compacted; and

h. Unless infeasible, preserve topsoil. Preserving topsoil is not required where the intended function of a specific area of the site dictates that the topsoil be disturbed or removed.

2. Soil Stabilization Requirements

Operators must, at a minimum, initiate soil stabilization measures immediately whenever any clearing, grading, excavating or other earth disturbing activities have permanently ceased on any portion of the site, or temporarily ceased on any portion of the site and will not resume for a period exceeding 14 calendar days. In arid, semiarid, and drought-stricken areas where initiating vegetative stabilization measures immediately is infeasible, alternative stabilization measures must be employed as specified by the permitting authority. Stabilization must be completed within a period of time determined by the permitting authority. In limited circumstances, stabilization may not be required if the intended function of a specific area of the site necessitates that it remain disturbed.

3. Dewatering Requirements

Operators must minimize the discharge of pollutants from dewatering trenches and excavations. Discharges are prohibited unless managed by appropriate controls.

4. Pollution Prevention Measures

Operators must design, install, implement, and maintain effective pollution prevention measures to minimize the discharge of pollutants. At a minimum, such measures must be designed, installed, implemented and maintained to:

a. Minimize the discharge of pollutants from equipment and vehicle washing, wheel wash water, and other wash waters. Wash waters must be treated in a sediment basin or alternative control that provides equivalent or better treatment prior to discharge;

b. Minimize the exposure of building materials, building products, construction wastes, trash, landscape materials, fertilizers, pesticides, herbicides, detergents, sanitary waste and other materials present on the site to precipitation and to stormwater. Minimization of exposure is not required in cases where the exposure to precipitation and to stormwater will not result in a discharge of pollutants, or where exposure of a specific material or product poses little risk of stormwater contamination (such as final products and materials intended for outdoor use); and

c. Minimize the discharge of pollutants from spills and leaks and implement chemical spill and leak prevention and response procedures.

5. Prohibited Discharges

The following discharges from C&D sites are prohibited:

a. Wastewater from washout of concrete, unless managed by an appropriate control;

b. Wastewater from washout and cleanout of stucco, paint, form release oils, curing compounds and other construction materials;

c. Fuels, oils, or other pollutants used in vehicle and equipment operation and maintenance; and

d. Soaps or solvents used in vehicle and equipment washing.

6. Surface Outlets

When discharging from basins and impoundments, operators must utilize outlet structures that withdraw water from the surface, unless infeasible.

This fact sheet discusses in the sections below how EPA has incorporated these requirements into its 2017 CGP. The discussion will include a summary of each provision and the agency's rationale for articulating the provision in this way. EPA notes that most of the 2012 CGP's provisions are retained in the 2017 CGP.

III. Summary of Significant Changes to the 2017 CGP

The permit includes several new or modified requirements. The following summarizes the significant changes to the 2017 CGP.

1. Streamlining of the Permit

EPA streamlined and simplified language throughout the CGP to present requirements in a generally more clear and readable manner. This structure should enhance operators' understanding of and compliance with the permit's requirements. For example, EPA moved language that was not necessary in the permit into the relevant appendix or to the fact sheet. Although the permit has been streamlined from prior permits, many of the requirements remain unchanged.

2. Types of Discharges Authorized

The permit clarifies that stormwater discharges from earth-disturbing activities associated with the construction of staging areas and the construction of access roads conducted prior to active mining are eligible for coverage under the CGP.

The 2017 CGP, like the 2012 CGP, authorizes several non-stormwater discharges in Part 1.2.2. New to the 2017 CGP is an explicit prohibition of non-stormwater discharges of external building washdown waters containing hazardous substances, such as paint or caulk containing polychlorinated biphenyls (PCBs). Consistent with the 2012 CGP, authorized non-stormwater discharges are required to comply with any applicable effluent limitation requirements in Parts 2 and 3 of the 2017 CGP.

3. Effluent Limitations

EPA made minor revisions to the technology-based effluent limits in the permit to implement the 2014 amendments to the C&D rule, as discussed in section II. These revisions include clarifying the applicability of requirements to control erosion on-site caused by stormwater, providing additional details on areas where buffers are required, and clarifying requirements for soil stabilization, preservation of topsoil and pollution prevention measures.

4. Notice of Permit Coverage

As in the 2012 CGP, construction operators must post a sign or other notice of permit coverage at a safe, publicly accessible location in close proximity to the construction site. New for the 2017 CGP, this notice must also include information informing the public on how to contact EPA to obtain a copy of the SWPPP, and how to contact EPA if stormwater pollution is observed in the discharge. EPA is requiring these additions to make the longstanding process of obtaining a SWPPP more readily known to the public and to improve transparency of the process to report possible violations.

5. Stockpiles and Land Clearing Debris Piles

EPA changed the requirement for temporary stabilization for stockpiles or land clearing debris piles from "where practicable" to requiring cover or appropriate temporary stabilization for all inactive piles that will be unused for 14 or more days, consistent with the temporary stabilization deadlines in Part 2.2.14. EPA made this change to ensure pollutants are minimized from these piles, but is clarifying that the requirement only applies where these piles are not actively being used.

6. Stabilization Deadlines

The 2017 CGP establishes a modified approach to the stabilization deadlines, which is based on the concept of phasing construction disturbances. Sites that disturb 5 acres or less must complete stabilization within a 14-day timeframe, which is the same timeframe that applied to sites in the 2012 CGP. For sites that disturb more than 5 acres over the course of a construction project, operators may choose between completing stabilization within a 14-day timeframe if they limit (i.e., phase) disturbances to 5 acres or less at any one time, or within a 7-day timeframe if they do not limit (i.e., phase) disturbances to 5 acres or less at any one time. The intent of this approach is to provide an incentive to disturb less land at any given period of time by providing longer stabilization timeframes if the disturbance is kept below a threshold level. This approach is also consistent with the C&D rule limit to minimize the amount of soil exposed during construction activity. See 40 CFR 450.21(a)(3). The deadline for sites discharging to sensitive waters (regardless of how many acres they disturb overall or at any one time) remains unchanged (within 7 days), and the exceptions for sites in arid, semi-arid, and drought-stricken areas and for operators affected by circumstances beyond their control also remain unchanged.

7. Construction and Domestic Waste

The 2017 CGP now requires operators to keep waste container lids closed when not in use and at the end of the business day for those containers that are actively used throughout the day, or, for waste containers that do not have lids, provide cover or a similarly effective means to minimize the discharge of pollutants. EPA made this change to minimize the exposure of these waste materials to precipitation and stormwater, and to make the requirements for construction and domestic waste consistent with the cover requirements for most other types of materials and wastes in the 2012 CGP.

8. Discharge Limitations for Sites Discharging to Sensitive Waters

In order to help ensure that discharges meet water quality standards, in the 2017 CGP EPA added a requirement to implement controls on sites discharging to polychlorinated biphenyl-(PCB) impaired waters to minimize the exposure of building materials containing PCBs to precipitation and stormwater. This provision applies to the demolition of structures with at least 10,000 square feet of floor space built or renovated before January 1, 1980. EPA also requires information about the demolition location and associated pollutants to be documented in the SWPPP.

9. Notice of Intent (NOI)

EPA added three questions to the NOI form (Appendix J). These questions are:

- The type of construction site (select one or more of 9 options).
- A yes/no question asking if there is demolition of a structure with at least 10,000 square feet of floor space that was built or renovated before January 1, 1980.
- A yes/no question asking whether the predevelopment land use was agriculture.

IV. Geographic Coverage of the Permit

This permit makes available coverage for stormwater discharges associated with construction activities that occur in areas not covered by an approved state NPDES program. The areas of geographic coverage of this permit are listed in Appendix B, and include the states of Idaho, Massachusetts, New Hampshire, and New Mexico as well as most Indian Country lands, and construction projects undertaken by Federal Operators in selected states. Permit coverage is also available in the District of Columbia, Puerto Rico, and all other U.S. territories with the exception of the Virgin Islands.

V. Categories of Facilities That Can Be Covered Under This Permit

This permit covers stormwater discharges associated with construction activities located in one of the areas identified in Appendix B, which disturb one or more acres of land, or will disturb less than one acre, but are part of a common plan of development or sale that will ultimately disturb one acre or more. See 40 CFR 122.26(b)(14)(x) and (15), and Part 1.1 of the permit. The table below summarizes which construction activities may be covered by this permit:

Categories of facilities that can be covered under this permit

Examples of Affected Entities	North American Industry Classification System (NAICS) Code
Construction site operators disturbing one or more acres of land, or less than one acre but part of a larger common plan of development or sale if the larger common plan will ultimately disturb one acre or more, and performing the following activities:	
Construction of Buildings	236
Heavy and Civil Engineering Construction	237

Note that this list of NAICS codes covers those industry segments most likely to make use of this permit, but any construction operator that meets the eligibility requirements laid out for coverage is eligible. Eligibility for coverage by the permit is available to operators of "new sites," operators of "existing sites," "new operators of permitted sites," and operators of "emergency-related projects," as discussed in Part 1.2 and defined in Appendix A.

VI. Permit Requirements

This section outlines below the purpose of each provision, followed by the permit requirements (in text box), followed by any additional explanation of each provision.

Part 1: How to Obtain Coverage Under the CGP

Part 1 of the CGP details the provisions that must be met to obtain coverage under the permit. Although this section has been reorganized from prior permits, most of the requirements for coverage and the process to be followed for seeking coverage remain unchanged.

Part 1.1: Eligibility Conditions

The requirements in Part 1.1 describe all the conditions that must be met to be eligible for coverage under the CGP, as follows. Listing these eligibility conditions ensures that operators have verified that their particular construction project, and discharges from it, are eligible for coverage under this permit.

Part 1.1 (1.1.1 - 1.1.9)	Permit Requirements

1.1.1 You are an operator of the construction project for which discharges will be covered under this permit. For the purposes of this permit and in the context of stormwater discharges associated with construction activity, an "operator" is any party associated with a construction project that meets either of the following two criteria:

a. The party has operational control over construction plans and specifications, including the ability to make modifications to those plans and specifications *(e.g., in most cases this is the owner of the site);* or

b. The party 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; in most cases this is the general contractor (as defined in Appendix A) of the project).*

Where there are multiple operators associated with the same project, all operators must obtain permit coverage. Subcontractors generally are not considered operators for the purposes of this permit.

1.1.2 The project will disturb one or more acres, or will disturb less than one acre but is part of a common plan of development or sale that will ultimately disturb one or more acres, or the project's discharges have been designated by EPA as needing a permit under § 122.26(a)(1)(v) or § 122.26(b)(15)(ii).

1.1.3 The construction project is located in an area where EPA is the permitting authority. For a list of such areas, see Appendix B.

1.1.4 Discharges from the project are not:

a. Already covered by a different NPDES stormwater permit for the same discharge. Note that this does not include sites currently covered under the 2012 CGP; or

b. In the process of having coverage under another NPDES stormwater permit denied, terminated, or revoked. Note that this does not include the following: (1) sites currently covered under the 2012 CGP that will be seeking coverage under this permit, nor (2) sites that will be covered under this permit that are transferring coverage to a different operator.

[Note that notwithstanding a project being ineligible for coverage under this permit because it falls under the description of (a) or (b) above, EPA may waive the applicable eligibility restriction after specific review if it determines that coverage under this permit is indeed appropriate.]

1.1.5 Discharges from the site are not likely to adversely affect any species that are federally listed as endangered or threatened under the Endangered Species Act (ESA) and will not result in the adverse modification or destruction of habitat that is federally designated as "critical habitat" under the ESA. To demonstrate this, one of the criteria listed in Appendix D must be met, following the procedures set forth in that appendix;

1.1.6 The operator has completed the screening process in Appendix E with respect to the protection of historic properties and places;

1.1.7 Any specific requirements respecting eligibility as imposed by the applicable state, tribe, or territory through CWA section 401 certification and listed in Part 9 of this permit have been met;

1.1.8 For operators of a "new source" (as defined in Appendix A)

a. EPA has not, prior to authorization under this permit, determined that discharges from your site will cause, have the reasonable potential to cause, or contribute to an excursion above any applicable water quality standard. Where such a determination is made prior to authorization, EPA may notify the operator that an individual permit application is necessary in accordance with Part 1.2.2. However, EPA may authorize coverage under this permit after the operator has included appropriate controls and implementation procedures designed to bring the discharge into compliance with this permit, specifically the requirement to meet water quality standards. In the absence of information demonstrating otherwise, EPA expects that compliance with the stormwater control requirements of this permit, including the requirements applicable to such discharges in Part 3, 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; and

b. Discharges from your site to a Tier 2, Tier 2.5, or Tier 3 water[1] will not lower the water quality of the applicable water. In the absence of information demonstrating otherwise, EPA expects that compliance with requirements of this permit, including the requirements applicable to such discharges in Part 3.2, will result in discharges that will not lower the water quality of such waters.

1.1.9 If the operator plans to add cationic treatment chemicals (as defined in Appendix A) to stormwater and/or authorized non-stormwater prior to discharge, it is ineligible for coverage under this permit and may not submit an NOI, unless and until it notifies the applicable EPA Regional Office (see Appendix L) in advance and the EPA Regional Office authorizes coverage under this permit after the operator has included appropriate controls and implementation procedures designed to ensure that their use of cationic treatment chemicals will not lead to discharges that cause an exceedance of water quality standards. In the absence of such authorization, to use cationic treatment chemicals at the site, the operator must apply for and receive coverage under an individual permit.

The definition of "operator" in Part 1.1.1 above is consistent with the 2012 CGP. The party that meets the first part of the definition of "operator" (*the party has operational control over construction plans and specifications, including the ability to make modifications to those plans and specifications)* in most cases will be the owner of the site. The party that meets the second part of the definition of "operator" (*the party 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))* in most cases will be the general contractor of the project. EPA clarifies that subcontractors generally do not meet the definition of "operator," and thus are generally not required to obtain permit coverage.

[1] Note: Your site will be considered to discharge to a Tier 2, Tier 2.5, or Tier 3 water if the first water to which you discharge is identified by a state, tribe, or EPA as a Tier 2, Tier 2.5, or Tier 3 water. For discharges that enter a storm sewer system prior to discharge, the first water of the U.S. to which you discharge is the waterbody that receives the stormwater discharge from the storm sewer system. See list of Tier 2, Tier 2.5, and Tier 3 waters in Appendix F.

Part 1.1 of the permit also clarifies the requirements with respect to projects with multiple operators. Where there are multiple operators associated with the same project, all operators must obtain permit coverage. Also, if the operator of a "construction support activity" (see Part 1.2.1.c) is different than the operator of the main site, that operator must also obtain permit coverage. For example, if a construction support activity for the project is owned by a separate owner, and if the separate owner meets the definition of "operator", that person must obtain permit coverage for discharges from the site where the support activities are located. However, if the construction support activity is owned or operated by the site operator, then the support activity must be included in the site operator's permit coverage, including any documentation provided in the NOI and SWPPP. Part 1.1 references Part 7.1 for clarification on the sharing of liability between and among operators on the same site and for conditions that apply to developing a SWPPP for multiple operators associated with the same site.

The requirements in Part 1.1.8, which apply to new sources, are designed to comply with 40 CFR 122.4(i) requirements that address the issuance of permits to new sources to waterbodies not meeting instream water quality standards. EPA notes that while Part 1.1.8 is designed to specifically implement 40 CFR 122.4(i), other water quality-based requirements apply to existing sources, as well as new sources. Part 3 of the permit includes water quality-based effluent limits applicable to all sources, which are designed to ensure that all discharges from all operators are controlled as necessary to meet water quality standards.

Part 1.1.8 also requires operators to determine if they discharge to a Tier 2, Tier 2.5, or Tier 3 water, and if they do, to comply with specific requirements in the permit, which are intended to ensure that their discharges will not result in a lowering of water quality in the receiving water. This provision makes clear to operators their requirements for complying with antidegradation requirements, and provides assurance that operators will not cause or contribute to a lowering of water quality in the receiving water.

Part 1.1.9 clarifies what operators electing to use cationic treatment chemicals must do to be eligible for coverage under the permit. EPA has added Appendix L to the permit as a suggested format for notifying the operator's applicable EPA Regional Office about its intent to use of cationic treatment chemicals. The addition of Appendix L is to make it easier for operators to become eligible for permit coverage under Part 1.1.9. This provision is not being modified from the 2012 CGP.

EPA hereby incorporates by reference the discussion in the 2012 CGP fact sheet concerning background on cationic treatment chemicals as well as the agency's rationale for adopting this provision. See section VI.2.4 "Use of Cationic Treatment Chemicals" on pages 20 through 28 of the 2012 CGP fact sheet, available at https://www.epa.gov/sites/production/files/2016-10/documents/cgp2012_finalfactsheet-updateurl.pdf.

Part 1.2: Types of Discharges Authorized

Part 1.2 of the CGP provides operators with a comprehensive list of the types of discharges that are authorized once covered under this permit. This list makes operators aware of allowed stormwater and non-stormwater discharges, and of any additional requirements associated with those discharges to minimize the discharge of pollutants, and also makes operators aware that any discharges not included on the list are not authorized under this permit. The new language in footnote 5 reminds operators to refer to the definition of "discharge" in Appendix A.

Part 1.2.1 lists categories of stormwater discharges that are allowed under the CGP, provided that all applicable permit limits and conditions are met.

Part 1.2.1	Permit Requirements

The following stormwater discharges are authorized under this permit provided that appropriate stormwater controls are designed, installed, and maintained (see Parts 2 and 3):

a. Stormwater discharges, including stormwater runoff, snowmelt runoff, and surface runoff and drainage, associated with construction activity under 40 CFR 122.26(b)(14) or 122.26(b)(15)(i);

b. Stormwater discharges designated by EPA as needing a permit under 40 CFR § 122.26(a)(1)(v) or § 122.26(b)(15)(ii);

c. Stormwater 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 that:

   i. The support activity is directly related to the construction site required to have permit coverage for stormwater discharges;

   ii. The support activity is not a commercial operation, nor does it serve multiple unrelated construction projects;

   iii. The support activity does not continue to operate beyond the completion of the construction activity at the project it supports; and

   iv. Stormwater controls are implemented in accordance with Part 2 and Part 3 for discharges from the support activity areas.

d. The permit also clarifies that stormwater discharges from earth-disturbing activities associated with the construction of staging areas and the construction of access roads conducted prior to active mining are eligible for coverage under the CGP.

Part 1.2.2 provides authorization for non-stormwater discharges from the operator's construction activity.

Part 1.2.2	Permit Requirements

The following non-stormwater discharges associated with your construction activity are authorized under this permit provided that, with the exception of water used to control dust and to irrigate vegetation in stabilized areas, these discharges are not routed to areas of exposed soil on your site and you comply with any applicable requirements for these discharges in Parts 2 and 3:

a. Discharges from emergency fire-fighting activities;

b. Fire hydrant flushings;

c. Landscape irrigation;

d. Water used to wash vehicles and equipment, provided 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. External building washdown, provided soaps, solvents, and detergents are not used, and external surfaces do not contain hazardous substances (as defined in Appendix A) (e.g., paint or caulk containing polychlorinated biphenyls (PCBs));

h. Pavement wash waters, provided spills or leaks of toxic or hazardous material have not occurred (unless all spill material has been removed) and where soaps, solvents, and detergents are not used. The operator is prohibited from directing pavement wash waters directly into any water of the U.S., storm drain inlet, or stormwater conveyance, unless the conveyance is connected to a sediment basin, sediment trap, or similarly effective control;

i. Uncontaminated air conditioning or compressor condensate;

j. Uncontaminated, non-turbid discharges of ground water or spring water;

k. Foundation or footing drains where flows are not contaminated with process materials such as solvents or contaminated ground water; and

l. Construction dewatering water discharged in accordance with Part 2.4.

Part 1.2.1.d includes a new clarification that stormwater discharges from earth-disturbing activities associated with the construction of staging areas and the construction of access roads conducted prior to active mining are eligible for coverage under the CGP. This clarification was added to ensure consistency between this permit and the 2015 MSGP, which gives mining operators the option of having these same stormwater discharges covered under that permit or having them covered under the CGP. This language simply makes it clear to mining operators that these stormwater discharges are in fact eligible under the CGP, as intended.

Part 1.2.2 adds a new condition that discharges of external building washdown waters containing hazardous substances (*e.g., paint or caulk containing PCBs)* are not authorized. The purpose of this new provision is to prevent releases of PCBs in the environment when these wash waters contact external building surfaces containing PCBs. If the operator were to discharge washdown waters containing PCBs to an MS4 or directly to a receiving water, these would be unauthorized discharges.

EPA notes that "uncontaminated" means that the discharge does not cause or contribute to an exceedance of applicable water quality standards. Similarly, "non-turbid" means the discharge does not cause or contribute to an exceedance of turbidity-related water quality standards. See Appendix A.

Part 1.2.3 provides authorization to discharge authorized stormwater or authorized non-stormwater discharges, commingled with a discharge authorized by a different NPDES permit and/or a discharge that does not require NPDES permit authorization.

Part 1.2.3	**Permit Requirements**
Also authorized under this permit are discharges of stormwater listed above in Part 1.2.1, or authorized non-stormwater discharges listed above in Part 1.2.2, commingled with a discharge authorized by a different NPDES permit and/or a discharge that does not require NPDES permit authorization.	

Part 1.3: Prohibited Discharges

Part 1.3 identifies the types of discharges that are prohibited from occurring at the operator's construction site. This list prohibits the following discharges:

Part 1.3 (1.3.1 - 1.3.5)	Permit Requirements

1.3.1. Wastewater from washout of concrete, unless managed by an appropriate control as described in Part 2.3.4;

1.3.2. Wastewater from washout and cleanout of stucco, paint, form release oils, curing compounds and other construction materials;

1.3.3. Fuels, oils, or other pollutants used in vehicle and equipment operation and maintenance;

1.3.4. Soaps, solvents, or detergents used in vehicle and equipment washing or external building washdown; and

1.3.5. Toxic or hazardous substances from a spill or other release.

Part 1.3 also specifies that to prevent the above-listed prohibited non-stormwater discharges, operators must comply with the applicable pollution prevent requirements in Part 2.3.

Part 1.3 details the types of wastes and other pollutants that operators are prohibited from discharging under the permit. The requirement in Parts 1.3.1 through 1.3.4 above implement prohibitions included in the C&D rule at 40 CFR 450.21(e). The requirement in Part 1.3.5 above to prohibit toxic or hazardous substances from a spill or other release corresponds to Part 3.1.I of the 2008 CGP ("you are not authorized to discharge hazardous substances or oil resulting from an on-site spill"). EPA includes the types of prohibited non-stormwater discharges in the permit as a reminder to the operator that the only authorized non-stormwater discharges are at Part 1.2.2. Any unauthorized non-stormwater discharges must be covered under an individual permit or alternative general permit.

This provision, which is now Part 1.3 in this permit, was moved from Part 2 in the 2012 CGP. Moving this section on prohibited discharges to immediately follow Part 1.2 on authorized discharges specifies for operators in one place in the permit which discharges are and are not allowed under the CGP.

Part 1.4: Submitting Your NOI

Part 1.4 carries out the fundamental requirement that discharges are not authorized until permit coverage is obtained, and that permit coverage is obtained for the CGP through the submission of a complete and accurate NOI followed by a minimum 14-day waiting period.

Part 1.4	Permit Requirements

Part 1.4 specifies that all "operators" (as defined in Appendix A) associated with the construction site, who meet the Part 1.1 eligibility requirements, and who seek coverage under the final permit, must submit to EPA a complete and accurate NOI prior to commencing construction activities.

Part 1.4 provides an exception for operators that are conducting construction 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. If any of these circumstances apply, the operator may discharge on the condition that a complete and accurate NOI is submitted within 30 calendar days after commencing construction activities (see Table 1 in the permit) establishing that you are eligible for coverage under this permit. The operator must also provide documentation in the SWPPP to substantiate the occurrence of the public emergency.

EPA recognizes that obtaining CGP coverage following the normal procedures is not feasible in situations requiring emergency-related construction. EPA includes the exception in Part 1.4 to ensure that the authorization process does not interfere with emergency-related construction projects required to avoid endangerment to human health, public safety, or the environment. By providing the operators of these projects with the ability to immediately begin work, and to postpone the NOI submission and SWPPP completion deadlines for 30 calendar days, EPA intends that these projects may proceed without delay. Once the initial 30 calendar days has expired, however, an NOI must be submitted and a SWPPP must be completed.

Part 1.4.1: Prerequisite for Submitting Your NOI

Part 1.4.1 clarifies that completing development of the SWPPP consistent with Part 7 is a prerequisite to submitting an NOI for coverage under this permit.

Part 1.4.1	Permit Requirements
Operators must develop a SWPPP consistent with Part 7 before submitting an NOI for coverage under this permit.	

Part 1.4.1 was a note in Part 1.4 in the 2012 CGP. The note was moved to the body of the permit to make this requirement more visible to operators.

Part 1.4.2: How to Submit Your NOI

Part 1.4.2 clarifies the method by which operators are to submit their NOIs for permit coverage.

Part 1.4.2	Permit Requirements

Part 1.4.1 specifies that operators must use EPA's NPDES eReporting Tool (NeT) to electronically prepare and submit their NOIs for coverage under the 2017 CGP, unless the operator receives a waiver from your EPA Regional Office. Waivers from electronic reporting may be granted based on one of the following conditions:

a. If the operator's operational headquarters are physically located in a geographic area (*i.e., ZIP code or census tract*) that is identified as under-served for broadband Internet access in the most recent report from the Federal Communications Commission; or

b. If the operator has limitations regarding available computer access or computer capability.

If the operator wishes to obtain a waiver from submitting a report electronically, operators must submit a request to the EPA Regional Office. In that request, operators must document which exemption they meet, provide evidence supporting any claims, and a copy of their completed NOI form. A waiver may only be considered granted once operators receive written confirmation from EPA. If the EPA Regional Office grants the operator approval to use a paper NOI, and they elect to use it, the operator must complete the form in Appendix J.

This is the first CGP that has made use of EPA's NPDES eReporting Tool (NeT), which replaces the previous electronic system required in the 2012 CGP, the eNOI system. Due to the expansion in Internet availability, greater efficiency in administrative processing, and reductions in cost to manage the system as compared to paper NOIs, it is required that NeT be the primary mechanism by which construction projects obtain permit coverage. If it is not possible for an operator to make use of NeT, such operator may submit a waiver request to the Regional Office and an explanation as to why use of NeT is infeasible. Operators must receive affirmative confirmation from the Regional Office to then use a paper NOI.

Part 1.4.3: Deadlines for Submitting Your NOI and Your Official Date of Permit Coverage

Part 1.4.2 specifies the deadlines for submitting NOIs for permit coverage and official start dates for permit coverage in Table 1. NOI submittal deadlines vary depending on when the operator commences construction activity. Table 1 summarizes the deadlines and permit coverage start dates based upon the type of construction project as follows:

Part 1.4.3	**Permit Requirements**	
Table 1 NOI Submittal Deadlines and Official Start Date for Permit Coverage.		
Type of Operator	**NOI Submittal Deadline[2]**	**Permit Authorization Date[3]**
Operator of a new site (*i.e., a site where construction activities commence on or after February 16, 2017*)	At least 14 calendar days before commencing construction activities.	14 calendar days after EPA notifies you that it has received a complete NOI, unless EPA notifies you that your authorization is delayed or denied.
Operator of an existing site *(i.e., a site with 2012 CGP coverage where construction activities commenced prior to February 16, 2017*)	No later than **May 17, 2017**.	
New operator of a permitted site (*i.e., an operator that through transfer of ownership and/or operation replaces the operator of an already permitted construction site that is either a "new site" or an "existing site"*)	At least 14 calendar days before the date the transfer to the new operator will take place.	
Operator of an "emergency-related project" (*i.e., 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*)	No later than 30 calendar days after commencing construction activities.	You are considered provisionally covered under the terms and conditions of this permit immediately, and fully covered 14 calendar days after EPA notifies you that it has received a complete NOI, unless EPA notifies you that your authorization is delayed or denied.

The term "operator of a new site" in Table 1 is used to describe projects that commence earth disturbing activities on or after February 16, 2017, the effective date of the permit. New sites include those new sources that are subject to the C&D rule's NSPSs because they commenced construction after February 1, 2010 (the effective date of the C&D rule). The term "new site" was adopted to avoid the confusion that would have resulted if the permit used the

[2] If you miss the deadline to submit your NOI, any and all discharges from your construction activities will continue to be unauthorized under the CWA until they are covered by this or a different NPDES permit. EPA may take enforcement action for any unpermitted discharges that occur between the commencement of construction activities and discharge authorization.

[3] Discharges are not authorized if your NOI is incomplete or inaccurate or if you are not eligible for permit coverage.

term "new source" to describe both projects that began construction after February 1, 2010, but before February 16, 2017, and those projects that begin on or after February 16, 2017.

The term "operator of an existing site" in Table 1 refers to construction projects that commenced activities prior to February 16, 2017, the effective date of the permit. Existing sites include both those activities that began prior to the February 1, 2010 effective date of the NSPS of the C&D rule, and may have been covered under the 2008 CGP, and those activities that are subject to the NSPS because they commenced after February 1, 2010, but before February 16, 2017.

The 14-day NOI submittal deadlines in Table 1 for operators of new sites and new operators of a new or existing site provides the Fish & Wildlife Service and the National Marine Fisheries Service (the "Services"), state and tribal historic preservation offices, and the public, with an opportunity to review these submissions and to inform EPA if they believe that more time is needed to review the potential impacts from the project. The 14 days between receipt of the NOI and authorization is referred to as the "waiting period."

During the 14-day waiting period, where one or both of the Services or the historic preservation office requests that they or EPA need to further explore whether a particular facility is eligible for permit coverage, EPA can delay authorization to allow such an assessment to take place. EPA may also use the waiting period to determine whether any more stringent control measures are necessary to ensure that discharges will meet applicable water quality standards, to be consistent with an applicable wasteload allocation (WLA), or to comply with state or tribal antidegradation requirements.

Additionally, during this waiting period, the public has an opportunity to review the NOIs and request review of applicable SWPPPs. Anyone wishing to provide feedback to EPA can send information to the appropriate EPA Regional Office listed in Appendix B of the permit for consideration. EPA clarifies that this waiting period is not a public notice and comment period. EPA will consider any information provided to it during the waiting period, but does not plan to provide specific responses to comments received. Where appropriate, EPA will address concerns raised *(e.g., will direct the relevant operator to make improvements to the designed stormwater controls as necessary to meet the requirements of the permit).* Depending on the nature of the issue and the timing of the comments, EPA will take appropriate action either prior to or following discharge authorization. In addition, EPA may delay authorization if warranted, or may determine that the discharge is not eligible for authorization under this permit.

The description of the permit authorization date changed slightly from the 2012 CGP. The 2012 CGP states that the operator would be covered under the permit "14 calendar days after EPA has acknowledged receipt of [the operator's] NOI on the agency's website..." Under the 2017 CGP, operators are covered under the permit "14 calendar days after EPA notifies [the operator] that it has received a complete NOI..." This is a clarification of the process that was followed under the 2012 CGP. "Acknowledging receipt on the agency's website" required the NOI to be complete when submitted to EPA, and it would not be processed otherwise. Therefore, EPA is making it more explicit that the NOI must be complete upon receipt for the operator be covered within 14 calendar days.

Table 1 describes that operators of emergency-related projects are considered provisionally covered under the permit immediately upon the start of construction, and unprovisionally covered 14 calendar days after EPA acknowledges receipt of their NOI through posted information on EPA's website (https://www.epa.gov/npdes/stormwater-discharges-construction-activities#ereporting), unless EPA notifies the operator that their authorization has been delayed or denied.

If the operator requests a waiver and submits a paper NOI, the 14-day period prior to permit coverage is the same as above, however this period commences only after EPA completes manual entry of the paper NOI information into NeT. Note that if the paper NOI contains errors or is incomplete, this will result in delaying the commencement of the 14-day waiting period. The operator will be able to tell when the 14-day waiting period has begun by checking for their NOI in NeT at https://www.epa.gov/npdes/stormwater-discharges-construction-activities#ereporting.

Part 1.4.4: Modifying your NOI

Part 1.4.4 describes the process for modifying an NOI if the operator needs to correct or update any fields.

Part 1.4.4	Permit Requirements
To modify an NOI, the operator may submit a "Change NOI" form using NeT. Waivers from electronic reporting may be granted as specified in Part 1.4.2. If the EPA Regional Office has granted the operator approval to submit a paper NOI modification, they may indicate any NOI changes on the same NOI form in Appendix J. When there is a change to the site's operator, the new operator must submit a new NOI, and the previous operator must submit a NOT form as specified in Part 8.3.	

Part 1.4.4 is a new provision in the permit that EPA added to clarify for operators the existing procedure for modifying NOIs.

Part 1.4.5: Your Official End Date of Permit Coverage

Part 1.4.5 describes how long permit coverage lasts.

Part 1.4.5	Permit Requirements
Once covered under the CGP, permit coverage will last until: a. The operator terminates permit coverage, consistent with Part 8; or b. The operator receives permit coverage under a different NPDES permit, or a reissued or replacement version of this permit after expiring on February 16, 2022 if the operator requests coverage under the reissued or replacement permit by the specified deadline (in this case the operator has no break in coverage); or c. The operator fails to submit an NOI for coverage under a revised or replacement version of this permit before the deadline for existing construction sites where construction activities continue after this permit has expired (in this case your coverage lapses and EPA may take enforcement action against any unpermitted discharges).	

Continuation of Coverage for Existing Operators After the 2017 Permit Expires

Note that if the 2017 CGP is not reissued or replaced prior to the expiration date, it will be administratively continued in accordance with section 558(c) of the Administrative Procedure Act (see 40 CFR 122.6) and remain in force and effect for discharges that were covered prior to its expiration. All operators granted permit coverage prior to the expiration date of the permit will automatically remain covered by the 2017 CGP until the earliest of:

a. The authorization for coverage under a reissued or replacement version of the permit following the timely submittal of a complete and accurate NOI requesting coverage under the new permit. If a timely NOI for coverage under the reissued or replacement permit is not submitted, coverage will terminate on the date that the NOI was due; or

b. The date of the submittal of an NOT; or

c. Issuance or denial of an individual permit for the operator's discharges; or

d. A final permit decision by EPA not to reissue the CGP, at which time EPA 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.

EPA reserves the right to modify or revoke and reissue the 2017 CGP under 40 CFR 122.62 and 63, in which case the operator will be notified of any relevant changes or procedures to which operators may be subject.

This clarification was previously stated in Part 1.4.4 of the 2012 CGP and has been moved to the fact sheet in the 2017 CGP. The clarification describes for operators the continuation of coverage for existing operators if the permit expires. Where EPA fails to issue a final general permit prior to the expiration of a previous general permit, EPA has the authority to administratively continue the permit for operators authorized to discharge under the prior general permit. However, EPA does not have the authority to provide coverage to construction projects not already authorized to discharge under that prior general permit. Once the five-year expiration date for this permit has passed, any such projects would need to obtain coverage under an individual permit, or other general permit that is in effect.

Part 1.5: Requirement to Post a Notice of Your Permit Coverage

The requirement in Part 1.5 is to provide notice to the public, and any other interested parties, that discharges from the construction site are authorized by EPA.

Part 1.5	Permit Requirements

Part 1.5 of the CGP requires that the operator post a sign or other notice of permit coverage at a safe, publicly accessible location in close proximity to the construction site. The notice must be located so that it is visible from the public road 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. At a minimum, the notice must include:

a. The NPDES ID (*i.e., permit tracking number assigned to your NOI*);

b. A contact name and phone number for obtaining additional construction site information;

c. The Uniform Resource Locator (URL) for the SWPPP (if available), or the following statement: "If you would like to obtain a copy of the Stormwater Pollution Prevention Plan (SWPPP) for this site, contact the EPA Regional Office at [*include the appropriate CGP Regional Office contact information found at https://www.epa.gov/npdes/contact-us-stormwater#regional*];" and

d. The following statement "If you observe indicators of stormwater pollutants in the discharge or in the receiving waterbody, contact the EPA through the following website: https://www.epa.gov/enforcement/report-environmental-violations."

By providing notice of permit coverage and other information about the site, interested parties are more easily able to obtain information about the construction site, such as the SWPPP, and identify the site when reporting potential permit violations. Note that operators are only required to provide copies of the SWPPP, upon request, to EPA; a state, tribal or local agency approving stormwater management plans; the operator of a storm sewer system receiving discharges from the site; or representatives of the U.S. Fish and Wildlife Service (USFWS) or the National Marine Fisheries Service (NMFS). EPA may provide access to portions of the SWPPP to a

member of the public upon request. For the 2017 CGP, EPA added a requirement that the notice of permit coverage must include a statement about how to obtain a copy of the SWPPP from EPA. This addition makes the protocol for requesting a SWPPP easily known and explicit to the public. Confidential Business Information (CBI) will be withheld from the public, but may not be withheld from EPA, USFWS, or NMFS. To improve transparency of the process to report possible violations, EPA also added a requirement that the notice of permit coverage must include information on how the public can contact EPA if stormwater pollution is observed in the discharge. EPA also added footnote 10 to clarify that when the active part of the construction site is not visible from a public road, operators must place the notice of permit coverage in a position that is visible from the nearest public road and as close as possible to the construction site.

Part 2: Technology-Based Effluent Limitations

Part 2 organizes the stormwater effluent limitations into four sections:

- Part 2.1: General Stormwater Control Design, Installation, and Maintenance Requirements;
- Part 2.2: Erosion and Sediment Control Requirements;
- Part 2.3: Pollution Prevention Requirements; and
- Part 2.4: Construction Dewatering Requirements.

The stormwater control requirements in Part 2 are the technology-based effluent limitations that apply to all discharges associated with construction activity eligible for permit coverage. The requirements in Part 2 generally apply the national effluent limitations guidelines and new source performance standards in the Construction and Development Rule ("C&D rule") in 40 CFR Part 450 promulgated on December 1, 2009 (74 Fed. Reg. 62996), and amended on March 6, 2014 (79 Fed. Reg. 12661). These requirements apply to all permitted sites, including construction support activities that are covered under the permit under Part 1.2.1.c.

EPA's Incorporation of the Non-Numeric Limits

An operator can minimize the discharge of pollutants from construction sites by satisfying the non-numeric effluent limitations at 40 CFR 450.21 and by using various controls and practices, outlined in more detail by the permitting authority. EPA crafted the non-numeric effluent limits in the C&D rule to allow flexibility in how the permitting authority implements these requirements in permits. See 74 FR 63016. As an example, 40 CFR 450.21(a)(5) requires construction operators to design, install, and maintain controls to "minimize sediment discharges from the site." Thus, each NPDES permitting authority has some discretion within this somewhat broad requirement, defined further at 40 CFR 450.21(a)(5), to further define what it means to minimize sediment discharges, or to achieve any of the other non-numeric limits. See 74 FR 63016.

Accordingly, this permit contains requirements that specifically implement or incorporate each of the C&D rule's non-numeric limits in order to minimize the discharge of pollutants from construction sites. This is consistent with EPA's objective to write general permits with conditions that are clear, specific, and measurable. In the sections that follow, EPA discusses the permit requirements, and explains how the language is consistent with the non-numeric effluent limits in the C&D rule upon which they are based.

Part 2.1: General Stormwater Control Design, Installation, and Maintenance Requirements

Part 2.1 establishes the overall principle for designing, installing, and maintaining stormwater controls that work to minimize the discharge of pollutants from construction sites, as required in 40 CFR 450.21.

Part 2.1	Permit Requirements
Part 2.1 includes the general requirement that the operator must design, install, and maintain stormwater controls required in Parts 2.2 and 2.3 to minimize the discharge of pollutants in stormwater from construction activities. Part 2.1 includes design, installation, and maintenance requirements that must be followed for all such controls.	

Part 2.1.1: Design Factors

Part 2.1.1 requires the operator to account for design factors that address the corresponding C&D rule requirements in 40 CFR 450.21(a)(2) and (5).

Part 2.1.1	Permit Requirements
In the design of stormwater controls, operators must account for the following factors: a. The expected amount, frequency, intensity, and duration of precipitation; b. The nature of stormwater runoff and run-on at the site, including factors such as expected flow from impervious surfaces, slopes, and site drainage features. You must design stormwater controls to control stormwater volume, velocity, and peak flow rates to minimize discharges of pollutants in stormwater and to minimize channel and streambank erosion and scour in the immediate vicinity of discharge points; and c. The soil type and range of soil particle sizes expected to be present on the site.	

It is important to consider precipitation characteristics so that earth-disturbing activities can be planned during periods with a lower risk of precipitation and so that erosion and sediment control practices can be designed to convey and manage the precipitation that is expected to occur. The requirement to design stormwater controls to account for the nature of stormwater runoff and run-on on the site and to reduce peak flowrates and total stormwater is intended to minimize scouring and erosion caused by stormwater discharges from the site. The requirement to account for soil characteristics, such as particle size distribution, erosivity, and cohesiveness, is also important for selecting and designing appropriate erosion and sediment controls.

Part 2.1.2: Good Engineering Practices

Part 2.1.2 implements the C&D rule requirement to "install effective erosion and sediment controls."

Part 2.1.2	Permit Requirements
The operator must design and install all stormwater controls in accordance with good engineering practices, including applicable design specifications.	

In order for stormwater controls to be effective, they must be properly designed and installed. EPA notes that design specifications may be found in manufacturer specifications and/or in applicable erosion and sediment control manuals or ordinances. Additionally, where it is appropriate to depart from such specifications, this must reflect good engineering practice and must be explained in the SWPPP.

Part 2.1.3: Complete Installation Prior to Commencement of Construction

Part 2.1.3 is intended to ensure that stormwater controls are installed and made operational to minimize pollutant discharges from the area of active disturbance.

Part 2.1.3	Permit Requirements

The operator must complete the installation of stormwater controls by the time each phase of construction has begun:

a. By the time construction activity in any given portion of the site begins, the operator must install and make operational any downgradient sediment controls (*e.g., buffers, perimeter controls, exit point controls, storm drain inlet protection*) that control discharges from the initial site clearing, grading, excavating, and other earth-disturbing activities. EPA notes that this requirement does not apply to the earth disturbance associated with the actual installation of these controls. Operators should take all reasonable actions to minimize the discharges of pollutant during the installation of stormwater controls.

b. Following the installation of the initial controls, the operator must install and make operational all stormwater controls needed to control discharges prior to subsequent earth-disturbing activities.

For example, prior to initial site clearing and grading activities, the operator must install perimeter controls, exit point controls, and, if applicable, storm drain inlet protections and natural buffers or equivalent sediment controls to control stormwater discharges from the initial disturbances. After this initial work is completed, the operator must install and make operational other controls, such as sediment traps or sediment basins, that are expected to treat stormwater during the remaining phases of construction. Where a project is conducted in phases, such as for a large-scale road project, the requirement is to install such controls prior to commencing earth-disturbing activities for the particular phase. After initial controls are installed, the operator must install and make operational any remaining stormwater controls as conditions allow.

EPA notes that the phrase "unless infeasible" has been removed from the requirement to complete installation of initial downgradient sediment controls by the time construction has begun, which was included in the 2012 CGP. In EPA's judgment, this is not a meaningful change because the permit already accounts for the scenarios in which meeting this requirement would be infeasible in footnote #12 in the permit.

Part 2.1.4: Maintain Controls in Effective Operating Condition

Part 2.1.4 implements the C&D rule requirement to "maintain effective erosion controls and sediment controls" at 40 CFR 450.21(a) and the NPDES requirement at 40 CFR 122.41(e) to "at all times properly operate and maintain all facilities and systems of treatment and control …."

Part 2.1.4	Permit Requirements

During permit coverage, the operator must ensure that all stormwater controls are maintained and remain in effective operating condition and are protected from activities that would reduce their effectiveness.

a. Comply with any specific maintenance requirements for the stormwater controls listed in this permit, as well as any recommended by the manufacturer.

b. If at any time you find that a stormwater control needs routine maintenance, you must immediately initiate the needed maintenance work, and complete such work by the close of the next business day.

c. If at any time you find that a stormwater control needs repair or replacement, you must comply with the corrective action requirements in Part 5.

Part 2.2: Erosion and Sediment Control Requirements

Part 2.2 implements the C&D rule's requirement at 40 CFR 450.21(a) to "design, install, and maintain effective erosion controls and sediment controls to minimize the discharge of pollutants," as well as the requirements in 40 CFR 450.21(b) for soil stabilization.

Part 2.2	Permit Requirements
Part 2.2 requires the operator to implement erosion and sediment controls that minimize the discharge of pollutants in stormwater from construction activities.	

The specific sections of the permit within Part 2.2 include requirements that articulate what is expected of CGP operators in order to comply with this effluent limitation established in the C&D rule.

Part 2.2.1: Natural Buffers

Part 2.2.1 implements the C&D rule's requirement to minimize the discharge of pollutants from the site by providing and maintaining "natural buffers around waters of the United States... unless infeasible." See 40 CFR 450.21(a)(6).

Part 2.2.1	Permit Requirements

Provide and maintain natural buffers and/or equivalent erosion and sediment controls when a water of the U.S. is located within 50 feet of the site's earth disturbances.

a. For any discharges to "waters of the U.S." (defined in Appendix A) located within 50 feet of the site's earth disturbances, the operator must comply with one of the following alternatives:

   i. Provide and maintain a 50-foot undisturbed natural buffer; or

   ii. Provide and maintain an undisturbed natural buffer that is less than 50 feet and is supplemented by erosion and sediment controls that achieve the sediment load reduction equivalent to a 50-foot undisturbed natural buffer; or

   iii. If infeasible to provide and maintain an undisturbed natural buffer of any size, implement erosion and sediment controls to achieve the sediment load reduction equivalent to a 50-foot undisturbed natural buffer.

b. Exceptions to the requirement in Part 2.2.1.a are explained in Appendix G, Part G.2.

This requirement applies to all project sites that are situated within 50 feet of a water of the U.S., with certain exceptions described in Appendix G of the permit. Appendix G provides guidance on which sites must comply with the buffer provision, and how to implement the different compliance alternatives.

EPA incorporates by reference the discussion in the 2012 CGP fact sheet concerning the agency's rationale for adopting the specific buffer requirements. See section "Provide Natural Buffers or Equivalent Sediment Controls" on pages 41 through 65 of the 2012 CGP fact sheet, available at https://www.epa.gov/sites/production/files/2016-10/documents/cgp2012_finalfactsheet-updateurl.pdf.

EPA moved much of the language from the 2012 CGP buffer provision to Appendix G since this requirement only applies to a subset of construction operators (i.e., those whose site disturbances occur within 50 feet of a water of the U.S.). While the requirements and the flexibility provided remain the same, it is more efficient to explain these compliance details and

to provide further guidance in Appendix G, which is solely devoted to the topic of the buffer requirements.

Part 2.2.2: Direct Stormwater to Vegetated Areas

Part 2.2.2 implements the C&D rule requirement at 40 CFR 450.21(a)(6). This requirement reduces the discharge of sediment and other pollutants through filtration and infiltration.

Part 2.2.2	Permit Requirements
Direct stormwater to vegetated areas and maximize stormwater infiltration and filtering to reduce pollutant discharges, unless infeasible.	

Operators can comply with this requirement by directing non-erosive flows leaving silt fences, filter berms, or other perimeter controls and sediment basins to natural buffers adjacent to streams or other vegetated areas on or adjacent to the property on which the construction activities will occur. Note that some site operators have found the use of level spreaders or other practices to be effective to prevent erosive discharges. These practices will help to prevent the formation of gullies and associated erosion. Examples of where it may be infeasible to direct discharges from stormwater controls to vegetated areas include those areas where pervious or vegetated areas within the project footprint are non-existent, such as in some highly urban areas.

Part 2.2.3: Install Perimeter Controls

The perimeter control requirements in Part 2.2.3 implement the C&D rule requirement to "install effective erosion and sediment controls."

Part 2.2.3	Permit Requirements
Operators must install sediment controls, such as filter berms, silt fences, vegetative strips, and temporary diversion dikes, along any perimeter areas of the site that will receive pollutant discharges, and comply with the following perimeter control requirement: a. Remove sediment before it has accumulated to one-half of the above-ground height of any perimeter control. b. Exception: For areas at "linear construction sites" (as defined in Appendix A) where perimeter controls are infeasible *(e.g., due to a limited or restricted right-of-way),* implement other practices as necessary to minimize pollutant discharges to perimeter areas of the site.	

The requirement instructs operators as to where downslope sediment controls should be installed so that they are effectively situated to minimize the discharge of pollutants on the site. The requirement in (a) above makes operators aware that they must maintain perimeter controls so that they remain effective throughout the duration of permit coverage. This requirement implements the C&D rule requirement to "maintain effective erosion controls and sediment controls" at 40 CFR 450.21(a).

The requirement in (b) above provides flexibility for linear construction sites by allowing them to document in the SWPPP when it is infeasible to install perimeter controls in certain areas of the site, and instead allowing the use of other types of practices that will adequately minimize pollutant discharges to perimeter areas of the site. The language in Part 2.2.3.b reflects a modification from the 2012 CGP, which required that perimeter controls for linear sites be maximized where practicable where there are rights-of-way restrictions. EPA established this provision in order to recognize that for some linear projects, perimeter controls are not always feasible (e.g., due to limited available space to install perimeter controls), and that other types of practices can be employed to minimize pollutant discharges. For example, in urban areas

where, due to right-of-way limitations, perimeter controls could cause a safety hazard to vehicles and/or pedestrians, perimeter controls may not be feasible. Other practices that could be implemented to minimize pollutant discharges from perimeter areas for these types of sites could include conducting earth disturbances only on days when no precipitation will occur; limiting disturbances and stabilizing areas of exposed soil immediately; and avoiding disturbances to environmentally sensitive areas. The types of other practices to be implemented to adequately minimize pollutant discharges from perimeter areas must be based on site-specific conditions and reflect good engineering judgment.

While perimeter controls may not be feasible in the above circumstances, operators are reminded of the requirement under Part 2.1.1 to account for the required design factors for their stormwater controls and their overall obligation in Part 2 to minimize sediment discharges. In addition, the operator must ensure that sediment and other pollutants, which may escape the area of disturbance onto off-site streets, other paved areas, and sidewalks, are removed consistent with the mitigation requirements in Part 2.2.4.d.

EPA also notes that Part 2.2.3 only applies along any perimeter areas of the site that will receive pollutant discharges. If a portion of the construction site's perimeter area does not receive pollutant discharges, perimeter controls are not required in that portion of the site. Therefore, perimeter controls are not necessary in the perimeter area surrounding construction activities in areas of sites where no pollutant discharges occur, which for certain linear construction sites could include:

- Pole sites where only overhead work is conducted;
- Use of pre-existing access roads or pad areas where no expansion or below-grade improvements *(e.g., no new earth disturbances)* will occur; and
- Areas where vegetation is left in place but needs to be trimmed (*e.g., mowing, weed whacking, etc.)* to allow temporary access (*e.g., overland travel)* or use of a site (*e.g., wire stringing site).* In such circumstances, the ground cover (i.e., grasses and other low-growing vegetation, such as mosses, ferns, vines, shrubs, herbaceous plants, and root mats that are planted or that naturally occur) is retained and no grading occurs.

Part 2.2.4: Minimize Sediment Track-Out

Collectively, the requirements in Part 2.2.4 will result in the minimization of sediment that has been tracked out from the site onto paved surfaces and subsequently discharged in stormwater. The following practices are required for minimizing sediment track-out:

Part 2.2.4	Permit Requirements
a.	Restrict vehicle use to properly designated exit points;
b.	Use appropriate stabilization techniques (e.g., use of aggregate stone with an underlying geotextile or non-woven filter fabric, and turf mats) at all points that exit onto paved roads.
	I. *Exception*: Stabilization is not required for exit points at linear utility construction sites that are used only episodically and for very short durations over the life of the project, provided other exit point controls (e.g., preventing the use of exit points during wet periods; minimizing exit point use by keeping vehicles on site to the extent possible; limiting exit point size to the width needed for vehicle and equipment usage; using scarifying and compaction techniques on the soil; and avoiding establishing exit points in environmentally sensitive areas) are implemented to minimize sediment track-out;
c.	Implement additional track-out controls (e.g., wheel washing, rumble strips, and rattle plates) as necessary to ensure that sediment removal occurs prior to vehicle exit; and

d. Where sediment has been tracked out from your site onto paved roads, sidewalks, or other paved areas outside of your site, remove the deposited sediment by the end of the same business day in which the track-out occurs or by the end of the next business day if track-out occurs on a non-business day. 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 stormwater conveyance, storm drain inlet, or water of the U.S.

The requirement to restrict vehicle use to properly designated exit points in (a) above, the requirement for appropriate stabilization techniques at all points that exit onto paved roads in (b) above, and the requirement for the use of additional controls as necessary to ensure that sediment removal occurs prior to vehicle exit in (c) above, implement the C&D rule requirement to "minimize sediment discharges from the site." The requirement in (b) above also implements the C&D rule requirement to "minimize the amount of soil exposed during construction activity." The requirement in (d) above implements the C&D rule requirements to "minimize sediment discharges" and the requirement to "minimize the discharge of pollutants from equipment and vehicle washing ...."

The exception language in (b) is added here to reflect the guidance included in EPA's FAQ for the corresponding section of the 2012 permit (i.e., Part 2.1.2.3.b). See EPA's FAQ for Part 2.1.2.3.b at https://www.epa.gov/npdes/stormwater-discharges-construction-activities#faq. Portions of this FAQ are repeated here to further explain the meaning of these requirements for linear utility projects:

> EPA acknowledges that the use of exit points for certain narrow linear utility projects can differ from traditional residential or commercial construction projects, where the same exit points are consistently used throughout the life of a project. Linear utility project disturbances, which include natural gas and electric transmission lines, typically consist of multiple disconnected areas of disturbance associated with access roads, stringing pull stations, laydown/staging yards, and pads. Because exit point stabilization is only required for points that exit onto paved roads, it will often be the case that exit point stabilization and the other track-out controls described in Parts 2.1.2.3.b [Part 2.2.4.b of the 2017 CGP] and 2.1.2.3.c [Part 2.2.4.c of the 2017 CGP] of the 2012 EPA CGP will not be required for linear utility projects that use existing unpaved roads to exit their work locations. However, to the extent that any sediment is tracked from existing access points onto paved roads, the requirement to remove tracked-out sediment in Part 2.1.2.3.d [Part 2.2.4.d of the 2017 CGP] still applies.
>
> Linear utility projects are also often constructed in phases with different access points corresponding to different phases or separate work locations within each phase. When access points are created for linear utility projects, they are often constructed as short ingress/egress locations from nearby existing roads, and are often used episodically and only for very short durations over the life of the project. Therefore, the types of exit point stabilization and other controls that are appropriate for these types of access points may differ from construction projects where access points are used more heavily and consistently throughout the life of the project. Examples of exit point stabilization techniques and controls that may be appropriate for access points that are used episodically and only for very short durations by such linear utility projects could include, but are not limited to, the following:
>
> - Using scheduling techniques to prevent the use of exit points during wet periods;

- Minimizing exit point use by keeping vehicles onsite to the maximum extent possible;
- Limiting exit point size to the width needed for vehicle usage and using scarifying and compaction techniques on the soil;
- Using woody vegetation chips from the clearance of shrubs and trees on the exit point surface;
- Avoiding locating exit points in environmentally sensitive areas (e.g., wetlands, karst areas, steep slopes); and
- Conducting routine inspections (e.g., daily on scheduled work days) at exit points to assess the need to implement the mitigation measures in Part 2.1.2.3.d [Part 2.2.4 of the 2017 CGP].

Exit point stabilization techniques must be selected to ensure that sediment track-out is minimized. To the extent that any sediment is tracked from the existing access point onto paved roads, all operators must ensure that it is removed consistent with the mitigation requirements in Part 2.1.2.3.d [Part 2.2.4.d of the 2017 CGP] (e.g., sweeping, shoveling, vacuuming, or other similar means). For all projects, the exit point stabilization and controls must be selected based on site-specific conditions to meet the overall requirement in Part 2.1.2.3 [Part 2.2.4 of the 2017 CGP] to minimize sediment track-out, and must take into account safety considerations. The controls that are selected must also be documented in the SWPPP.

Note that EPA no longer allows for hosing down or sweeping pollutants into a stormwater conveyance where it is connected to a sediment basin, sediment trap, or similarly effective controls. Upon further consideration, EPA is concerned that this practice will lead to these controls being compromised, and that a sweeping, shoveling, and vacuuming are standard and readily available approaches for removing sediment track-out.

Part 2.2.5: Manage Stockpiles or Land-Clearing Debris Piles

The requirements to control discharges from stockpiled sediment or soil are intended to prevent the discharge of sediment from stockpiled soil and dirt on the site.

Part 2.2.5	Permit Requirements

Operators must manage stockpiles or land clearing debris piles composed, in whole or in part, of sediment and/or soil.

a. Locate the piles outside of any natural buffers established under Part 2.2.1 and away from any stormwater conveyances, drain inlets, and areas where stormwater flow is concentrated;

b. Install a sediment barrier along all downgradient perimeter area *(e.g., include berms, dikes, fiber rolls, silt fences, sandbags, gravel bags, or straw bale);*

c. For piles that will be unused for 14 or more days, provide cover *(e.g., tarps, blown straw and hydroseeding)* or appropriate temporary stabilization (consistent with Part 2.2.14); and

d. You are prohibited from hosing down or sweeping soil or sediment accumulated on pavement or other impervious surfaces into any stormwater conveyance, storm drain inlet, or water of the U.S.

EPA made an edit to the wording of the sediment barriers requirement in the 2012 CGP to encourage operators to access the pile from the upgradient area in Part 2.2.5(b). This change is intended to eliminate the need to take down or run over any sediment barrier every time an operator needs to access the pile and ensure the downgradient perimeter protection would always be in place.

The required use of "appropriate temporary stabilization" will only apply when a pile is "inactive," whereas in the 2012 permit the requirement applies only "where practicable." The change better captures the intent of this provision to ensure that pollutant discharges are minimized as a result of storm events, while at the same time it addresses the practicability of these controls by limiting this requirement to times when the piles are inactive. It is EPA's judgment that cover or appropriate temporary stabilization for these piles, such as tarps, blown straw, and hydroseeding, are all readily available and common erosion and sediment control products and technologies that operators will likely already be using to comply with the stabilization requirements in Part 2.2.14. The use of these technologies for covering or temporarily stabilizing stockpiles when piles are inactive poses a small incremental cost relative to the total cost of all other stormwater controls on the site. In addition, some cover technologies, such as tarps, can be reused multiple times on the same site due to their durability and longevity.

Some states have similar requirements for stockpile cover or stabilization. For example, Delaware's sediment and stormwater regulations state that "Following soil disturbance or re-disturbance, Permanent or Temporary Stabilization shall be completed for perimeter sediment controls, topsoil stockpiles, and all other disturbed or graded areas on the project site within 14 calendar days unless more restrictive Federal requirements apply."[4] Another example is in Minnesota's CGP, which states "The Permittee(s) must stabilize all exposed soil areas (including stockpiles). Stabilization must be initiated immediately to limit soil erosion whenever any construction activity has permanently or temporarily ceased on any portion of the site and will not resume for a period exceeding 14 calendar days."[5] North Dakota CGP stabilization requirements for exposed soil also cover stockpiles that are not temporary, defined as land being idle for 14 or more calendar days.[6]

Note also that (d) no longer allows for hosing down or sweeping pollutants into a stormwater conveyance where it is connected to a sediment basin, sediment trap, or similarly effective controls due to the concern that this practice will lead to these controls being compromised.

Part 2.2.6: Minimize Dust

The requirement is intended to minimize the discharge of sediment in stormwater from the generation of dust.

Part 2.2.6	Permit Requirements
On areas of exposed soil, the operator must minimize the generation of dust through the appropriate application of water or other dust suppression techniques.	

[4] Delaware Department of Natural Resources and Environmental Control, Regulations Governing the Control of Water Pollution, Section 9.1.02, known as Special Conditions for Stormwater Discharges Associated with Construction Activities. Available at http://regulations.delaware.gov/AdminCode/title7/5000/5101.pdf

[5] Minnesota Pollution Control Agency, General Permit Authorization to Discharge Stormwater associated with Construction Activity under the National Pollutant Discharge Elimination System/ State Disposal System Program. Available at https://www.pca.state.mn.us/sites/default/files/wq-strm2-68a.pdf

[6] North Dakota Department of Health, Authorization to Discharge Under the North Dakota Pollutant Discharge Elimination System - Stormwater Associated with Construction Activity, page 25. Available at http://www.ndhealth.gov/WQ/Storm/Construction/NDR10per20150401F.pdf

Dust suppression techniques prevent dust from being generated, minimizing the potential for the dust to accumulate where it is likely to discharge from the site in stormwater discharges.

Part 2.2.7: Minimize Steep Slope Disturbances

The requirement in Part 2.2.7 implements the C&D rule requirement to "minimize the disturbance of steep slopes" at 40 CFR 450.21(a)(4).

Part 2.2.7	Permit Requirements
The operator must minimize the disturbance of "steep slopes" (as defined in Appendix A).	

The permit does not prevent or prohibit disturbance on steep slopes. EPA recognizes that for some projects, disturbance on steep slopes may be necessary for construction (e.g., a road cut in mountainous terrain). If disturbances to steep slopes are required for the project, EPA would recognize that it is not feasible to avoid the disturbance of steep slopes. EPA also notes that the requirement to minimize the disturbance of steep slopes does not apply to the creation of soil stockpiles. EPA incorporates by reference the discussion in the 2012 CGP fact sheet concerning this requirement. See part 2.1.2.6 "Minimize the Disturbance of Steep Slopes" on pages 67 through 68 of the 2012 CGP fact sheet, available at https://www.epa.gov/sites/production/files/2016-10/documents/cgp2012_finalfactsheet-updateurl.pdf.

Part 2.2.8: Preserve Native Topsoil

Part 2.2.8 implements the C&D rule requirement to preserve topsoil, unless infeasible at 40 CFR 450.21(a)(8).

Part 2.2.8	Permit Requirements
The operator must preserve native topsoil on the site, unless infeasible.	

The requirement to preserve topsoil will help to maintain the soil structure on construction sites and provides a growing medium for vegetative stabilization measures. Better vegetative stabilization reduces erosion rates of the underlying soil and also increases the infiltrative capacity of the soil, thereby reducing the amount of sediment transported to downslope sediment and perimeter controls. Topsoil can be preserved by stockpiling the native topsoil on the site for later use (e.g., for vegetative stabilization), or by limiting disturbance and removal of the topsoil and associated vegetation. For example, topsoil can be preserved by limiting clearing and grading to only those areas where necessary to accommodate the building footprint. EPA notes that some projects may be designed to be highly impervious after construction, and therefore little or no vegetation is intended to remain. In these cases, EPA recognizes that preserving topsoil at the site would not be feasible. In addition, 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. EPA is aware that stockpiling of topsoil in off-site locations, or transfer of topsoil to other locations, is frequently used in these situations and EPA would view this as acceptable practice. However, EPA notes that stormwater discharges from any construction support activities meeting the requirements of Part 1.2.1.c will be subject to the permit requirements.

Part 2.2.9: Minimize Soil Compaction

Part 2.2.9 implements the C&D rule requirement to "minimize soil compaction." The requirement is intended to allow for infiltration and retention of stormwater to reduce stormwater discharge volume and velocity.

Part 2.2.9	Permit Requirements

In any areas of the site where final vegetative stabilization will occur or where infiltration practices will be installed, the operator must:

a. Restrict vehicle and equipment use in these locations to avoid soil compaction; and

b. Before seeding or planting areas of exposed soil that have been compacted, use techniques that rehabilitate and condition the soils as necessary to support vegetative growth.

To comply with this requirement, operators may either restrict vehicle and equipment use on areas that will be vegetatively stabilized or where infiltration practices will be installed, or use soil conditioning techniques to decompact soils to support vegetative growth. Specific types of soil conditioning techniques could include deep-ripping and decompaction or sub-soiling. EPA also notes that the requirement to minimize soil compaction does not apply to areas that will not be used for final vegetative stabilization or for areas where infiltration practices will not be installed. For example, the requirements do not apply to disturbed areas that will become paved surfaces, such as roads, foundations, footings, or on embankments, or on areas where soil compaction is necessary by design.

EPA notes that the requirement in (b) above is no longer conditioned on the feasibility of using soil conditioning or rehabilitation practices. In EPA's judgment, requiring these practices "as necessary" provides adequate flexibility to operators and does not significantly change the provision in the 2012 CGP. For example, in the 2012 CGP fact sheet, EPA explained that "the requirement to use soil conditioning techniques is not required in any area where it would not be feasible, such as on steep slope areas or any other areas where it is not safe for the required equipment." EPA would not find it to be "necessary" to use soil conditioning techniques in an area of the site where it was unsafe either because the required equipment is unable to be operated on steep slope areas or these areas are unlikely to be compacted in the first place given the safety concerns of operating heavy equipment in this area.

Part 2.2.10: Protect Storm Drain Inlets

Part 2.2.10 implements the C&D rule requirement to "minimize sediment discharges from the site" by requiring stormwater inlets to be protected with sediment controls during construction.

Part 2.2.10	Permit Requirements

a. Install inlet protection measures that remove sediment from discharges prior to entry into any storm drain inlet that carries stormwater flow from your site to a water of the U.S., provided you have authority to access the storm drain inlet; and

b. Clean, or remove and replace, the protection measures as sediment accumulates, the filter becomes clogged, and/or performance is compromised. Where there is evidence of sediment accumulation adjacent to the inlet protection measure, remove the deposited sediment by the end of the same business day in which it is found or by the end of the following business day if removal by the same business day is not feasible.

Inlet protection measures prevent sediment-laden stormwater from being discharged into storm drains, and ultimately surface waters. The maintenance requirements in (b) support the need for the inlet measures to be kept in working condition so that they are effective at preventing the discharge of pollutants. Note that inlet protection measures can be removed in the event of flood conditions or to prevent erosion.

Note that under the 2017 CGP, EPA requires installation of inlet protection measures to any storm drain inlet that carries stormwater flow from the site to a water of the U.S. that you have authority to access, even if it is first directed to a sediment basin, sediment trap, or similarly effective controls. EPA is concerned that if the sediment basin, sediment trap, or similarly effective controls were to be compromised, unprotected inlets that receive stormwater from these controls would also be compromised.

Part 2.2.11: Minimize Erosion of Stormwater Conveyances

Part 2.2.11 implements the C&D rule requirements to "control stormwater volume and velocity to minimize soil erosion in order to minimize pollutant discharges," to "control stormwater discharges... to minimize channel and streambank erosion and scour in the immediate vicinity of discharge points," to "minimize the amount of soil exposed during construction activity," and to "minimize the disturbance of steep slopes."

Part 2.2.11	Permit Requirements
The operator must minimize erosion of stormwater conveyance channels and their embankments, outlets, adjacent streambanks, slopes, and downstream waters. As part of this requirement, the operator must use erosion controls and velocity dissipation devices (e.g., check dams, sediment traps, riprap, and grouted riprap at outlets) within and along the length of any stormwater conveyance channel and at any outlet to slow down runoff to minimize erosion.	

Part 2.2.12: Sediment Basins or Similar Impoundment

Part 2.2.12 outlines the requirements that will apply to installation of sediment basins or similar impoundments.

Part 2.2.12	Permit Requirements
If an operator installs a sediment basin: a. Situate the basin or impoundment outside of any water of the U.S. and any natural buffers established under Part 2.2.1; b. Design the basin or impoundment to avoid collecting water from wetlands; c. Design the basin or impoundment to provide storage for either: i. The calculated volume of runoff from a 2-year, 24-hour storm (see Appendix H); or ii. 3,600 cubic feet per acre drained. d. Utilize outlet structures that withdraw water from the surface of the sediment basin or similar impoundment, unless infeasible; e. Use erosion controls and velocity dissipation devices, such as check dams, sediment traps, riprap, and grouted riprap at outlets, to prevent erosion at inlets and outlets; and f. Remove accumulated sediment to maintain at least one-half of the design capacity and conduct all other appropriate maintenance to ensure the basin or impoundment remains in effective operating condition.	

Sediment basins are often used on construction sites to minimize sediment discharges. They are typically placed at or near low points of drainageways in order to temporarily detain stormwater discharges, allowing sediment particulates to settle. Sediment basins are also often designed to reduce peak flowrates, reducing downstream flooding and channel erosion. At the point of discharge, which is typically a pipe or channel, installation of riprap or other stabilization measures is often necessary because the concentrated discharge can cause erosion and

additional pollutant discharges to waters of the U.S. Sediment basins are also often designed to reduce flow duration impacts by reducing the total volume of stormwater being discharged or by providing extended detention to reduce discharge rates. The purpose of the requirements in this part is to provide specific design and maintenance requirements for the proper implementation of sediment basins, if used on a site.

The requirements in (a) and (b) above are design specifications that have been included in the CGP since the 2003 permit. The requirement in (d) above implements the following C&D rule requirement: "When discharging from basins and impoundments, utilize outlet structures that withdraw water from the surface, unless infeasible." EPA notes in the permit that the circumstances in which it will be infeasible to design outlet structures in this manner should be rare. Exceptions may include areas with extended cold weather and where using surface outlets may not be feasible during certain time periods (although it is expected that they would be used during other periods). If the operator determines that it is infeasible to meet this requirement, the operator must provide documentation in the SWPPP to support its determination, including the specific conditions or time periods when this exception will apply.

EPA also includes a requirement, subsection (e) above, to prevent erosion of the sediment basin and the inlet and outlet to implement the C&D rule requirement to "design, install and maintain effective erosion and sediment controls to minimize the discharge of pollutants," and the requirement to "control stormwater discharges … to minimize channel and streambank erosion and scour in the immediate vicinity of discharge points." The requirement in (f) above implements the C&D rule requirement to "maintain effective erosion controls and sediment controls to minimize the discharge of pollutants."

Part 2.2.13: Use of Treatment Chemicals

Part 2.2.13 establishes the minimum requirements that apply to the use of treatment chemicals at permitted construction sites.

Part 2.2.13	Permit Requirements

If the operator will use polymers, flocculants, coagulants, or other treatment chemicals at the construction site, the operator must comply with the following minimum requirements.

a. Use conventional erosion and sediment controls before and after the application of treatment chemicals. Chemicals may only be applied where treated stormwater is directed to a sediment control *(e.g., sediment basin, perimeter control)* before discharge.

b. Select appropriate treatment chemicals. Chemicals must be appropriately suited to the types of soils likely to be exposed during construction and present in the discharges being treated (i.e., the expected turbidity, pH, and flow rate of stormwater flowing into the chemical treatment system or area).

c. 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 stormwater or by any other means *(e.g., storing chemicals in a covered area, having a spill kit available on site and ensuring personnel are available to respond expeditiously in the event of a leak or spill)*.

d. Comply with state/local requirements. Comply with applicable state and local requirements regarding the use of treatment chemicals.

e. Use chemicals in accordance with good engineering practices and specifications of the chemical provider/supplier. 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 in your SWPPP specific departures from these specifications and how they reflect good engineering practice.

f. 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.

g. Perform additional measures specified by the EPA Regional Office for the authorized use of cationic chemicals. If you have been authorized to use cationic chemicals at your site pursuant to Part 1.1.9, you must perform all additional measures as conditioned by your authorization to ensure that the use of such chemicals will not cause an exceedance of water quality standards.

EPA incorporates by reference the discussion in the 2012 CGP fact sheet concerning the agency's rationale supporting these requirements. See section "Use of Treatment Chemicals. (Part 2.1.3.3)" on pages 71 through 75 of the 2012 CGP fact sheet, available at https://www.epa.gov/sites/production/files/2016-10/documents/cgp2012_finalfactsheet-updateurl.pdf.

Part 2.2.14: Site Stabilization

Part 2.2.14 implements the C&D rule requirement for soil stabilization in 40 CFR 450.21(b). This part requires the operator to implement and maintain stabilization measures that minimize erosion from exposed portions of the site.

Part 2.2.14	**Permit Requirements**

Implement and maintain stabilization measures (e.g., seeding protected by erosion controls until vegetation is established, sodding, mulching, erosion control blankets, hydromulch, gravel) that minimize erosion from exposed portions of the site in accordance with the following:

a. Stabilization Deadlines:

Total Amount of Land Disturbance Occurring At Any One Time	**Deadline**
i. Five acres or less (≤5.0) **Note: this includes sites disturbing more than five (>5.0) acres total over the course of a project, but that limit disturbance at any one time (*i.e., phase the disturbance*) to five acres or less (≤5.0)**	• Initiate the installation of stabilization measures immediately in any areas of exposed soil where construction activities have permanently ceased or will be temporarily inactive for 14 or more calendar days; and • Complete the installation of stabilization measures as soon as practicable, but no later than 14 calendar days after stabilization has been initiated.
ii. More than five acres (>5.0)	• Initiate the installation of stabilization measures immediately in any areas of exposed soil where construction activities have permanently ceased or will be temporarily inactive for 14 or more calendar days; and • Complete the installation of stabilization measures as soon as practicable, but no later than seven (7) calendar days after stabilization has been initiated.

iii. Exceptions:

(a) Arid, semi-arid, and drought-stricken areas (as defined in Appendix A). If it is the seasonally dry period or a period in which drought is occurring, and vegetative stabilization measures are being used:

(i) Immediately initiate, and within 14 calendar days of a temporary or permanent cessation of work in any portion of your site complete, the installation of temporary non-vegetative stabilization measures to the extent necessary to prevent erosion;

(ii) As soon as practicable, given conditions or circumstances on the site, complete all activities necessary to seed or plant the area to be stabilized; and

(iii) If construction is occurring during the seasonally dry period, indicate in your SWPPP the beginning and ending dates of the seasonally dry period and your site conditions. Also include the schedule you will follow for initiating and completing vegetative stabilization

(b) Operators that are affected by unforeseen circumstances that delay the initiation and/or completion of vegetative stabilization:

(i) Immediately initiate, and within 14 calendar days complete, the installation of temporary non-vegetative stabilization measures to prevent erosion;

(ii) Complete all soil conditioning, seeding, watering or irrigation installation, mulching, and other required activities related to the planting and initial establishment of vegetation as soon as conditions or circumstances allow it on the site; and

(iii) Document in the SWPPP the circumstances that prevent the operator from meeting the deadlines in Part 2.2.14.a and the schedule the operator will follow for initiating and completing stabilization.

(c) Discharges to a sediment- or nutrient-impaired water or to a water that is identified by your state, tribe, or EPA as Tier 2, Tier 2.5, or Tier 3 for antidegradation purposes. Complete stabilization as soon as practicable, but no later than seven (7) calendar days after stabilization has been initiated.

b. Final Stabilization Criteria (for any areas not covered by permanent structures):

i. Establish uniform, perennial vegetation (i.e., evenly distributed, without large bare areas) that provides 70 percent or more of the cover that is provided by vegetation native to local undisturbed areas; and/or

ii. Implement permanent non-vegetative stabilization measures (e.g., riprap, gravel, gabions, and geotextiles) to provide effective cover.

iii. Exceptions:

(a) Arid, semi-arid, and drought-stricken areas (as defined in Appendix A). If it is the seasonally dry period or a period in which drought is occurring, final stabilization is met if the area has been seeded or planted to establish vegetation that provides 70 percent or more of the cover that is provided by vegetation native to local undisturbed areas within three (3) years and, to the extent necessary to prevent erosion on the seeded or planted area, non-vegetative erosion controls have been applied that provide cover for at least three years without active maintenance.

(b) Disturbed areas on agricultural land that are restored to their preconstruction agricultural use. The Part 2.2.14.b final stabilization criteria does not apply.

(c) Areas that need to remain disturbed. In limited circumstances, stabilization may not be required if the intended function of a specific area of the site necessitates that it remain disturbed, and only the minimum area needed remains disturbed (e.g., dirt access roads, utility pole pads, areas being used for storage of vehicles, equipment, materials).

EPA provides a definition in the 2012 CGP for "stabilization" as "the use of vegetative and/or non-vegetative cover to prevent erosion and sediment loss in areas exposed through the construction process." Appendix A defines "temporary stabilization" and "final stabilization" as follows:

> • "Temporary stabilization" means a condition where exposed soils or disturbed areas are provided 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.
>
> • "Final stabilization" means that, on areas not covered by permanent structures, either (1) uniform, perennial vegetation *(e.g., evenly distributed, without large bare areas*) has been established, or for arid or semi-arid areas, will be established, that provides 70 percent or more of the cover that is provided by vegetation common to local undisturbed areas , and/or (2) permanent non-vegetative stabilization measures *(e.g., riprap, gravel, gabions, and geotextiles)* have been implemented to provide effective cover for exposed portions of the site.

In the C&D rule, EPA emphasizes the importance of effective and speedy stabilization of soils exposed throughout the construction process in order to reduce the amount of soil eroded on construction sites and the amount of sediment and other pollutants discharged from the site. EPA indicates in the rule that initiating soil stabilization measures immediately after land has been disturbed and construction activity has ceased is an important non-numeric effluent limitation. EPA also states that it "sees no compelling reason why permittees cannot take action immediately to stabilize disturbed soils on their sites" (see 74 Fed. Reg. 63005, December 1, 2009). EPA also observes that erosion control measures, such as mulch, are readily available and operators need only plan accordingly to have appropriate materials and laborers present when needed. Ibid.

Furthermore, "simply providing some sort of soil cover on these areas can significantly reduce erosion rates, often by an order of magnitude or more. Vegetative stabilization using annual grasses is a common practice used to control erosion. Physical barriers such as geotextiles, straw, rolled erosion control products and mulch and compost are other common methods of controlling erosion. Polymers (such as PAM) and soil tackifiers are also commonly used. These materials and methods are intended to reduce erosion where soil particles can be initially dislodged on a C&D site, either from rainfall, snow melt or up-slope runoff." See 74 Fed. Reg. 63012.

The permit carries forward these important principles and factors by incorporating specific provisions intended to implement the C&D rule's stabilization deadline requirements. The following section provides support for these provisions.

Stabilization Deadlines (Part 2.2.14.a)

- Deadline to Initiate Stabilization

The permit specifies that the operator must initiate the installation of soil stabilization measures immediately in any areas of exposed soil where construction activities have permanently ceased or are temporarily inactive for 14 or more calendar days. EPA explains in the permit that, for the purposes of this provision, the term "immediately," as used to define the deadline for initiating stabilization measures, means as soon as practicable, but no later than the end of the next business day, following the day when the construction activities have temporarily or permanently ceased.

The permit also provides examples of activities that would constitute the immediate initiation of stabilization:

1. Prepping the soil for vegetative or non-vegetative stabilization as long as seeding, planting, and/or installation of non-vegetative stabilization products takes place as soon as practicable, but no later than 1 calendar day of completing soil preparation;
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 – 3 on a portion of the entire area that will be stabilized; and
5. Finalizing arrangements to have stabilization product fully installed in compliance with the deadlines for completing stabilization.

It is important to clarify the C&D rule requirement by specifying what it means to have construction activities temporarily or permanently cease. It is also important for construction operators to understand that stabilization must begin immediately when there is no justification for leaving areas exposed. For example, if 14 days will pass between the time when clearing and grading has been completed and further construction activities will occur, there is no reason why the exposed portions of the site cannot be stabilized temporarily to prevent erosion and sediment discharge during the time of inactivity on any portion of the site. EPA clarifies that the initiation of stabilization means that the operator has taken action to implement the stabilization measures, including, for example, finalizing arrangements to have the stabilization product delivered, scheduling the installation of the product, and/or prepping the soil.

- Deadline to Complete Stabilization

The C&D rule, at 40 CFR 450.21(b), requires that a deadline to complete stabilization be established by each permit authority. As the permit authority for this CGP, EPA has established in the 2017 CGP what it deems to be a reasonable and unambiguous deadline for completing stabilization procedures. The 2017 CGP establishes a modified approach to the stabilization deadlines from the 2012 CGP based on the concept of phasing construction disturbances. The intent of this approach is to provide an incentive to disturb less land at any given period of time by providing longer stabilization timeframes if the disturbance is kept below a threshold level. The approach described below also provides improved protection against erosion, by ensuring that large disturbed areas are stabilized sooner. This approach is also consistent with the C&D rule requirement at 40 CFR 450.21(a)(3) to "minimize the amount of soil exposed during construction activity."

The permit specifies that for sites that disturb a total of five acres or less (≤5.0) at any one time over the course of a project, the operator must complete the installation of stabilization measures as soon as practicable, but no later than 14 calendar days after stabilization has been initiated. This includes sites disturbing more than (>5.0) acres total over the course of a project,

but that limit disturbance at any one time to five acres or less (≤5.0). For sites that will disturb more than a total of five acres (>5.0) at any one time over the course of a project, the operator must complete the installation of stabilization measures as soon as practicable, but no later than 7 calendar days after stabilization has been initiated. The deadline for sites discharging to sensitive waters remains unchanged from the 2012 CGP (within 7 calendar days), and the exceptions for sites in arid, semi-arid, and drought-stricken areas and for operator affected by circumstances beyond their control also remain unchanged from the 2012 CGP.

EPA notes that the agency may determine, based on an inspection carried out under Part 4.8 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 stormwater controls, EPA may require stabilization to correct this problem.

For the purposes of the stabilization deadline requirements in Part 2.2.14.a, "limiting disturbances to five (5) acres or less at any one time" means that at no time during the project do the cumulative earth disturbances exceed five (5) acres. The permit provides the following examples as limiting disturbances at any one time to five (5) acres or less:

1. The total area of disturbance for a project is five (5) acres or less.
2. The total area of disturbance for a project will exceed five (5) acres, but the operator ensures no more than five (5) acres will be disturbed at any one time through implementation of stabilization measures. In this way, site stabilization can be used to "free up" land that can be disturbed without exceeding the 5-acre cap to qualify for the 14-day stabilization deadline. For instance, if an operator completes stabilization of two (2) acres of land on a five (5)-acre disturbance, then two (2) additional acres could be disturbed while still qualifying for the longer 14-day stabilization deadline.

Furthermore, the stabilization deadline for a site will change if disturbances exceed five (5) acres. The important determiner of which stabilization deadline applies is the total amount of disturbance occurring at any one time during the course of the project. If at any point during the course of the project, total land disturbance exceeds five (5) acres, the deadline to complete stabilization for this portion of the project is within seven (7) calendar days of initiating stabilization. This deadline applies regardless of the fact that a previous phase of construction may have limited disturbance to five (5) acres or less and was able to take advantage of the 14-day deadline for stabilization. For instance, if an operator commences work on a 20-acre project by clearing and grading a five (5)-acre portion of the site, and while that construction is ongoing and prior to stabilization the operator clears and grades another three (3)-acre area, the operator must comply with the seven (7)-day stabilization deadline because the amount of disturbed area on the site at any one time exceeds the five (5)-acre threshold. If total land disturbance at any one time is subsequently reduced to five (5) acres or less, the deadline to complete stabilization will return to within 14 calendar days. Therefore operators have the flexibility to disturb more land when necessary, but must stabilize faster because more land is unprotected and vulnerable to erosion and sediment transport during storm events. This approach intends to provide the incentive to stabilize enough land to bring total disturbance at any one time back under the five (5)-acre threshold so that the operator can resume receiving the benefit of the longer 14-day stabilization deadline. The approach is also intended to ensure greater protection for larger areas of site disturbance.

Background on the Development of the Modified Stabilization Deadlines

In developing the new approach to the stabilization deadlines in Part 2.2.14.a, EPA noted that permitting authorities have considerable discretion with respect to the implementation of the C&D rule related to the stabilization requirements. For example, 40 CFR 450.21(b) provides

permitting authorities with the ability to establish specific deadlines by which stabilization must be completed. Using this authority, EPA has developed what it considers to be reasonable deadlines for the completion of stabilization that provide appropriate flexibility to operators while strengthening water quality protections in the permit in order to ensure discharges meet water quality standards.

In the proposed 2017 CGP, EPA requested public comment on modifying the deadline to complete stabilization from 14 calendar days to 7 calendar days after stabilization has been initiated (except for sites in arid, semi-arid, and drought-stricken areas and for operators affected by circumstances beyond their control). Based on public input, EPA determined that a uniform seven (7)-day deadline would not be workable in certain scenarios and that a more flexible approach should be considered for the final permit that would address a range of public concerns that timely and effective site stabilization is one of the most important practices for reducing sediment pollution in stormwater. EPA was particularly interested and encouraged by public comments to consider the concept of construction phasing or limiting land disturbances at any one time.

Industry literature recognizes that sequencing construction to reduce areas of disturbance and timely stabilization of disturbed areas are some of the best and typically least expensive solutions to minimize the potential for off-site impacts from construction site runoff.[7] Pitt et al. (2007) states that stabilization practices are usually considered the most effective for erosion control, "especially when used in conjunction with a good phasing plan to minimize the amount of land being disturbed at any one time." Limiting land disturbances is also considered a top priority for construction stormwater control measures in the National Research Council's report, *Urban Stormwater Management in the United States.*[8]

Phasing or limiting land disturbance is already a regular requirement within state-issued CGPs or other specifications or regulations concerning the control of construction stormwater. EPA found that 22 states had requirements that included a narrative disturbance limit, for example, "[t]he Permittee shall design, install, and maintain effective erosion controls and sediment controls, appropriate for site conditions to, at a minimum… minimize the amount of soil exposed during construction activity through the use of project phasing or other appropriate techniques".[9] Five states[10] require some type of disturbance limit, contained an explicit numeric threshold, such as "In no case shall the area of disturbance draining to a common discharge point exceed 20 acres. Grading of subsequent sections within that drainage area shall not proceed unless temporary or permanent stabilization has been accomplished such that the 20 acre limit of disturbance is maintained",[11] or "The owner or operator of a construction activity shall not disturb greater than five (5) acres of soil at any one time without prior written authorization from the Department… "[12]

[7] Pitt, Robert; S.E. Clark, D. Lake. 2007. Construction Site Erosion and Sediment Controls – Planning, Design and Performance. DEStech Publications Inc. ISBN No. 1-932078-38-X. Lancaster, PA.

[8] National Research Council (2008). *Urban Stormwater Management in the United States.* Washington, D.C.: The National Academies Press.

[9] Alabama Department of Environmental Management, NPDES General Permit for Discharges from Construction Activities. Available at http://www.adem.state.al.us/programs/water/waterforms/ALR10CGP.pdf

[10] Connecticut, Delaware, New York, Tennessee, and Maryland.

[11] Delaware Department of Natural Resources and Environmental Control, Regulations Governing the Control of Water Pollution, Section 9.1.02, known as Special Conditions for Stormwater Discharges Associated with Construction Activities. Available at http://regulations.delaware.gov/AdminCode/title7/5000/5101.pdf

[12] New York Department of Environmental Conservation, SPDES General Permit For Stormwater Discharges from Construction Activity. Available at http://www.dec.ny.gov/docs/water_pdf/gp015002.pdf

After determining that a disturbance threshold is a basic and common part of good erosion and sediment control programs and was a reasonable consideration for EPA's CGP, the agency then investigated what an appropriate disturbance threshold would be and how a phasing approach could be incorporated into the stabilization deadline structure.

EPA found support for the adoption of a five (5)-acre disturbance threshold in its research. First, EPA regulations at 40 CFR 122.26(b)(14)(x) and 122.26(b)(15) distinguish "construction activity" and "small construction activity" by area disturbed, where "construction activity" ultimately disturbs 5 acres or more and "small construction activity" disturbs between 1 and 5 acres, or less than an acre if the land area is part of a common plan of development or sale that will ultimately disturb more than 1 acre. Second, data from the 2012 CGP also showed that 5 acres was the median area disturbed. This means that, for sites covered under the 2012 CGP, approximately 50 percent of sites were less than 5 acres and 50 percent of sites were more than 5 acres.

Third, EPA considered the level of effort required to plan, implement, and maintain temporary sediment controls in selecting an appropriate threshold for expedited stabilization. These considerations included an examination of the quantitative erosional effects of increases in the disturbed area, as expressed by conventional soil loss estimation techniques. For example, the Revised Universal Soil Loss Equation (RUSLE) predicts sediment loss on a ton-per-acre basis, using inputs derived from values representing the rainfall and runoff factor (R), the soil erodibility factor (K), the length of the slope (L), the steepness of the slope (S), the soil cover (C), and practices to manage erosion (P). Because the results of the RUSLE equation are expressed as average annual soil losses in tons per acre per year, there is a geometric increase in total erosional soil loss as the size of the disturbed area increases.

For example, for sites with identical RUSLE conditions, a two (2)-acre site will have twice the soil loss as a one (1)-acre site, a four (4)-acre site will have twice the soil loss as a two (2)-acre site, and so on. The level of effort required to control erosion and sediment loss on a construction site may not expand quite as geometrically as RUSLE soil loss estimates, but they are roughly parallel. For example, the amount of straw mulch or erosion control blanket or seed needed to cover a given amount of land at a given rate will expand geometrically, but there may be some minor labor cost savings resulting from an economy-of-scale effect when applying these products to larger and larger areas.

Thus, for all practical purposes, it is clear that the level of effort required to manage erosion and sediment controls on construction sites are roughly commensurate with the size of the site – e.g., a five (5)-acre site will require four or five times as much effort as a one (1)-acre site. As sites become larger – for example, more than five acres – the daily and weekly tasks of inspecting, operating, repairing, and maintaining temporary stormwater controls (e.g., silt fences, fiber logs, sediment traps, sediment basins, stabilized site exits, diversion berms, ditches) expands. Operators engaged in constructing buildings, roadways, and other infrastructure face increasing challenges in redirecting resources to manage ever-larger disturbed areas, hence the narrative requirement to limit the extent of the disturbed area and the time of exposure found in many state permits, as noted above.

Combining the importance of timely soil stabilization techniques, the influence of soil cover on soil erosion rates,[13] the benefits of limiting land disturbances, and analytical considerations supporting a five (5)-acre threshold, EPA developed the modified stabilization deadline approach required in the permit. This approach requires that sites with a disturbed area of five (5) acres or less at any one time must complete stabilization within a 14-day

[13] See Chapter 5 of EPA's *Development Document For Final Effluent Guidelines and Standards for the Construction and Development Category.* Available at https://www.epa.gov/sites/production/files/2015-06/documents/construction_development_dd_2009_chapters_1-11.pdf

timeframe, which is the same timeframe that applied to sites in the 2012 CGP. For sites that disturb more than 5 acres at any one time, operators have the flexibility to choose between completing stabilization within a 14-day timeframe if they limit disturbances to 5 acres or less at any one time, or within a 7-day timeframe if they do not limit disturbances to 5 acres or less at any one time. The benefits of this approach include limiting mass grading, improving phasing and sequencing, encouraging timely site stabilization, and reducing the areal scope of stormwater management, all of which can help minimize the conditions that allow soil to be washed off-site during a storm event.

- Exceptions to the Deadlines for Initiating and Completing Stabilization

EPA notes that with respect to the exception to the final stabilization criteria for restored agricultural areas, the permit retains the requirement from the 2012 CGP that areas disturbed that were not previously used for agricultural activities, and areas that are not being returned to preconstruction agricultural use, are not covered by the exception in Part 2.2.14.b.iii and must meet the conditions for stabilization.

EPA acknowledges that some portions of some projects are intended to be left unvegetated or unstabilized following construction. An example would be a dirt access road or a utility pole pad where the final plan calls for the area to remain a dirt road or an unstabilized pad. EPA does not expect temporary or permanent stabilization measures to be applied to these areas. EPA notes that for the purposes of this permit, "exposed portions of your site" means areas of exposed soil that are required to be stabilized.

EPA incorporates by reference the discussion in the 2012 CGP fact sheet concerning the unmodified portion of these requirements. See section VII.2 "Stabilization Requirements (Part 2.2)" on pages 76 through 82 of the 2012 CGP fact sheet, available at https://www.epa.gov/sites/production/files/2016-10/documents/cgp2012_finalfactsheet-updateurl.pdf.

Part 2.3: Pollution Prevention Requirements

Part 2.3 implements the C&D rule requirements in 40 CFR 450.21(d) and (e) for pollution prevention measures and prohibited discharges.

Part 2.3	Permit Requirements
The permit requires operators to implement pollution prevention controls in accordance with the requirements in Part 2.3 to minimize the discharge of pollutants in stormwater and to prevent the discharge of pollutants from spilled or leaked materials from construction activities.	

Part 2.3.1: Equipment and Vehicle Fueling and Maintenance Requirements

Part 2.3.1 implements the 40 CFR 450.21(d)(3) requirement to "minimize the discharge of pollutants from spills and leaks and implement chemical spill and leak prevention and response procedures" and the 40 CFR 450.21(e)(3) requirement prohibiting the discharge of "fuels, oils, or other pollutants used in vehicle and equipment operation and maintenance."

Part 2.3.1	Permit Requirements
The operator must comply with the following requirements: a. Provide an effective means of eliminating the discharge of spilled or leaked chemicals, including fuels and oils, from these activities; b. If applicable, comply with the Spill Prevention Control and Countermeasures (SPCC) requirements in 40 CFR part 112 and Section 311 of the CWA;	

c. Ensure adequate supplies are available at all times to handle spills, leaks, and disposal of used liquids;

d. Use drip pans and absorbents under or around leaky vehicles;

e. Dispose of or recycle oil and oily wastes in accordance with other federal, state, tribal, or local requirements; and

f. Clean up spills or contaminated surfaces immediately, using dry clean up measures (do not clean contaminated surfaces by hosing the area down), and eliminate the source of the spill to prevent a discharge or a continuation of an ongoing discharge.

Examples of effective means of eliminating the discharge of spilled or leaked chemicals include, but are not limited to, locating activities away from waters of the U.S. and stormwater inlets or conveyances so that stormwater coming into contact with these activities cannot reach waters of the U.S.; providing secondary containment (e.g., spill berms, decks, spill containment pallets) and cover where appropriate; and having a spill kit available on site and ensuring personnel are available to respond expeditiously in the event of a leak or spill.

Part 2.3.2: Equipment and Vehicle Washing Requirements

Part 2.3.2 implements the 40 CFR 450.21(d)(1) requirement to "Minimize the discharge of pollutants from equipment and vehicle washing, wheel wash water, and other wash waters. Wash waters must be treated in a sediment basin or alternative control that provides equivalent or better treatment prior to discharge."

Part 2.3.2	Permit Requirements

The operator must comply with the following requirements:

a. Provide an effective means of minimizing the discharge of pollutants from equipment and vehicle washing, wheel wash water, and other types of wash waters;

b. Ensure there is no discharge of soaps, solvents, or detergents in equipment and vehicle wash water; and

c. For storage of soaps, detergents, or solvents, provide either (1) cover (e.g., plastic sheeting, temporary roofs) to minimize the exposure of these detergents to precipitation and to stormwater, or (2) a similarly effective means designed to minimize the discharge of pollutants from these areas.

The requirement that operators must properly manage wash waters reduces the discharge of pollutants, such as sediment and other pollutants, from the site. Examples provided in the permit for providing an effective means of minimizing the discharge of pollutants from the washing of equipment or vehicles include, but are not limited to, locating activities away from surface waters and stormwater 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. This requirement also implements the 40 CFR 450.21(e)(4) prohibition against discharging soaps or solvents, and is consistent with the eligibility condition that allows the use of non-stormwater wash waters as long as they do not contain soaps, solvents, or detergents.

Part 2.3.3: Storage, Handling, and Disposal Requirements

Part 2.3.3 requires operators to comply with specific pollution prevention standards for activities that may result in pollutant discharges.

Part 2.3.3	Permit Requirements

The operator must comply with the following requirements:

a. *For building materials and building products* (e.g., asphalt sealants, copper flashing, roofing materials, adhesives, concrete admixtures, and gravel and mulch stockpiles), provide either (1) cover (*e.g., plastic sheeting, temporary roofs*) to minimize the exposure of these products to precipitation and to stormwater, or (2) a similarly effective means designed to minimize the discharge of pollutants from these areas.

b. *For pesticides, herbicides, insecticides, fertilizers, and landscape materials:*

   i. In storage areas, provide either (1) cover (*e.g., plastic sheeting, temporary roofs*) to minimize the exposure of these chemicals to precipitation and to stormwater, or (2) a similarly effective means designed to minimize the discharge of pollutants from these areas; and

   ii. Comply with all application and disposal requirements included on the registered pesticide, herbicide, insecticide, and fertilizer label (see also Part 2.3.5).

c. *For diesel fuel, oil, hydraulic fluids, other petroleum products, and other chemicals*:

   i. Store chemicals in water-tight containers, and provide either (1) cover *(e.g., plastic sheeting, temporary roofs)* to minimize the exposure of these containers to precipitation and to stormwater, or (2) a similarly effective means designed to minimize the discharge of pollutants from these areas *(e.g., having a spill kit available on site and ensuring personnel are available to respond expeditiously in the event of a leak or spill)*, or provide secondary containment *(e.g., spill berms, decks, spill containment pallets)*; and

   ii. Clean up spills immediately, using dry clean-up methods where possible, and dispose of used materials properly. The operator is prohibited from hosing the area down to clean surfaces or spills. Eliminate the source of the spill to prevent a discharge or a furtherance of an ongoing discharge.

d. *For hazardous or toxic wastes*:

   i. Separate hazardous or toxic waste from construction and domestic waste;

   ii. Store waste in sealed containers, which are constructed of suitable materials to prevent leakage and corrosion, and which are labeled in accordance with applicable Resource Conservation and Recovery Act (RCRA) requirements and all other applicable federal, state, tribal, or local requirements;

   iii. Store all outside containers 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 a covered area, having a spill kit available on site);

   iv. 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;

   v. Clean up spills immediately, using dry clean-up methods, and dispose of used materials properly. The operator is prohibited from hosing the area down to clean surfaces or spills. Eliminate the source of the spill to prevent a discharge or a furtherance of an ongoing discharge; and

   vi. Follow all other federal, state, tribal, and local requirements regarding hazardous or toxic waste.

e. *For construction and domestic wastes*:
   i. Provide waste containers (e.g., dumpster, trash receptacle) of sufficient size and number to contain construction and domestic wastes;
   ii. Keep waste container lids closed when not in use and close lids at the end of the business day for those containers that are actively used throughout the day. For waste containers that do not have lids, provide either (1) cover (e.g., a tarp, plastic sheeting, temporary roof) to minimize exposure of wastes to precipitation, or (2) a similarly effective means designed to minimize the discharge of pollutants (e.g., secondary containment);
   iii. On business days, clean up and dispose of waste in designated waste containers; and
   iv. Clean up immediately if containers overflow.

f. *For sanitary waste*, position portable toilets so that they are secure and will not be tipped or knocked over, and located away from waters of the U.S. and stormwater inlets or conveyances.

EPA incorporates by reference the discussion in the 2012 CGP fact sheet concerning these requirements. See section VII.3.3 "Pollution Prevention Standards (Part 2.3.3)" on pages 83 through 87 of the 2012 CGP fact sheet, available at https://www.epa.gov/sites/production/files/2016-10/documents/cgp2012_finalfactsheet-updateurl.pdf.

Note that the requirement in e.ii is a modification to the construction and domestic waste requirements in the 2012 CGP. Even though a cover requirement was included for most of the other types of materials and wastes in the 2012 permit (e.g., building products; pesticides, herbicides, insecticides, etc.; diesel fuel, oil, hydraulic fluids, other petroleum products and other chemicals; and hazardous or toxic wastes), EPA had inadvertently not included such a requirement for construction and domestic wastes. This modification corrects this prior oversight so that the cover requirements are consistent for most types of materials and wastes.

The change better captures the intent of this provision to ensure that pollutant discharges are minimized as a result of storm events, while at the same time it addresses the practicability of using these controls by limiting this requirement to when containers are not in use or at the end of the business day for those containers that are actively used throughout the day. It is EPA's judgment that cover for construction and domestic waste containers such as tarps, plastic sheeting, and temporary roofs, are available industry control technologies that operators can easily purchase or request from waste container rental agencies. The use of these technologies for covering waste containers poses a small incremental cost relative to the total cost of all other stormwater controls on the site. In addition, some cover technologies, such as tarps, can be reused multiple times on the same site due to their durability and longevity. Some states have similar requirements for covering waste containers. For example, Arizona's CGP states that for construction and domestic wastes, operators must provide dumpsters or trash receptacles with covers or lids of sufficient size and number to contain construction and domestic wastes.[14] Additionally, construction discharges in California must implement good housekeeping measures for waste management, which includes covering waste disposal containers at the end of every business day and during a rain event.[15]

[14] Arizona Department of Environmental Quality, Arizona Pollutant Discharge Elimination System General Permit for Stormwater Discharges Associated with Construction Activity to Waters of the United States. Available at http://legacy.azdeq.gov/environ/water/permits/download/2013_cgp.pdf

[15] State Water Resources Control Board, Construction General Permit Fact Sheet. Available at http://www.waterboards.ca.gov/water_issues/programs/stormwater/docs/constpermits/wqo_2009_0009_complete.pdf

Part 2.3.4: Applicator and Container Washing Requirements

Part 2.3.4 implements the requirements of 40 CFR 450.21(e)(1) and (e)(2). The requirements apply to the washing of applicators and containers used for stucco, paint, concrete, form release oils, curing compounds, or other materials.

Part 2.3.4	Permit Requirements

a. Direct wash water into a leak-proof container or leak-proof and lined pit designed so that no overflows can occur due to inadequate sizing or precipitation;

b. Handle washout or cleanout wastes as follows:

   i. Do not dump liquid wastes in storm sewers or waters of the U.S.;

   ii. Dispose of liquid wastes in accordance with applicable requirements in Part 2.3.3; and

   iii. Remove and dispose of hardened concrete waste consistent with your handling of other construction wastes in Part 2.3.3; and

c. Locate any washout or cleanout activities as far away as possible from waters of the U.S. and stormwater inlets or conveyances, and, to the extent feasible, designate areas to be used for these activities and conduct such activities only in these areas.

Part 2.3.5: Fertilizer Application Requirements

The fertilizer discharge restrictions in Part 2.3.5 are included to prevent the discharge of nutrients in stormwater and to further implement the C&D rule requirement to "minimize the discharge of pollutants" at 40 CFR 450.21(d).

Part 2.3.5	Permit Requirements

The following requirements apply if the operator will be applying fertilizer on the construction site:

a. Apply at a rate and in amounts consistent with manufacturer's specifications, or document in the SWPPP departures from the manufacturer specifications where appropriate in accordance with Part 7.2.6.b.ix;

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 stormwater conveyance channels; and

f. Follow all other federal, state, tribal, and local requirements regarding fertilizer application.

EPA includes specific guidelines to follow regarding fertilizer application, which are meant to minimize any potential discharge of excess or improperly applied fertilizers.

Part 2.3.6: Emergency Spill Notification

Part 2.3.6 prohibits the discharge of toxic or hazardous substances from a spill or other release and requires operators to comply with federal reporting requirements of 40 CFR Part 110, Part 117, and Part 302 in the event that a leak, spill, or other release contains a toxic or hazardous substance in an amount equal to or in excess of a reportable quantity.

Part 2.3.6	Permit Requirements
The permit prohibits operators from discharging toxic or hazardous substances from a spill or other release. Furthermore, 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 110, 40 CFR 117, or 40 CFR 302 occurs during a 24-hour period, the operator must notify the National Response Center (NRC) at (800) 424-8802 or, in the Washington, DC metropolitan area, call (202) 267-2675 in accordance with the requirements of 40 CFR 110, 40 CFR 117, and 40 CFR 302 as soon as the operator has knowledge of the release. Operators must also, within seven (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. State, tribal, or local requirements may necessitate additional reporting of spills or discharges to local emergency response, public health, or drinking water supply agencies.	

Part 2.4: Construction Dewatering Requirements

Part 2.4 implements the C&D rule requirement that prohibits "discharges from dewatering activities, including discharges from dewatering of trenches and excavations" unless managed by "appropriate controls."

Part 2.4 (2.4.1 – 2.4.7)	Permit Requirements
The operator must comply with the following requirements to minimize the discharge of pollutants in ground water or accumulated stormwater that is removed from excavations, trenches, foundations, vaults, or other similar points of accumulation, in accordance with Part 1.2.2 of the permit:	
2.4.1	Treat dewatering discharges with controls to minimize discharges of pollutants (e.g., appropriate controls include sediment basins or sediment traps, sediment socks, dewatering tanks, tube settlers, weir tanks, filtration systems (*e.g., bag or sand filters*) and passive treatment systems that are designed to remove sediment; appropriate controls to use downstream of dewatering controls to minimize erosion include vegetated buffers, check dams, riprap, and grouted riprap at outlets);
2.4.2	Do not discharge visible floating solids or foam;
2.4.3	Use an oil-water separator or suitable filtration device (such as a cartridge filter) that is designed to remove oil, grease, or other products if dewatering water is found to contain these materials;
2.4.4	To the extent feasible, use vegetated, upland areas of the site to infiltrate dewatering water before discharge. The operator is prohibited from using waters of the U.S. as part of the treatment area;
2.4.5	At all points where dewatering water is discharged, comply with the velocity dissipation requirements of Part 2.2.11;
2.4.6	With backwash water, either haul it away for disposal or return it to the beginning of the treatment process; and
2.4.7	Replace and clean the filter media used in dewatering devices when the pressure differential equals or exceeds the manufacturer's specifications.

The specific restrictions in Part 2.4 provide the permit's interpretation of what is meant by "appropriate controls" in the C&D rule. These specific requirements, in part, also implement the C&D rule requirements to control peak flowrates and total stormwater volume (40 CFR 450.21(a)(2)), to minimize sediment discharges (40 CFR 450.21(a)(5)), and to direct stormwater to vegetated areas (40 CFR 450.21(a)(6)).

Part 3: Water Quality-Based Effluent Limitations

This CGP includes water quality-based effluent limits (WQBELs) to control discharges as necessary to meet applicable water quality standards. The provisions of Part 3 constitute the WQBELs of the permit, and supplement the permit's technology-based effluent limits in Part 2.

Part 3.1: General Effluent Limitation to Meet Applicable Water Quality Standards

Part 3.1 requires that all operators control their stormwater discharges as necessary to meet applicable water quality standards, consistent with 40 CFR 122.44(d)(1).

Part 3.1	Permit Requirements

The permit requires discharges of stormwater to be controlled as necessary to meet applicable water quality standards, including meeting any specific water quality-based conditions or limits required by states, tribes, and U.S. territories in Part 9.

In the absence of information demonstrating otherwise, EPA expects that compliance with the conditions in this permit will result in stormwater discharges being controlled as necessary to meet applicable water quality standards. If at any time the operator becomes aware, or EPA determines, that the discharge is not being controlled as necessary to meet applicable water quality standards, the operator must take corrective action as required in Parts 5.1 and 5.2, and document the corrective actions as required in Part 5.4.

EPA may also insist that the operator install additional controls (to meet the narrative water quality-based effluent limit above) on a site-specific basis, or require the operator to obtain coverage under an individual permit, if information in the NOI or from other sources indicates that the operator's 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 an EPA-established or approved TMDL.

If during the operator's coverage under a previous permit, the operator was required to install and maintain stormwater controls specifically to meet the assumptions and requirements of an EPA-approved or established TMDL (for any parameter) or to otherwise control the discharge to meet water quality standards, the operator must continue to implement such controls as part of coverage under this permit.

To support EPA's expectation that compliance with the conditions and effluent limitations in this permit will result in discharges that meet applicable water quality standards, the permit includes additional water quality-based effluent limitations, which, in combination with the technology-based effluent limits in Part 2, EPA expects to be as stringent as necessary to achieve water quality standards. These additional WQBELs will apply in the permit where EPA has determined that discharges from construction sites may have the reasonable potential to cause or contribute to exceedances of applicable water quality standards, such as when a waterbody is impaired for sediment or nutrients, which are parameters associated with stormwater discharges from construction sites. The fact sheet discusses these additional requirements below for Part 3.2.

Part 3.2: Discharge Limitations for Sites Discharging to Sensitive Waters

Part 3.2 informs operators that the requirements in Parts 4.3 and 2.2.14.a.iii apply if the operator discharges to a water impaired for sediment or a sediment-related parameter, and/or nutrients, or to a water that is identified by the state, tribe, or EPA as Tier 2, Tier 2.5, or Tier 3 for antidegradation purposes.

Part 3.2	Permit Requirements

For any portion of the site that discharges to a sediment or nutrient-impaired water or to a water that is identified by the state, tribe, or EPA as Tier 2, Tier 2.5, or Tier 3 for antidegradation purposes, the operator must comply with the inspection frequency specified in 4.3, and with the stabilization deadline specified in Part 2.2.14.a.iii.(c).[16]

If the operator discharges to a water that is impaired for a parameter other than a sediment-related parameter or nutrients, EPA will inform you if any additional 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 addition, on a case-by-case basis, EPA may notify operators of new sites or operators of existing sites with increased discharges that additional analyses and/or stormwater controls, or other measures, are necessary to comply with the applicable antidegradation requirements, or notify you that an individual permit application is necessary.

If you discharge to a water that is impaired for polychlorinated biphenyls (PCBs) and are engaging in demolition of any structure with at least 10,000 square feet of floor space built or renovated before January 1, 1980, you must:

a. Implement controls to minimize the exposure of PCB-containing building materials, including paint, caulk, and pre-1980 fluorescent lighting fixtures, to precipitation and to stormwater; and

b. Ensure that disposal of such materials is performed in compliance with applicable state, federal, and local laws.

The permit explains what is meant by discharges to "impaired waters" or discharges to Tier 2, 2.5, or 3 waters as follows:

> "Impaired waters" are those waters identified by the state, tribe, or EPA as not meeting an applicable water quality standard and (1) requires development of a TMDL (pursuant to section 303(d) of the CWA; or (2) is addressed by an EPA-approved or established TMDL; or (3) is not in either of the above categories but the waterbody is covered by a pollution control program that meets the requirements of 40 CFR 130.7(b)(1). Your construction site will be considered to discharge to an impaired water if the first water of the U.S. to which you discharge is an impaired water for the pollutants contained in the discharge from your site. For discharges that enter a storm sewer system prior to discharge, the first water of the U.S. to which you discharge is the waterbody that receives the stormwater discharge from the storm sewer system. For assistance in determining whether your site discharges to impaired waters, EPA has developed a tool that is available both within the electronic NOI form in NeT, and at https://water.epa.gov/polwaste/npdes/stormwater/discharge.cfm.
>
> Tiers 2, 2.5 and 3 refer to waters either identified by the state as high quality waters or Outstanding National Resource Waters under 40 CFR 131.12(a)(2) and (3). For the purposes of this permit, you are considered to discharge to a Tier 2, Tier 2.5, or Tier 3 water if the first water of the U.S. to which you discharge is identified by a state, tribe, or EPA as Tier 2, Tier 2.5, or Tier 3. For discharges that enter a storm sewer system prior to discharge, the water of the U.S. to which you discharge is the first water of the U.S. that receives the stormwater discharge from the storm sewer system. See list of Tier 2, Tier 2.5, and Tier 3 waters in Appendix F.

[16] If you qualify for any of the reduced inspection frequencies in Part 4.4, you may conduct inspections in accordance with Part 4.4 for any portion of your site that discharges to a sensitive water.

EPA may determine on a case-by-case basis that a site discharges to a sensitive water.

The rationale for the more stringent impaired waters requirements was explained in the 2012 CGP fact sheet, available at https://www.epa.gov/sites/production/files/2016-10/documents/cgp2012_finalfactsheet-updateurl.pdf, as follows:

> **Frequency of Site Inspections. ...** It is EPA's judgment that these modified inspection requirements will enhance the operator's ability to find and correct problems before a discharge of pollutants to the impaired water occurs.
>
> **Deadline to Complete Stabilization.** ... It is EPA judgment that, in waters already degraded for pollutants associated with construction activities, further reducing the amount of time that exposed soil is left in an unstabilized state is especially important for limiting the sediment and/or nutrient load to these waters. The faster stabilization requirement for areas discharging to sediment and nutrient-impaired waters is designed to minimize the erosion and sedimentation that is associated with large, exposed areas.
>
> EPA specifically anticipated that a stricter stabilization timeframe would be within the permitting authority's discretion in implementing the 40 CFR 450.21(b) requirement of the C&D rule. In the preamble to the C&D rule, EPA explained that "the permitting authority may determine it necessary for operators to initiate soil stabilization measures when construction activity has permanently or temporarily ceased and will not resume for a period exceeding 7 calendar days, as opposed to 14 calendar days ....".

The rationale for the more stringent requirements for Tier 2, 2.5, and 3-designated waters was explained in the 2012 CGP fact sheet as follows:

> As stated in Part 3.1 of the [2012] permit, in the absence of information demonstrating otherwise, EPA expects that compliance with the conditions in this permit will result in stormwater discharges being controlled as necessary to meet applicable water quality standards (which include state antidegradation requirements). More specifically, by imposing on operators that discharge to Tier 2, Tier 2.5, or Tier 3 waters the requirement to comply with the additional requirements, on top of the permit's other effluent limits and conditions, to stabilize exposed areas faster and to conduct more site inspections than other sites, It is EPA's judgment that authorizing these discharges will not result in a lowering of water quality. Thus, EPA has determined that compliance with the CGP generally will be sufficient to satisfy Tier 2 (or 2.5) and Tier 3 antidegradation requirements because the controls will not result in a lowering of water quality, making individualized Tier 2 or Tier 3 review unnecessary, assuming of course that the discharger is in compliance with any other applicable state or tribal antidegradation conditions that are included in Part 9 of the permit. Furthermore, the controls in the permit are sufficiently stringent that they would generally satisfy the requirement at the heart of Tier 2 review, that the discharge is necessary to accommodate important economic or social development in the area where the discharge is located. Construction is usually important to economic and social development, and the controls already required in Part 2 of this permit have been identified by EPA in its effluent limitations guideline for the construction and development category as the level of pollutant abatement that is the best available technology economically achievable. However, in cases where information submitted with the NOI, or available from other sources, indicates that further Tier 2 or Tier 3 review and/or conditions are necessary either for a new

project or an existing project with a significantly increased discharge, EPA will conduct this review and require any appropriate additional controls.

The conclusion that compliance with the CGP will generally meet the Tier 2 and Tier 3 antidegradation requirements depends on several key aspects of the permit. First, all construction sites that will be subject to this permit must meet the stringent general effluent limits set out in Part 2. Through compliance with these limits alone, EPA expects that the discharge of pollutants will be reduced and/or eliminated so that there should not be a lowering of water quality. EPA bases this conclusion in part on the fact that the limits in this permit are based on the nationally-developed effluent limitations guidelines process that defined the BAT/BCT/BPT and NSPS level of control. EPA also is imposing on these sites the requirement to meet even more stringent controls defined in 4.1.3 [of the 2012 CGP] (more frequent inspections) and 2.2.1.3c [of the 2012 CGP] (stricter stabilization deadlines). Furthermore, once installed and implemented, the operator is obligated to maintain these controls and to correct deficiencies where inspection determines that deficiencies exist. Where EPA determines through its oversight activities (e.g., onsite inspection) that a discharger is not meeting its limits, such a deficiency will constitute a violation of the permit and will require follow-up corrective action pursuant to Part 5.2.1.3 [of the 2012 CGP].

Second, there may very well be individual cases where EPA determines that further controls are necessary or that coverage under the CGP is no longer appropriate to protect the Tier 2, 2.5, or 3 status of the receiving water. For this reason, EPA has included the following language in Part 3.3.2 [of the 2012 CGP]: "on a case-by-case basis, EPA may notify operators of such new projects or operators of existing projects with significantly increased discharges that additional analyses, stormwater controls, or other permit conditions are necessary to comply with the applicable antidegradation requirements, or notify you that an individual permit application is necessary in accordance with Part 1.4.5 [of the 2012 CGP]." It is anticipated that if EPA decides to require a Tier 2 or Tier 3 review for a particular new project or an existing project with a significantly increased discharge, EPA may either change the terms of coverage or terminate CGP coverage and require an individual permit.

Part 3.2 also clarifies that operators will be informed if any additional controls are necessary for the discharge to be consistent with the assumptions of any available wasteload allocation in the TMDL. These provisions are intended to implement the requirements of 40 CFR 122.44(d)(1)(vii)(B), which requires that water quality-based effluent limits in permits be "consistent with the assumptions and requirements of any available wasteload allocation for the discharge" and of 40 CFR 122.4(i), which contains requirements regarding the issuance of permits for new sources.

Part 3.2 also clarifies when discharges from construction sites are discharging to an impaired water. EPA added such clarification due to uncertainty among the regulated community as to how to determine whether a site discharges to an impaired water.

Part 3.2 also includes a new requirement for operators discharging to waters impaired for polychlorinated biphenyls (PCBs) to implement controls to minimize the exposure of building materials containing polychlorinated biphenyls-(PCBs) to precipitation and stormwater during demolition of any structure with at least 10,000 square feet of floor space built or renovated before January 1, 1980. Buildings and structures originating or remodeled between the years of 1950-1979 often contain polychlorinated biphenyls (PCBs) in materials such as caulk and paint. Without proper controls, the demolition of such structures can cause PCBs to be released into the environment and discharged into waters of the U.S. during storm events. To address this

concern, Part 3.2 requires controls to be implemented to minimize exposure of building materials containing PCBs to precipitation and stormwater, and to ensure that such materials are disposed in compliance with applicable state, federal, and local laws. The requirement is limited to the demolition of buildings or structures with at least 10,000 square feet of floor space built or renovated before January 1, 1980 on sites that discharge to PCB-impaired waters. This requirement helps to ensure that authorized discharges will meet WQS.

The presence of PCBs in certain building components, especially in caulk and fluorescent light bulbs, has been a focus of EPA's research over the past several years. The following is a summary of the findings from EPA studies establishing the presence of PCBs in building materials, particularly in school buildings:

- Caulk put in place between 1950 and 1979 may contain as much as 40 percent PCBs and can emit PCBs into the surrounding air. PCBs from caulk may also contaminate adjacent materials such as masonry or wood.
- Fluorescent lighting fixtures that still contain their original PCB-containing light ballasts have exceeded their designed lifespan, and the chance for rupture and emitting PCBs is significant. Sudden rupture of PCB-containing light ballasts may result in exposure to the occupants and may also result in the addition of significant clean-up costs.
- Some building materials (e.g., paint and masonry walls) and indoor dust can absorb PCB emissions and become potential secondary sources for PCBs. When the primary PCB-emitting sources are removed, the secondary sources often emit PCBs.

See EPA's webpage, *Polychlorinated Biphenyls (PCBs) in Building Materials*, located at https://www.epa.gov/pcbs/polychlorinated-biphenyls-pcbs-building-materials, for more information.

Releases of PCBs into the environment from building materials containing PCBs has also been well studied in certain regions of the country. In Washington State, stormwater was identified as the largest delivery pathway to surface waters for PCBs. Washington's "PCB Chemical Action Plan" identifies PCBs in caulk and paint as the second largest source of PCBs, accounting for 87 metric tons of PCBs in WA, with 160 kg/yr. released to the environment.[17] The Plan states that "Releases from building materials can be greatly accelerated during remodeling and demolition. There is an opportunity, through use of best management practices, to prevent releases of PCBs during remodeling and demolition."

Another Washington State Department of Ecology report, focusing on the Puget Sound Basin,[18] estimates 59 metric tons of PCBs are in building sealants in that area with about 110 kg released annually. This is likely an underestimate because the report did not consider all uses in buildings, e.g., windows, uses in residential buildings, or in other structures, such as bridges and sidewalks.

[17] 2015. PCB Chemical Action Plan. Washington State Department of Ecology. https://fortress.wa.gov/ecy/publications/SummaryPages/1507002.html

[18] 2011. Control of Toxic Chemicals in Puget Sound Phase 3: Primary Sources of Selected Toxic Chemicals and Quantities Released in the Puget Sound Basin. Ecology Publication No. 11-03-024. https://fortress.wa.gov/ecy/publications/documents/1103024.pdf

Building materials and caulk were also found to be potential sources of PCBs at both the Lower Duwamish Waterway[19] and Commencement Bay/Nearshore Tideflats Superfund sites in Washington State. The Rainier Commons building, currently a Toxic Substances Control Act (TSCA) cleanup site, was found to contain high concentrations of PCBs in caulk and paint that entered the stormwater system via catch basins on site. This system drains to the Lower Duwamish Waterway cleanup area. Elevated concentrations of PCBs in roadway caulk were found during source tracing by the City of Tacoma in response to the re-contamination of the Thea Foss Waterway in Commencement Bay.[20]

Releases of PCBs into the environment from PCB-containing building materials have also been well studied in the San Francisco Bay region. The San Francisco Bay Regional Water Quality Control Board found that "of the sources to the Bay, stormwater runoff contributes the greatest mass of PCBs."[21] A study of buildings within greater San Francisco Bay region found PCBs in 88% of the caulk samples tested; 40% of the samples contained >50 ppm PCBs, and 20% > 10,000 ppm PCBs.[22] Data suggest a correlation between PCB levels observed in the water with construction activity. Based on these studies, the San Francisco Bay Regional Water Quality Control Board stated that controlling demolition of buildings containing PCBs could significantly reduce the loading of PCBs in their stormwater.

EPA is purposefully limiting this new requirement to apply to sites that discharge to waters with known impairments for PCBs. Over 4,500 water bodies are currently listed in the PCB-polluted category, making this the sixth-highest water pollution cause nationwide.[23] This includes 81,610 miles of rivers and streams, 3,204,534 acres of lakes and ponds, and 400,094 square miles of bays and estuaries that are impaired for PCBs.[24] EPA does not currently have data on the number of construction projects subject to EPA's CGP that may involve demolition of a structure with at least 10,000 square feet of floor space built or renovated before January 1, 1980 on sites that discharge to waters impaired for PCBs. Therefore, at this time, EPA does not have an estimate for the number of operators that will be affected by this new requirement. However, EPA added a new question on the NOI form asking about the prevalence of demolition of a structure with at least 10,000 square feet of floor space that was built or renovated before January 1, 1980. With the benefit of this new information, EPA can more comprehensively evaluate the occurrence under the CGP of demolition of structures which often contain PCBs in building materials and the need to modify the applicability of this requirement as necessary in the future.

There are a variety of controls that can be implemented to minimize the potential discharge of PCBs from demolition activities, and can also be effective in controlling the release of other hazardous substances like asbestos and lead-paint. The following examples provide guidance for operators in selecting the site-specific controls to meet this requirement in Part 3.2. These examples are not required or exhaustive. Operators have flexibility in selecting the specific

[19] 2011 Lower Duwamish Waterway Survey of Potential PCB-Containing Building Material Sources. Prepared for Ecology. https://fortress.wa.gov/ecy/gsp/DocViewer.ashx?did=41052

[20] 2015. *Thea Foss and Wheeler-Osgood Waterways 2014 Source Control and Water Year 2014 Stormwater Monitoring Report*, City of Tacoma. Section 2.1.3. http://cms.cityoftacoma.org/enviro/SurfaceWater/SourceControlWYRpt/Report.pdf

[21] 2013. San Francisco Bay Regional Water Quality Control Board. San Francisco Bay PCBs TMDL – Implementation at Cleanup Sites. http://www.waterboards.ca.gov/sanfranciscobay/water_issues/programs/TMDLs/sfbaypcbs/SF%20Bay%20PCBs%20TMDL%20-%20Considerations%20for%20Cleanup%20Sites%20September%205%202013.pdf

[22] ibid, p. 3.

[23] Summaries of Water Pollution Reporting Categories, ATTAINS parent cause category summaries, adapted from doc. no. EPA841-R-12-104, October 2012.

[24] National Causes of Impairment, Size of Assessed Waters with Listed Causes of Impairment, available at https://ofmpub.epa.gov/waters10/attains_nation_cy.control#causes

controls they will implement to meet this requirement in Part 3.2, but must ensure that such controls minimize exposure of building materials to precipitation and stormwater, and ensure that such materials are properly disposed. Operators must also document the selected controls in the SWPPP.

- Separate work areas from non-work areas and select appropriate personal protective equipment and tools.
- Construct a containment area so that all dust or debris generated by the work remains within the protected area.
  - Apply plastic sheeting to the floor, ground, or other applicable surfaces to prevent contamination of the building interior or exterior from dust generated by the work.
  - Put all necessary tools and supplies on the protective sheeting in the work area before you begin work to avoid stepping off the protective sheeting before the work is complete.
  - Construct a decontamination area outside of the work area by placing heavy plastic sheeting on the ground. Use this area for removing personal protective equipment and for cleaning equipment used in the enclosure.
    - Every time you leave the plastic sheeting, remove disposable shoe covers, and wipe or vacuum shoes, especially, the soles, before stepping off the plastic sheeting. A large disposable tack pad on the floor can help to clean the soles of shoes.
    - Remove or vacuum off Tyvek suits when exiting the work area so the dust stays inside the work area.
- For locations where a containment area cannot be constructed, consider the following techniques:
  - Cover the ground and plants with heavy plastic sheeting to catch debris. The covering should extend at least ten feet out from the building. Secure the covering to the exterior wall with a wood strip and staples, or tape.
  - Seal off any vents or air exchange systems into the building that are located within the work area.
  - Move or cover any play areas within 20 feet of the work area.
  - To prevent debris from falling beyond the ten-foot covering when working on the second story or above, extend the sheeting farther out from the base of the building and to each side of the area where materials are being disturbed.
  - To prevent the spread of debris when work is close to a sidewalk, street, or property boundary, or the building is more than three stories high, scaffolding sides should be covered in plastic.
  - Avoid working in high winds. Otherwise, take special precautions to keep the work area contained when the wind is strong enough to move dust and debris. For example, a wind screen can be constructed of plastic at the edge of the ground-cover plastic to keep dust and debris from migrating.
- For inside work, consider placing the containment area under negative air pressure and/or using high-efficiency particulate air (HEPA).
- Use tools that minimize dust and heat (<212°F). Detailed information on tools can be found at https://www.epa.gov/pcbs/summary-tools-and-methods-caulk-removal.
  - When using electromechanical tools, use HEPA vacuum attachments to contain the dust generated.

  - Use wet sanders and misters to keep down the dust created during sanding, drilling, and cutting.
- Leave the work area clean at the end of every day and at the end of the project.
  - Daily activities include:
    - Pick up as you go. Put trash in heavy-duty plastic bags.
    - Vacuum the work area with a HEPA vacuum cleaner frequently during the day and at the end of the day.
    - Clean tools at the end of the day.
    - Dispose of or clean off personal protective equipment.
    - Properly dispose of wastewater produced during the job.
  - End of project activities include:
    - Make sure all trash and debris, including building components, are disposed of properly.
    - Vacuum any exposed surfaces, including walls and ceilings, with a HEPA vacuum cleaner.
    - Mist dusty sections of the plastic sheeting with water before taking them down to keep dust from becoming airborne again.
    - Remove plastic sheeting carefully, fold it with the dirty side in, tape it shut, and properly dispose of it.
    - Visually inspect the site to ensure that no dust or debris is present and re-clean the area thoroughly if you find dust or debris.

The following are also recommended practices for minimizing PCB exposure to workers, building occupants, and community members during demolition activities:

- Use site security measures to prevent access of unauthorized persons to the work areas until after the final cleanup. Examples of security measures include:
  - Lock fence gates or doors to the work areas during off hours.
  - Place signs, barrier tape and/or cones to keep all non-workers out of the work area. Signs should be in the primary languages of the occupants, and should say "Do Not Enter - Authorized Personnel Only" and "No Eating, Drinking, or Smoking."
  - Establish a system to identify authorized persons and any limitations to their approved activities.
  - Provide a means for approving all visitors to the work area; ensure trained site personnel accompany visitors at all times and provide them with appropriate personal protective equipment.
- Close windows and doors within 20 feet of the work area to keep dust and debris from getting into the building.
- Change out of work clothing before going home, and launder non-disposable protective clothing separately from family laundry.

Part 4: Site Inspection Requirements

Part 4.1: Person(s) Responsible for Inspecting Site

Part 4.1 clarifies that it is the operator who will be responsible for ensuring that the person who conducts inspections, whether he/she is a member of the project staff or a third party, must be a "qualified person."

Part 4.1	Permit Requirements
Part 4.1 clarifies that the person(s) inspecting the site may be a person on the project staff or a third party hired to conduct such inspections. Whoever will be charged with conducting the inspections must be a "qualified person," who is knowledgeable in the principles and practice of erosion and sediment controls, and pollution prevention, who possesses the appropriate skills and training to assess conditions at the construction site that could impact stormwater quality, and the appropriate skills and training to assess the effectiveness of any stormwater control measures selected and installed to meet the requirements of the permit.	

Part 4.2: Frequency of Inspections

Part 4.2 requires the operator to, at a minimum, conduct a site inspection in accordance with one of two schedules, unless they are subject to the Part 4.3 site inspection frequency for discharges to sensitive waters or qualify for a Part 4.4 reduction in the inspection frequency.

Part 4.2	Permit Requirements
Part 4.2 requires the operator to conduct inspections of the site and establishes the required minimum inspection frequency. The operator has the option to either (1) conduct a site inspection once every seven (7) calendar days; *or* (2) conduct a site inspection once every 14 days and within 24 hours of the occurrence of a storm event of 0.25 inches or greater, or the occurrence of runoff from snowmelt sufficient to cause a discharge. To determine if a storm event of 0.25 inches or greater has occurred on the site, the operator must either keep a properly maintained rain gauge on the site, or obtain the storm event information from a weather station that is representative of the location. For any day of rainfall during normal business hours that measures 0.25 inches or greater, the operator must record the total rainfall measured for that day in accordance with Part 4.7.1.d.	

This provision retains the 2012 CGP's choice between the weekly inspection and bi-weekly inspection frequency. Operators must conduct their inspection within 24 hours once a storm event has produced 0.25 inches within a 24 hour period, even if the storm event is still continuing. Thus, if the operator has elected to inspect bi-weekly and there is a storm event at the site that continues for multiple days, and each day of the storm produces 0.25 inches or more of rain, the operator must conduct an inspection within 24 hours of the first day of the storm and within 24 hours after the end of the storm (inspections are only required during the sites normal working hours). In EPA's judgment, it is important for inspections to be conducted within a day of the occurrence of a qualifying rainfall event so that the operator could catch any potential problems on the site and correct such problems before a prolonged discharge of pollutants occurs. Requiring inspections to be conducted within 24 hours of the occurrence of a qualifying storm event provides assurance that, during multiple days of discharge from a single storm event, problems with the control of pollutants will be identified sooner and corrected in accordance with the corrective action timeframes specified in Part 5 of the permit. EPA modified the requirement in option (2) to add "or the occurrence of runoff from snowmelt sufficient to cause a discharge" to when inspections must be conducted, in order to clarify that snowmelt runoff is also a stormwater discharge, and also triggers the inspection requirement.

Complying with the bi-weekly inspection frequency: EPA intends that sites electing to inspect once every 14 days and within 24 hours of a 0.25 inch storm or the occurrence of runoff from snowmelt sufficient to cause a discharge will conduct at a minimum one inspection every 14 days and additional inspections as is warranted depending on whether a 0.25 inch storm event or snowmelt runoff occurs during normal working hours. To comply with this requirement, operators should ensure that no more than 14 days pass after each inspection before the next inspection is conducted. This could be accomplished by choosing a regular day during the two-week period on which inspections will be conducted in the absence of precipitation events.

However, where a rain event produces 0.25 inches or more during the two-week period or snowmelt runoff occurs, an inspection must be performed within 24 hours of the occurrence of the event. Following the event-related inspection (or final event related inspection in cases of multi-day events), the operator must conduct the next inspection within no more than 14 calendar days.

Multiple day storms: The permit clarifies that if the site experiences a storm event that continues for multiple days, and each day of the storm produces 0.25 inches or more of rain, the operator must conduct an inspection within 24 hours of the first day of the storm and within 24 hours after the end of the storm.

0.25 inch rain event threshold: EPA incorporates by reference the discussion in 2012 CGP fact sheet (Section IX.1.2) in which EPA presented data that supported the 0.25 inch threshold for inspections. EPA found that a 0.25 inch threshold would cover an estimated 47 percent of storms in New Hampshire, 10 percent of storms in Idaho, and 27 percent of storms in New Mexico. It is EPA's judgment that storms with rainfall totals greater than 0.25 inches have the potential to produce discharges of stormwater that could lead to discharges of pollutants to surface waters, particularly if stormwater controls are not functioning effectively. Further, storms greater than 0.25 inches may compromise stormwater controls on the site. Thus, inspection immediately after such events (or during such events in the case of multi-day storms) is important to meet the purposes of adopting a storm-based inspection schedule. See section IX.1.2 "Frequency of Inspections (Part 4.1.2)" on pages 94 through 96 of the 2012 CGP fact sheet, available at https://www.epa.gov/sites/production/files/2016-10/documents/cgp2012_finalfactsheet-updateurl.pdf.

Part 4.3: Increase in Inspection Frequency for Sites Discharging to Sensitive Waters

Part 4.3 requires modified inspection frequencies for the portion of any sites discharging to a sediment or nutrient-impaired water or to a water identified by a state, tribe, or EPA as Tier 2, Tier 2.5, or Tier 3 for antidegradation purposes.

Part 4.3	Permit Requirements
The operator must conduct inspections in accordance with the following inspection frequencies: Once every 7 calendar days *and* within 24 hours of a storm event of 0.25 inches or greater, or the occurrence of runoff from snowmelt sufficient to cause a discharge. To determine if a storm event of 0.25 inches or greater has occurred on your site, the operator must either keep a properly maintained rain gauge on the site, or obtain the storm event information from a weather station that is representative of its location. For any day of rainfall during normal business hours that measures 0.25 inches or greater, the operator must keep a record of rainfall occurrences in accordance with Part 4.7.1d.	

As noted in the fact sheet section on Part 3.2, it is EPA's judgment that these inspection requirements will enhance the operator's ability to find and correct problems before a discharge of pollutants occurs. EPA expects that compliance with the water quality-based effluent limits in the permit, in combination with the general effluent limits in Part 2, will result in discharges that meet applicable water quality standards. EPA clarifies that the more frequent site inspections are required only for those portions of the site that are discharging to the sensitive water. For example, for a highway construction project spanning many miles over multiple watersheds, the increase in inspection frequency would only be required in areas of the site that discharge to or within one mile upstream of the sensitive water. EPA also notes that if the operator qualifies for any of the reduced inspection frequencies specified in Part 4.4, they may comply with those reduced frequencies despite the fact that they discharge to a sensitive water. This is because the reduced frequencies in Part 4.4 apply only to situations where the reduced inspection frequency is justified by circumstances that ensure protection of all waters, including sensitive waters.

Note that, similar to the requirements for conducting bi-weekly site inspections under Part 4.2.2, the permit clarifies that if the site experiences a storm event that continues for multiple days, and each day of the storm produces 0.25 inches or more of rain, the operator must conduct an inspection within 24 hours of the first day of the storm and within 24 hours after the end of the storm. The operator must conduct an inspection upon the occurrence of runoff from snowmelt sufficient to cause a discharge.

Part 4.4: Reductions in Inspection Frequency

Part 4.4 identifies three different situations in which a reduction in the frequency of inspections is permitted. Each of these represent situations of comparatively lower risk for discharges to surface waters.

Part 4.4.1: For Stabilized Areas

Part 4.4.1 provides the opportunity for operators to reduce their inspection frequencies in any areas of the site that have achieved temporary or final stabilization as required in Part 2.2.14.

Part 4.4.1	Permit Requirements
a. The permit enables the operator to reduce the frequency of inspections to twice per month for the first month, no more than 14 calendar days apart, then once per month in any area of the site where the stabilization steps in Part 2.2.14.a have been completed. If construction activity resumes in this portion of the site at a later date, the inspection frequency immediately increases to the frequency specified in Part 4.2 or 4.3 if applicable. The operator must document the beginning and ending date of this period in its SWPPP. b. Exception. For "linear construction sites" (as defined in Appendix A) where disturbed portions have undergone final stabilization at the same time active construction continues on others, you may reduce the frequency of inspections to twice per month for the first month, no more than 14 calendar days apart, in any area of your site where the stabilization steps in 2.2.14a have been completed. After the first month, inspect once more within 24 hours of the occurrence of a storm event of 0.25 inches or greater. If there are no issues or evidence of stabilization problems, you may suspend further inspections. If "wash-out" of stabilization materials and/or sediment is observed, following re-stabilization, inspections must resume at the inspection frequency required in Part 4.4.1a Inspections must continue until final stabilization is visually confirmed following a storm event of 0.25 inches or greater.	

Areas of the site that have achieved temporary or final stabilization present a significantly lower risk of producing unacceptable discharges of pollutants in stormwater to surface waters. EPA further expects that, especially for larger projects, where construction activities may take place in different phases in separate locations of the site, reducing site inspection frequency where areas have been stabilized will encourage stabilization to take place closer to the time that active disturbances have ended. It is EPA's judgment that the reduction in inspection frequency will provide a benefit in reduced administrative burden to the operator. EPA modified this requirement from the 2012 CGP to require inspections to be conducted twice per month for the first month, with no more than 14 calendar days between the two inspections, after stabilization has been completed before reducing the inspection frequency to once per month. This change is intended to ensure that operators catch any potential problems with stabilization measures early on and correct such problems before failure of stabilization measures and a prolonged discharge of pollutants occurs. The requirement in (b) above is also a modification to the reductions in inspection frequency for linear construction sites. EPA acknowledges that long linear projects may feature portions of the site that are completed and stabilized months before the final portion of

the project is stabilized. The exception provides flexibility for linear construction sites by allowing these operators to suspend further inspections on portions of their site that have met the final stabilization requirements following two inspections in the first month, no more than 14 calendar days apart, and no observed "wash-out" following one more inspection within 24 hours of a storm event of 0.25 inches or greater.

Part 4.4.2: For Arid, Semi-Arid, or Drought-Stricken Areas

Part 4.4.2 allows operators whose construction projects occur in areas considered arid or semi-arid to reduce the frequency of inspection to account for the comparatively lower amounts of rainfall.

Part 4.4.2	Permit Requirements
The permit enables operators to reduce their inspection frequency to once per month and within 24 hours of the occurrence of a storm event of 0.25 inches or greater if the project is located in an arid, semi-arid, or drought-stricken area and construction is occurring during the seasonally dry period or a period in which drought is predicted to occur. The operator must document that they are using this schedule and the beginning and ending dates of this period in the SWPPP. To determine if a storm event of 0.25 inches or greater has occurred on the site, the operator must either keep a properly maintained rain gauge on the site, or obtain the storm event information from a weather station that is representative of the location. For any day of rainfall during normal business hours that measures 0.25 inches or greater, the operator must record the total rainfall measured for that day in accordance with Part 4.7.1.d.	

This reduced inspection frequency still allows operators to identify potential problems that could result in a discharge of pollutants in the unlikely event that a storm event does occur. To determine when the seasonal dry periods occur in arid and semi-arid areas, one tool that is available for operators is the U.S. Department of Agriculture, Natural Resources Conservation Service's Climate Analysis for Wetlands tool: http://www.wcc.nrcs.usda.gov/climate/wetlands.html.

Note that, similar to the requirements for conducting bi-weekly site inspections under Part 4.2.2, the permit clarifies that if the site experiences a storm event that continues for multiple days, and each day of the storm produces 0.25 inches or more of rain, the operator must conduct an inspection within 24 hours of the first day of the storm and within 24 hours after the end of the storm.

Part 4.4.3: For Frozen Conditions

Part 4.4.3 enables operators that experience frozen conditions on their site to reduce their inspection frequency to account for the fact that a discharge will not be likely during this period of time.

Part 4.4.3	Permit Requirements
The permit enables operators to reduce inspection frequencies under the following conditions: a. Where earth-disturbing activity is suspended: If the operator is suspending earth-disturbing activities due to frozen conditions, the operator may temporarily suspend inspections on the site until thawing conditions begin to occur if: i. Runoff is unlikely due to continuous frozen conditions that are likely to continue at the site for at least three (3) months based on historic seasonal averages. If unexpected weather conditions (such as above freezing temperatures or rain events) make discharges likely, the operators must immediately resume the regular inspection frequency as described in Parts 4.2 or 4.3 as applicable;	

ii. Land disturbances have been suspended; and

iii. All disturbed areas of the site have been stabilized in accordance with Part 2.2.14.a.

b. Where earth-disturbing activities continue on portions of the site: If the operator is still conducting earth-disturbing activities during frozen conditions, the operator may reduce the inspection frequency to once per month if:

i. Runoff is unlikely due to continuous frozen conditions that are likely to continue at the site for at least three (3) months based on historic seasonal averages. If unexpected weather conditions (such as above freezing temperatures or rain events) make discharges likely, the operator must immediately resume the regular inspection frequency as described in Parts 4.2 or 4.3 as applicable; and

ii. Except for areas in which the operator is actively conducting earth-disturbing activities, disturbed areas of the site have been stabilized in accordance with Part 2.2.14.a.

Part 4.4.3 will also requires that operators document the beginning and ending dates of this period in their SWPPP.

The permit retains the 2012 CGP's waiver approach for projects that suspend all construction work during frozen conditions. This permit also allows operators to reduce inspection frequencies to once per month if the ground is frozen and they will still be conducting earth-disturbing activities. For both scenarios under which a reduction is possible, this permit includes the requirement that the disturbed areas be stabilized either vegetatively or non-vegetatively. This requirement also provides further assurance that in the case of an unexpected thaw or rain on snow event, the discharge of pollutants from all areas has been minimized.

Part 4.5: Areas That Must Be Inspected

Part 4.5 describes the areas on the site that must be inspected.

Part 4.5 (4.5.1 – 4.5.6)	Permit Requirements

The permit specifies which areas of the site must be inspected during each site inspection, which include, at a minimum, the following:

4.5.1 All areas that have been cleared, graded, or excavated, and that have not yet completed stabilization consistent with Part 2.2.14.a;

4.5.2 All stormwater controls (including pollution prevention controls) installed at the site to comply with this permit;

4.5.3 Material, waste, borrow or equipment storage and maintenance areas that are covered by this permit;

4.5.4 All areas where stormwater typically flows within the site, including drainageways designed to divert, convey, and/or treat stormwater;

4.5.5 All points of discharge from the site; and

4.5.6 All locations where stabilization measures have implemented.

Operators are not required to inspect areas of the site that, at the time of the inspection, are considered unsafe to inspection personnel.

The 2012 CGP included many of the same specific areas to be inspected in Part 4.1.5 of the 2012 CGP. In Part 4.5.2, EPA clarifies that all stormwater controls installed at the site required in Part 2 and Part 3 must be inspected, including the inspection for sediment that has been tracked out from the site onto paved roads, sidewalks, or other paved areas consistent with Part 2.2.4.

Part 4.6: Requirements for Inspections

Part 4.6 includes specific requirements regarding the focus of the inspection.

Part 4.6 (4.6.1 – 4.6.7)	Permit Requirements

The permit requires that inspections, at a minimum, consist of the following:

4.6.1 Check whether all stormwater controls (i.e., erosion and sediment controls and pollution prevention controls) are properly installed, appear to be operational, and are working as intended to minimize pollutant discharges.

4.6.2 Check for the presence of conditions that could lead to spills, leaks, or other accumulations of pollutants on the site;

4.6.3 Identify any locations where new or modified stormwater controls are necessary to meet the requirements of Parts 2 and/or 3;

4.6.4 Check for signs of visible erosion and sedimentation (i.e., sediment deposits) that have occurred and are attributable to the discharge at points of discharge and, if applicable, the banks of any waters of the U.S. flowing within or immediately adjacent to the site;

4.6.5 Identify any incidents of noncompliance observed.

4.6.6 If a discharge is occurring during the inspection, the operators must to:

a. Identify all points at the site; and

b. Observe and document the visual quality of the discharge, and take note of the characteristics of the stormwater discharge, including color; odor; floating, settled, or suspended solids; foam; oil sheen; and other indicators of stormwater pollutants.

4.6.7 Based on the results of the inspection, complete any necessary maintenance under Part 2.1.4 and corrective actions under Part 5.

EPA clarifies that the operator must complete any necessary maintenance discovered during an inspection.

Part 4.7: Inspection Report

Part 4.7.1: Requirement to Complete Inspection Report

Part 4.7.1 provides a consistent means of documenting the results of each inspection.

Part 4.7.1	Permit Requirements

The operator must complete an inspection report within 24 hours of completing any site inspection. Each inspection report must include the following:

a. The inspection date;

b. Names and titles of personnel making the inspection;

c. A summary of the inspection findings, covering at a minimum the observations you made in accordance with Part 4.6, including any necessary maintenance or corrective actions;

d. If the operator is inspecting the site at the frequency specified in Part 4.2.2, Part 4.3, or Part 4.4.2, and the operator conducted an inspection because of rainfall measuring 0.25 inches or greater, it must include the applicable rain gauge or weather station readings that triggered the inspection; and

e. If the operator has determined that it is unsafe to inspect a portion of the site, the operator must describe the reason it was found to be unsafe and specify the locations that this condition applied to.

Part 4.1.7 requires, similar to the concept of a log book, that an inspection report be completed for each inspection. It is EPA's judgment that requiring an inspection report to be kept will improve the organization of the inspection-related records, and make it easier for operators to keep track of their findings from inspection to inspection.

Part 4.7.2: Signature Requirements

Part 4.7.2 requires that inspection reports, whether in paper or electronic format, provide accountable documentation of compliance with the inspection requirements in this permit. Appendix I provides signature requirements for both paper and electronic reports.

Part 4.7.2	Permit Requirements
Each inspection report must be signed in accordance with Appendix I, Part I.11 of the permit.	

Part 4.7.3: Recordkeeping Requirements

Part 4.7.3 requires inspection reports be kept at the site and available to EPA inspectors.

Part 4.7.3	Permit Requirements
The permit requires that the operators keep a copy of all inspection reports at the site or at an easily accessible location, so that they are available at the time of an on-site inspection or upon request by EPA.	

Part 4.7.4: Record Retention

The requirement in Part 4.7.4 to retain all reports a minimum of three years comes from the standard permit condition requirements at 40 CFR 122.41(j)(2).

Part 4.7.4	Permit Requirements
The permit requires that the operators retain all inspection reports for at least three (3) years from the date that permit coverage expires or is terminated.	

Part 4.8: Inspections by EPA

The requirements in Part 4.8 are to inform the operator of its obligations with respect to providing access to EPA (or its authorized representatives) in order to conduct site inspections of its own for the purposes of determining compliance with this permit.

Part 4.8 (4..8.1 – 4.8.4)	Permit Requirements

Part 4.8 requires the operator to allow EPA or an authorized representative of EPA to conduct the following activities at reasonable times. To the extent the operator is utilizing shared controls that are not on-site to comply with this permit, the operator must make arrangements for EPA to have access at all reasonable times to those areas where the shared controls are located.

4.8.1 Enter onto all areas of the site, including any construction support activity areas covered by this permit, any off-site areas where shared controls are utilized to comply with this permit, discharge locations, adjoining waterbodies, and locations where records are kept under the conditions of this permit;

4.8.2 Access and copy any records that must be kept under the conditions of this permit;

4.8.3 Inspect the construction site, including any construction support activity areas covered by the permit (see Part 1.2.1c), any stormwater controls installed and maintained at the site, and any off-site shared controls utilized to comply with this permit; and

4.8.4 Sample or monitor for the purpose of ensuring compliance.

This same authority is included in Appendix I, Part 9 of the 2012 CGP as a standard permit condition based on 40 CFR 122.41(i). This authority is based on section 308 of the CWA. It is EPA's judgment that it is appropriate to place this same language in the inspection part of the permit so that it is more visible to the operator.

Part 5: Corrective Actions

Part 5.1: Conditions Triggering Corrective Action

Part 5.1 explains when an operator is expected to take corrective action.

Part 5.1 (5.1.1 – 5.1.4)	Permit Requirements

Part 5.1 defines the conditions under which an operator must take corrective action at their site:

5.1.1 A stormwater control needs repair or replacement (beyond routine maintenance required under Part 2.1.4); or

5.1.2 A stormwater control necessary to comply with the requirements of this permit was never installed, or was installed incorrectly; or

5.1.3 The operator's discharges are causing an exceedance of applicable water quality standards; or

5.1.4 A prohibited discharge has occurred (see Part 1.3).

The conditions that require corrective action are substantively similar to and consistent with those from Part 5.1 of the 2012 CGP. EPA added a triggering condition for corrective action if a stormwater control needs repair or replacement. This clarifies EPA's intent in the 2012 CGP that corrective action would be needed when control repairs are required. This condition for corrective action is distinguished from when controls require routine maintenance in Part 2.1.4 of the permit.

Part 5.2: Corrective Action Deadlines

Part 5.2 establishes deadlines for initiating and completing work to correct the conditions identified at the site in accordance with Part 5.1. Corrective action is distinguished from routine

maintenance of stormwater controls and pollution prevention measures required in Parts 2.1.4 and 2.3.

Part 5.2	Permit Requirements
Part 5.2 describes the deadlines the operator must meet when addressing any of the corrective action triggering conditions described in Part 5.1	

EPA notes that if the condition identified in this Part constitutes a permit violation, correcting it does not eliminate the original violation. However, enforcement authorities will consider the promptness and effectiveness of any corrective action taken in determining an appropriate response. Additionally, failing to take corrective action in accordance with this Part will be an additional permit violation.

Part 5.2.1 requires the operator to immediately take reasonable steps to address any conditions at the site triggering corrective action to minimize pollutant discharges from the site.

Part 5.2.1	Permit Requirements
Part 5.2.1 requires operators to immediately take all reasonable steps to address the condition identified in Part 5.1, including cleaning up any contaminated surfaces so the material will not discharge in subsequent storm events.	

EPA notes that in the context of Part 5.2.1 the term "immediately" requires operators to, on the same day a condition requiring corrective action is found, take steps to minimize or prevent the discharge of pollutants unless a new or replacement control or significant repair is required.

Part 5.2.2 establishes a specific timeframe for completing corrective actions that do not require a new or replacement control or significant repair.

Part 5.2.2	Permit Requirements
Part 5.2.2 requires operators to complete the corrective action by the close of the next business day when the problem does not require a new or replacement control or significant repair.	

Examples of corrective actions that do not require significant repair or replacement include sweeping up tracked-out sediment, cleaning up spilled materials, and minor repairs such as fixing a hole in a silt fence. EPA notes that if the problem is identified at a time in the work day when it is too late to initiative corrective action, the initiation of corrective action must begin on the following work day.

Part 5.2.3 establishes a specific timeframe for completing corrective actions that require a new or replacement control or significant repair.

Part 5.2.3	Permit Requirements
Part 5.2.3 requires the operator to 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 when the problem requires a new or replacement control or significant repair. If it is infeasible to complete the installation or repair within 7 calendar days, the operator must document in their records why it is infeasible to complete the installation or repair within the 7-day timeframe and document their schedule for installing the stormwater control(s) and making it operational as soon as feasible after the 7-day timeframe. Where these actions result in changes to any of the stormwater controls or procedures documented in their SWPPP, the operator must modify their SWPPP accordingly within 7 calendar days of completing this work.	

Examples of corrective actions that require significant repair or replacement include extensive removal and replacement of an existing control or controls, or repairing a sophisticated treatment control, such as a chemical treatment system.

Part 5.2.3 will also ensure that the SWPPP adequately reflects the stormwater controls being implemented on the site. Where a new control is installed and made operational, or a modification is made to an existing control, the SWPPP must be updated to reflect these site changes. Note that this is true for all such modifications, including those made to implement corrective actions.

Part 5.3: Corrective Action Required by EPA

Part 5.3 clarifies that, in addition to corrective actions that may result from the operator's own inspections, EPA may also require corrective actions to address permit violations found during the agency's inspections.

Part 5.3	Permit Requirements
The operator must comply with any corrective actions required by EPA as a result of permit violations found during an inspection carried out under Part 4.8.	

Part 5.4: Corrective Action Report

Part 5.4 establishes requirements for proper documentation of all corrective actions that must be taken under this part of the permit.

Part 5.4	Permit Requirements
Part 5.4 requires that operators complete a corrective action report for each corrective action taken in accordance with this part of the permit.	

This requirement is similar to the 2012 CGP's Part 5.4 corrective action report requirement to document problems found on the site and the corresponding corrective actions taken and applicable implementation dates.

Part 5.4.1 requires the operator to immediately record some basic information with respect to the initial finding of the triggering condition.

Part 5.4.1	Permit Requirements
Within 24 hours of identifying the corrective action condition, the operator must document the specific condition and the date and time it was identified.	

Part 5.4.2 requires the operator to document the completion of corrective actions that were identified in Part 5.4.2.

Part 5.4.2	Permit Requirements
Within 24 hours of completing the corrective action (in accordance with the deadlines in Part 5.2), the operator must document the actions taken to address the condition, including whether any SWPPP modifications are required.	

The requirement in Part 5.4.2 is different from the 2012 CGP Part 5.4.2, which required a report within 7 calendar days of discovering a condition that required a corrective action. In the 2017 CGP, the operator must document the completion of the corrective action within 24 hours, whether the correction action was completed in 3 days, 7 days, or later (after the operator documents that it is infeasible to complete the repair within 7 days and sets a schedule for completing the repair in accordance with Part 5.2.3).

Part 5.4.3 establishes requirements for accountable documentation of compliance with the corrective action requirements in this permit. Appendix I provides signature requirements for reports.

Part 5.4.3	Permit Requirements
Each corrective action report must be signed in accordance with Appendix I, Part I.11 of this permit.	

The requirement in 5.4.4 is intended to ensure that EPA officials have immediate access to such records during an on-site inspection.

Part 5.4.4	Permit Requirements
The operator must keep a copy of all corrective action reports at the site or at an easily accessible location, so that it can be made available at the time of an on-site inspection or upon request by EPA.	

The requirement in Part 5.4.5 to retain all reports a minimum of 3 years comes from the standard permit condition requirements at 40 CFR 122.41(j)(2).

Part 5.4.5	Permit Requirements
The operator must keep all corrective action reports completed for this Part for at least three (3) years from the date that permit coverage expires or is terminated.	

Part 6: Staff Training Requirements

The staff training requirements in Part 6 are to ensure that each member of the stormwater team understands the requirements of the permit and his or her particular responsibilities relating to complying with those requirements.

Part 6	Permit Requirements

Part 6 requires the operator, or group of multiple operators, to assemble a "stormwater team" to carry out compliance activities associated with the requirements in the permit. The requirements to conduct training prior to commencing construction activities will not apply to emergency-related construction activities that are eligible for permit coverage under Part 1.4; however, for such activities, training must be conducted prior to NOI submission.

6.1 Prior to the commencement of construction activities, the operator must ensure that the following members of the stormwater team receive training to ensure that they understand the permit requirements and their specific responsibilities with respect to those requirements:

a. Personnel who are responsible for the design, installation, maintenance, and/or repair of stormwater controls (including pollution prevention controls);

b. Personnel responsible for the application and storage of treatment chemicals (if applicable);

c. Personnel who are responsible for conducting inspections as required in Part 4.1; and

d. Personnel who are responsible for taking corrective actions as required in Part 5.

6.2 Part 6.2 specifies that the operator is ultimately responsible for ensuring that all activities on the site comply with the requirements of the permit. The operator is not required to provide or document formal training for subcontractors or other outside service providers, but must ensure that such personnel understand any requirements of the permit that may be affected by the work they are subcontracted to perform.

6.3 Part 6.3 specifies that the content and extent of training must be tailored to match the stormwater team member's duties and responsibilities related to the permit's requirements. 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):

a. The permit deadlines associated with installation, maintenance, and removal of stormwater controls and with stabilization;

b. The location of all stormwater controls on the site required by this permit and how they are to be maintained;

c. The proper procedures to follow with respect to the permit's pollution prevention requirements; and

d. When and how to conduct inspections, record applicable findings, and take corrective actions.

6.4 Each member of the stormwater team must have easy access to an electronic or paper copy of applicable portions of this permit, the most updated copy of the operator's SWPPP, and other relevant documents or information that must be kept with the SWPPP.

The training requirements in Part 6 are similar to the staff training requirements in Part 6 of the 2012 CGP.

Part 6 also specifies the minimum understanding that applicable members of the stormwater team should have with respect to the pertinent aspects of permit compliance. All of the above listed areas that must be understood by stormwater team members relate to specific permit provisions in the CGP.

If the person requiring training is a new employee who starts after commencement of construction activities, the operator must ensure that this person has the proper understanding as required above prior to assuming particular responsibilities related to compliance with this permit. New training may not be necessary for some employees if the operator is able to ensure that the employee, due to prior training, already understands the applicable topic area.

EPA also notes that for emergency-related projects, the requirement to train personnel prior to commencement of earth-disturbing activities does not apply. Because immediate authorization is available for these projects, given the urgency of the timing associated with such projects, it is EPA's judgment that it is appropriate to provide greater flexibility in the initial weeks of construction. However, the permit requires that upon submittal of the NOI, personnel be trained in accordance with this section.

Part 7: Stormwater Pollution Prevention Plan (SWPPP)

Part 7 describes the requirements for developing and maintaining a SWPPP.

Part 7.1: General Requirements

Part 7.1 establishes the overall requirement that operators develop SWPPPs prior to submitting their NOIs. The SWPPP must be in place prior to discharging so that the appropriate

erosion and sediment controls are selected and to ensure that the eligibility and other requirements under the permit will be met.

Part 7.1	Permit Requirements
Part 7.1 requires all operators associated with a construction site covered under this permit to develop a SWPPP. The operator must develop the SWPPP prior to submitting the NOI. The SWPPP must be kept up-to-date throughout coverage under the permit. If the SWPPP was prepared under a previous version of the permit (i.e., the 2012 CGP), the operator must review and update the SWPPP to ensure that this permit's requirements are addressed prior to submitting the NOI.	

The SWPPP is intended to serve as a road map for how the construction operator will comply with the effluent limits and other conditions of this permit. The language in footnote 52 clarifies that the SWPPP does not establish the effluent limits that apply to the construction site's discharges; these limits are established in the permit. EPA emphasizes that while the requirement to develop a SWPPP, to keep it updated, and to include in it all of the required minimum contents consistent with Part 7.2 are enforceable permit requirements, the site-specific details of these SWPPPs do not establish separately enforceable limits of the permit. The fact that the SWPPP is an external tool and not considered to include effluent limits enables the operator to be able to modify and retool its approach during the course of the permit term in order to continually improve how it complies with the permit.

The new language in footnote 53 of the permit notes that one operator may develop a group SWPPP where there are several operators at the same site. For instance, if both the owner and the general contractor of the construction site meet the definition of an operator and are required to obtain a permit, the owner may be the party responsible for SWPPP development, and the general contractor (or any other operator at the site) can choose to use this same SWPPP, as long as the SWPPP addresses the general contractor's (or some other operator's) scope of construction work and obligations under this permit. Regardless of whether there is a group SWPPP or several individual SWPPPs, all operators would be jointly and severally liable for compliance with the permit.

Where there are multiple operators associated with the same site through a common plan of development or sale, operators may assign to themselves various permit-related functions under the SWPPP provided that each SWPPP, or a group SWPPP, documents which operator will perform each function under the SWPPP. However, dividing the functions to be performed under the SWPPP does not relieve an individual operator from liability for complying with the permit should another operator fail to implement any measures that are necessary for the individual operator to comply with the permit, for example, the installation and maintenance of any shared controls, such as a sediment basin. In addition, where responsibilities are shared, all operators must ensure, either directly or through coordination with other operators, that their activities do not cause a violation and/or render any other operators' controls and/or any shared controls ineffective. All operators who rely on a shared control to comply with the permit are jointly and severally liable for violations of the permit resulting from the failure to properly install, operate and/or maintain the shared control.

The new language in footnote 53 clarifies in the permit that all operators associated with the same site through a common plan of development or sale are responsible for the stormwater from their individual parcel until the stormwater is discharged into waters of the U.S. or an MS4. This responsibility includes shared controls, such as a sediment basin, within the common development site used to treat stormwater from the individual parcel. For example, if multiple operators on the same common development site develop a group SWPPP or multiple individual SWPPPs that assign permit-related functions to the various operators, an individual

operator is not relieved of liability for permit compliance should another operator fail to perform any function assigned to it under the SWPPP and thus render the individual operator unable to comply with the terms of the permit. In other words, a second operator's failure to perform responsibility for a given function under the SWPPP *(e.g., maintaining a sediment basin)* does not render the first operator immune from enforcement for such failure, unless the second operator's failure does not impact the control of pollutants from the first operator's stormwater or non-stormwater flow *(e.g., the first operator does not send stormwater or non-stormwater flow to the sediment basin before discharge from the overall common development site).* Similarly, if any individual operator develops a separate SWPPP, that operator remains responsible for compliance with all requirements of the permit that apply to discharges of stormwater and/or non-stormwater from its portion of the site through the common development site and to the point of discharge to waters of the U.S. or an MS4 from the common development site, including requirements that apply to any shared controls relied upon by the operator to control pollutants in stormwater and non-stormwater runoff from its portion of the construction site. Additionally, if an individual operator develops a separate SWPPP, that individual operator is still responsible for compliance with the entire permit even if it relies upon shared controls.

EPA fully reserves its right to pursue liability against any operator as outlined above. When pursuing enforcement against an operator or several operators associated with the same site, EPA will consider the totality of the facts, including but not limited to the actions of each operator, the capability of the operator to remedy the violations, whether there is a written division of permit-related functions in a group SWPPP or individual related SWPPPs, and whether the operator has the ability to obtain access, with assistance from EPA if needed, to any portion of the project at issue.

Part 7.2: SWPPP Contents

Part 7.2 includes the minimum requirements that must be included in the SWPPP, as follows.

Part 7.2.1: All Site Operators

Part 7.2.1 provides information about other operators engaged in activities covered under the permit.

Part 7.2.1	Permit Requirements
Part 7.2.1 requires that the SWPPP contain a list of all other operators who will be engaged in construction activities at the site, and the areas of the site over which each operator has control.	

Part 7.2.4 of the 2012 CGP required the SWPPP to include a list of all other operators who will be engaged in construction activities at the site. Part 7.2.1 restates this requirement to clarify in the SWPPP which operators the SWPPP covers, and the areas of the site over which each operator has control. For construction sites with only one operator, this provision does not apply.

Part 7.2.2: Stormwater Team

The requirement in Part 7.2.2 to provide information about the Stormwater Team in the SWPPP provides assurance that specific staff members are identified as responsible for overseeing the development of the SWPPP and are responsible for ensuring compliance with the permit requirements. Identification of staff members on the stormwater team in the SWPPP provides notice and clarification to facility staff and management (e.g., those responsible for signing and certifying the plan) of the responsibilities of certain key staff for following through on compliance with the permit's conditions and limits.

Part 7.2.2	Permit Requirements
Part 7.2.2 requires the operator to identify the personnel (by name or position) that are part of the stormwater team, as well as their individual responsibilities, including which members are responsible for conducting inspections.	

The requirement to assemble a stormwater team to oversee the development of the SWPPP and to ensure permit compliance is similar to Part 7.2.1 of the 2012 CGP, which required each operator to assemble a "stormwater team which is responsible for overseeing the development of the SWPPP… and for compliance." This requirement is also a logical extension of the need for the operator to designate personnel (whether or not they are members of the operator's staff or a subcontractor's) that are assigned the responsibility of carrying out the permit's requirements related to preparing the SWPPP, installing and maintaining stormwater control measures, conducting inspections, taking samples (if required), and implementing corrective actions. EPA has also, in past CGPs, required that operators name a "SWPPP contact" in the NOI and the SWPPP itself.

Part 7.2.3: Nature of Construction Activities

The provision in Part 7.2.3 requiring a description of the nature of the construction activities taking place on the construction site provides general information about the construction project, which can be readily understood by an EPA inspector or other third party who may be unfamiliar with the purpose and general layout of the projects.

Part 7.2.3	Permit Requirements

Part 7.2.3 requires that the SWPPP describe the nature of the construction activities, including:

a. A description of the nature of your construction activities, including the age or dates of past renovations for structures that are undergoing demolition;

b. The size of the property (in acres or length in miles if a linear construction site);

c. The total area expected to be disturbed by the construction activities (to the nearest quarter acre or nearest quarter mile if a linear construction site);

d. A description of any on-site and off-site construction support activity areas covered by this permit (see Part 1.2.1.c);

e. The maximum area expected to be disturbed at any one time, including on-site and off-site construction support activity areas;

f. A description and projected schedule for the following:

   i. Commencement of construction activities in each portion of the site, including clearing and grubbing, mass grading, demolition activities, site preparation (*i.e., excavating, cutting and filling*), final grading, and creation of soil and vegetation stockpiles requiring stabilization;

   ii. Temporary or permanent cessation of construction activities in each portion of the site;

   iii. Temporary or final stabilization of exposed areas for each portion of the site; and

   iv. Removal of temporary stormwater controls and construction equipment or vehicles, and the cessation of construction-related pollutant-generating activities.

g. A list and description of all pollutant-generating activities (e.g., paving operations; concrete, paint, and stucco washout and waste disposal; solid waste storage and disposal; and dewatering operations) on the site. For each pollutant-generating activity, include an inventory of pollutants or pollutant constituents (*e.g., sediment, fertilizers, pesticides, paints, caulks, sealants, fluorescent light ballasts, contaminated substrates, solvents, fuels*) associated with that activity, which could be discharged in stormwater from your construction site. You must take into account where potential spills and leaks could occur that contribute pollutants to stormwater discharges, and any known hazardous or toxic substances, such as PCBs and asbestos, that will be disturbed or removed during construction;

h. Business days and hours for the project;

i. If you are conducting construction activities in response to a public emergency (see Part 1.4), a description of the cause of the public emergency *(e.g., mud slides, earthquake, extreme flooding conditions, widespread disruption in essential public services)*, information substantiating its occurrence *(e.g., state disaster declaration or similar state or local declaration)*, and a description of the construction necessary to reestablish affected public services.

To improve clarity, Part 7.2.3 combines the requirements from Parts 7.2.2, 7.2.3, and 7.2.5 from the 2012 CGP. Operators must describe the "age and/or dates of past renovation for structures that are undergoing demolition" to document any relevant information related to the new provision in Part 2.3 on implementing pollution prevention controls to minimize the exposure of polychlorinated biphenyl-(PCB) containing building materials for demolition of any structure built or renovated before January 1, 1980.

Identification of the size of the property, total area expected to be disturbed by construction activities, description of construction support activities, and the area expected to be disturbed provides the operator, among other things, with information about properly designing and installing stormwater control measures to minimize the discharge of pollutants, as well as information about the placement and type of stabilization practices that should be implemented to minimize the discharge of pollutants in stormwater.

This Part also requires, from Part 7.2.5 of the 2012 CGP, the schedule for activities such as commencement of construction, temporary or permanent cessation of construction, temporary or final stabilization, and removal of controls. Operators are encouraged to consider developing a site phasing plan as part of the schedule for activities. The purpose of requiring documentation of the sequencing of construction activities is to assist operators with planning their construction activity sequencing in conjunction with the control measures they intent to use to meet the effluent limitations in this permit. Proper construction site planning limits the amount of land disturbed at one time and limits the exposure of unprotected soils through rapid stabilization, which in turn reduces the amount of sediment that gets discharged from the construction site. This requirement provides operators a better understanding of the site runoff characteristics throughout all phases of construction activity, which will help them to plan for the types of stormwater control measures necessary to meet effluent limitations. It is EPA's judgment that documenting this schedule of activities will help operators to minimize earth disturbances to the extent necessary for the construction activity, which will also minimize pollutants discharged in stormwater. 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 operator to meeting these dates. When departures from initial projections are necessary, this should be documented in the SWPPP itself, or in associated records, as appropriate.

EPA also clarifies that in the description of each pollutant-generating activity, operators must list any known hazardous or toxic substances, such as PCBs and asbestos, which will be disturbed or removed during construction. This clarifies what EPA expects would be listed under the similar provision in Part 7.2.7 of the 2012 CGP. Operators must also now document the business days and hours for the project so that EPA, or any authorized representative of EPA, can be informed of normal operating hours in the instance of an inspection in accordance with Part 4.8 of the permit.

Part 7.2.4: Site Map

Part 7.2.4 requires that the SWPPP contain a legible site map, or series of maps. In the permit, EPA kept a similar format from the 2012 CGP that divided the Site Map requirements into sub-categories to provide greater clarity for the various site map requirements. The requirements in Part 7.2.4.a and 7.2.4.b provide a visual depiction of where construction activities are occurring in relation to the boundaries of the property.

Part 7.2.4.a - b	Permit Requirements

a. *Boundaries of the property.* The map(s) in the SWPPP must show the overall boundary of the property.

b. *Locations where construction activities will occur.* The map(s) in the SWPPP must show the locations where construction activities will occur, including:

   i. Locations where earth-disturbing activities will occur (note any phasing), including any demolition activities;

   ii. Approximate slopes before and after major grading activities (note any steep slopes (as defined in Appendix A));

   iii. Locations where sediment, soil, or other construction materials will be stockpiled;

   iv. Any waters of the U.S. crossings;

   v. Designated points where vehicles will exit onto paved roads;

   vi. Locations of structures and other impervious surfaces upon completion of construction; and

   vii. Locations of on-site and off-site construction support activity areas covered by the permit (see Part 1.2.1.c).

With the exception of the requirement to include the location of any demolition activities, all of these requirements correspond to Part 7.2.6 of the 2012 CGP. EPA includes the areas of demolition activities on the site map to clarify what EPA expected to be included on the site map under the 2012 CGP.

The requirement in Part 7.2.4.c compels operators to develop an understanding of the location of any waters flowing through or near the property where the construction will take place.

Part 7.2.4.c	Permit Requirements

c. Locations of all waters of the U.S. within and one mile downstream of the site's discharge point. Also identify if any are listed as impaired, or are identified as a Tier 2, Tier 2.5, or Tier 3 water.

Requiring a visual showing these waters will provide operators with information necessary to comply with the requirements for impaired waters (Parts 3.1), and Tier 2, 2.5, and 3-protected waters (Part 3.2). Identifying the location of these waters on the site map will also help operators

comply with the Erosion and Sediment Control requirements (Part 2.2), particularly those related to buffers (Part 2.2.1), and Pollution Prevention Standards (Part 2.3).

Part 7.2.4.d requires documentation on the site map of areas of threatened or endangered species critical habitat. This requirement is consistent with Part 7.2.6.4 from the 2012 CGP.

Part 7.2.4.d	Permit Requirements
d. Areas of federally listed critical habitat within the site and/or at discharge locations.	

The requirement in Part 7.2.4.e to map pre-construction cover on the site will assist operators in understanding how stormwater moves onto, through, and from the property prior to construction, and how any changes in this cover due to construction activities may affect the flow of stormwater.

Part 7.2.4.e	Permit Requirements
e. Type and extent of pre-construction cover on the site (e.g., vegetative cover, forest, pasture, pavement, structures).	

The requirement in 7.2.4.f to map the flow of stormwater on the site will provide valuable information to assist with planning, designing, and installing the appropriate stormwater control measures necessary to meet the permit's requirements regarding erosion and sediment controls, pollution prevention, and stabilization. Specifically it will also assist the operator with complying with the requirements in Part 2.2.2 to "Direct stormwater to vegetated areas."

Part 7.2.4.f	Permit Requirements
f. *Drainage patterns of stormwater and authorized non-stormwater before and after major grading activities.*	

The requirements in Part 7.2.4.g informs the operator and, for EPA's purposes, documents where stormwater discharges will occur.

Part 7.2.4.g	Permit Requirements
g. *Stormwater and authorized non-stormwater discharge locations.* The permit requires the site map to show information pertaining to discharge locations including:	
i. Locations where stormwater and/or authorized non-stormwater will be discharged to storm drain inlets; and	
ii. Locations where stormwater and/or authorized non-stormwater will be discharged directly to waters of the U.S.	

There are multiple uses for the information required in Part 7.2.4.g, among which include: (1) learning where sewer inlet protections will need to be installed prior to commencing construction disturbances; and (2) helping to plan stormwater controls that will reduce the erosive force of the discharge. The permit notes that the requirement to show storm drain inlets in the immediate vicinity of the site only applies to those inlets that are easily identifiable from the site or from a publicly accessible area immediately adjacent to the site.

The requirement in Part 7.2.4.h to identify the locations of all pollutant-generating activities on the site map will provide operators with an understanding of how the location of their various pollutant-generating activities will correspond to the areas of disturbance at the site, the potential impacts of where these activities are located on the discharge pollutants, and the ideal locations for stormwater control measures to reduce or eliminate such discharges. This information will be used to comply with the pollution prevention requirements in Part 2.3.

Part 7.2.4.h	Permit Requirements
h. *Locations of all potential pollutant-generating activities identified in Part 7.2.3.g.* The permit requires identification in the site map of all potential pollutant-generating activities identified in Part 7.2.3.g.	

The requirement in Part 7.2.4.i to show on the site map the location of stormwater control measures is intended to provide a spatial correlation between pollutant sources on the site, the flow of stormwater through and from the site, and the location of waters of the U.S.

Part 7.2.4.i	Permit Requirements
i. *Locations of stormwater controls, including natural buffer areas and any shared controls utilized to comply with this permit.* The permit requires identification on the site map of the location of stormwater control measures.	

It is EPA's judgment that by requiring such information on the site map, the operator will be better able to locate stormwater control measures strategically so as to comply with the permit's requirements for erosion and sediment and pollution prevention in Parts 2.2 and 2.3. The requirement to show on the site map where areas of exposed soil will be stabilized, or have already been stabilized, provides operators with a visual aid that will help them to comply with the temporary and final stabilization requirements in Part 2.2.14. The requirement document natural buffer areas is included to help operators implement Part 2.2.1 to "Provide and maintain natural buffers."

The requirement in Part 7.2.4.j to show where chemicals will be applied on the site, and where they will be stored, is included to help operators implement Part 2.2.13 (treatment chemicals) and Part 2.3.3 (storage, handling and disposal of building products, materials, and waste). This requirement encourages the operator to think strategically about where the chemicals are applied and stored to minimize the risk of accidental release.

Part 7.2.4.j	Permit Requirements
j. ***Locations where polymers, flocculants, or other treatment chemicals will be used and stored.*** The permit requires identification on the site map of the locations where polymers, flocculants, or other treatment chemicals will be used and stored.	

Part 7.2.5: Non-Stormwater Discharges

Part 7.2.5 requires operators to create a comprehensive list of all non-stormwater discharges expected to occur from the site. Documentation in the SWPPP of all non-stormwater discharges from the site provides operators with information that will help them to minimize non-stormwater associated pollutant discharges, and to ensure that only authorized non-stormwater discharges occur.

Part 7.2.5	Permit Requirements
Part 7.2.5 requires the SWPPP to identify all sources of allowable non-stormwater discharges listed in Part 1.2.2.	

Part 7.2.6: Description of Stormwater Controls

Part 7.2.6 requires operators to include in the SWPPP a description of stormwater controls that will be implemented. Although this Part requires the SWPPP to include details on stormwater controls that will be implemented, departing from the individual design details on the site is not considered a permit violation.

Part 7.2.6.a	Permit Requirements

a. For each of the Part 2.2 erosion and sediment control effluent limits, Part 2.3 pollution prevention effluent limits, and Part 2.4 construction dewatering effluent limits, the SWPPP must include the following:

i. A description of the specific control(s) to be implemented to meet the effluent limit;

ii. Any applicable stormwater control design specifications (including references to any manufacturer specifications and/or erosion and sediment control manuals/ordinances relied upon);

iii. Routine stormwater control maintenance specifications; and

iv. The projected schedule for stormwater control installation/implementation.

The requirements in Part 7.2.6.a have been reorganized to follow the organization of the requirements in Part 2. The permit notes that 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 and must be explained in the SWPPP.

Part 7.2.6.b requires operators to also include the following additional information in the SWPPP, as applicable.

i. Natural buffers and/or equivalent sediment controls (see Part 2.2.1 and Appendix G).

Part 7.2.6.b.i requires operators to document their compliance with respect to the buffer requirements in Part 2.2.1 and Appendix G of the permit.

Part 7.2.6.b.i	Permit Requirements

The operator must include the following in the SWPPP:

(a) The compliance alternative to be implemented;

(b) If complying with alternative 2, the width of natural buffer retained;

(c) If complying with alternative 2 or 3, the erosion and sediment control(s) the operator will use to achieve an equivalent sediment reduction, and any information the operator relied upon to demonstrate the equivalency;

(d) If complying with alternative 3, a description of why it is infeasible for the operator to provide and maintain an undisturbed natural buffer of any size;

(e) For "linear construction sites" where it is infeasible to implement compliance alternative 1, 2, or 3, a rationale for this determinations, and a description of any buffer width retained and/or supplemental erosion and sediment controls installed; and

(f) A description of any disturbances that are exempt under Part 2.2.1 that occur within 50 feet of a water of the U.S.

Such documentation will provide inspectors with verification that the operator has complied with the permit's buffer and/or equivalent sediment controls compliance alternatives.

ii. Perimeter controls for a "linear construction site" (see Part 2.2.3).

Part 7.2.6.b.ii requires operators to document their compliance the linear construction site exception for perimeter controls.

Part 7.2.6.b.ii	Permit Requirements
For areas at linear construction sites where perimeter controls are not feasible, Part 7.2.6.b.ii requires the operator to include documentation to support this determination and a description of the other practices that will be implemented to minimize discharges of pollutants in stormwater associated with construction activities. The permit also notes that routine maintenance specifications for perimeter controls documented in the SWPPP must include the Part 2.2.3.a requirement that sediment be removed before it has accumulated to one-half of the above-ground height of any perimeter control.	

This requirement corresponds to Part 7.2.10.1.d from the 2012 CGP (stormwater control measures to be used during construction activity) and also documents in the SWPPP the maintenance requirement from Part 2.1.2.2.b from the 2012 CGP for removing sediment before it has accumulated to one-half of the above-ground height of any perimeter control.

iii. Sediment track-out controls (See Parts 2.2.4.b and 2.2.4.c).

The requirement in Part 7.2.6.b.iii ensures proper documentation regarding the controls that will be implemented to remove sediment prior to vehicle exist and demonstrate the operator's ability to comply with the Part 2.2.4.b and 2.2.4.c requirements.

Part 7.2.6.b.iii	Permit Requirements
The operator must document the specific stabilization techniques and/or controls that will be implemented to remove sediment prior to vehicle exit.	

This requirement corresponds to Part 7.2.10.1.d from the 2012 CGP (stormwater control measures to be used during construction activity).

iv. Sediment basins (See Part 2.2.12).

The requirement in Part 7.2.6.b.iv ensures documentation when it is infeasible to utilize outlet structures required in Part 2.2.12 for withdrawing water from sediment basins.

Part 7.2.6.b.iv	Permit Requirements
In circumstances where it is infeasible to utilize outlet structures that withdraw water from the surface, the operator must include documentation in the SWPPP to support this determination, including the specific conditions or time periods when this exception will apply.	

This requirement corresponds to Part 2.1.3.2 from the 2012 CGP (sediment basin design requirements), and provides SWPPP documentation for when this requirement is infeasible.

v. Treatment chemicals (see Part 2.2.13).

The requirements in Part 7.2.6.b.v ensure proper documentation regarding the use of chemicals at permitted sites, and a demonstration of the operator's ability to comply with the Part 2.2.13 requirements.

Part 7.2.6.b.v	Permit Requirements
The operator must include the following in the SWPPP: (a) A listing of the soil types that are expected to be exposed during construction in areas of the project that will drain to chemical treatment systems. Also include a listing of soil types expected to be found in fill material to be used in these same areas, to the extent the operator has this information prior to construction;	

(b)	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 the operator's site;
(c)	If the EPA Regional Office authorized the operator to use cationic treatment chemicals for sediment control, include the specific controls and implementation procedures designed to ensure that the operator's use of cationic treatment chemicals will not lead to an exceedance of water quality standards;
(d)	The dosage of all treatment chemicals to be used at the site or the methodology to be used to determine dosage;
(e)	Information from any applicable Safety Data Sheet (SDS);
(f)	Schematic drawings of any chemically-enhanced stormwater controls or chemical treatment systems to be used for application of the treatment chemicals;
(g)	A description of how chemicals will be stored consistent with Part 2.2.13.c;
(h)	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
(i)	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 the operator's site

For Part 7.2.6.b.v above, information on soils may be obtained at http://websoilsurvey.nrcs.usda.gov/app/. This requirement corresponds to Part 7.2.10.2 from the 2012 CGP (stabilization practices).

vi. Stabilization measures (See Part 2.2.14).

The requirements in Part 7.2.6.b.vi provide greater specificity regarding the use of vegetative and/or non-vegetated controls, and the use of such controls for both temporary and final stabilization.

Part 7.2.6.b.vi	Permit Requirements
The operator must include the following in the SWPPP:	
(a)	The specific vegetative and/or non-vegetative practices that will be used;
(b)	The stabilization deadline that will be met in accordance with Part 2.2.14.a.i-ii;
(c)	If complying with the deadlines for sites in arid, semi-arid, or drought-stricken areas, the beginning and ending dates of the seasonally dry period and the schedule the operator will follow for initiating and completing vegetative stabilization; and
(d)	If complying with deadlines for sites affected by unforeseen circumstances that delay the initiation and/or completion of vegetative stabilization, document the circumstances and the schedule for initiating and completing stabilization.

EPA includes such specificity so that documentation in the SWPPP corresponds to the permit requirements for stabilization in Part 2.2.14 of the CGP. The requirements in Part 7.2.6.b.vi will provide the operator the opportunity to support its compliance with the stabilization requirements in Part 2.2.14 of the CGP in the SWPPP. Such documentation will also provide inspectors with verification that the operator has complied with the permit's stabilization requirements. This requirement corresponds to Part 7.2.10.3 from the 2012 CGP (stabilization practices). EPA has added a requirement to document the stabilization deadline that will be

met in accordance with Part 2.2.14.a.i-ii so that operators can support their compliance with the stabilization deadline requirements and inspectors can verify the operator is complying with the appropriate deadlines.

vii. Spill prevention and response procedures (See Part 1.3.5 and Part 2.3).

The requirements in Part 7.2.6.b.vii provide the operator an opportunity to develop a response plan for preventing spills from occurring and, if they do occur, a plan for responding to them in order to minimize the potential discharge of any pollutants from the site. The documentation in the SWPPP of spill prevention and response procedures also will demonstrate to inspectors the operator's compliance with the spill prevention and response procedures of the Pollution Prevention procedures in Part 2.3 of the permit.

Part 7.2.6.b.vii	Permit Requirements
The operator must include the following in its SWPPP: (a) 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 (b) 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 2.3.6 and established under either 40 CFR 110, 40 CFR 117, or 40 CFR 302, occurs during a 24-hour period. Contact information must be in locations that are readily accessible and available to all employees. (c) The operator 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 an NPDES permit for the construction activity, provided that the operator keep a copy of that other plan onsite.	

This requirement corresponds to Part 7.2.11.1 from the 2012 CGP (spill prevention and response procedures).

viii. Waste management procedures (See Part 2.3.3).

The requirement in Part 7.2.6.b.viii will allow operators the opportunity to develop procedures for waste management, and provide documentation to inspectors demonstrating compliance with the pollution prevention requirements relating to the management of construction wastes.

Part 7.2.6.b.viii	Permit Requirements
The operator must describe procedures it will follow for handling, storing, and disposing of all wastes generated at its site consistent with all applicable federal, state, tribal, and local requirements, including clearing and demolition debris, sediment removed from the site, construction and domestic waste, hazardous or toxic waste, and sanitary waste.	

This requirement corresponds to Part 7.2.11.2 from the 2012 CGP (waste management procedures).

ix. *Application of fertilizers* (See Part 2.3.5).

The requirement in Part 7.2.6.b.ix ensures documentation in the SWPPP when the operator applies fertilizers at a rate, in an amount, at a time or in another manner that is a departure from the manufacturer specifications. This may be necessary in some limited

circumstances, and Part 7.2.6.b.ix requires the operator to document these departures from manufacturer specifications.

Part 7.2.6.b.ix	Permit Requirements
The operator must document any departures from the manufacturer specifications where appropriate.	

This requirement corresponds to Part 7.2.7.2 from the 2012 CGP (construction site pollutants).

Part 7.2.7: Procedures for Inspection, Maintenance, Corrective Action

Part 7.2.7 requires SWPPP documentation of the procedures that will be employed to meet the permit's inspection, maintenance, and corrective action requirements.

Part 7.2.7	Permit Requirements
The SWPPP must describe the procedures that will be followed for maintaining stormwater control measures, conducting site inspections, and, where necessary, taking corrective actions, in accordance with Parts 2.1.4, Part 4, and Part 5 of the permit. The following information must also be included in the SWPPP: a. The inspection schedule the operator will be following, which is based on whether the site is subject to Part 4.2 or Part 4.3, and whether the site qualifies for any of the allowances for reduced inspection frequencies in Part 4.4. b. If the operator will be conducting inspections in accordance with the inspection schedule in Part 4.2.2, Part 4.3, or Part 4.4.2, the location of the rain gauge or the address of the weather station the operator will be using to obtain rainfall data. c. If the operator will be reducing the inspection frequency in accordance with Part 4.4.2, the beginning and ending dates of the seasonally defined arid period for the area or the valid period of drought. d. If the operator will be reducing the inspection frequency in accordance with Part 4.4.3, the beginning and ending dates of frozen conditions on the site; and e. Any inspection or maintenance checklists or other forms that will be used.	

The requirements in Part 7.2.7 will allow operators the opportunity to develop and document their procedures for inspections, maintenance activities, and corrective actions, and allow operators to demonstrate their compliance with the permit requirements corresponding to this documentation.

Part 7.2.8: Staff Training

Part 7.2.8 requires the SWPPP to include documentation on the training it conducted pursuant to Part 6 of the permit.

Part 7.2.8	Permit Requirements
The SWPPP must include documentation that the required personnel were trained in accordance with Part 6.	

Part 7.2.9: Documentation of Compliance with Other Requirements

Part 7.2.9 requires operators to include in the SWPPP documentation for compliance with the following other requirements:

a. *Threatened and Endangered Species Protection.*

Part 7.2.9.a specifies what Endangered Species Act documentation must be kept with the SWPPP.

Part 7.2.9.a	Permit Requirements
The SWPPP must include documentation required by Appendix D supporting the operator's eligibility with regard to the protection of threatened and endangered species and critical habitat.	

The permit requires documentation with regard to endangered species in Part 7.2.9.a to provide the operator the opportunity to document their compliance with Appendix D of the permit, and to provide anyone who inspects the SWPPP the opportunity to review such compliance.

b. Historic Properties.

Part 7.2.9.b specifies what historic property documentation must be kept with the SWPPP.

Part 7.2.9.b	Permit Requirements
The SWPPP must include documentation required by Appendix E supporting the operator's eligibility with regard to the protection of historic properties.	

The permit requires documentation with regard to historic properties in Part 7.2.9.b to provide the operator the opportunity to document their compliance with the screening process in Appendix E.

c. Safe Drinking Water Act Underground Injection Control (UIC) Requirements for Certain Subsurface Stormwater Controls.

Part 7.2.9.c specifies what UIC documentation must be kept with the SWPPP.

Part 7.2.9.c	Permit Requirements
If the operator is using any of the following stormwater controls at the site, the operator must document any contact with the applicable state agency or EPA Regional Office responsible for implementing the requirements in the Safe Drinking Water Act and EPA's implementing regulations at 40 CFR Parts 144 – 147. Such controls would generally be considered Class V UIC wells: i. Infiltration trenches (if stormwater 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 stormwater flow; and iii. Drywells, seepage pits, or improved sinkholes (if stormwater 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).	

The permit requires documentation with regard to underground injection wells in Part 7.2.9.c to make operators aware of and to provide operators the opportunity to document their compliance with the Safe Drinking Water Act requirements for underground injection wells. For state UIC program contacts, refer to the following EPA website: https://www.epa.gov/uic.

Part 7.2.10: SWPPP Certification

Part 7.2.10 establishes the certification requirements for the SWPPP.

Part 7.2.10	Permit Requirements
The operator must sign and date the SWPPP in accordance with Appendix I, Part I.11.	

This requirement is consistent with standard NPDES permit conditions described in 40 CFR 122.22 and is intended to ensure that the operator understands their responsibility to create and maintain a complete and accurate SWPPP. Operators must appoint an authorized representative consistent with the regulations. Therefore, if a facility feels it is more appropriate for a member of the stormwater team to sign the documentation, that option is available under the permit. The signature requirement includes an acknowledgment that there are significant penalties for submitting false information.

Part 7.2.11: Post-Authorization Additions to SWPPP

Part 7.2.11 specifies the documents that must be included in the SWPPP following authorization to discharge.

Part 7.2.11	Permit Requirements
The operator must include the following documents as part of the SWPPP once the operator is notified of coverage under this permit: a. A copy of the NOI submitted to EPA along with any correspondence exchanged with EPA related to coverage under this permit; b. A copy of the acknowledgment letter the operator received from the NeT assigning the NPDES ID (i.e., permit tracking number); and c. A copy of this permit (an electronic copy easily available to the stormwater team is also acceptable).	

Part 7.2.11 will assist facility personnel and EPA (and other agency) inspectors in determining that the construction site has been authorized for permit coverage.

Part 7.3: On-Site Availability of the SWPPP

Part 7.3 instructs the operator on the requirements for retaining the SWPPP on-site.

Part 7.3	Permit Requirements
The operator must keep a current copy of the SWPPP at the site or at an easily accessible location so that it can be made available at the time of an on-site inspection or upon request by EPA; a state, tribal, or local agency approving stormwater management plans; the operator of a storm sewer system receiving discharges from the site; or representatives of the U.S. Fish and Wildlife Service (USFWS) or the National Marine Fisheries Service (NMFS) (known together as "the Services"). EPA may provide access to portions of the SWPPP to a member of the public upon request. Confidential Business Information (CBI) will be withheld from the public but may not be withheld from EPA, USFWS, or NMFS. (Note: Information covered by a claim of confidentiality will be disclosed by EPA 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 may be disclosed to other employees, officers, or authorized representatives of the United States concerned with implementing the CWA. The authorized representatives, including employees of	

other executive branch agencies, may review CBI during the course of reviewing draft regulations.)

If an on-site 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 the operator's construction site.

Part 7.3 requires operators to retain copies of their SWPPP on site, and to make the document available to EPA or the Services immediately upon request. If a member of the public wishes to have access to the non-CBI portions of the operator's SWPPP, they must first contact EPA. EPA may require that a copy be sent to the agency so that it can be provided to the requestor. The mechanism for providing EPA with a copy of the SWPPP is at the discretion of the operator (e.g., web-based, hard copy), though EPA strongly encourages that SWPPPs be provided electronically.

Part 7.4: Required SWPPP Modifications

Part 7.4.1: List of Conditions Requiring SWPPP Modification

Part 7.4.1 sets out the conditions requiring the SWPPP to be modified.

Part 7.4.1	Permit Requirements

The operator must modify the SWPPP, including the site map(s), within seven (7) days of any of the following conditions:

a. Whenever new operators become active in construction activities on the site, or changes are made to the construction plans, stormwater controls, or other activities at the site that are no longer accurately reflected in the SWPPP. This includes changes made in response to corrective actions triggered under Part 5. The operator is not required to modify the SWPPP if the estimated dates in Part 7.2.3.f change during the course of construction;

b. To reflect areas on the site map where operational control has been transferred (and the date of transfer) since initiating permit coverage;

c. If inspections or investigations by EPA or its authorized representatives determine that SWPPP modifications are necessary for compliance with this permit;

d. Where EPA determines it is necessary to install and/or implement additional controls at the operator's site in order to meet the requirements of this permit, the following must be included in the SWPPP:

   i A copy of any correspondence describing such measures and requirements; and

   ii A description of the controls that will be used to meet such requirements.

e. To reflect any revisions to applicable federal, state, tribal, or local requirements that affect the stormwater controls implemented at the site; and

f. If applicable, if a change in chemical treatment systems or chemically-enhanced stormwater controls is made, including use of a different treatment chemical, different dosage, or different area of application.

The requirement in Part 7.4.1 to maintain a modified SWPPP under any of the conditions listed above provides assurance that the SWPPP will be updated to accurately reflect the conditions on the construction site. It is important that the SWPPP be accurate in terms of changes to construction plans, stormwater controls, changes in operational control, and other important changes on the site, so that the facility personnel have access to a SWPPP that is

current, and so that inspectors are provided with accurate site information for compliance purposes.

To improve clarity, EPA moved the deadline requirement of SWPPP revisions within 7 days from Part 7.4.2 of the 2012 CGP and to Part 7.4.1. The requirement that any SWPPP revisions be completed within 7 days will ensure that any necessary revisions made to the SWPPP are incorporated in a timely manner so that the SWPPP is kept up to date.

Part 7.4.2: SWPPP Modification Records

Part 7.4.2 requires the operator to maintain a record of all SWPPP modifications.

Part 7.4.2	Permit Requirements
The operator must maintain records showing the dates of all SWPPP modifications. The records must include the name of the person authorizing each change (see Part 7.2.10) and a brief summary of all changes.	

The requirement to maintain a record of all SWPPP modifications is to ensure that a record of all of the changes to the SWPPP is kept. Keeping a record of such changes will help facility personnel to stay current with the changes that have been made to the SWPPP, and will allow inspectors to determine if appropriate modifications were made to the SWPPP under the required circumstances.

Part 7.4.3: Certification Requirements

Part 7.4.3 establishes the certification requirement for SWPPP modifications, as follows:

Part 7.4.3	Permit Requirements
All modifications made to the SWPPP consistent with Part 7.4 must be authorized by a person identified in Appendix I, Part I.11.b.	

The requirement that the SWPPP and all modifications be authorized by a person identified in Appendix I, Part I.11.b is consistent with standard NPDES permit conditions described in 40 CFR 122.22 and is intended to ensure that the operator certifies any SWPPP modifications. As described in the fact sheet for Part 7.2.10, operators are allowed to appoint an authorized representative consistent with the regulations. Therefore, if an operator feels it is more appropriate for a member of the stormwater team to sign the documentation, that option is available under the permit. The signature requirement includes an acknowledgment that there are significant penalties for submitting false information.

Part 7.4.4: Required Notice to Other Operators

Part 7.4.4 specifies the notice requirement for other operators when the SWPPP is modified.

Part 7.4.4	Permit Requirements
Part 7.4.4 requires operators, upon determining that a modification of the SWPPP is required, if there are multiple operators covered under the permit, to immediately notify any operators who may be impacted by the change to the SWPPP.	

The requirement in Part 7.4.4 ensures that any other operators covered under the permit are kept up to date on the SWPPP so that they can comply with the modifications to the pollution prevention plan.

Part 8: How to Terminate Coverage

Part 8 details the requirements that must be met before an operator of a construction project may be authorized to terminate coverage under the permit. Part 8 reminds the operator that until permit coverage is terminated, the operator must comply with all conditions and effluent limitations in the permit. Permit coverage is not terminated until EPA has received a complete and accurate NOT, certifying that the requirements for termination in Part 8 are met.

Part 8.1: Minimum Information Required in NOT

Part 8.1 lists the minimum information that must be provided in the NOT. The minimum information includes the following:

Part 8.1 (8.1.1 – 8.1.5)	Permit Requirements
8.1.1	NPDES ID *(i.e., permit tracking number)* provided by EPA when the operator received coverage under this permit;
8.1.2	Basis for submission of the NOT (see Part 8.2);
8.1.3	Operator contact information;
8.1.4	Name of site and address (or a description of location if no street address is available); and
8.1.5	NOT certification.

The requirements in Part 8.1 inform operators of the information that must be included in their NOT. The required information facilitates prompt processing of NOTs and provides assurance that operators have a valid basis for terminating.

EPA notes that the NPDES permit tracking number is not the same number that was reported on the NOI form. The NOI contains the "NPDES permit number" as identified in the CGP (e.g., NHR100000) while the "NPDES permit tracking number" is that number provided by EPA's NPDES eReporting Tool (NeT) acknowledging receipt of a complete NOI. The permit tracking numbers are assigned sequentially as NOIs are received by the NeT (e.g., NHR1000001, NHR1000002, NHR1000003, etc.).

Part 8.2: Conditions for Terminating Permit Coverage

Part 8.2 describes the triggering conditions for terminating permit coverage. These conditions are as follows:

Part 8.2 (8.2.1 – 8.2.3)	Permit Requirements
8.2.1	The operator has completed all construction activities at the site and, if applicable, construction support activity areas covered by this permit (see Part 1.2.1.c), and the operator has met the following requirements: a. For any areas that (1) were disturbed during construction, (2) are not covered over by permanent structures, and (3) over which the operator had control during the construction activities, the operator has met the requirements for final vegetative or non-vegetative stabilization in Part 2.2.14.b; b. The operator has removed and properly disposed of all construction materials, waste and waste handling devices, and has removed all equipment and vehicles that were used during construction, unless intended for long-term use following termination of permit coverage;

c. The operator has removed all stormwater controls that were installed and maintained during construction, except those that are intended for long-term use following termination of permit coverage or those that are biodegradable; and

d. The operator has removed all potential pollutants and pollutant-generating activities associated with construction, unless needed for long-term use following termination of permit coverage; or

8.2.2 The operator has transferred control of all areas of the site for which the operator is responsible under this permit to another operator, and that operator has submitted an NOI and obtained coverage under this permit; or

8.2.3 Coverage under an individual or an alternative general NPDES permit has been obtained.

The requirements in Part 8.2 provide operators a list of all of the conditions for terminating permit coverage. These conditions must be satisfied before an NOT can be filed and permit coverage terminated. EPA notes that the conditions for terminating permit coverage in Part 8.2 are the same as in Part 8.2 of the 2012 CGP.

Part 8.3: How to Submit Your NOT

Part 8.3 describes the process for submitting an NOT. This section also provides information about EPA's NPDES eReporting Tool, or "NeT."

Part 8.3	Permit Requirements
The electronic NOT form the operator must complete is found at https://www.epa.gov/npdes/stormwater-discharges-construction-activities#ereporting. The operator will use their NPDES permit tracking number (i.e., the EPA number assigned upon authorization under the permit) to prepare the fillable NOT form, which ensures that EPA properly records your termination of coverage. An operator may request a waiver from electronic reporting if they meet one of the requirements specified in Part 1.4.1. If the EPA Regional Office grants approval to use a paper NOT for an operator requesting a waiver from electronic reporting, they must complete the form in Appendix K.	

In Part 8.3, EPA requires that operators file an electronic NOT to notify EPA that it has met the conditions for terminating permit coverage under Part 8.2. EPA has made use of an electronic reporting system for the past four CGPs. Due to the expansion in internet availability, greater efficiency in administrative processing, and reductions in cost to manage the system as compared to paper NOTs, it is required that the NeT system be the primary mechanism by which operators of construction projects obtain permit coverage and submit an NOT. If the operator requests a waiver from electronic reporting as specified in Part 1.4.1 and the EPA Regional Office grants approval to use of a paper NOT in Appendix K, then operators may submit a paper NOT to the Regional Office.

Part 8.4: Deadline for Submitting NOTs

Part 8.4 provides the operator with a deadline for when the NOT must be submitted following the occurrence of any of the triggering conditions in 8.2. The deadline is as follows:

Part 8.4	Permit Requirements
Part 8.4 requires that the NOT be submitted within 30 calendar days after any one of the triggering conditions listed in Part 8.2 occur.	

The purpose of requiring a deadline for filing an NOT is to ensure that operators do not remain covered under the CGP for a long period of time after reaching the conditions for permit termination.

Part 8.5: Effective Date of Termination of Coverage

Part 8.5 specifies to operators when their permit termination will become effective and therefore when they will no longer responsible for complying with the permit.

Part 8.5	Permit Requirements
The operator's authorization to discharge under this permit will terminate at midnight of the day that a complete NOT is submitted to EPA.	

If EPA determines that the NOT is incomplete or the operator has not satisfied one or more of the conditions in Part 8.2 for being able to submit a NOT, then the NOT will not be valid, and the operator must continue to comply with the conditions of the permit.

Part 9: Permit Conditions Applicable to Specific States, Indian Country Lands, or Territories

Section 401 of the CWA (See also 40 CFR §122.44(d)(3) and §124.53(a)) provides that no Federal license or permit, including NPDES permits, to conduct any activity that may result in any discharge into navigable waters shall be granted until the State/Tribe in which the discharge originates certifies that the discharge will comply with the applicable provisions of sections 301, 302, 303, 306, and 307 of the CWA. The states, Indian Country lands, and U.S. territories will document the completion of their Section 401 certifications for this permit in this section.

VIII. Appendices

Appendix A: Definitions and Acronyms

Appendix A of the permit includes definitions of terms and a list of acronyms used throughout the permit. Appendix A provides a reference tool for terms and acronyms used throughout the permit.

The following terms are defined in the 2017 CGP:

1. "Action Area"
2. "Agricultural Land"
3. "Antidegradation Policy" or "Antidegradation Requirements"
4. "Arid Areas"
5. "Bank"
6. "Bluff"
7. "Borrow Areas"
8. "Business Day"
9. "Bypass"
10. "Cationic Treatment Chemical"
11. "Commencement of Construction Activities"
12. "Common Plan of Development or Sale"
13. "Construction Activities"

14. "Construction and Development Effluent Limitations and New Source Performance Standards"
15. "Construction Site" or "Site"
16. "Construction Support Activity"
17. "Construction Waste"
18. "Conveyance Channel"
19. "Critical Habitat"
20. "CWA"
21. "Dewatering"
22. "Discharge"
23. "Discharge of a Pollutant"
24. "Discharge Point"
25. "Discharge-Related Activity"
26. "Discharge to an Impaired Water"
27. "Domestic Waste"
28. "Drainageway"
29. "Drought-Stricken Area"
30. "Earth-Disturbing Activity"
31. "Earth-Disturbing Activities Conducted Prior to Active Mining Activities"
32. "Effective Operating Condition"
33. "Effluent Limitations"
34. "Effluent Limitations Guideline" (ELG)
35. "Eligible"
36. "Emergency-Related Project"
37. "Endangered Species"
38. "Excursion"
39. "Existing Site"
40. "Exit Points"
41. "Exposed Soils"
42. "Federal Operator"
43. "Final Stabilization"
44. "General Contractor"
45. "Hazardous Substances" or "Hazardous or Toxic Waste"
46. "Historic Property"
47. "Impaired Water"
48. "Impervious Surface"

49. "Indian Country" or "Indian Country Lands"
50. "Infeasible"
51. "Install" or "Installation"
52. "Intermittent (or Seasonal) Stream"
53. "Jar test"
54. "Landward"
55. "Large Construction Activity"
56. "Linear Construction Site"
57. "Minimize"
58. "Mining Activity"
59. "Mining Operations"
60. "Municipal Separate Storm Sewer System" or "MS4"
61. "National Pollutant Discharge Elimination System" (NPDES)
62. "Native Topsoil"
63. "Natural Buffer"
64. "Natural Vegetation"
65. "New Operator of a Permitted Site"
66. "New Site"
67. "New Source"
68. "New Source Performance Standards" (NSPS)
69. "Non-Stormwater Discharges"
70. "Non-Turbid"
71. "Notice of Intent" (NOI)
72. "Notice of Termination" (NOT)
73. "NPDES eReporting Tool" (NeT)
74. "Operational"
75. "Operator"
76. "Ordinary High Water Mark" "Permitting Authority"
77. "Point(s) of Discharge"
78. "Point Source"
79. "Pollutant"
80. "Pollution Prevention Controls"
81. "Polymers"
82. "Prohibited Discharges"
83. "Provisionally Covered Under this Permit"

84. "Qualified Person"
85. "Receiving Water"
86. "Run-On"
87. "Semi-Arid Areas"
88. "Shared Control"
89. "Small Construction Activity"
90. "Small Residential Lot"
91. "Snowmelt"
92. "Spill"
93. "Stabilization"
94. "Steep Slopes"
95. "Storm Sewer System"
96. "Stormwater"
97. "Stormwater Control"
98. "Stormwater Discharge Associated with Construction Activity"
99. "Stormwater Inlet"
100. "Stormwater Team"
101. "Storm Event"
102. "Storm Sewer"
103. "Subcontractor"
104. "SWPPP"
105. "Temporary Stabilization"
106. "Thawing Conditions"
107. "Threatened Species"
108. "Tier 2 Waters"
109. "Tier 2.5 Waters"
110. "Tier 3 Waters"
111. "Total Maximum Daily Load" or "TMDL"
112. "Toxic Waste"
113. "Treatment Chemicals"
114. "Turbidity"
115. "Uncontaminated Discharge"
116. "Upland"
117. "Upset"
118. "Water-Dependent Structures"

119. "Water Quality Standards"
120. "Waters of the United States"
121. "Wetland"
122. "Work Day"

The following acronyms were added to the list that appears in the 2012 CGP:

1. ACHP – Advisory Council on Historic Preservation
2. BMP – Best Management Practice
3. CBI – Confidential Business Information
4. CZMA – Coastal Zone Management Act
5. ECHO – EPA Enforcement and Compliance History Online
6. ELG – Effluent Limitations Guideline
7. FR – Federal Register
8. NEPA – National Environmental Policy Act
9. NeT – NPDES eReporting Tool
10. NHPA – National Historic Preservation Act
11. NSPS – New Source Performance Standards
12. ONRW – Outstanding National Resource Water
13. PAM – Polyacrylamide
14. RUSLE – Revised Universal Soil Loss Equation
15. SDS – Safety Data Sheet
16. SHPO – State Historic Preservation Office
17. THPO – Tribal Historic Preservation Office
18. TSS – Total Suspended Solids
19. UIC – Underground Injection Control
20. USDA – United States Department of Agriculture
21. USFWS – United States Fish and Wildlife Service

EPA notes that it has changed the terms "new project," "existing project," and "new operator of a new or existing project" in the 2012 CGP to "new site," "existing site," and "new operator of a permitted site" in the 2017 CGP. The meaning of these terms has not changed. EPA previously used both "project" and "site" in the 2012 CGP and for consistency and clarity is now using "site" in the permit.

The terms "catchment," "chemical treatment system," "commencement of pollutant-generating activities," "corrective action," "eNOI," "level spreader," "native vegetation," "outfall," "pollutant-generating activities," and "surface water" were removed from Appendix A for the 2017 CGP because these terms were either not used in the permit, were already covered under another definition, or were already well defined in the permit. EPA added definitions for "earth-disturbing activities conducted prior to active mining activities," "mining activity," "mining

operations", and "shared control." EPA also notes that it has added several acronyms to ensure that every acronym that appears in the permit also appears in Appendix A.

Appendix B: Permit Areas Eligible for Coverage and EPA Regional Addresses

Appendix B specifies in what areas of the country the permit would apply and EPA Regional Office addresses, and includes specific corresponding permit numbers. EPA added additional permit numbers for all areas of Indian country that are not already covered by an EPA-approved permitting program.

Appendix C: Small Construction Waivers and Instructions

Appendix C provides information to construction operators on the availability of permit waivers for rainfall erosivity (App. C, Sec. A), TMDLs (App. C, Sec. B), and equivalent analysis (App. C, Sec. C).

Appendix D: Eligibility Procedures Relating to Threatened and Endangered Species Protection

Appendix D specifies the eligibility criteria related to the protection of endangered and threatened species and critical habitat. Each operator must certify that they have met one of the 6 eligibility criteria.

Operators who cannot certify to one of the endangered species eligibility criteria are not eligible to submit an NOI to gain coverage under the CGP; instead they must apply to EPA for an individual NPDES permit. As appropriate, EPA will conduct ESA section 7 consultations when issuing individual permits. If there are concerns that CGP coverage for a particular facility may result in adverse effects to listed species or critical habitat, EPA may hold up discharge authorization until such concerns are adequately addressed. Regardless of an operator's eligibility certification under one of the six criteria, EPA may require an application for an individual permit on the basis of adverse effects to species or habitat.

Consistent with Section 7(a)(2) of the Endangered Species Act (ESA), EPA consulted with the U.S. Fish and Wildlife Service (FWS) and the National Marine Fisheries Service (NMFS), both collectively known as the "Services," regarding the 2017 CGP and ESA eligibility criteria. See, 50 CFR Part 402. Appendix D provides the eligibility language for determining which criterion operators may meet to ensure eligibility under the ESA-related provisions of the permit. As a result of consultation with FWS and NMFS, EPA made clarifying edits to the ESA eligibility criteria. The changes to the wording of the criteria do not change the content of the criteria or ask for new information but are intended to improve operators' understanding of the meaning of each criteria and also provide guidance on the appropriate documentation that would support the basis statement for each criteria.

The FWS and NMFS are responsible for developing and maintaining the list of protected species and critical habitat. Once listed as endangered or threatened, a species is afforded the full range of protections available under the ESA, including prohibitions on killing, harming or otherwise taking a species. In certain instances, the FWS or NMFS may establish a critical habitat for a threatened or endangered species as a means to further protect those species. Critical habitat is an area determined to be essential for the conservation of a species and need not be in an area currently occupied by the species. Some, but not all, listed species have designated critical habitat. Exact locations of such designated critical habitat are provided in the Services regulations at 50 CFR Parts 17 and 226.

Operators have an independent ESA obligation to ensure that any of their activities do not result in prohibited "take" of listed species. Section 9 of the ESA prohibits any person from "taking" a listed species, e.g., harassing or harming it, with limited exceptions. See ESA Sec 9; 16 U.S.C. §1538. This prohibition generally applies to "any person," including private individuals, businesses and government entities. Many of the requirements and procedures in the CGP to

protect species may also assist operators in ensuring that their construction activities do not result in a prohibited take of species in violation of section 9 of the ESA. Operators who intend to undertake construction activities in areas that harbor endangered and threatened species may seek protection from potential "take" liability under ESA section 9 either by obtaining an ESA section 10 permit or by requesting coverage under an individual permit and participating in the section 7 consultation process with the appropriate FWS or NMFS office. Operators unsure of what is needed for such liability protection should confer with the appropriate Services.

Note that operators are required to comply with other applicable federal laws, including the Migratory Bird Treaty Act and Bald and Golden Eagle Protection Act.

Appendix E: Historic Property Screening Process

Section 106 of the National Historic Preservation Act (NHPA) requires Federal agencies to take into account the effects of Federal "undertakings" on historic properties that are listed on, or eligible for listing on, the National Register of Historic Places. The term Federal "undertaking" is defined in the NHPA regulations to include a project, activity, or program under the direct or indirect jurisdiction of a Federal agency including those requiring a Federal permit, license or approval. See 36 CFR 800.16(y). Historic properties are defined in the NHPA regulations to include prehistoric or historic districts, sites, buildings, structures, or objects that are included in, or are eligible for inclusion in, the National Register of Historic Places. See 36 CFR 800.16(l).

EPA's issuance of the permit is a Federal undertaking within the meaning of the NHPA. To address any issues relating to historic properties in connection with issuance of the final permit, EPA has included a screening process in Appendix E for all prospective dischargers to follow to ensure that potential impacts of their covered activities on historic properties have been appropriately considered and addressed. Although individual applications for coverage under the general permit do not constitute separate Federal undertakings, the screening process and related NOI questions provide an appropriate site-specific means of addressing historic property issues in connection with EPA's issuance of the final permit.

Under the NHPA regulations, a determination that a Federal undertaking has no potential to cause effects on historic properties fulfills an agency's obligations under section 106 of the NHPA. See 36 CFR 800.3(a)(1). EPA has reason to believe that the vast majority of activities that will be authorized under the CGP will have no potential to cause effects on historic properties. EPA does not anticipate effects on historic properties from the pollutants in stormwater and allowable non-stormwater discharges from construction activities that will be covered under the permit. Thus, to the extent EPA's issuance of the general permit will authorize discharges of such constituents, confined to existing stormwater channels or natural drainage areas, the final permitting action does not have the potential to cause effects on historic properties. Additionally, where the site will not be installing stormwater controls that cause subsurface earth disturbance (see Step 1 of Appendix E for examples of these controls), EPA similarly finds that the issuance of the permit does not have the potential to cause effects on historic properties.

It is EPA's judgment that the permit may have some potential to cause effects on historic properties where the permit authorizes or requires the construction and/or installation of stormwater controls that involve subsurface disturbance. Where the operator has to disturb the land through the construction and/or installation of such controls, there is a possibility that artifacts, records, or remains associated with historic properties could be impacted. Therefore, if the operator is installing new stormwater controls to manage its stormwater that will involve subsurface ground disturbance, the operator must consider the potential for effects to historic properties and may need to contact the applicable State Historic Preservation Officer (SHPO), Tribal Historic Preservation Office (THPO), or other tribal representative, to determine the likelihood that these controls will impact historic properties. Refer to Appendix E, Steps 2 through 5.

Appendix F: List of Tier 3, Tier 2, and Tier 2.5 Waters

Appendix F provides a list of Tier 3, Tier 2, and Tier 2.5 waters to assist construction operators in determining eligibility for coverage under Parts 1.1, and in complying with any applicable antidegradation requirements in Part 3.2.

Appendix G: Buffer Requirements

Appendix G includes requirements and additional guidance for operators on how to establish the 50-foot buffer or satisfy one of the two other compliance alternatives described in Part 2.2.1.a, as well as how to qualify for and comply with the exceptions in Part 2.2.1.b.

Appendix G provides information to assist operators in complying with Part 2.2.1. This appendix was developed for the permit to help implement the C&D rule requirement at 40 CFR 450.21(a)(6) to "provide and maintain natural buffers around waters of the United States ... unless infeasible." In an effort to streamline the permit, much of the language on the buffer requirements from Part 2.1.2.1 of the 2012 CGP was moved to Appendix G for the 2017 permit.

Appendix H: 2-Year, 24-Hour Storm Frequencies

Appendix H provides a guide to operators to determine the volume of precipitation associated with their local 2-year, 24-hour storm event for operators who elect to provide storage for the calculated volume of runoff from a 2-year, 24-hour storm.

Appendix I: Standard Permit Conditions

Appendix I includes the standard NPDES permit conditions consistent with 40 CFR 122.41. No significant changes were made to the standard permit conditions.

As required by the 2015 amendments to the Federal Civil Monetary Penalties Inflation Adjustment Act ("2015 Act"), EPA issued the latest Penalty Inflation Rule on July 1, 2016 to adjust penalties for inflation that has accrued since the date the original penalty amount was enacted by Congress. Beginning January 15, 2017 and annually thereafter, the 2015 Act requires federal agencies to issue a new penalty inflation rule to reflect the amount of inflation that has occurred over the preceding year. Due to the annual changes that will be made to the statutory maximum penalties, EPA removed references to civil and administrative monetary penalties in Part I.1.2.2 and I.1.2.3 of Appendix I.

Appendix I contains a requirement that any person signing documents in accordance with Subsections I.11.1 or I.11.2 in accordance with the permit must include the certification statement available in Part I.11.4. This certification statement includes an additional sentence that, prior to the Vessel General Permit issued in December 2008, had not been included in previous EPA issued NPDES general permits. The sentence reads: "I have no personal knowledge that the information submitted is other than true, accurate, and complete." EPA believes this additional certification language is necessitated by the decision in *U.S. v. Robison*, 505 F.3d 1208 (11th Cir. 2007). In *Robison*, the Court of Appeals struck down the defendant's conviction for a false statement on the grounds that the certification language did not require him to have personal knowledge regarding the truth or falsity of the information submitted to EPA. Rather, the court reasoned that EPA's certification required the defendant to certify, in part, that he made an inquiry of the persons who prepared and submitted the information and based on that inquiry, the information was accurate to the best of his knowledge. The court further reasoned that there is no requirement in the certification that the person attest to his personal knowledge regarding the information submitted. The government had argued at trial that the defendant had personal knowledge that the facility had committed violations. As a result, EPA feels it is necessary to include language which clarifies that the signatory is certifying that he or she has no personal knowledge that the information submitted is other than true, accurate, and complete.

Appendix J: NOI Form and Instructions

Part 1.4.1 requires operators to use EPA's NPDES eReporting Tool (NeT) to prepare and submit NOIs. However, where an operator requests and receives approval from his/her EPA Regional Office, the operator will be authorized use the paper NOI form included in Appendix J.

The following modifications have been made in the NOI form:

- Clarified the waiver options for using a paper NOI;
- Removed the IRS Employer Identification Number (EIN). This is not a number EPA uses for any purpose;
- Latitude/Longitude information has to be reported in decimal degrees instead of one of three possible formats. This is consistent with the NPDES Electronic Reporting Rule. See 80 FR 64063.
- Added a question on type of construction site;
- Added a question on whether there will be demolition of any structure built or renovated before January 1, 1980;
- Added a question on whether the pre-development land use used for agriculture. Appendix A of the permit provides a definition of "agriculture land";
- Added a question requiring operators to confirm that they understand that the CGP only authorizes the allowable stormwater discharges in Part 1.2.1 and the allowable non-stormwater discharges listed in Part 1.2.2, and that any discharges not expressly authorized in the permit cannot become authorized or shielded from liability under CWA section 402(k) by disclosure to EPA, state, or local authorities after issuance of the permit via any means, including the NOI to be covered by the permit, the SWPPP, during an inspection, etc. If any discharges requiring NPDES permit coverage other than the allowable stormwater and non-stormwater discharges listed in Parts 1.2.1 and 1.2.2 will be discharged, they must be covered under another NPDES permit. This is consistent with EPA's long-standing interpretation of the scope of this permit.
- Provided clarifying edits to the Endangered Species Protection criterion to improve operators' understanding of what each criteria means and what species need to be considered (both USFWS and NMFS species), and also to provide suggested examples of supporting documentation for the basis statements for each criteria.

In the draft CGP, EPA proposed adding a question on the latitude and longitude for all stormwater points of discharge at the site. The CGP already requires discharge point locations to be documented in the SWPPP site map (Part 7.2.4.g.i of this permit). EPA proposed requiring latitude and longitude information to be reported in the NOI to facilitate the identification of receiving waterbodies and their impairment status. The new electronic reporting system, the NPDES eReporting Tool (NeT), would use the reported latitude and longitude information for each point of discharge to automatically determine the receiving waters that the site discharges to and the receiving waters' impairment status, which would reduce the burden of operators having to separately look up and manually enter this information. Users could also manually input this information if they choose. Information on receiving water impairment status is readily accessible from the state or tribal integrated report/CWA section 303(d) lists of waters.

For the final 2017 CGP, EPA omitted the proposed question on the latitude and longitude for all stormwater points of discharge at the site. It is EPA's intent to include the question in a future Information Collection Request (ICR) and after it is approved, include it in the 2017 CGP NOI form.

Appendix K: NOT Form and Instructions

Part 8.3 requires the operator to use EPA's NPDES eReporting Tool (NeT) to prepare and submit the NOT when any of the conditions in 8.2 have been met. However, where the EPA Regional Office specifically authorizes the operator to use a paper NOT form, that operator must complete and submit the paper form included in Appendix K.

Appendix K also provides potential operators with an idea of what types of questions to anticipate when completing the NOT. The NOT form includes modified reasons for termination. These modifications were considered necessary to reflect the changes made to the conditions for terminating permit coverage in Part 8.2.

Appendix L: Suggested Format for Request for Chemical Treatment

Part 1.1.9 requires operators to notify the applicable EPA Regional Office in advance of submitting an NOI if the operator plans to add "cationic treatment chemicals" (as defined in Appendix A) to stormwater and/or authorized non-stormwater prior to discharge. The EPA Regional Office will authorize coverage under the permit after the operator has included appropriate controls and implementation procedures designed to ensure that its use of cationic treatment chemicals will not lead to an exceedance of water quality standards.

Appendix L provides a suggested format for notifying the operator's applicable EPA Regional Office about its intended use of cationic treatment chemicals. The addition of Appendix L to the permit is to help operators in providing the required information to their Regional Office in order to become eligible for permit coverage under Part 1.1.9.

See page three for instructions

Form Approved OMB No. 2040-0004

NPDES FORM

United States Environmental Protection Agency
Washington, DC 20460

Low Erosivity Waiver (LEW) Certification

This form provides notice to EPA that you, the project operator identified in Section II of this form, are certifying that construction activity at the project site identified in Section III, will take place during a period when the rainfall erosivity factor is less than five [40 CFR 122.26(b)(15)(i)(A)]. By submitting a complete and accurate form, the otherwise applicable NPDES permitting requirements for stormwater discharges associated with construction activity, are waived. Based on your certification, a waiver is granted for the period beginning on the date this Low Erosivity Waiver Form is mailed to EPA (i.e., postmark date), or the project start date specified in Part IV of this form, whichever shall occur last, and ending on the project completion date specified in Part IV. Refer to the instructions at the end of this form for more details.

I. Approval to Use Paper Form

Have you been granted a waiver from electronic reporting from the Regional Office *? ☐ YES ☐ NO

If yes, check which waiver you have been granted, the name of the EPA Regional Office staff person who granted the waiver, and the date of approval:

Waiver granted:

☐ The owner/operator's headquarters is physically located in a geographic area (i.e., ZIP code or census tract) that is identified as under-served for broadband Internet access in the most recent report from the Federal Communications Commission.

☐ The owner/operator has issues regarding available computer access or computer capability.

Name of EPA staff person that granted the waiver:

Date approval obtained: / /

*** Note: You are required to obtain approval from the applicable Regional Office prior to using this paper Low Erosivity Waiver Certification form. If you have not obtained a waiver, you must file this form electronically using the NPDES eReporting Tool (NeT).**

II. Operator Information

Operator Name:

Are you requesting coverage under this NOI as a "federal operator" as defined in Appendix A? ☐ YES ☐ NO

Mailing Address:

Street:

City: State: Zip Code: -

County or Similar Government Division:

Phone: - - Ext.

Email:

Operator Point of Contact Information:

First Name, Middle Initial, Last Name:

Title:

III. Project/Site Information

Project/Site Name:

Project/Site Address:

Street/Location:

City: State: ZIP Code: -

County or Similar Government Subdivision:

For the project/site you are seeking a wavier for permit coverage, provide the following information:

Latitude/Longitude (Use decimal degrees and specify method):

Latitude: __ __. __ __ __ __° N (decimal degrees) Longitude: __ __ __. __ __ __ __° W (decimal degrees)

Latitude/Longitude Data Source: ☐ Map ☐ GPS ☐ Other _____ Horizontal Reference Datum: ☐ NAD 27 ☐ NAD 83 ☐ WGS 84

- Is your project/site located in Indian country lands, or located on a property of religious or cultural significance to an Indian tribe? ☐ YES ☐ NO

  If yes, provide the name of the Indian tribe associated with the area of Indian country (including name of Indian reservation, if applicable), or if not in Indian country, provide the name of the Indian tribe associated with the property:

- Is the project located in the State of Oklahoma and associated with oil and gas exploration, drilling, operations, and pipelines (includes SIC Groups 13 and 46, and SIC codes 492 and 5171)? ☐ Yes ☐ No
- Is the project located in the State of Oklahoma and associated with agricultural production, services and silviculture (includes SIC Groups 01, 02, 07, 08 and 09)? ☐ Yes ☐ No
- Is the project located in the State of Texas and associated with the exploration, development, or production of oil or gas or geothermal resources, including transportation or crude oil or natural gas by pipeline? ☐ Yes ☐ No

Estimated Area to be Disturbed (to the nearest quarter acre): ☐☐☐☐.☐☐

IV. Rainfall Erosivity Factor Calculation Data

Estimated Project Start Date: ☐☐/☐☐/☐☐☐☐ Estimated Project Completion Date: ☐☐/☐☐/☐☐☐☐

Rainfall erosivity factor (R factor): __.__ __

Note: To qualify for this waiver, the construction activity must take place during a period when the R factor is less than five.

Rainfall erosivity factor was calculated by using: ☐ Online calculator ☐ EPA Fact Sheet 3-1 ☐ USDA Handbook 703

Are interim non-vegetative site stabilization measures used to establish the project completion date for purposes of obtaining this waiver? ☐ Yes ☐ No

V. Certification Information

I certify under penalty of law that: (1) construction activity at the project or site specified in Part II shall disturb less than five acres and shall take place during a period when the rainfall erosivity factor is less than five, (2) final stabilization will be completed as defined in the Construction General Permit, and (3) 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 have no personal knowledge that the information submitted is other than true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. Further, if interim non-vegetative measures are used to establish the end of the construction period for the purposes of obtaining this waiver, I commit to periodically inspect and properly maintain the area until the criteria for final vegetative stabilization have been met.

First Name, Middle Initial, Last Name: ☐☐☐☐☐☐☐☐☐☐☐☐ ☐ ☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐

Title: ☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐

Signature: _____ Date: ☐☐/☐☐/☐☐☐☐

Email: ☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐

Instructions for Completing EPA Form 7500-62 (Rev. 2/17)

Low Erosivity Waiver Certification

NPDES Form

Form Approved OMB No. 2040-0004

Who May Qualify for a Low Erosivity Waiver
Under the National Pollutant Discharge Elimination System (NPDES) Program, operators of construction projects that result in land disturbances equal to or greater than one acre, including sites that are less than one acre but are part of a larger common plan of development or sale where there is a cumulative disturbance of at least one acre, are required to obtain coverage under an NPDES permit for stormwater discharges associated with construction activity. EPA may waive the otherwise applicable permit requirements for stormwater discharges from construction activities that disturb less than five acres if the construction activity will take place during a period when the rainfall erosivity factor (R factor) is less than five. More information on the low erosivity waiver is available on the web in the Construction Rainfall Erosivity Waiver Fact Sheet at https://www.epa.gov/npdes/construction-rainfall-erosivity-waiver-fact-sheet and can be accessed from https://www.epa.gov/npdes/rainfall-erosivity-factor-calculator-small-construction-sites. For questions related to completion of this form, you may contact EPA's Notice of Intent Processing Center toll free at 1-866-352-7755.

Completing the Form
Type or print, using uppercase letters, in the appropriate areas only. Please place each character between the marks. Abbreviate if necessary to stay within the number of characters allowed for each item. Use only one space for breaks between words, but not for punctuation marks unless they are needed to clarify your response. **Please submit the original document with signature in ink - do not send a photocopied signature.**

Section I. Approval to Use Paper Low Erosivity Waiver Form

You must indicate whether you have been granted a waiver from electronic reporting from the EPA Regional Office. Note that you are not authorized to use this paper Low Erosivity Waiver form unless the EPA Regional Office has approved its use. Where you have obtained approval to use this form, indicate the waiver that you have been granted, the name of the EPA staff person who granted the waiver, and the date that approval was provided.

See https://www.epa.gov/npdes/contact-us-stormwater#regional for a list of EPA Regional Office contacts.

Section II. Operator Information
Each legal entity that meets EPA's definition of "operator" (see definitions in Appendix A of EPA's NPDES Construction General Permit) and that meets the eligibility conditions for the low erosivity waiver must file this form to have the permit requirements waived. The operator is any party associated with a construction activity that meets either of the following two criteria: (1) the party has operational control over construction plans and specifications, including the ability to make modifications to those plans and specifications; or (2) the party 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). It is possible that there will be more than one operator at a site and, in such cases, each entity that meets the operator definition must complete a Low Erosivity Waiver Certification. Provide the legal name of your firm, public organization, or other entity that operates the project described in this waiver certification. Usually this will be a company or organization's name but for construction activities undertaken by you as an individual, this should be your name.

Indicate whether you are seeking a wavier for permit coverage under this permit as a "federal operator" as defined in Appendix A.

Also provide the operator's mailing address, country, telephone number, and e-mail address for someone who can answer questions about the site (e.g., a project or site manager). Enter a point of contact (if different from the operator's name).

Section III. Project/Site Information
Enter the official or legal name and complete street address, including city, state, zip code, and county or similar government subdivision of the project or site. If the project lacks a street address, indicate the general location of the site (e.g., intersection of State Highways 61 and 34).

Provide the latitude and longitude of your facility in decimal degrees format. The latitude and longitude of your facility can be determined in several different ways, including through the use of global positioning system (GPS) receivers, U.S. Geological Survey (U.S.G.S.) topographic or quadrangle maps, and web-based siting tools, among others. For consistency, EPA requests that measurements be taken from the approximate center of the construction site. For linear construction sites, the measurement should be taken midpoint of the site. If known, enter the horizontal reference datum for your latitude and longitude. The horizontal reference datum is shown on the bottom left corner of USGS topographic maps; it is also available for GPS receivers.

Indicate whether the project is in Indian country lands or located on a property of religious or cultural significance to an Indian tribe, and if so, provide the name of the Indian tribe associated with the area of Indian country (including name of Indian reservation, if applicable), or if not in Indian country, provide the name of the Indian tribe associated with the property. Answer the other three questions on projects located in Oklahoma and Texas. This information is used to determine whether EPA is the permitting authority for the construction project, and thus has authority to waive the otherwise applicable requirements of the Construction General Permit.

Enter the area (estimated to the nearest quarter acre) to be disturbed including, but not limited to: grubbing, excavation, grading, and utilities and infrastructure installation. Note: 1 acre = 43,560 sq. ft.

Section IV. Rainfall Erosivity Factor Calculation Data
The construction period begins with the initial earth disturbance and ends with final site stabilization. To qualify for this waiver, the rainfall erosivity factor for the project must be less than five during the entire construction period. Specify the construction period by entering the project start date (date of initial earth disturbance) and project completion date (date of final site stabilization). For example, a grading contractor that is operating on-site for only one week during a nine month construction project, must enter the start date and completion date of the entire nine month construction period.

Where the environmental threat is low (i.e., in arid and semi-arid climates), "final stabilization" can include techniques that employ re-vegetation combined with other stabilization measures, consisting of temporary degradeable rolled erosion control products, also known as "erosion control blankets (ECBs). With proper selection, design, and installation of the combination re-vegetation/ECB technique in arid or semi-arid areas, an operator can be considered to have achieved final stabilization upon completion of the installation process. Note that if more than three years is required to establish 70 percent of the cover that is provided by vegetation native to local undisturbed area, this technique cannot be used or cited for fulfillment of the final stabilization requirement. If your waiver is based on use of interim non-vegetative stabilization measures, such as erosion control blankets, to establish the end of the construction

Low Erosivity Waiver Certification

period, you must indicate so on this form. In doing so, you must commit and certify (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.

The rainfall erosivity factor "R" is determined in accordance with the U.S. Department of Agriculture *Agriculture Handbook Number 703, Prediciting Soil Erosion by Water: A Guide to Conservation Planning with the Revised Universal Soil Loss Equation (RUSLE)*, Chapter 2 pages 21-64, dated January 1997. EPA's Construction Rainfall Erosivity Waiver Fact Sheet (EPA 833-F-00-014), available online at https://www3.epa.gov/npdes/pubs/fact3-1.pdf defines rainfall erosivity and provides numerical examples showing how to calculate your rainfall erosivity factor. You may use the fact sheet approach or the online rainfall erosivity factor calculator available at: https://www.epa.gov/npdes/rainfall-erosivity-factor-calculator-small-construction-sites to calculate your rainfall erosivity factor for your project.

If the R factor is five or greater during the project's construction period, you must have or obtain coverage under an NPDES stormwater permit. If the project was eligible for the waiver during the original construction period, but the construction activity will extend past the project completion date specified in the Low Erosivity Waiver Certification, the operator must recalculate the R factor using the original start date and a new project completion date. If the recalculated R factor is still less than five, a new waiver certification form must be submitted before the end of the original construction period. If the new R factor is five or greater, the operator must submit a Notice of Intent to be covered by the Construction General Permit before the original project completion date. The Notice of Intent (NOI) form may be submitted electronically using EPA's NPDES eReporting Tool (NeT) at https://www.epa.gov/npdes/stormwater-discharges-construction-activities#ereporting. If the EPA Regional Office grants you a waiver from electronic reporting, you may submit a paper NOI form available on the EPA website at https://www.epa.gov/npdes/epas-2017-construction-general-permit-cgp-and-related-documents.

Section V. Certification Information

All Low Erosivity Waiver Certification forms must be signed as follows:

For a corporation: By a responsible corporate officer. For the purpose of this Section, a responsible corporate officer 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 for the corporation, or (ii) the manager of one or more manufacturing, production, or operating facilities, provided the manager is authorized to make management decisions which govern the operation of the regulated facility including having the explicit or implicit duty of making major capital investment recommendations, and initiating and directing other comprehensive measures to assure long-term environmental compliance with environmental laws and regulations; the manager can ensure the necessary systems are established or actions taken to gather complete and accurate information for permit application requirements; and where 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, respectively; or

For a municipality, state, federal, or other public facility: By either a principal executive officer or ranking elected official. For purposes of this Section, a principal executive officer of a federal agency includes (i) the chief executive officer of the agency, or (ii) a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., Regional Administrator of EPA).

Include the name, title, and email address of the person signing the form and the signature date. An unsigned or undated Low Erosivity Waiver Certification will not be considered valid.

Where to File This Form

Low Erosivity Waiver Certification forms must be sent to one of the following two addresses.

Regular U.S. Mail Delivery	Overnight/Express Mail Delivery
EPA Stormwater Notice Processing Center Mail Code 4203M Attn: 2017 CGP U.S. EPA 1200 Pennsylvania Avenue, NW Washington, DC 20460	EPA Stormwater Notice Processing Center Room 7420 Attn: 2017 CGP U.S. EPA 1201 Constitution Avenue, NW Washington, DC 20004

Please submit the original form with a signature in ink. Do not send a photocopied signature!

Paperwork Reduction Act Notice

Public reporting burden for this certification form is estimated to average 1.0 hours. This estimate includes time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number. Send comments regarding the burden estimate, any other aspect of the collection of information, or suggestions for improving this form, including any suggestions which may increase or reduce this burden to: Chief, Information Strategies Branch (2822T), U.S. Environmental Protection, Agency, 1200 Pennsylvania Avenue, NW, Washington, D.C. 20460. Include the OMB control number on any correspondence. Do not send the completed form to this address.

Appendix D - Eligibility Procedures Relating to Threatened and Endangered Species Protection

In accordance with Part 1.1.5 of the CGP, you must follow the procedures in this appendix to determine your eligibility under one of the criteria in Part D.1 of this appendix with respect to the protection of federally listed threatened or endangered species and federally designated "critical habitat" [hereinafter "threatened and endangered species"] under the Endangered Species Act (ESA) from discharges and discharge-related activities authorized under this permit. If you do not meet one of these criteria, you are not eligible for coverage under this permit.

While coordination between you and the U.S. Fish and Wildlife Service (USFWS) and/or the National Marine Fisheries Service (NMFS)(together, the "Services") is not necessarily required in all cases, EPA encourages you to coordinate with the Services, to document that coordination, and to do so early in the planning process prior to submitting your NOI.

This appendix is organized as follows:

- **Part D.1:** Threatened and Endangered Species Protection Eligibility Criteria
- **Part D.2:** Procedures for Determining Which Threatened and Endangered Species Protection Criteria Applies

D.1 Threatened and Endangered Species Protection Eligibility Criteria

You must certify in your NOI that you meet one of the eligibility criteria listed below in order to be eligible for coverage under this permit. Once you determine the applicable eligibility criterion, you must:

- Specify the basis for your selection of the applicable eligibility criterion, and if required, provide documentation that is the basis for your determination with the NOI form; and
- Provide documentation in your SWPPP that is sufficient to support your determination that you satisfy the requirements of the applicable criterion.

The definition of "action area," which is contained in Appendix A, is repeated below for convenience.

"Action Area" – all areas to be affected directly or indirectly by the federal action and not merely the immediate area involved in the action. For the purposes of this permit and for application of the Endangered Species Act requirements, the following areas are included in the definition of action area:

- The areas on the construction site where stormwater discharges originate and flow toward the point of discharge into the receiving waters (including areas where excavation, site development, or other ground disturbance activities occur) and the immediate vicinity. (Example: Where bald eagles nest in a tree that is on or bordering a construction site and could be disturbed by the construction activity or where grading causes stormwater to flow into a small wetland or other habitat that is on the site that contains listed species.)
- The areas where stormwater discharges flow from the construction site to the point of discharge into receiving waters. (Example: Where stormwater flows into a ditch, swale, or gully that leads to receiving waters and where listed species (such as listed amphibians) are found in the ditch, swale, or gully.)
- The areas where stormwater from construction activities discharge into receiving waters and the areas in the immediate vicinity of the point of discharge. (Example: Where stormwater from construction activities discharges into a stream segment that is known to harbor listed aquatic species.)
- The areas where stormwater controls will be constructed and operated, including any areas where stormwater flows to and from the stormwater controls. (Example: Where a stormwater retention pond would be built.)

Criterion A. No ESA-listed species and/or designated critical habitat present in action area. Using the process outlined in Appendix D of this permit, you certify that ESA-listed species and designated critical habitat(s) under the jurisdiction of the USFWS or NMFS are not likely to occur in your site's "action area" as defined in Appendix A of this permit.

Basis statement content: A basis statement supporting the selection of this criterion should identify the USFWS and NMFS information sources used. Attaching aerial image(s) of the site to this NOI is helpful to EPA, USFWS, and NMFS in confirming eligibility under this criterion. Please Note: NMFS' jurisdiction includes ESA-listed marine and estuarine species that spawn in inland rivers.

Criterion B. Eligibility requirements met by another operator under the 2017 CGP. The construction site's discharges and discharge-related activities were already addressed in another operator's valid certification of eligibility for your "action area" under eligibility Criterion A, C, D, E, or F of the 2017 CGP and you have confirmed that no additional ESA-listed species and/or designated critical habitat under the jurisdiction of USFWS and/or NMFS not considered in the that certification may be present or located in the "action area." To certify your eligibility under this criterion, there must be no lapse of NPDES permit coverage in the other CGP operator's certification. By certifying eligibility under this criterion, you agree to comply with any conditions upon which the other CGP operator's certification was based. You must include in your NOI the NPDES ID from the other 2017CGP operator's notification of authorization under this permit. If your certification is based on another 2017 CGP operator's certification under criterion C, you must provide EPA with the relevant supporting information required of existing dischargers in criterion C in your NOI form.

Basis statement content: A basis statement supporting the selection of this criterion should identify the eligibility criterion of the other CGP NOI, the authorization date, and confirmation that the authorization is effective.

Criterion C. Discharges not likely to adversely affect ESA-listed species and/or designated critical habitat. ESA-listed species and/or designated critical habitat(s) under the jurisdiction of the USFWS and/or NMFS are likely to occur in or near your site's "action area," and you certify to EPA that your site's discharges and discharge-related activities are not likely to adversely affect ESA-listed threatened or endangered species and/or designated critical habitat. This certification may include consideration of any stormwater controls and/or management practices you will adopt to ensure that your discharges and discharge-related activities are not likely to adversely affect ESA-listed species and/or designated critical habitat. To certify your eligibility under this criterion, indicate 1) the ESA-listed species and/or designated habitat located in your "action area" using the process outlined in Appendix D of this permit; 2) the distance between the site and the listed species and/or designated critical habitat in the action area (in miles); and 3) a rationale describing specifically how adverse effects to ESA-listed species will be avoided from the discharges and discharge-related activities. You must also include a copy of your site map from your SWPPP showing the upland and in-water extent of your "action area" with this NOI.

Basis statement content: A basis statement supporting the selection of this criterion should identify the information resources and expertise (e.g., state or federal biologists) used to arrive at this conclusion. Any supporting documentation should explicitly state that both ESA-listed species and designated critical habitat under the jurisdiction of the USFWS and/or NMFS were considered in the evaluation.

Criterion D. Coordination with USFWS and/or NMFS has successfully concluded. Coordination between you and the USFWS and/or NMFS has concluded. The coordination must have addressed the effects of your site's discharges and discharge-related activities on ESA-listed species and/or designated critical habitat under the jurisdiction of USFWS and/or NMFS, and resulted in a written concurrence from USFWS and/or NMFS that your site's discharges and discharge-related activities are not likely to adversely affect listed species and/or critical habitat. You must include copies of the correspondence with the participating agencies in your SWPPP and this NOI.

Basis statement content: A basis statement supporting the selection of this criterion should identify whether USFWS or NMFS or both agencies participated in coordination, the field office/regional office(s) providing that coordination, and the date that coordination concluded.

Criterion E. ESA Section 7 consultation has successfully concluded. Consultation between a Federal Agency and the USFWS and/or NMFS under section 7 of the ESA has concluded. The consultation must have addressed the effects of the construction site's discharges and discharge-related activities on ESA-listed species and/or designated critical habitat under the jurisdiction of USFWS and/or NMFS. To certify eligibility under this criterion, Indicate the result of the consultation:

I. biological opinion from USFWS and/or NMFS that concludes that the action in question (taking into account the effects of your site's discharges and discharge-related activities) is not likely to jeopardize the continued existence of listed species, nor the destruction or adverse modification of critical habitat; or

II. written concurrence from USFWS and/or NMFS with a finding that the site's discharges and discharge-related activities are not likely to adversely affect ESA-listed species and/or designated critical habitat.

You must include copies of the correspondence between yourself and the USFWS and/or NMFS in your SWPPP and this NOI.

Basis statement content: A basis statement supporting the selection of this criterion should identify the federal action agencie(s) involved, the field office/regional office(s) providing that consultation, any tracking numbers of identifiers associated with that consultation (e.g., IPaC number, PCTS number), and the date the consultation was completed.

Criterion F. Issuance of section 10 permit. Potential take is authorized through the issuance of a permit under section 10 of the ESA by the USFWS and/or NMFS, and this authorization addresses the effects of the site's discharges and discharge-related activities on ESA-listed species and designated critical habitat. You must include copies of the correspondence between yourself and the participating agencies in your SWPPP and your NOI.

Basis statement content: A basis statement supporting the selection of this criterion should identify whether USFWS or NMFS or both agencies provided a section 10 permit, the field office/regional office(s) providing permit(s), any tracking numbers of identifiers associated with that consultation (e.g., IPaC number, PCTS number), and the date the permit was granted.

You must comply with any applicable terms, conditions, or other requirements developed in the process of meeting the eligibility criteria in this section to remain eligible for coverage under this permit. Documentation of these requirements must be kept as part of your SWPPP (see Part 7.2.9.a).

NMFS will, within 14 days of submission of the NOI, advise EPA whether it believes the planned discharges meet the eligibility criteria of not likely to adversely affect NMFS Listed Resources of Concern, whether the eligibility criterion could be met with additional conditions; or whether the eligibility criterion is not met. With respects to ESA issues, EPA recognizes NMFS expertise and will carefully consider NMFS' determination in identifying eligibility for authorization, either with or without additional conditions. In the event NMFS has placed a hold on your NOI, EPA will notify you as to whether your discharges are authorized or whether an individual permit will be required. If you do not hear from EPA within 14 days, you may assume that your discharge is authorized without further conditions.

D.2 Procedures for Determining Which Threatened and Endangered Species Protection Criterion Applies

You must follow the procedures in this Part to determine the criterion listed above under which your site is eligible for permit coverage.

D.2.1 Step 1 - Determine if Your Discharges and Discharge-Related Activities Were Already Addressed in Another Operator's Valid Certification that Included Your Action Area.

- **If your discharges and discharge-related activities <u>were</u> already addressed in another operator's valid certification that included your action area** (e.g., a general contractor or developer may have completed and filed an NOI for the entire action area with the necessary ESA certifications (Criterion A, C, D, E, or F)), *you may select eligibility Criterion B on your NOI form*.

  By certifying eligibility under Criterion B, you must comply with any terms and conditions imposed under the eligibility requirements of the criterion for which the other operator has established eligibility (either Criterion A, C, D, E, or F) to ensure that your discharges and discharge-related activities are protective of listed species and/or critical habitat.

  > *Note: If you are unable to meet these eligibility requirements, then you may either establish eligibility under one of the other criterion, or you may consider applying to EPA for an individual permit.*

  Under Criterion B, you must provide documentation in your SWPPP of any of these terms and conditions, as well as the other operator's basis for establishing eligibility. You must also provide a description of the basis for your selection of Criterion B on your NOI form, including the eligibility criterion (A, C, D, E, or F) that was certified to by the other operator, and must provide the NPDES ID from the other operator's notification of authorization under this permit.

  If your certification is based on another operator's certification under criterion C, you must provide the documentation required in the NOI for criterion C, namely: 1) what federally listed species and/or designated habitat are located in your "action area"; and 2) the distance between your site and the listed species or designated critical habitat (in miles).

- **If discharges and discharge-related activities from your site <u>were not</u> addressed in another operator's valid certification that included your action area,** you must follow the applicable procedures in Steps 2 through 5 below.

D.2.2 Step 2 - Determine if Listed Threatened or Endangered Species or their Designated Critical Habitat(s) are Likely to Occur in your Site's Action Area

You must determine, to the best of your knowledge, whether species listed as either threatened or endangered, or their critical habitat(s) (see definitions of these terms in Appendix A), are located in your site's action area. To make this determination, you should first determine if listed species and/or critical habitat are expected to exist in your county or township. The U.S. Fish and Wildlife Service and National Marine Fisheries Service maintain lists of federally listed endangered or threatened species on their internet sites.

- For National Marine Fisheries Service species and critical habitat information, use the following webpages, which provide up-to-date information on listed species (http://www.nmfs.noaa.gov/pr/species/esa/) and critical habitat (http://www.nmfs.noaa.gov/pr/species/criticalhabitat.htm). To determine the field office that corresponds to your site, go to http://www.nmfs.noaa.gov/ (under the left tab for "Regions").

  For National Marine Fisheries Service species in the Greater Atlantic Region, go to https://www.greateratlantic.fisheries.noaa.gov/protected/index.html.

- For Fish and Wildlife Service species information, use the on-line mapping tool IPaC (the Information, Planning, and Consultation System) located at http://ecos.fws.gov/ipac/, and follow these steps:
  - Select Get Started
  - Select Enter Project Location
  - Use an address, city name or other location to zoom into your project area
  - Use the zoom feature to see the entire extent of your action area on the screen
  - Use one of the mapping features (e.g., Polygon or line feature) to draw your action
- When you are done, press *Continue.*
- Select Request an Official Species List
- Complete the fields on the Official Species List Request page, and include "(CGP)" at the end of the project description. – For Classification, select "Water Quality Modification".
- Select the appropriate requesting agency/organization type (for most dischargers, this should be "Other").
- Submit the request to acquire an Official Species List, which should show both listed species as well as any designated critical habitat that are present in the action area in the previous step.
- *Note: If a link to an Official Species List is not available on the page, follow the web link of the office(s) indicated, or contact the office directly by mail or phone if a web link is not shown.*
- ***If listed species and/or critical habitat may exist in your action area, you must do one or more of the following***:
  - Conduct visual inspections. This method may be particularly suitable for construction sites that are smaller in size or located in non-natural settings such as highly urbanized areas or industrial parks where there is little or no natural habitat, or for construction activities that discharge directly into municipal stormwater collection systems.
  - Conduct a formal biological survey. In some cases, particularly for larger construction sites with extensive stormwater discharges, biological surveys may be an appropriate way to assess whether species are located in the action area and whether there are likely to be adverse effects to such species. Biological surveys are frequently performed by environmental consulting firms.
  - If required, conduct an environmental assessment under the National Environmental Policy Act (NEPA). Some construction activities might require review under NEPA for specific reasons, such as federal funding or other federal involvement in the project. Note: Coverage under the CGP does not trigger such a review for individual projects/sites. EPA has complied with NEPA in the issuance of the CGP.

    and

- Follow the instructions in Steps 3 – 5 below, as applicable. Note that many but not all measures imposed to protect listed species under these steps will also protect critical habitat. Thus, meeting the eligibility requirements of this CGP may require measures to protect critical habitat that are separate from those to protect listed species.

- ***If there are <u>no</u> listed species and <u>no</u> critical habitat areas in your action area,*** *you may check eligibility criterion A on your NOI form*. You must also provide a description of the basis for the criterion selected on your NOI form and provide documentation supporting the criterion selected in your SWPPP.

D.2.3 Step 3 - Determine if the Construction Activity's Discharges or Discharge-Related Activities Are Likely to Adversely Affect Listed Threatened or Endangered Species or Designated Critical Habitat

If in Step 2 you determine that listed species and/or critical habitat could exist in your action area, you must next assess whether your discharges or discharge-related activities are likely to adversely affect listed threatened or endangered species or designated critical habitat.

Potential adverse effects from discharges and discharge-related activities include:

- *Hydrological*. Stormwater discharges may cause siltation, sedimentation, or induce other changes in receiving waters such as temperature, salinity, or pH. These effects will vary with the amount of stormwater discharged and the volume and condition of the receiving water. Where a stormwater discharge constitutes a minute portion of the total volume of the receiving water, adverse hydrological effects are less likely. Construction activity itself may also alter drainage patterns on a site where construction occurs that can impact listed species or critical habitat.
- *Habitat*. Excavation, site development, grading, and other surface disturbance activities from construction activities, including the installation or placement of stormwater controls, may adversely affect listed species or their habitat. Stormwater may drain or inundate listed species habitat.
- *Toxicity*. In some cases, pollutants in stormwater may have toxic effects on listed species.

The scope of effects to consider will vary with each site. If you are having difficulty determining whether your project is likely to adversely affect listed species or critical habitat, or one of the Services has already raised concerns to you, you should contact the appropriate Services office for assistance.

- ***If adverse effects to listed threatened or endangered species or their critical habitat <u>are not</u> likely***, *then you may select eligibility criterion C on the NOI form*. You must provide the following specific information on your NOI form: 1) the federally listed species and/or designated habitat are located in your "action area"; and 2) the distance between your site and the listed species or designated critical habitat (in miles). You must also provide a copy of your site map with your NOI.
- ***If adverse effects to listed threatened or endangered species or their critical habitat <u>are</u> likely*****,** you must follow Step 4 below.

D.2.4 Step 4 - Determine if Measures Can Be Implemented to Avoid Adverse Effects

If you make a preliminary determination in Step 3 that adverse effects from your construction activity's discharges or discharge-related activities are likely to occur, you can still receive coverage under eligibility criterion C of the CGP if appropriate measures are undertaken to avoid or eliminate the likelihood of adverse effects prior to applying for CGP coverage.

These measures may involve relatively simple changes to construction activities such as re-routing a stormwater discharge to bypass an area where species are located, relocating stormwater controls, or by modifying the "footprint" of the construction activity. If you are unable to ascertain which measures to implement to avoid the likelihood of adverse effects, you must coordinate or enter into consultation with the Fish and Wildlife Service and/or National Marine Fisheries Service, in which case you would not be eligible for coverage under eligibility criterion C, but may instead be eligible for coverage under eligibility criterion D, E, or F (described in more detail in Step 5).

- **If you are able to install and implement appropriate measures to avoid the likelihood of adverse effects,** *then you may check eligibility criterion C on the NOI form.* The measures you adopt to avoid or eliminate adverse effects must be implemented for the duration of the construction project and your coverage under the CGP. You must also provide a description of the basis for the criterion selected, and the following specific information on your NOI form: 1) the federally listed species and/or designated habitat are located in your "action area"; and 2) the distance between your site and the listed species or designated critical habitat (in miles).
- **If you cannot ascertain which measures to implement to avoid the likelihood of adverse effects,** you must follow the procedures in Step 5**.**

D.2.5 Step 5 - Determine if the Eligibility Requirements of Criterion D, E, or F Can Be Met

If in Step 4 you cannot ascertain which measures to implement to avoid the likelihood of adverse effects, you must contact the Fish and Wildlife Service and/or the National Marine Fisheries Service. You may still be eligible for CGP coverage if likely adverse effects can be addressed through meeting criterion D, E, or F.

- **Criterion D:** Coordination between you and the Services has concluded. The coordination must have addressed the effects of your site's discharges and discharge-related activities on federally-listed threatened or endangered species and federally-designated critical habitat, and resulted in a written concurrence from the relevant Service(s) that your site's discharges and discharge-related activities are not likely to adversely affect listed species or critical habitat.

  If you have met the requirements of criterion D, *you may select eligibility criterion D on the NOI form.* You must provide a description of the basis for the criterion selected on your NOI form and must include copies of the correspondence between you and the applicable Service in your SWPPP.

- **Criterion E:** Consultation between a Federal Agency and the U.S. Fish and Wildlife Service and/or the National Marine Fisheries Service under section 7 of the ESA has concluded. The consultation must have addressed the effects of the construction site's discharges and discharge-related activities on federally-listed threatened or endangered species and federally-designated critical habitat. The result of this consultation must be either (1) a biological opinion that concludes that the action in question (taking into account the effects of your site's discharges and discharge-related activities) is not likely to jeopardize the

continued existence of listed species, nor the destruction or adverse modification of critical habitat; or (2) written concurrence from the applicable Service(s) with a finding that the site's discharges and discharge-related activities are not likely to adversely affect federally-listed species or federally-designated habitat.

For more information on section 7 consultation, see 50 CFR §402. If you receive a "jeopardy opinion," you may continue to work with the Fish and Wildlife Service and/or National Marine Fisheries Service and your permitting authority to modify your project so that it will not jeopardize listed species or designated critical habitat.

Note that most consultations are accomplished through informal consultation. When conducting informal ESA section 7 consultation as a non-federal representative, you must follow the procedures found in 50 CFR Part 402 of the ESA regulations. You must notify the Services of your intention and agreement to conduct consultation as a non-federal representative.

Consultation may also occur in the context of another federal action at the construction site (e.g., where ESA section 7 consultation was performed for issuance of a wetlands dredge and fill permit for the project or where a NEPA review is performed for the project that incorporates a section 7 consultation).

Any terms and conditions developed through consultations to protect listed species and critical habitat must be incorporated into the SWPPP. As noted above, operators may, if they wish, initiate consultation with the Services at Step Four.

Whether ESA section 7 consultation must be performed with either the Fish and Wildlife Service, National Marine Fisheries Service, or both Services depends on the listed species that may be affected by the operator's activity. In general, the National Marine Fisheries Service has jurisdiction over marine, estuarine, and anadromous species. Operators should also be aware that while formal section 7 consultation provides protection from incidental takings liability, informal consultation does not.

If you have met the requirements of criterion E, *you may select eligibility criterion E on the NOI form.* You must provide a description of the basis for the criterion selected on your NOI form and must include copies of the correspondence between yourself and the Services in your SWPPP.

- **Criterion F:** Your construction activities are authorized through the issuance of a permit under section 10 of the ESA, and this authorization addresses the effects of the site's discharges and discharge-related activities on federally-listed species and federally-designated critical habitat.

  You must follow Fish and Wildlife Serivce and/or National Marine Fisheries Service procedures when applying for an ESA section 10 permit (see 50 CFR §17.22(b)(1) for Fish and Wildlife Service and §222.22 for National Marine Fisheries Service). Application instructions for section 10 permits can be obtained from http://www.fws.gov and http://www.nmfs.noaa.gov or by contacting the appropriate Service office.

  If you have met the requirements of criterion F, *you may select eligibility criterion F on the NOI form.* You must provide a description of the basis for the criterion selected on your NOI form and must include copies of the correspondence between yourself and the Services in your SWPPP.

Appendix E – Historic Property Screening Process

Background

Section 106 of the National Historic Preservation Act (NHPA) requires Federal agencies to take into account the effects of Federal "undertakings", such as the issuance of this permit, on historic properties that are either listed on, or eligible for listing on, the National Register of Historic Places. To address any issues relating to historic properties in connection with the issuance of this permit, EPA developed the screening process in this appendix that enables construction operators to appropriately consider the potential impacts, if any, of their installation of stormwater controls on historic properties and to determine whether actions can be taken, if applicable, to mitigate any such impacts. Although the coverages of individual construction sites under this permit do not constitute separate Federal undertakings, the screening process in this appendix provides an appropriate site-specific means of addressing historic property issues in connection with EPA's issuance of the permit.

Key Terms

Historic property- prehistoric or historic districts, sites, buildings, structures, or objects that are included in or eligible for inclusion in the National Register of Historic Places, including artifacts, records, and remains that are related to and located within such properties

SHPO – The State Historic Preservation Officer for a particular state

THPO or Tribal representative – The Tribal Historic Preservation Officer for a particular tribe or, if there is no THPO, the representative designated by such tribe for NHPA purposes

Instructions for All Construction Operators

You are required to follow the screening process in this appendix to determine if your installation of stormwater controls on your site has the potential to cause effects to historic properties, and whether or not you need to contact your SHPO, THPO, or other tribal representative for further information. **You may not submit your NOI until you have completed this screening process.** The following four steps describe how applicants can meet the historic property requirements under this permit:

Step 1 *Are you installing any stormwater controls that require subsurface earth disturbance?*[1]

The first step of the screening process is to determine if you will install stormwater controls that cause subsurface earth disturbance. The installation of the following types of stormwater controls require subsurface earth disturbance:[2]

- Dikes
- Berms
- Catch Basins
- Ponds
- Ditches

[1] You are only required to consider earth-disturbing activities related to the installation of stormwater controls in the NHPA screening process. You are not reqired to consider other earth-disturbing activities at the site. If you are installing one of the above stormwater controls or another type of control that requires subsurface earth disturbance, your stormwater controls have the potential to have an effect on historic properties. If this is the case, then you must proceed to Step 2.

[2] This list is not intended to be exhaustive. Other stormwater controls that are not on this list may involve earth-disturbing activities and must also be examined for the potential to affect historic properties.

- Trenches
- Culverts
- Channels
- Perimeter Drains
- Swales

If you are not installing one of the above stormwater controls or another type of control that requires subsurface earth disturbance, then you may indicate this on your NOI, and no further screening is necessary. During the 14-day waiting period after submitting your NOI, the SHPO, THPO, or other tribal representative may request that EPA hold up authorization based on concerns about potential adverse effects to historic properties. EPA will evaluate any such request and notify you if any additional controls to address adverse effects to historic properties are necessary.

Step 2 *Have prior professional cultural resource surveys or other evaluations determined that historic properties do not exist, or have prior disturbances precluded the existence of historic properties?*

If you are installing a stormwater control that requires subsurface earth disturbance, you must next determine if no historic properties exist on your site based on prior professional cultural resource surveys or other evaluations, or if the existence of historic properties has been precluded because of prior earth disturbances.

If prior to your project it has already been determined that no historic properties exist at your site based on available information, including information that may be provided by your applicable SHPO, THPO, or other tribal representative, then you may indicate this on your NOI, and no further screening steps are necessary. Similarly, if prior earth disturbances have eliminated the possibility that historic properties exist on your site, you may indicate this on your NOI, and no further screening steps are necessary. After submitting your NOI, and during the 14-day waiting period, the SHPO, THPO, or other tribal representative may request that EPA hold up authorization based on concerns about potential adverse effects to historic properties. EPA will evaluate any such request and notify you if any additional measures to address adverse effects to historic properties are necessary.

If neither of these circumstances exists for your project, you must proceed to Step 3.

Step 3 *If you are installing any stormwater controls that require subsurface earth disturbance, you must determine if these activities will have an effect on historic properties.*

If your answer to the question in Step 2 is "no", then you must assess whether your earth-disturbing activities related to the installation of stormwater controls will have an effect on historic properties. This assessment may be based on historical sources, knowledge of the area, an assessment of the types of earth-disturbing activities you are engaging in, considerations of any controls and/or management practices you will adopt to ensure that your stormwater control-related earth-disturbing activities will not have an effect on historic properties, and any other relevant factors. If you determine based on this assessment that earth disturbances related to the installation of your stormwater controls will have no effect on historic properties, you may indicate this on your NOI, and document the basis for your determination in your SWPPP, and no further screening steps are necessary. After submitting your NOI, and during the 14-day waiting period, the SHPO, THPO, or other tribal representative may request that EPA hold up authorization based on concerns about potential adverse effects to historic properties. EPA will evaluate any such request and notify you if any additional measures to address adverse effects to historic properties are necessary.

If none of the circumstances in Steps 1 - 3 exist for your project, you must proceed to Step 4.

Step 4: *If you are installing any stormwater controls that require subsurface earth disturbance and you have not satisfied the conditions in Steps 1 - 3, you must contact and consult with the appropriate historic preservation authorities.*

Where you are installing stormwater controls that require subsurface earth disturbance, and you cannot determine in Step 3 that these activities will have no effect on historic properties, then you must contact the relevant SHPO, THPO, or other tribal representative to request their views as to the likelihood that historic properties are potentially present on your site and may be impacted by the installation of these controls.

> *Note: Addresses for SHPOs and THPOs may be found on the Advisory Council on Historic Preservation's website (www.achp.gov/programs.html). If a tribe does not have a THPO, you should contact the appropriate tribal government office designated by the tribe for this purpose.*

You must submit the following minimum information in order to properly initiate your request for information:

1. Project name (*i.e.*, the name or title most commonly associated with your project);
2. A narrative description of the project;
3. Name, address, phone and fax number, and email address (if available) of the operator;
4. Most recent U.S. Geological Survey (USGS) map section (7.5 minute quadrangle) showing actual project location and boundaries clearly indicated; and
5. Sections of the SWPPP site map (see Part 7.2.4) that show locations where stormwater controls that will cause subsurface earth disturbance will be installed (see Step 1).

Without submitting this minimum information, you will not have been considered to have properly initiated your request. You will need to provide the SHPO, THPO, or other tribal representative **a minimum of 15 calendar days** after they receive these materials to respond to your request for information about your project.

If you do not receive a response within 15 calendar days after receipt by the SHPO, THPO, or other tribal representative of your request, then you may indicate this on your NOI, and no further screening steps are necessary. Or, if the applicable SHPO, THPO, or other tribal representative responds to your request with an indication that no historic properties will be affected by the installation of stormwater controls at your site, then you may indicate this on your NOI, and no further screening steps are necessary. After submitting your NOI, and during the 14-day waiting period, the SHPO, THPO, or other tribal representative may request that EPA hold up authorization based on concerns about potential adverse effects to historic properties. EPA will evaluate any such request and notify you if any additional measures to address adverse effects to historic properties are necessary.

If within 15 calendar days of receipt of your request the applicable SHPO, THPO, or other tribal representative responds with a request for additional information or for further consultation regarding appropriate measures for treatment or mitigation of effects on historic properties caused by the installation of stormwater controls on your site, you must comply with this request and proceed to Step 5.

Step 5: *Consultation with your applicable SHPO, THPO, or other tribal representative.*

If, following your discussions with the appropriate historic preservation authorities in Step 4, the applicable SHPO, THPO, or tribal represenative requests additional information or further consultation, you must respond with such information or consult to determine impacts to historic properties that may be caused by the installation of stormwater controls on your site and appropriate measures for treatment or mitigation of such impacts. If as a result of your

discussions with the applicable SHPO, THPO, or tribal representative, you enter into, and comply with, a written agreement regarding treatment and/or mitigation of impacts on your site, then you may indicate this on your NOI, and no further screening steps are necessary.

If, however, agreement on an appropriate treatment or mitigation plan cannot be reached between you and the SHPO, THPO, or other tribal representative within 30 days of your response to the SHPO, THPO, or other tribal representative's request for additional information or further consultation, you may submit your NOI, but you must indicate that you have not negotiated measures to avoid or mitigate such effects. You must also include in your SWPPP the following documentation:

1. Copies of any written correspondence between you and the SHPO, THPO, or other tribal representative; and
2. A description of any significant remaining disagreements as to mitigation measures between you and the SHPO, THPO, or other tribal representative.

After submitting your NOI, and during the 14-day waiting period, the SHPO, THPO, ACHP or other tribal representative may request that EPA place a hold on authorization based upon concerns regarding potential adverse effects to historic properties. EPA, in coordination with the ACHP, will evaluate any such request and notify you if any additional measures to address adverse effects to historic properties are necessary.

Appendix F - List of Tier 3, Tier 2, and Tier 2.5 Waters

EPA's CGP has special requirements for discharges to waters that receive Tier 2, Tier 2.5, or Tier 3 protections for antidegradation purposes. See Parts 1.1.8 and 3.2.

EPA's antidegradation regulation, at 40 CFR 131.12, provides a framework for maintaining and protecting water quality for: (1) existing uses (known as "Tier 1"); (2) high quality waters by establishing a process for authorizing the lowering of water quality where existing water quality exceeds levels needed to support propagation of fish, shellfish, and wildlife and recreation in and on the water (known as "Tier 2"); and (3) for Outstanding National Resource Waters (known as "Tier 3"). While EPA's antidegradation regulation only outlines three levels of antidegradation protection, some states and tribes include an additional level of antidegradation protection between Tier 2 and Tier 3 (sometimes known as "Tier 2.5").

High quality (Tier 2) waters may be identified on a parameter-by-parameter basis or on a water body-by-water body basis consistent with the requirements of 40 CFR 131.12(a)(2). States and tribes using a parameter-by-parameter basis (sometimes called a "pollutant-by-pollutant approach") do not maintain a list of Tier 2 waters, but instead identify a high quality water at the time an entity proposes an activity that would lower water quality. In contrast, states and tribes using a water body-by-water body basis typically identify high quality waters in advance on a list by weighing a variety of factors (*e.g.*, chemical, physical, biological, and other information) to classify a water body's overall quality.

The list below is provided as a resource for operators who must determine whether they discharge to a Tier 2, Tier 2.5, or Tier 3 water. Where available, the table lists waters specifically identified for Tier 2, Tier 2.5, or Tier 3 protection by a water quality standard authority (*e.g.*, a state or tribe). Operators should not assume that a water does not receive Tier 2, Tier 2.5, or Tier 3 protection solely based on the absence of information in this table. Evaluation regarding antidegradation protections for a specific water may need to be done on a case-by-case basis, especially where the state or tribe uses the parameter-by-parameter approach to identify whether water quality is better than necessary to support propagation of fish, shellfish, and wildlife and recreation in and on the water.

<table>
<tr><th>Permit Number</th><th colspan="2">Areas of Coverage/Where EPA Is Permitting Authority</th></tr>
<tr><td rowspan="5">MAR100000</td><td colspan="2">Commonwealth of Massachusetts, except Indian Country lands</td></tr>
<tr><td colspan="2">Tier 2, Tier 2.5, and 3 waters are identified and listed in the Massachusetts Water Quality Standards 314 CMR 4.00. Surface water qualifiers that correspond with Tier classifications are defined at 314 CMR 4.06(1)(d)m and listed in tables and figures at the end of 314 CMR 4.06. See MassDEP's web page at: http://www.mass.gov/eea/agencies/massdep/water/regulations/314-cmr-4-00-mass-surface-water-quality-standards.html. See also:
https://www.epa.gov/wqs-tech/water-quality-standards-regulations-massachusetts</td></tr>
<tr><td>Tier 2</td><td>Listed as "High Quality Waters", and all wetlands that are not designated as an Outstanding Resource Water.</td></tr>
<tr><td>Tier 2.5</td><td>Listed as "Outstanding Resource Water", "Public Water Supply", "Tributary to Public Water Supply", all wetlands bordering Outstanding Resource Waters, and vernal pools.</td></tr>
<tr><td>Tier 3</td><td>Defined as "Special Resource Water". Note: No waters have been identified as a Special Resource Water as of the issuance of this permit.</td></tr>
</table>

Permit Number	Areas of Coverage/Where EPA Is Permitting Authority	
NHR100000	**State of New Hampshire**	
	Tier 2 waters are identified on a parameter-by-parameter basis. Tier 2.5 and 3 waters are identified and listed in the New Hampshire Water Quality Standards CHAPTER Env-Wq 1700. Description of the antidegradation tiers are included at CHAPTER Env-Wq 1708 and listed in the tables at. New dischargers and new sources should contact EPA Region 1's stormwater coordinator found at https://www.epa.gov/npdes/contact-us-stormwater#regional. See also: https://www.epa.gov/wqs-tech/water-quality-standards-regulations-new-hampshire	
	Tier 3	Env-Ws 1708.05(a) Surface waters of national forests and surface waters designated as "natural" under RSA 483:7-a, I shall be considered outstanding resource waters (ORW). "Natural waters" are listed at http://www.gencourt.state.nh.us/rsa/html/L/483/483-15.htm. Surface waters of national forests are not included in an official list. For further questions, new dischargers and new sources should contact EPA Region 1's stormwater coordinator found at https://www.epa.gov/npdes/contact-us-stormwater#regional.
NYR10I000	**Saint Regis Mohawk Tribe (NY)**	
	Tier 2 waters are identified on a parameter-by-parameter basis. There is not a Tier 2.5 classification identified in the Saint Regis Mohawk Tribe Water Quality Standards. New dischargers and new sources should contact EPA Region 2's stormwater coordinator found at https://www.epa.gov/npdes/contact-us-stormwater#regional. See: https://www.epa.gov/sites/production/files/2014-12/documents/stregis-tribe.pdf	
	Tier 3	Outstanding Resource Waters. Those waters designated as such by the Tribe. The Waters that may be considered for designation as Outstanding Resource Waters include, but are not limited to, water bodies that are recognized as: (i) Important because of protection through official action, such as Tribal, Federal or State law, Presidential or secretarial action, international treaty, or interstate compact; (ii) Having exceptional recreational significance; (iii) Having exceptional ecological significance; (iv) Having other special environmental, recreational, religious or ecological attributes; or waters whose designation as Outstanding Resource Waters is reasonably necessary for the protection of other waters so designated. New dischargers and new sources should contact EPA Region 2's stormwater coordinator found at https://www.epa.gov/npdes/contact-us-stormwater#regional.

Permit Number	Areas of Coverage/Where EPA Is Permitting Authority	
PRR100000	**Commonwealth of Puerto Rico**	
	Tier 2 waters are identified on a parameter-by-parameter basis. There is not a Tier 2.5 classification identified in the Puerto Rico Water Quality Standards. New dischargers and new sources should contact EPA Region 2's stormwater coordinator found at https://www.epa.gov/npdes/contact-us-stormwater#regional. See: https://www.epa.gov/wqs-tech/water-quality-standards-regulations-puerto-rico	
	Tier 3	Tier III waters are those which are classified as either Class SA or Class SE. Class SA waters are defined as "Coastal waters and estuarine waters of high quality and/or exceptional ecological or recreational value whose existing characteristics shall not be altered, except by natural causes, in order to preserve the existing natural phenomena." Class SA waters include bioluminiscent lagoons and bays such as La Parguera and Monsio José on the Southern Coast, Bahía de Mosquito in Vieques, and any other coastal or estuarine waters of exceptional quality of high ecological value or recreational which may be designated by Puerto Rico, through Resolution, as requiring this classification for protection of the waters. Class SE waters are defined as "Surface waters and wetlands of exceptional ecological value, whose existing characteristics should not be altered in order to preserve the existing natural phenomena." Class SE waters include Laguna Tortuguero, Laguna Cartagena and any other surface water bodies of exceptional ecological value as may be designated by Puerto Rico through Resolution.
DCR100000	**District of Columbia**	
	New dischargers and new sources should contact EPA Region 3's stormwater coordinator found at https://www.epa.gov/npdes/contact-us-stormwater#regional. Tier 2.5 waters are identified and listed in the District of Columbia Water Quality Standards. See: https://www.epa.gov/wqs-tech/water-quality-standards-regulations-washington-dc	
	Tier 2.5	Rule 1102.4 SPECIAL WATERS OF THE DISTRICT OF COLUMBIA (SWDC): Any segment or segments of the surface waters of the District that are of water quality better than needed for the current use or have scenic or aesthetic importance shall be designated as Special Waters of the District of Columbia (SWDC). Rock Creek and its tributaries and Battery Kemble Creek and its tributaries are considered Special Waters of the District of Columbia (SWDC) under its antidegradation program.
FLR10I000	**Miccosukee Tribe (FL)**	
	New dischargers and new sources should contact EPA Region 4's stormwater coordinator found at https://www.epa.gov/npdes/contact-us-stormwater#regional. The Miccosukee Tribe Water Quality Standards includes an additional tier of protection between Tier 2 and 3 that is referred as Tier 2 ¾ for Outstanding Miccosukee Waters. See: https://www.epa.gov/wqs-tech/water-quality-standards-regulations-miccosukee-tribe-indians-florida	

Permit Number	Areas of Coverage/Where EPA Is Permitting Authority	
	Tier 2 ¾	Outstanding Miccosukee Waters (OMW): The Miccosukee Tribe recognizes that the waters of its Federal Reservation which are contained within Water Conservation Area 3-A and the Miccosukee Reserved Area constitute the Tribe's highest quality waters and must be preserved in as pristine a condition as possible while at the same time allowing for the activities of man. These ecologically important waters are essential to the survival of the Miccosukee Tribe, therefore: The Miccosukee Tribe hereby designates the waters of its Federal Reservation which are contained within Water Conservation Area 3-A (North Grass, South Grass, Gap) and Miccosukee Reserved Area as Class III-A and Outstanding Miccosukee waters (OMW). The North Grass is defined as that area bounded by the northern boundary of the reservation, the eastern edge of the L-28 levee (which is east of the L-28 canal), the southern edge of the C-60 Canal, and the eastern boundary of the reservation. The South Grass is defined as the area bounded by southern edge of the C-60 canal, the eastern boundary of the reservation, the southern boundary of the reservation, the eastern edge of the L-28 canal (which is south of the L-28 Tieback Canal), a line running north from the L-28 Canal (where the L-28 Canal turns northwest to become the L-28 Tieback Canal) until this line intersects the oil pipeline, the center of the oil pipeline until the oil pipeline intercepts the L-28 Interceptor Canal, and the eastern edge of the L-28 levee (which is east of the L-28 Canal). The Gap is defined as that area which is bounded by the southern boundary of the reservation, the western boundary of the reservation, the northeastern edge of the L-28 Interceptor Canal, the oil pipeline which runs generally south from the L-28 Interceptor Canal until the pipeline intercepts a line running north from the L-28 Canal where the L-28 canal turns northwest to become the L-28 Tieback Canal, and the eastern edge of the L-28 canal (which is south of the L-28 Tieback Canal).
	Tier 3	Tier 3: Outstanding Natural Resource Waters (ONRW): Where high quality waters constitute an Outstanding Tribal resource such as waters of parks and wildlife refuges and waters of exceptional ecological and recreational significance, that water quality shall be maintained and protected. These waters shall be designated as Outstanding Natural Resource Waters (ONRW). Currently, no Tribal waters are designated as ONRW.
	Seminole Tribe (FL)	
	New dischargers and new sources should contact EPA Region 4's stormwater coordinator found at https://www.epa.gov/npdes/contact-us-stormwater#regional. See also: https://www.epa.gov/sites/production/files/2014-12/documents/seminole_floridawqs.pdf	

Permit Number	Areas of Coverage/Where EPA Is Permitting Authority	
MNR10I000	**Fond du Lac Band of MN Chippewa**	
	Tier 2 waters are identified on a parameter-by-parameter basis. There is not a Tier 2.5 classification identified in the Fond du Lac Band of MN Chippewa Water Quality Standards. New dischargers and new sources should contact EPA Region 5's stormwater coordinator found at https://www.epa.gov/npdes/contact-us-stormwater#regional. See: https://www.epa.gov/wqs-tech/water-quality-standards-regulations-fond-du-lac-band-minnesota-chippewa-tribe	
	Tier 3	Six Lakes are presently identified as Tier 3/Outstanding Reservation Resource Waters (ORRW): (1) Dead Fish Lake; (2) Jaskari Lake; (3) Miller (Mud) Lake; (4) Perch Lake; (5) Rice Portage Lake; (6) Wild Rice Lake.
	Grand Portage Band of MN Chippewa	
	Tier 2 waters are identified on a parameter-by-parameter basis. Two subcategories of protection (referred to as outstanding tribal water resource (OTWR)) exist in the Grand Portage Band of MN Chippewa Water Quality Standards as follows: (a) OTWR-Restricted (lowered water quality may be allowed under limited circumstances); (b) OTWR-Prohibited (Discharges and permanent lowering of water quality are prohibited). New dischargers and new sources should contact EPA Region 5's stormwater coordinator found at https://www.epa.gov/npdes/contact-us-stormwater#regional. See: https://www.epa.gov/wqs-tech/water-quality-standards-regulations-grand-portage-band-minnesota-chippewa-tribe	
	Tier 2	OTWR-Restricted: All waters, not already classified as Tier 3, are high quality Tier 2 waters (see Grand Portage Reservation Water Quality Standards, Section VI & VII, Pages 14-16).
	Tier 3	OTWR-Prohibited: "The portion of Lake Superior north of latitude 47 degrees, 57 minutes, 13 seconds, east of Hat Point, south of the Minnesota-Ontario boundary, and west of the Minnesota-Michigan boundary" (see Section VII, Page 16).
WIR10I000	**Bad River Band of Lake Superior Chippewa (WI)**	
	Tier 2 waters are identified on a water body-by-water body basis. Tier 2, 2.5, and 3 classifications are included in the Bad River Band of Lake Superior Chippewa Water Quality Standards. See: https://www.epa.gov/wqs-tech/water-quality-standards-regulations-bad-river-band-lake-superior-chippewa-tribe	
	Tier 2	Any surface water not specifically classified as Outstanding Tribal Resource Water or Outstanding Resource Water is classified as Exceptional Resource Water (Anishinaabosibiing).
	Tier 2.5	Outstanding Resource Waters: a portion of Bad River, from downstream the confluence with the White River to Lake Superior, White River, Marengo River, Graveyard Creek, Bear Trap Creek, Wood Creek, Brunsweiler River, Tyler Forks, Bell Creek, and Vaughn Creek.

Permit Number	Areas of Coverage/Where EPA Is Permitting Authority	
	Tier 3	Outstanding Tribal Resource Waters: Kakagon Slough and the lower wetland reaches of its tributaries that support wild rice, Kakagon River, Bad River Slough, Honest John Lake, Bog Lake, a portion of Bad River, from where it enters the Reservation through the confluence with the White River, and Potato River.
	Lac du Flambeau Band of the Lake Superior Chippewa	
	Tier 2 waters are identified on a water body-by-water body basis. Tier 2, 2.5, and 3 classifications are included in the Lac du Flambeau Band of the Lake Superior Chippewa Water Quality Standards. See: https://www.epa.gov/wqs-tech/water-quality-standards-regulations-lac-du-flambeau-band-lake-superior-chippewa-tribe	
	Tier 2	All named waters, including wetlands, not specified under an Antidegradation classification are classified as Tribal Resource Water (Tier 2). Unclassified Named Waters (Tier 2): Buckskin Lake; Flambeau Lake; Long (Interlaken) Lake); Marland's Lake (Sec. 13, T40NR4E); Moss Lake; Pokegema Lake.
	Tier 2.5	Exceptional Tribal Resource Waters: Bills Lake, Birch Lake, Bobidosh Lake, Bog Lake (SE SE Sec. 31, T40NR6E), Bolton Lake, Broken Bow Lake, Chewalah Lake, Clear Lake (Sec. 2, T39NR4E), Corn Great, Great, Corn Lake, Little "Least/Lesser", Crawling Stone Lake, Big, Crawling Stone Lake, Little, Crescent Lake, Crooked Lake, Big, David Lake, Ellerson Lake, Middle, Ellerson Lake, West, Elsie Lake "Boundary Lake", Fat Lake, Fence Lake, Gresham Creek, Green Lake (NW NW Sec. 19, T41R6E), Grey Lake, Gunlock Lake, Haskell Lake, Headflyer Lake (Sec. 19, T41NR5E), Highway Lake (NW NW Sec. 19, T41NR5E), Horsehead Lake (SE SW Sec. 9, T40NR5E), Hutton's Creek, Ike Walton Lake, Lily Lake (SE SW Sec. 35, T40NR5E), Little Ten Lake, Lodge Lake "L. Rice" (NW NW Sec. 8, T41NR6E), Lucy Lake, Mindys Lake (Sec. 8, T40NR5E), Minette Lake, Mitten Lake, Monk's Lake (Sec. 13, T40NR5E), Moving Cloud Lake, Mud Creek, Muskesin Lake, Patterson Lake, Placid Twin Lake (North), Placid Twin Lake (South), Plummer Lake, Poupart Lake, Prairie Lake (NE SW Sec. 13, T40NR4E), Raven Lake, Ross Allen Lake, Sand Lake, Little, Scott Lake (Sec. 22, T40N, R4E), Shishebogama Lake, Signal Lake, Snort Lake (Sec. 5, T41N, R6E), Spring Lake "Jerms", Squirrel Lake, Statenaker Lake "Hollow", Stearns Lake "Hourglass", Sugarbush "Hidden Lake" (NW NW Sec. 17, T41NR5E), Sugarbush Creek, Sugarbush Lake, Little, Sugarbush Lake, Lower, Sugarbush Lake, Middle, Sugarbush Lake, Upper, Sunfish Lake, Tippecanoe Lake, Tomahawk River, To-To Tom Lake, Toulish Lake, Trout River, Warrior Lake, White Sand Lake, Whitefish Lake "Cattail Lake" (Sec. 34, T40N5R), Wishow Lake, Wyandock Lake.
	Tier 3	Outstanding Tribal Resource Waters: Bear River (1st bridge to Reservation boundary), Big Springs (Sec. 25, T40NR4E), Black Lake, Cranberry Lake, Doud Lake, Eagle Lake, Gene Lake, Johnson Springs, Little Trout Lake, Lost Lake (Sect. 1, T41NR4E), Mishonagon Creek, Munnomin (Jesse, Duck) Lake, Negani (Hegani) Lake, Reservation Line Lake, Spring Creek, Tank Lake, Thomas Lake, Wild Rice Lake, Zee Lake.

Permit Number	Areas of Coverage/Where EPA Is Permitting Authority	
NMR100000	**State of New Mexico**	
	Tier 2 waters are identified on a parameter-by-parameter basis. There is not a Tier 2.5 classification identified in the State of New Mexico Water Quality Standards. New dischargers and new sources should contact EPA Region 6's stormwater coordinator found at https://www.epa.gov/npdes/contact-us-stormwater#regional. See: https://www.epa.gov/wqs-tech/water-quality-standards-regulations-new-mexico	
	Tier 2	If you need assistance determining if your discharge is to a Tier 2 waterbody, please contact the NMED Surface Water Quality Bureau's Stormwater Program at https://www.env.nm.gov/swqb/StormWater/index.html.
	Tier 3	See https://www.env.nm.gov/swqb/ONRW/ for current list of NMED's Tier 3/Outstanding National Resource Waters. See also New Mexico's Water Quality Standards at 20.6.4.9.D NMAC.
NMR10I000	**Ohkay Owingeh (NM) (formerly the Pueblo of San Juan)**	
	New dischargers and new sources should contact EPA Region 6's stormwater coordinator found at https://www.epa.gov/npdes/contact-us-stormwater#regional. See also: https://www.epa.gov/wqs-tech/water-quality-standards-regulations-ohkay-owingeh-pueblo-formerly-pueblo-san-juan	
	Pueblo of Acoma (NM)	
	New dischargers and new sources should contact EPA Region 6's stormwater coordinator found at https://www.epa.gov/npdes/contact-us-stormwater#regional. See also: https://www.epa.gov/wqs-tech/water-quality-standards-regulations-pueblo-acoma	
	Pueblo of Isleta (NM)	
	New dischargers and new sources should contact EPA Region 6's stormwater coordinator found at https://www.epa.gov/npdes/contact-us-stormwater#regional. See also: https://www.epa.gov/wqs-tech/water-quality-standards-regulations-pueblo-isleta	
	Pueblo of Nambe (NM)	
	New dischargers and new sources should contact EPA Region 6's stormwater coordinator found at https://www.epa.gov/npdes/contact-us-stormwater#regional. See also: https://www.epa.gov/wqs-tech/water-quality-standards-regulations-pueblo-nambe	
	Pueblo of Picuris (NM)	
	New dischargers and new sources should contact EPA Region 6's stormwater coordinator found at https://www.epa.gov/npdes/contact-us-stormwater#regional. Tier 2, 2.5, and 3 classifications are included in the Pueblo of Picuris Water Quality Standards. See: https://www.epa.gov/wqs-tech/water-quality-standards-regulations-pueblo-picuris	

Permit Number	Areas of Coverage/Where EPA Is Permitting Authority	
	Pueblo of Pojoaque (NM)	
	New dischargers and new sources should contact EPA Region 6's stormwater coordinator found at https://www.epa.gov/npdes/contact-us-stormwater#regional. See also: https://www.epa.gov/wqs-tech/water-quality-standards-regulations-pueblo-pojoaque	
	Pueblo of Sandia (NM)	
	New dischargers and new sources should contact EPA Region 6's stormwater coordinator found at https://www.epa.gov/npdes/contact-us-stormwater#regional. See also: https://www.epa.gov/wqs-tech/water-quality-standards-regulations-pueblo-sandia	
	Pueblo of Santa Ana (NM)	
	New dischargers and new sources should contact EPA Region 6's stormwater coordinator found at https://www.epa.gov/npdes/contact-us-stormwater#regional. See also: https://www.epa.gov/wqs-tech/water-quality-standards-regulations-pueblo-santa-ana	
	Pueblo of Santa Clara (NM)	
	New dischargers and new sources should contact EPA Region 6's stormwater coordinator found at https://www.epa.gov/npdes/contact-us-stormwater#regional. See also: https://www.epa.gov/wqs-tech/water-quality-standards-regulations-pueblo-santa-clara	
	Pueblo of Taos (NM)	
	New dischargers and new sources should contact EPA Region 6's stormwater coordinator found at https://www.epa.gov/npdes/contact-us-stormwater#regional. See also: https://www.epa.gov/wqs-tech/water-quality-standards-regulations-pueblo-taos	
	Tier 3	Outstanding Tribal Resource Waters: Mountain Lakes; Mountain Streams & Springs;
	Pueblo of Tesuque (NM)	
	New dischargers and new sources should contact EPA Region 6's stormwater coordinator found at https://www.epa.gov/npdes/contact-us-stormwater#regional. See also: https://www.epa.gov/wqs-tech/water-quality-standards-regulations-pueblo-tesuque	
COR10I000	**Ute Mountain Ute Tribe**	
	Tier 2 waters are identified on a parameter-by-parameter basis. There is not a Tier 2.5 classification identified in the Ute Mountain Ute Tribe Water Quality Standards. New dischargers and new sources should contact EPA Region 8's stormwater coordinator found at https://www.epa.gov/npdes/contact-us-stormwater#regional. See also:	

Permit Number	Areas of Coverage/Where EPA Is Permitting Authority	
	https://www.epa.gov/wqs-tech/water-quality-standards-regulations-ute-mountain-ute-tribe	
	Tier 3	Outstanding Tribal Resource Waters: 1. Ute Spring and unnamed creek from Ute Spring downstream within Section 12, TWP35N R18W (Colorado). 2. Allen Canyon Creek, Sections 17, 20, 29, 30, 31, TWP 35S, R21E (Utah) 3. "Lopez" Spring and unnamed creek tributary to and downstream from the spring, within Section 35, TWP 34N, R18W
MTR10I000	**Assiniboine and Sioux Tribes of the Fort Peck Indian Reservation (MT)**	
	Tier 2 waters are identified on a water body-by-water body basis. There is not a Tier 2.5 classification identified in the Assiniboine and Sioux Tribes of the Fort Peck Indian Reservation Water Quality Standards. New dischargers and new sources should contact EPA Region 8's stormwater coordinator found at https://www.epa.gov/npdes/contact-us-stormwater#regional. See also: https://www.epa.gov/wqs-tech/water-quality-standards-regulations-assiniboine-and-sioux-tribes-fort-peck-indian	
	Tier 2	Most Tribal Waters will qualify as Tier 2 waters. Unless the water body is not attaining the Clean Water Act Section 101(a)(2) goals, the water body has received an OTRW designation, or there is no assimilative capacity for pollutants to protect existing and designated uses, it is likely that the water body will receive Tier 2 protection.
	Confederated Salish and Kootenai Tribes of the Flathead Reservation (MT)	
	Tier 2 waters are identified on a water body-by-water body basis. There is not a Tier 2.5 classification identified in the Confederated Salish and Kootenai Tribes of the Flathead Reservation Water Quality Standards. New dischargers and new sources should contact EPA Region 8's stormwater coordinator found at https://www.epa.gov/npdes/contact-us-stormwater#regional. See also: https://www.epa.gov/wqs-tech/water-quality-standards-regulations-confederated-salish-and-kootenai-tribes-flathead	
	Tier 3	The following are Tier 3 waters: All waters located within Tribally designated primitive or wilderness areas.
	Northern Cheyenne (MT)	
	Tier 2 waters are identified on a water body-by-water body basis. There is not a Tier 2.5 classification identified in the Northern Cheyenne Water Quality Standards. New dischargers and new sources should contact EPA Region 8's stormwater coordinator found at https://www.epa.gov/npdes/contact-us-stormwater#regional. See also: https://www.epa.gov/wqs-tech/water-quality-standards-regulations-northern-cheyenne-tribe-northern-cheyenne-reservation	
ASR100000	**Island of American Samoa**	
	New dischargers and new sources should contact EPA Region 9's stormwater coordinator found at https://www.epa.gov/npdes/contact-us-stormwater#regional. See also: https://www.epa.gov/sites/production/files/2014-12/documents/aswqs.pdf	

Permit Number	Areas of Coverage/Where EPA Is Permitting Authority	
AZR10I000	**Hopi Tribe (AZ)**	
	Tier 2 waters are identified on a parameter-by-parameter basis. There is not a Tier 2.5 classification identified in the Hopi Tribe Water Quality Standards. New dischargers and new sources should contact EPA Region 9's stormwater coordinator found at https://www.epa.gov/npdes/contact-us-stormwater#regional. See also: https://www.epa.gov/wqs-tech/water-quality-standards-regulations-hopi-tribe	
	Tier 3	Unique Waters: In the Moencopi Wash watershed, from Blue Canyon Springs to the confluence of Begashibito Wash.
	Hualapai Indian Tribe (AZ)	
	Tier 2 waters are identified on a parameter-by-parameter basis. There is not a Tier 2.5 classification identified in the Hualapai Indian Tribe Water Quality Standards. New dischargers and new sources should contact EPA Region 9's stormwater coordinator found at https://www.epa.gov/npdes/contact-us-stormwater#regional. See also: https://www.epa.gov/wqs-tech/water-quality-standards-regulations-hualapai-tribe	
	Tier 3	Segments assigned as Tier 3: Spencer; Meriwhitica; Willow Spring; Upper Milkweed Spring; Bridge Canyon; Travertine Spring; Travertine Falls; Diamond Creek; Diamond Creek Spring; Blue Mountain; Metuck; Peach Springs Spring; Westwater; Clay Tank; Hocky Puck; Pocamote Spring; Mohawk Spring; Granite Spring; Three Spring; Warm Spring; Honga Spring; National Canyon Spring; National Canyon; Moss Spring.
	Navajo Nation (AZ, NM, UT)	
	New dischargers and new sources should contact EPA Region 9's stormwater coordinator found at https://www.epa.gov/npdes/contact-us-stormwater#regional. See also: https://www.epa.gov/wqs-tech/water-quality-standards-regulations-navajo-nation	
	White Mountain Apache Tribe (AZ)	
	Tier 2 waters are identified on a water body-by-water body basis. Tier classifications are identified in Appendix B of the White Mountain Apache Tribe Water Quality Standards. New dischargers and new sources should contact EPA Region 9's stormwater coordinator found at https://www.epa.gov/npdes/contact-us-stormwater#regional. See also: https://www.epa.gov/wqs-tech/water-quality-standards-regulations-white-mountain-apache-tribe	

Permit Number	Areas of Coverage/Where EPA Is Permitting Authority	
	Tier 2	High Quality Waters: East Fork White River, above R52 Road; Paradise Creek, above Wohlenberg; Ord Creek; Smith Cienega; Bull Cienega; Smith Creek; Big Bonito; Tonto Creek, below Y47 Crossing; Crooked Creek; Boggy Creek; Little Bonito Creek, above Y55 Crossing; Flash Creek; Squaw Creek; Hurricane Lake; Hurricane Creek; Hughey Creek; Bonito Cienega; West Fork Black River; Hall Cienega; Purcell Cienega; Thompson Creek; Cibecue Creek in Box Canyon to Salt river; Rock Springs Creek; Willow Creek (Lower Canyon Cr.). Sensitive Waters (treated the same manner as Tier 2): East Fork White River below R52 Road, above Rock Cr; Lofer Cienega Creek; Carrizo Creek above Corduroy; Cedar Creek; Big Canyon (E. Cedar Creek); Middle Cedar Creek; West Cedar Creek; Cibecue Creek, Box Canyon up to Confluence with Salt Creek; Spring Creek; Salt Creek; Cibecue Creek, from confluence w/Salt Cr. To Big Springs; Cibecue Creek, above Big Springs; Salt Draw; Canyon Creek S. of Chediski Farms; Oak Creek; Canyon Creek, N. of Chediski Farms.
	Tier 3	Outstanding Waters: East Fork White River, in Wilderness area; Pumpkin Lake.
CAR10I000	**Big Pine Band of Owens Valley (CA)**	
	New dischargers and new sources should contact EPA Region 9's stormwater coordinator found at https://www.epa.gov/npdes/contact-us-stormwater#regional. See also: https://www.epa.gov/wqs-tech/water-quality-standards-regulations-big-pine-paiute-tribe-owens-valley	
	Hoopa Valley Tribe (CA)	
	New dischargers and new sources should contact EPA Region 9's stormwater coordinator found at https://www.epa.gov/npdes/contact-us-stormwater#regional. See also: https://www.epa.gov/wqs-tech/water-quality-standards-regulations-hoopa-valley-tribe	
	Paiute-Shoshone Indians of the Bishop Community (CA)	
	New dischargers and new sources should contact EPA Region 9's stormwater coordinator found at https://www.epa.gov/npdes/contact-us-stormwater#regional. See also: https://www.epa.gov/wqs-tech/water-quality-standards-regulations-bishop-paiute-tribe	
	Twenty-Nine Palms (CA)	
	New dischargers and new sources should contact EPA Region 9's stormwater coordinator found at https://www.epa.gov/npdes/contact-us-stormwater#regional. See also: https://www.epa.gov/wqs-tech/water-quality-standards-regulations-twenty-nine-palms-band-mission-indians	

Permit Number	Areas of Coverage/Where EPA Is Permitting Authority	
GUR100000	**Island of Guam**	
	New dischargers and new sources should contact EPA Region 9's stormwater coordinator found at https://www.epa.gov/npdes/contact-us-stormwater#regional. See also: https://www.epa.gov/sites/production/files/2014-12/documents/aswqs.pdf	
JAR100000	**Johnston Atoll**	
	New dischargers and new sources should contact EPA Region 9's stormwater coordinator found at https://www.epa.gov/npdes/contact-us-stormwater#regional	
MPR100000	**Commonwealth of the Northern Mariana Islands**	
	New dischargers and new sources should contact EPA Region 9's stormwater coordinator found at https://www.epa.gov/npdes/contact-us-stormwater#regional. See also: https://www.epa.gov/sites/production/files/2014-12/documents/aswqs.pdf	
MWR100000	**Midway Island and Wake Island**	
	New dischargers and new sources should contact EPA Region 9's stormwater coordinator found at https://www.epa.gov/npdes/contact-us-stormwater#regional	
NVR10000I	**Pyramid Lake Paiute (NV)**	
	New dischargers and new sources should contact EPA Region 9's stormwater coordinator found at https://www.epa.gov/npdes/contact-us-stormwater#regional. See also: https://www.epa.gov/wqs-tech/water-quality-standards-regulations-pyramid-lake-paiute-tribe	
IDR100000	**State of Idaho**	
	Tier 2 waters are identified on a water body-by-water body basis. There is not a Tier 2.5 classification identified in the State of Idaho Water Quality Standards. New dischargers and new sources should contact EPA Region 10's stormwater coordinator found at https://www.epa.gov/npdes/contact-us-stormwater#regional. See also: https://www.epa.gov/wqs-tech/water-quality-standards-regulations-idaho	
	Tier 2 and Tier 3	For Tier 2 and Tier 3 waters, please consult the most recent approved version of Idaho's Idaho Integrated Report, available at: http://www.deq.idaho.gov/water-quality/surface-water/monitoring-assessment/integrated-report/ and the closest regional office of the Idaho Department of Environmental Quality: http://www.deq.idaho.gov/regional-offices-issues/.
IDR10I000	**Coeur D'Alene Tribe (ID)**	
	Tier 2 waters are identified on a water body-by-water body basis. There is not a Tier 2.5 classification identified in the Coeur D'Alene Tribe Water Quality Standards. New dischargers and new sources should contact EPA Region 10's stormwater coordinator found at https://www.epa.gov/npdes/contact-us-stormwater#regional. See also: https://www.epa.gov/wqs-tech/water-quality-standards-regulations-coeur-dalene-tribe-indians	

Permit Number	Areas of Coverage/Where EPA Is Permitting Authority
ORR10I000	**Confederated Tribes of the Warm Springs Reservation (OR)**
	New dischargers and new sources should contact EPA Region 10's stormwater coordinator found at https://www.epa.gov/npdes/contact-us-stormwater#regional. See also: https://www.epa.gov/wqs-tech/water-quality-standards-regulations-confederated-tribes-warm-springs-indian-reservation
	Confederated Tribes of Umatilla (OR)
	New dischargers and new sources should contact EPA Region 10's stormwater coordinator found at https://www.epa.gov/npdes/contact-us-stormwater#regional. See also: https://www.epa.gov/wqs-tech/water-quality-standards-regulations-confederated-tribes-umatilla-indian-reservation-oregon
WAR10I000	**Confederated Tribes of the Chehalis Reservation (WA)**
	Tier 2 waters are identified on a parameter-by-parameter basis. There is not a Tier 2.5 classification identified in the Confederated Tribes of the Chehalis Reservation Water Quality Standards. New dischargers and new sources should contact EPA Region 10's stormwater coordinator found at https://www.epa.gov/npdes/contact-us-stormwater#regional. https://www.epa.gov/wqs-tech/water-quality-standards-regulations-confederated-tribes-chehalis-reservation
	Confederated Tribes of the Colville Reservation (WA)
	EPA established federal water quality standards for the Confederated Tribes of the Colville Reservation at 40 CFR 131.35. See: https://www.epa.gov/wqs-tech/water-quality-standards-regulations-confederated-tribes-colville-reservation
	Kalispel Indian Community (WA)
	New dischargers and new sources should contact EPA Region 10's stormwater coordinator found at https://www.epa.gov/npdes/contact-us-stormwater#regional. See also: https://www.epa.gov/wqs-tech/water-quality-standards-regulations-kalispel-indian-community-kalispel-reservation
	Lummi Tribe (WA)
	New dischargers and new sources should contact EPA Region 10's stormwater coordinator found at https://www.epa.gov/npdes/contact-us-stormwater#regional. See also: https://www.epa.gov/wqs-tech/water-quality-standards-regulations-lummi-nation
	Makah Indian Nation (WA)
	New dischargers and new sources should contact EPA Region 10's stormwater coordinator found at https://www.epa.gov/npdes/contact-us-stormwater#regional. See also: https://www.epa.gov/wqs-tech/water-quality-standards-regulations-makah-indian-nation

Permit Number	Areas of Coverage/Where EPA Is Permitting Authority
	Port Gamble S'Klallam (WA)
	New dischargers and new sources should contact EPA Region 10's stormwater coordinator found at https://www.epa.gov/npdes/contact-us-stormwater#regional. See also: https://www.epa.gov/wqs-tech/water-quality-standards-regulations-port-gamble-sklallam-tribe
	Puyallup Tribe of Indians (WA)
	New dischargers and new sources should contact EPA Region 10's stormwater coordinator found at https://www.epa.gov/npdes/contact-us-stormwater#regional. See also: https://www.epa.gov/wqs-tech/water-quality-standards-regulations-puyallup-tribe-indians
	Spokane Tribe of Indians (WA)
	New dischargers and new sources should contact EPA Region 10's stormwater coordinator found at https://www.epa.gov/npdes/contact-us-stormwater#regional. See also: https://www.epa.gov/wqs-tech/water-quality-standards-regulations-spokane-tribe-indians

Appendix G – Buffer Requirements

The purpose of this appendix is to assist you in complying with the requirements in Part 2.2.1 of the permit regarding the establishment of natural buffers and/or equivalent sediment controls. This appendix is organized as follows:

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G.1 SITES THAT ARE REQUIRED TO PROVIDE AND MAINTAIN NATURAL BUFFERS AND/OR EQUIVALENT EROSION AND SEDIMENT CONTROLS

The requirement in Part 2.2.1 to provide and maintain natural buffers and/or equivalent erosion and sediment controls applies for any discharges to waters of the U.S. located within 50 feet of your site's earth disturbances. If the water of the U.S. is not located within 50 feet of earth-disturbing activities, Part 2.2.1 does not apply. See Figure G-1.

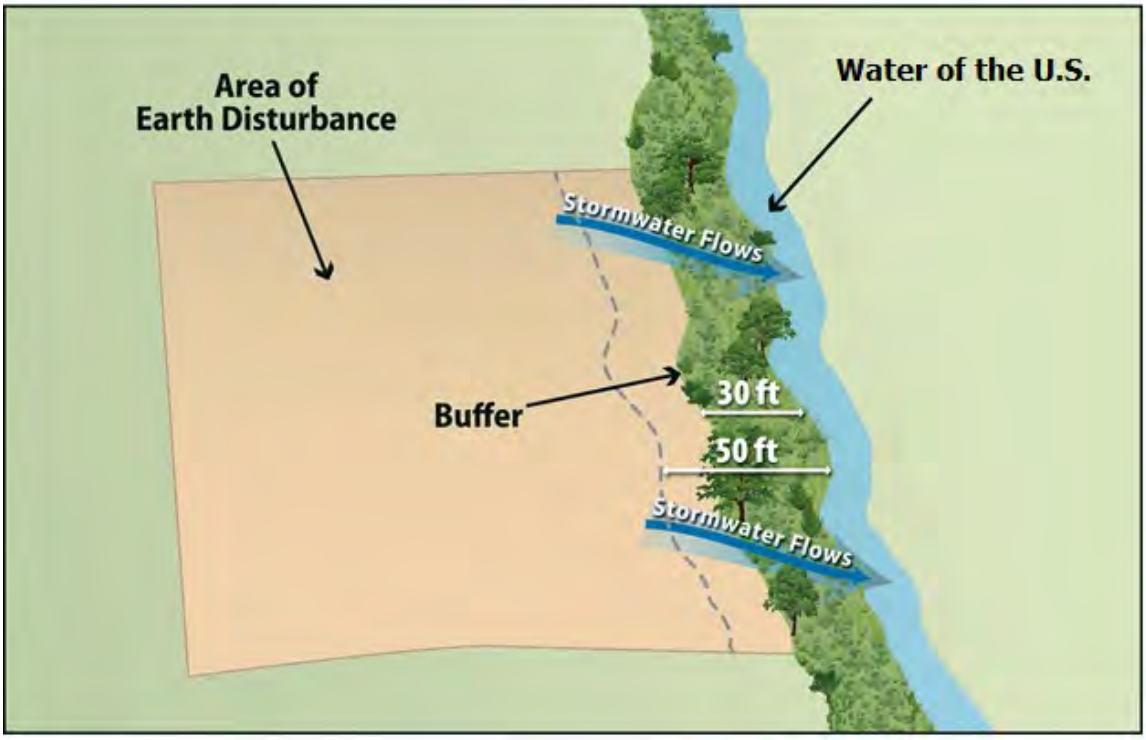


Figure G-1 Example of earth-disturbing activities within 50 feet of a water of the U.S.

G.2 COMPLIANCE ALTERNATIVES AND EXCEPTIONS

G.2.1 Compliance Alternatives

If Part 2.2.1 applies to your site, you have three compliance alternatives from which you can choose, unless you qualify for any of the exceptions (see below and Part 2.2.1.a):

1. Provide and maintain a 50-foot undisturbed natural buffer; or
2. Provide and maintain an undisturbed natural buffer that is less than 50 feet and is supplemented by erosion and sediment controls that achieve the sediment load reduction equivalent to a 50-foot undisturbed natural buffer; or
3. If infeasible to provide and maintain an undisturbed natural buffer of any size, implement erosion and sediment controls to achieve the sediment load reduction equivalent to a 50-foot undisturbed natural buffer. [1]

The compliance alternative selected must be maintained throughout the duration of permit coverage.

See Part G.2.2 below for exceptions to the compliance alternatives.

See Part G.2.3 for requirements applicable to providing and maintaining natural buffers under compliance alternatives 1 and 2 above.

See Part G.2.4 for requirements applicable to providing erosion and sediment controls that achieve the sediment load reduction equivalent to a 50-foot undisturbed natural buffer under compliance alternatives 2 and 3 above.

G.2.2 Exceptions to the Compliance Alternatives

The following exceptions apply to the requirement to implement one of the Part 2.2.1.a compliance alternatives (see also Part 2.2.1.b):

- The following disturbances within 50 feet of a water of the U.S. are exempt from the requirements Part 2.2.1 and this Appendix:
  - 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)*.
- If there is no discharge of stormwater to waters of the U.S. through the area between the disturbed portions of the site and any waters of the U.S. located within 50 feet of your site, you are not required to comply with the requirements in Part 2.2.1 and this Appendix. 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 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 Part 2.2.1 and this Appendix.

  Where some natural buffer exists but portions of the area within 50 feet of the water of the U.S. are occupied by preexisting development disturbances, you <u>are</u> required to comply with the requirements in Part 2.2.1 and this Appendix. For the purposes of calculating the sediment load reduction for either compliance alternative 2 or 3, you are not expected to compensate for the reduction in buffer function that would have resulted from the area covered by these preexisting disturbances. Clarity about how to implement the compliance alternatives for these situations is provided in G.2.3 and G.2.4 below.

  If during your project, you will disturb any portion of these preexisting disturbances, the area removed will be deducted from the area treated as a "natural buffer."
- For "linear construction sites" (see Appendix A), you are not required to comply with this requirement if site constraints *(e.g., limited right-of-way)* make it infeasible to implement one of the Part 2.2.1.a compliance alternatives, provided that, to the extent feasible, you limit disturbances within 50 feet of any waters of the U.S. and/or you provide supplemental erosion and sediment controls to treat stormwater discharges from earth disturbances within 50 feet of the water of the U.S. You must also document in your SWPPP your rationale for why it is infeasible for you to implement one of the Part 2.2.1.a compliance alternatives, and describe any buffer width retained and 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 larger residential*

project that will ultimately disturb greater than or equal to 1 acre), you have the option of complying with one of the "small residential lot" compliance alternatives in Part G.3 of this appendix.

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.

G.2.3 Requirements for Providing and Maintaining Natural Buffers

This part of the appendix applies to you if you choose compliance alternative 1 (50-foot buffer), compliance 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 G.3.

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 G-2 and Figure G-3. You may find that specifically measuring these points is challenging if the flow path of the water of the U.S. 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 water of the U.S. 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 compliance alternative 1, 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.

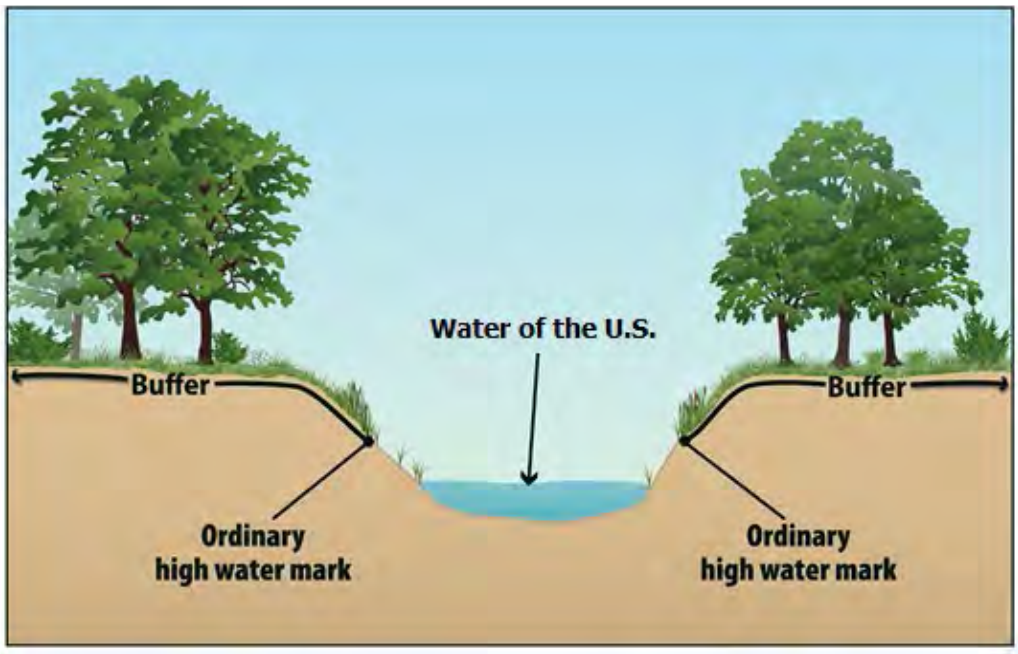


Figure G-2 Buffer measurement from the ordinary high water mark of the water body, as indicated by a clear natural line impressed on the bank, shelving, changes in the character of the soil, destruction of terrestrial vegetation, and/or the presence of litter/debris.

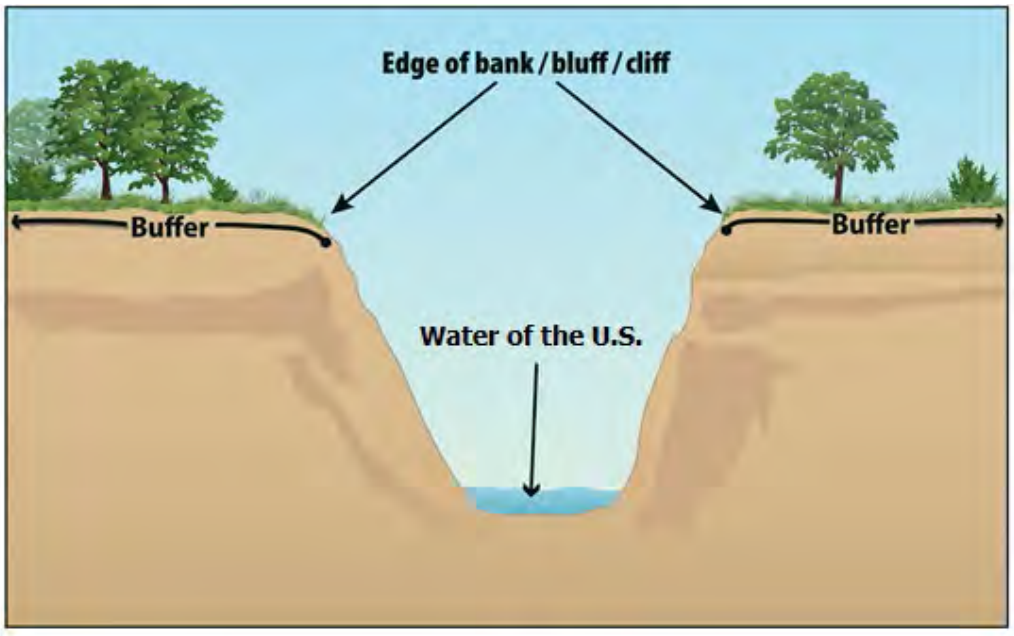


Figure G-3 Buffer measurement from the edge of the bank, bluff, or cliff, whichever is applicable.

Limits to Disturbance Within the Buffer

You are considered to be in compliance with the requirement to provide and maintain a natural buffer 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 vegetation. As noted above, any preexisting structures or

impervious surfaces may occur in the natural buffer provided you retain and protect from disturbance the buffer areas outside of 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 target plantings where limited vegetation exists, or replace 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 water of the U.S. 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 comply with compliance alternative 1 (provide and maintain a 50-foot buffer), but 10 feet of land immediately adjacent to the water of the U.S. 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 adjacent to the property on which your construction activities are taking place. EPA 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.

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 2.2.3 requirement to install sediment controls along any perimeter areas of the site that will receive pollutant discharges*), **and if necessary to prevent erosion caused by stormwater flows within the buffer, you must use velocity dissipation devices**. The purpose of this requirement is to decrease the rate of stormwater 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 stormwater flows so that the discharge entering the buffer is spread out and slowed down.

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

describe the erosion and sediment controls you will use to achieve an equivalent sediment reduction, as required in Part G.2.4 below). Note that you must also show any buffers on your site map in your SWPPP consistent with Part 7.2.4.i. Additionally, if any disturbances related to the exceptions in Part G.2.2 occur within the buffer area, you must document this in the SWPPP.

G.2.4 Guidance for Providing the Equivalent Sediment Reduction as a 50-foot Buffer

This part of the appendix applies to you if you choose compliance alternative 2 (provide and maintain a buffer that is less than 50 feet that is supplemented by erosion and sediment controls that achieve the sediment load reduction equivalent to a 50-foot buffer) or compliance alternative 3 (implement erosion and sediment controls to achieve the sediment load reduction equivalent to a 50-foot buffer).

Determine Whether it is Feasible to Provide a Reduced Buffer

EPA 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 G.2.2), 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.

Therefore, you should choose compliance alternative 2 if it is feasible for you to retain some natural buffer on your site. (Note: For any buffer width retained, you are required to comply with the requirements in Part G.2.3, 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 choose alternative 3.

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 additional treatment of stormwater discharges that flow through 50 feet or more of natural buffer. See Figure G-4.

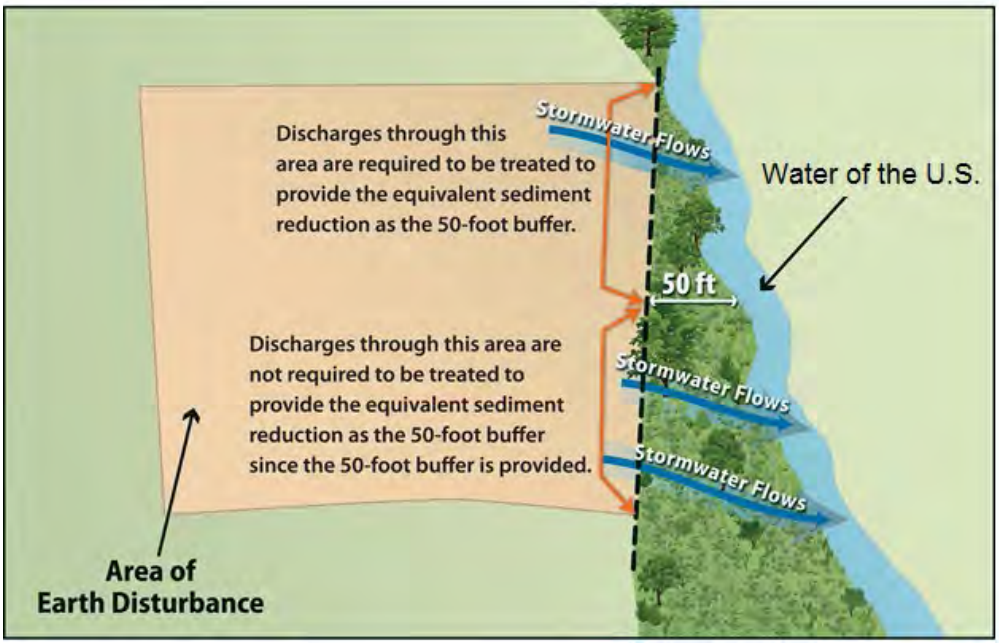


Figure G-4 Example of how to comply with the requirement to provide the equivalent sediment reduction when only a portion of your earth-disturbances discharge to a buffer of less than 50-feet.

Steps to help you meet compliance alternative 2 and 3 requirements are provided below.

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 erosion and sediment controls used to reduce the discharge of sediment prior to the buffer. EPA has simplified this calculation by developing buffer performance tables covering a range of vegetation and soil types for the areas covered by the CGP. See Attachment 1 of this Appendix, Tables G-8 through G-15. Note: buffer performance values in Tables G-8 through G-15 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.[1]

[1] 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.

Using Tables G-8 through G-15 (see Attachment 1 of this Appendix), 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 Massachusetts (Table G-9), and your buffer vegetation corresponds most closely with that of tall fescue grass, and the soil type at your site is best typified as sand, your site's sediment removal efficiency would be 81 percent.

In this step, you should choose the vegetation type 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 water of the U.S. is owned by another party and is not under your control, you can treat the area of land not under your 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 water of the U.S., but the 10 feet of land immediately adjacent to the water of the U.S. 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 that 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 G-8 through G-15. This calculation must be documented in your SWPPP.

Step 2 - Design Controls That Match the Sediment Removal Efficiency of the 50-foot Buffer

Once you determine the estimated sediment removal efficiency of a 50-foot buffer for your site in Step 1, you must next select stormwater controls that will provide an equivalent sediment load reduction. These controls can include the installation of a single control, such as a sediment pond or additional perimeter controls, or a combination of stormwater controls. 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 a 50-foot natural buffer (Step 1). You may 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 G-8 through G-15. (Note: You are reminded that the controls must be kept in effective operating condition until you complete final stabilization on the disturbed portions of the site discharging to the water of the U.S.)

- 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. 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 water of the U.S. will typically be undisturbed. EPA also evaluated slope steepness and found that sediment removal efficiencies present in Tables G-8 through G-15 are achievable for slopes that are less than nine percent.

To make the determination that your controls and/or buffer area achieve an equivalent sediment load reduction as a 50-foot buffer, you should use a model or other type of calculation. 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 retain 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 retain 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 feet 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 stormwater 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 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 water of the U.S., but the 10 feet of land immediately adjacent to the water of the U.S. 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.*

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.

EPA 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 G-8 through G-15. 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 compliance 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.

G.3 SMALL RESIDENTIAL LOT COMPLIANCE ALTERNATIVES

EPA has developed two additional compliance alternatives applicable only to "small residential lots" that are unable to provide and maintain a 50 foot buffer.

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.

The following steps describe how a small residential lot operator would achieve compliance with one these 2 alternatives.

G.3.1 Small Residential Lot Compliance Alternative Eligibility

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 operator must follow the guidance for providing and maintaining a natural buffer in Part G.2.3 of this Appendix, 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 stormwater 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.

G.3.2 Small Residential Lot Compliance Alternatives

You must next choose from one of two small residential lot compliance alternatives and implement the stormwater control practices associated with that alternative.

Note: The compliance alternatives provided below are not mandatory. Operators of small residential lots can alternatively choose to comply with the any of the options that are available to other sites in Part 2.2.1.a and G.2.1 of this Appendix.

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 meet the requirements of small residential lot compliance alternative 1, you must implement the controls specified in Table G-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 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 water of the U.S.

In addition to implementing the applicable control, you must also document in your SWPPP how you will comply with small residential lot compliance alternative 1.

Table G-1 Alternative 1 Requirements[2]

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

Small Residential Lot Compliance Alternative 2

Alternative 2 specifies the controls that a builder of a small residential lot must implement based on both the buffer width retained and the site's sediment discharge risk. 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, EPA developed five different tables for different slope conditions. You should select the table that most closely corresponds to your site's average slope.

For example, if your site's average slope is 7 percent, you should use Table G-4 to determine your site's sediment risk.

After you determine which table applies to your site, you must then use the table to determine the "risk level" (e.g., "low", "moderate", or "high") that corresponds to your site's location and predominant soil type.[3]

For example, based on Table G-3, a site located in New Hampshire with a 4 percent average slope and with predominately sandy clay loam soils would fall into the "moderate" risk level.

[2] **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 2.2.3.
- **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 water of the U.S. 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 2.2.3, you must provide a double row of perimeter controls between the disturbed portion of your site and the water of the U.S. spaced a minimum of 5 feet apart, and you are required to complete the stabilization activities specified in Parts 2.2.14 within 7 calendar days of the temporary or permanent cessation of earth-disturbing activities.

[3] 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.

Table G-2 Risk Levels for Sites with Average Slopes of ≤ 3 Percent

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
CNMI / Guam	Moderate	Moderate	Moderate	Moderate	High
Puerto Rico	Moderate	Moderate	Moderate	Moderate	High
Virgin Islands	Low	Moderate	Low	Moderate	Moderate
American Samoa	Moderate	Moderate	Moderate	Moderate	High
Massachusetts and New Hampshire	Low	Moderate	Low	Low	Moderate
Idaho	Low	Low	Low	Low	Low
New Mexico	Low	Low	Low	Low	Low
Washington D.C.	Low	Moderate	Low	Low	Moderate

Table G-3 Risk Levels for Sites with Average Slopes of > 3 Percent and ≤ 6 Percent

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
CNMI / Guam	Moderate	Moderate	Moderate	Moderate	High
Puerto Rico	Moderate	Moderate	Moderate	Moderate	High
Virgin Islands	Moderate	Moderate	Moderate	Moderate	High
American Samoa	High	High	Moderate	High	High
Massachusetts and New Hampshire	Moderate	Moderate	Low	Moderate	High
Idaho	Low	Low	Low	Low	Low
New Mexico	Low	Low	Low	Low	Moderate
Washington D.C.	Moderate	Moderate	Moderate	Moderate	High

Table G-4 Risk Levels for Sites with Average Slopes of > 6 Percent and ≤ 9 Percent

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
CNMI / Guam	Moderate	High	Moderate	High	High
Puerto Rico	Moderate	High	Moderate	Moderate	High
Virgin Islands	Moderate	Moderate	Moderate	Moderate	High
American Samoa	High	High	High	High	High
Massachusetts and New Hampshire	Moderate	Moderate	Moderate	Moderate	High
Idaho	Low	Low	Low	Low	Low
New Mexico	Low	Low	Low	Low	Moderate
Washington D.C.	Moderate	Moderate	Moderate	Moderate	High

Table G-5 Risk Levels for Sites with Average Slopes of > 9 Percent and ≤ 15 Percent

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
CNMI / Guam	High	High	High	High	High
Puerto Rico	High	High	High	High	High
Virgin Islands	Moderate	High	Moderate	High	High
American Samoa	High	High	High	High	High
Massachusetts and New Hampshire	Moderate	Moderate	Moderate	Moderate	High
Idaho	Low	Low	Low	Low	Low
New Mexico	Low	Moderate	Low	Moderate	Moderate
Washington D.C.	Moderate	High	Moderate	Moderate	High

Table G-6 Risk Levels for Sites with Average Slopes of > 15 Percent

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
CNMI / Guam	High	High	High	High	High
Puerto Rico	High	High	High	High	High
Virgin Islands	High	High	High	High	High
American Samoa	High	High	High	High	High
Massachusetts and New Hampshire	High	High	Moderate	High	High
Idaho	Low	Low	Low	Low	Moderate
New Mexico	Moderate	Moderate	Moderate	Moderate	High
Washington D.C.	High	High	Moderate	High	High

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 to retain. Table G-7 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 operator of a small residential lot that falls into the "moderate" risk level, and you decide to retain a 20-foot buffer, using Table G-7 you would determine that you need to implement double perimeter controls to achieve compliance with small residential lot compliance alternative 2.

You must also document in your SWPPP your compliance with small residential lot compliance alternative 2.

Table G-7. 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[4]

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.

Table G-8 Estimated 50-foot Buffer Performance in Idaho*

	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 Bunchgrass (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

Table G-9 Estimated 50-foot Buffer Performance in Massachusetts and New Hampshire*

	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**
Warm-season Grass (i.e., Switchgrass, Lemongrass)	79	90	90	90	90
Cool-season Dense Grass (Kentucky Bluegrass, Smooth Bromegrass, Timothy)	78	90	90	90	90
Tall Fescue Grass	76	90	81	89	90
Medium-density Weeds	66	76	60	72	66

* Applicable for sites with less than nine percent slope
** Characterization focuses on the under-story vegetation

[4] The buffer performances were calculated based on a denuded slope upgradient of a 50-foot buffer and a perimeter controls, as perimeter controls are a standard requirement (see Part 2.2.3).

Table G-10 Estimated 50-foot Buffer Performance in New Mexico*

	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 Bunchgrass (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

Table G-11 Estimated 50-foot Buffer Performance in Washington, DC*

	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**
Warm-season Grass (i.e., Switchgrass, Lemongrass)	82	90	90	90	90
Cool-season Dense Grass (Kentucky Bluegrass, Smooth Bromegrass, Timothy)	81	90	90	90	90
Tall Fescue Grass	79	90	83	89	90
Medium-density Weeds	71	79	66	75	74

* Applicable for sites with less than nine percent slope
** Characterization focuses on the under-story vegetation

Table G-12 Estimated 50-foot Buffer Performance in American Samoa*

	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**
Bahiagrass (Permanent cover)	82	90	90	90	83
Warm-season Grass (i.e., Switchgrass, Lemongrass)	82	90	90	90	85
Dense Grass	82	90	90	90	83
Tall Fescue Grass	82	89	82	89	79
Medium-density Weeds	70	73	62	75	59

* Applicable for sites with less than nine percent slope
** Characterization focuses on the under-story vegetation

Table G-13 Estimated 50-foot Buffer Performance in CNMI and Guam*

	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**
Bahiagrass (Permanent cover)	80	90	90	90	89
Warm-season Grass (i.e., Switchgrass, Lemongrass)	80	90	90	90	90
Dense Grass	79	90	90	90	89
Tall Fescue Grass	76	90	80	88	87
Medium-density Weeds	63	73	53	68	61

* Applicable for sites with less than nine percent slope
** Characterization focuses on the under-story vegetation

Table G-14 Estimated 50-foot Buffer Performance in Puerto Rico*

	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**
Bahiagrass (Permanent cover)	83	90	90	90	90
Warm-season Grass (i.e., Switchgrass, Lemongrass)	83	90	90	90	90
Dense Grass	83	90	90	90	90
Tall Fescue Grass	82	90	84	90	89
Medium-density Weeds	72	78	65	76	64

* Applicable for sites with less than nine percent slope
** Characterization focuses on the under-story vegetation

Table G-15 Estimated 50-foot Buffer Performance in Virgin Islands*

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**
Bahiagrass (Permanent cover)	85	90	90	90	90
Warm-season Grass (i.e., Switchgrass, Lemongrass)	86	90	90	90	90
Dense Grass	85	90	90	90	90
Tall Fescue Grass	85	90	88	90	89
Medium-density Weeds	75	77	71	78	63

* Applicable for sites with less than nine percent slope
** Characterization focuses on the under-story vegetation

ATTACHMENT 2

Using the Sediment Removal Efficiency Tables – Questions and Answers

- *What if my specific buffer vegetation is not represented in Tables G-8 through G-15?* Tables G - 8 through G - 15 provide a wide range of factors affecting buffer performance; however, there are likely instances where the specific buffer vegetation type on your site is not listed. 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 (http://nifa.usda.gov/partners-and-extension-map) for assistance in determining the vegetation type in Tables G-8 through G-15 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 G-8 through G-15 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 use a range of available 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 G-8 through G-15?* If your site is located in an area not represented by Tables G-8 through G-15, you should use the table that most closely approximates conditions at your site. You may instead 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 water of the U.S., where that water is within 50 feet of your earth disturbances, you are only required to meet the equivalency requirement for the stormwater 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 Massachusetts)

The operator of a 7.5-acre construction site in Massachusetts has determined that it is infeasible to establish a buffer of any size on the site, and is now required to select and install controls that will achieve an equivalent sediment load reduction as that estimated in G-9 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 G-9 can be used to estimate the 50-foot buffer sediment load reduction. If the site's buffer vegetation is best typified by cool-season dense grass and the underlying soil is of a type best described as loamy sand, the 50-foot buffer is projected to capture 90 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 2.2.3), which will achieve the 90 percent sediment removal efficiency from Table G-9. 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 90 percent that a 50-foot buffer provides, the operator will have met the buffer requirements. See Figure G-5. The operator could also choose a different set of controls, as long as they achieve at least a 90 percent sediment removal efficiency.

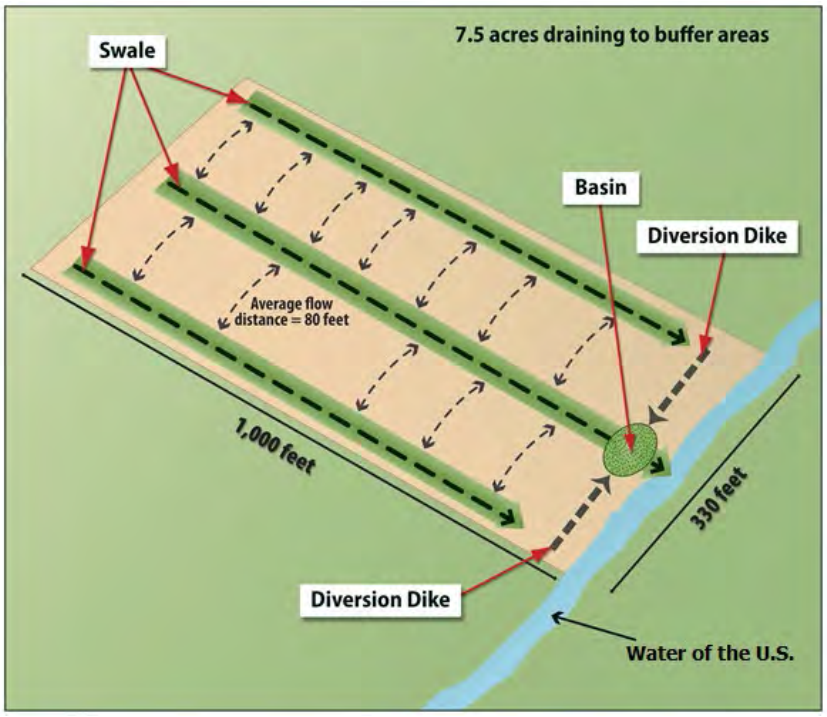


Figure G-5 Example 1 – Equivalent Sediment Load Reductions at a 7.5 ac Site in MA.

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

An operator of a site in New Mexico determines that it is not feasible 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 1in Part G.2.4 of this Appendix with a review of the New Mexico buffer performance (Table G-10). The operator determines that the predominate vegetation type in the buffer area is prairie grass, the soil type is similar to silt, and 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 G-10 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 G-10, 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 2.2.3) and the 28-foot buffer will achieve an estimated 84 percent sediment removal efficiency. See Figure G-6. Note that this operator is subject to the requirement in Part G.2.3 of this Appendix 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.

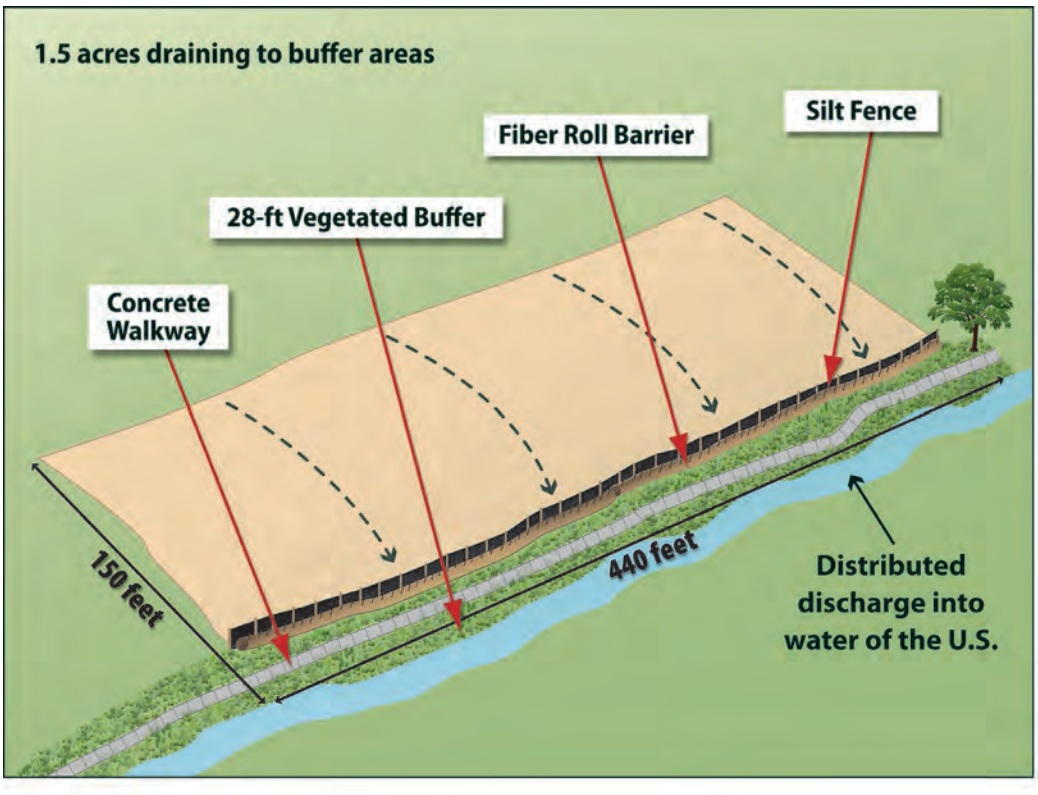


Figure G-6 Example 2 – Equivalent Sediment Load Reductions at a 6.5 ac Site in NM.

Appendix H – 2-Year, 24-Hour Storm Frequencies

Part 2.2.12 of the permit indicates that if you install a sediment basin, one of the design requirements is to provide storage for either (1) the calculated volume of runoff from a 2-year, 24-hour storm, or (2) 3,600 cubic feet per acre drained. This appendix is intended to provide a guide to permittees to determine the volume of precipitation associated with their local 2-year, 24-hour storm event.

The permittee should start out by determining their local 2-year, 24-hour storm volume. The rainfall frequency atlases, technical papers, and the Precipitation Frequency Data Server (PFDS) developed by the National Oceanic and Atmospheric Administration's (NOAA) National Weather Service (NWS) serve as national standards for rainfall intensity at specified frequencies and durations in the United States. Table H-1 identifies methods for determining precipitation frequency based on permit area. EPA notes that permittees may also use alternative peer-reviewed data sources not listed in Table H - 1 to determine the 2-year, 24-hour storm for their site.

Table H -1 – Method to Determine Precipitation Frequency Based on Permit Area

PERMIT AREA	METHOD TO DETERMINE PRECIPITATION FREQUENCY
District of Columbia	PFDS; NOAA Atlas 14, Vol. 2
Idaho	NOAA Atlas 2, Vol. 5; Technical Paper 40
Massachusetts	Technical Paper 40
New Hampshire	Technical Paper 40
New Mexico	PFDS; Technical Paper 40
Selected Pacific Islands	PFDS; Technical Paper 40
Puerto Rico and the U.S Virgin Islands	PFDS; Technical Paper 40
Other	PFDS; Technical Paper 40; NOAA Atlas 2 or 14

How to Determine Your Local 2-year, 24-hour Storm Size

Projects located in the **District of Columbia, Massachusetts, New Hampshire, New Mexico, Puerto Rico, U.S. Virgin Islands, or Pacific Island**s can use the PFDS at http://hdsc.nws.noaa.gov/hdsc/pfds/index.html or the appropriate NOAA's Atlas 14 Volume at http://www.nws.noaa.gov/oh/hdsc/currentpf.htm to determine their precipitation frequency.

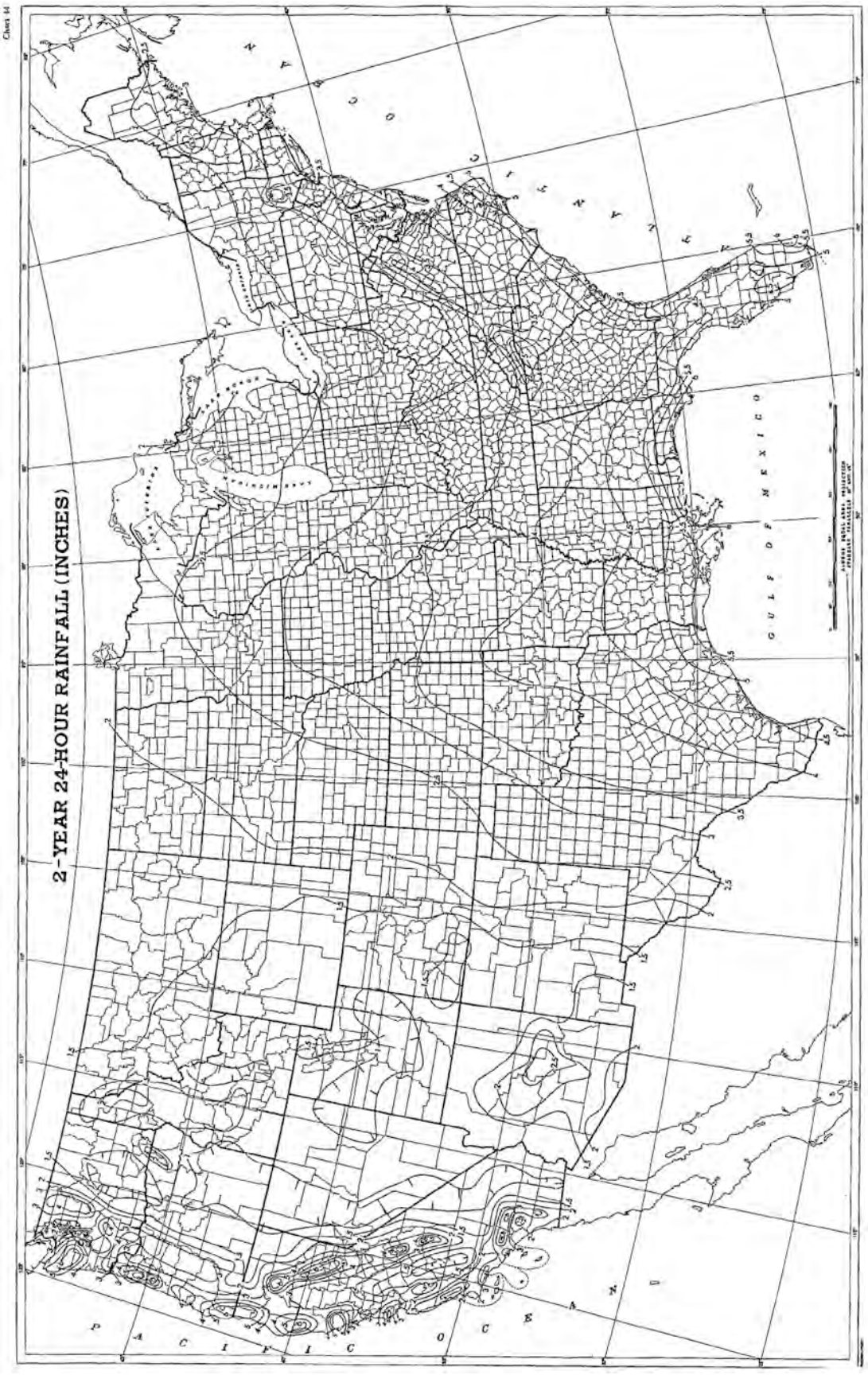
The PFDS is an easy to use, point-and-click interface to official U.S. precipitation frequency estimates and intensities. The opening PFDS screen is a clickable map of the United States. Upon clicking on a state, a state-specific interface appears. From this page the user selects the following:

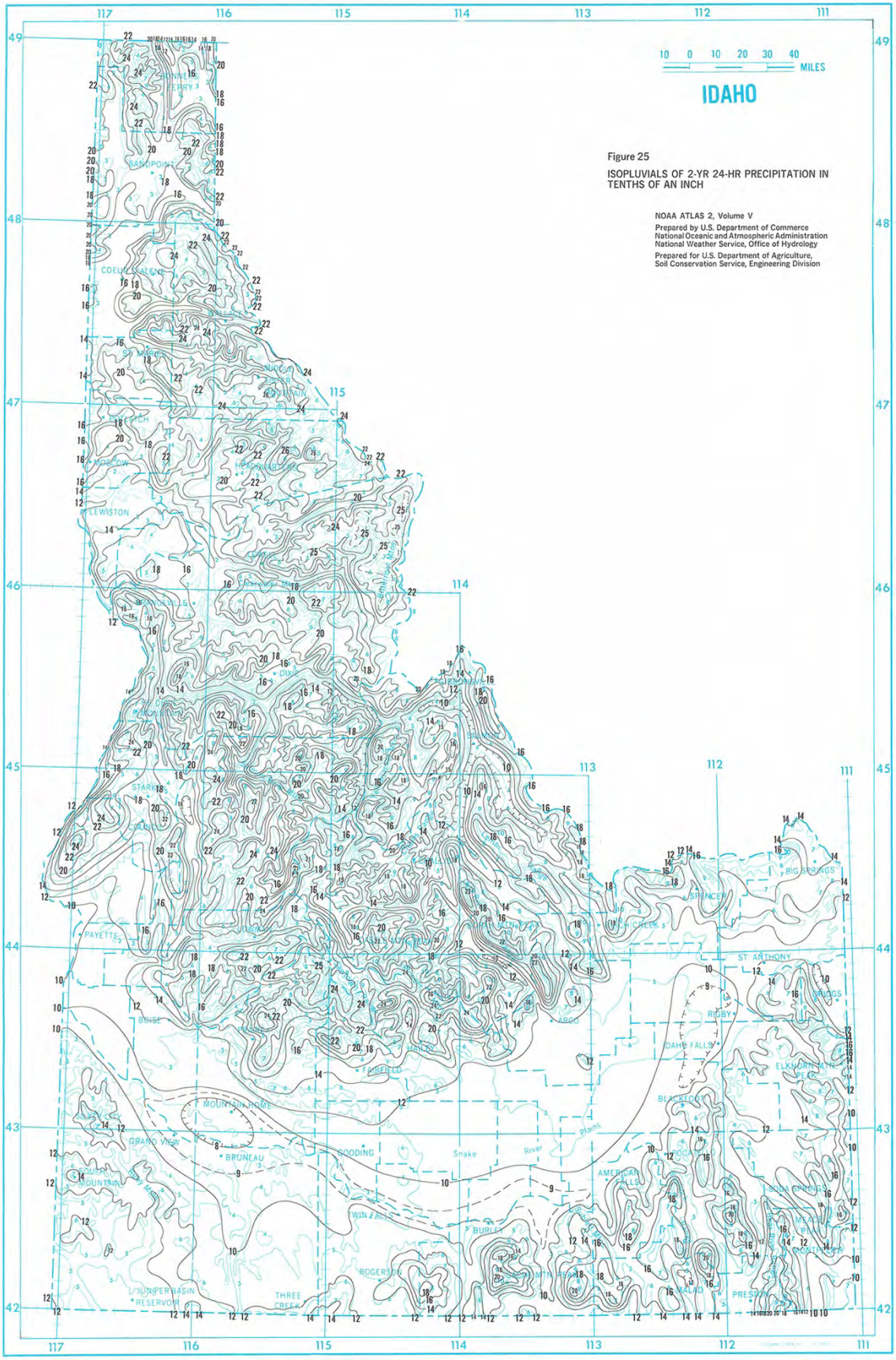
- A location: Either via clicking on the map or manually entering a longitude/latitude coordinate;
- Data type: precipitation depth or precipitation intensity
- Units: english or metric; and
- Time series type: partial duration or annual maximum.

Additionally, PFDS also serves as a tool for providing references and other information for other current precipitation frequency standards that are not yet updated.

Projects located in **Idaho** can use the NOAA Atlas 2, Vol. 5 to determine their precipitation frequency. NOTE: Precipitation Frequencies on the NOAA Atlas 2, Vol. 5 are in tenths of an inch and will have to be converted to inches to determine precipitation frequency. NOAA Atlas 2, Vol. 5 can be accessed at http://www.nws.noaa.gov/oh/hdsc/PF_documents/Atlas2_Volume5.pdf. (See also attached map of NOAA Atlas 2, Vol. 5)

Projects located in areas not covered by the PFDS or NOAA Atlases will need to use TP-40 to identify the precipitation frequency. TP-40 provides a map of the continental U.S. for the 2-year, 24-hour rainfall. TP40 can be accessed at http://www.nws.noaa.gov/oh/hdsc/PF_documents/TechnicalPaper_No40.pdf. (See also attached map of TP-40)


2-YEAR 24-HOUR RAINFALL (INCHES)
GULF OF MEXICO
PACIFIC OCEAN


10 0 10 20 30 40
MILES
IDAHO
Figure 25
ISOPLUVIALS OF 2-YR 24-HR PRECIPITATION IN TENTHS OF AN INCH
NOAA ATLAS 2, Volume V
Prepared by U.S. Department of Commerce
National Oceanic and Atmospheric Administration
National Weather Service, Office of Hydrology
Prepared for U.S. Department of Agriculture,
Soil Conservation Service, Engineering Division
SANDPOINT
COEUR D'ALENE
LEWISTON
MOSCOW
DUBOIS
PAYETTE
BOISE
MOUNTAIN HOME
GRAND VIEW
BRUNEAU
SOODING
Snake
River
Plains
TWIN FALLS
BURLEY
ROGERSON
JUNIPER BASIN RESERVOIR
THREE CREEK
ARCO
IDAHO FALLS
RIGBY
ST. ANTHONY
SPENCER
RIG SPRINGS
BLACKFOOT
AMERICAN FALLS
SODA SPRINGS
PRESTON
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Appendix I - Standard Permit Conditions

Standard permit conditions in Appendix I are consistent with the general permit provisions required under 40 CFR 122.41.

I.1 Duty To Comply.

You must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the Clean Water Act and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application.

I.1.1 You must comply with effluent standards or prohibitions established under Section 307(a) of the Clean Water Act for toxic pollutants within the time provided in the regulations that establish these standards, even if the permit has not yet been modified to incorporate the requirement.

I.1.2 Penalties for Violations of Permit Conditions: The Director will adjust the civil and administrative penalties listed below in accordance with the Civil Monetary Penalty Inflation Adjustment Rule (61 FR 252, December 31, 1996, pp. 69359-69366, as corrected in 62 FR 54, March 20, 1997, pp.13514-13517) as mandated by the Debt Collection Improvement Act of 1996 for inflation on a periodic basis. This rule allows EPA's penalties to keep pace with inflation. The Agency is required to review its penalties at least once every 4 years thereafter and to adjust them as necessary for inflation according to a specified formula. The civil and administrative penalties following were adjusted for inflation starting in 1996.

I.1.2.1 *Criminal Penalties.*

a. *Negligent Violations*. The CWA provides that any person who negligently violates permit conditions implementing Sections 301, 302, 306, 307, 308, 318, or 405 of the Act is subject to criminal penalties of not less than $2,500 nor more than $25,000 per day of violation, or imprisonment of not more than one year, or both. In the case of a second or subsequent conviction for a negligent violation, a person shall be subject to criminal penalties of not more than $50,000 per day of violation or by imprisonment of not more than two years, or both.

b. *Knowing Violations.* The CWA provides that any person who knowingly violates permit conditions implementing Sections 301, 302, 306, 307, 308, 318, or 405 of the Act is subject to a fine of not less than $5,000 nor more than $50,000 per day of violation, or by imprisonment for not more than 3 years, or both. In the case of a second or subsequent conviction for a knowing violation, a person shall be subject to criminal penalties of not more than $100,000 per day of violation, or imprisonment of not more than 6 years, or both.

c. *Knowing Endangerment.* The CWA provides that any person who knowingly violates permit conditions implementing Sections 301, 302, 306, 307, 308, 318, or 405 of the Act and who knows at that time that he or she is placing another person in imminent danger of death or serious bodily injury shall upon conviction be subject to a fine of not more than $250,000 or by imprisonment of not more than 15 years, or both. In the case of a second or subsequent conviction for a knowing endangerment violation, a person shall be subject to a fine of not more than $500,000 or by imprisonment of not more than 30 years, or both. An organization, as defined in Section 309(c)(3)(B)(iii) of the Act, shall, upon conviction of violating the imminent danger provision be subject to a fine of not

more than $1,000,000 and can fined up to $2,000,000 for second or subsequent convictions.

d. *False Statement.* The CWA provides that any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained under this permit shall, upon conviction, be punished by a fine of not more than $10,000, or by imprisonment for not more than 2 years, or both. If a conviction of a person is for a violation committed after a first conviction of such person under this paragraph, punishment is a fine of not more than $20,000 per day of violation, or by imprisonment of not more than 4 years, or both. The Act further provides that any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this permit, including monitoring reports or reports of compliance or non-compliance shall, upon conviction, be punished by a fine of not more than $10,000 per violation, or by imprisonment for not more than 6 months per violation, or by both.

I.1.2.2 *Civil Penalties.* The CWA provides that any person who violates a permit condition implementing Sections 301, 302, 306, 307, 308, 318, or 405 of the Act is subject to a civil penalty not to exceed the maximum amount authorized by Section 309(d) of the Act, as adjusted pursuant to the Federal Civil Penalties Inflation Adjustment Act (28 U.S.C. § 2461 note) as amended (28 U.S.C. § 2461 note), and codified at 40 CFR § 19.4.

I.1.2.3 *Administrative Penalties.* The CWA provides that any person who violates a permit condition implementing Sections 301, 302, 306, 307, 308, 318, or 405 of the Act is subject to an administrative penalty, as follows

a. *Class I Penalty.* Not to exceed the maximum amounts authorized by Section 309(g)(2)(A) of the Act, as adjusted pursuant to the Federal Civil Penalties Inflation Adjustment Act (28 U.S.C. § 2461 note), as amended (28 U.S.C. § 2461 note), and codified at 40 CFR § 19.4.

b. *Class II Penalty.* Not to exceed the maximum amounts authorized by Section 309(g)(2)(B) of the Act, as adjusted pursuant to the Federal Civil Penalties Inflation Adjustment Act (28 U.S.C. § 2461 note), as amended, (28 U.S.C. § 2461 note), and codified at 40 CFR § 19.4.

I.2 Duty to Reapply.

If you wish to continue an activity regulated by this permit after the expiration date of this permit, you must apply for and obtain authorization as required by the new permit once EPA issues it.

I.3 Need to Halt or Reduce Activity Not a Defense.

It shall not be a defense for you 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.

I.4 Duty to Mitigate.

You must take all reasonable steps to minimize or prevent any discharge in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment.

I.5 Proper Operation and Maintenance.

You must at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) that are installed or used by you to achieve compliance with the conditions of this permit. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of backup or auxiliary facilities or similar systems which are installed by you only when the operation is necessary to achieve compliance with the conditions of this permit.

I.6 Permit Actions.

This permit may be modified, revoked and reissued, or terminated for cause. Your filing of a request for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any permit condition.

I.7 Property Rights.

This permit does not convey any property rights of any sort, or any exclusive privileges.

I.8 Duty to Provide Information.

You must furnish to EPA or an authorized representative (including an authorized contractor acting as a representative of EPA), within a reasonable time, any information that EPA may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit or to determine compliance with this permit. You must also furnish to EPA or an authorized representative upon request, copies of records required to be kept by this permit.

I.9 Inspection and Entry.

You must allow EPA or an authorized representative (including an authorized contractor acting as a representative of EPA), upon presentation of credentials and other documents as may be required by law, to:

I.9.1 Enter upon your premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit;

I.9.2 Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;

I.9.3 Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and

I.9.4 Sample or monitor at reasonable times, for the purposes of assuring permit compliance or as otherwise authorized by the Clean Water Act, any substances or parameters at any location.

I.10 Monitoring and Records.

I.10.1 Samples and measurements taken for the purpose of monitoring must be representative of the volume and nature of the monitored activity.

I.10.2 You must retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this permit, and records of all data used to complete the application for this permit, for a period of at least three years from the date the permit expires or the date the permittee's authorization is terminated. This period may be extended by request of EPA at any time.

I.10.3 Records of monitoring information must include:

I.10.3.1 The date, exact place, and time of sampling or measurements;

I.10.3.2 The individual(s) who performed the sampling or measurements;

I.10.3.3 The date(s) analyses were performed

I.10.3.4 The individual(s) who performed the analyses;

I.10.3.5 The analytical techniques or methods used; and

I.10.3.6 The results of such analyses.

I.10.4 Monitoring must be conducted according to test procedures approved under 40 CFR Part 136, unless other test procedures have been specified in the permit.

I.10.5 The Clean Water Act provides that any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained under this permit shall, upon conviction, be punished by a fine of not more than $10,000, or by imprisonment for not more than 2 years, or both. If a conviction of a person is for a violation committed after a first conviction of such person under this paragraph, punishment is a fine of not more than $20,000 per day of violation, or by imprisonment of not more than 4 years, or both.

I.11 Signatory Requirements.

I.11.1 All applications, including NOIs, must be signed as follows:

I.11.1.1 For a corporation: By a responsible corporate officer. For the purpose of this subsection, a responsible corporate officer means: (i) 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 (ii) the manager of one or more manufacturing, production, or operating facilities, provided, the manager is authorized to make management decisions which govern the operation of the regulated facility including having the explicit or implicit duty of making major capital investment recommendations, and initiating and directing other comprehensive measures to assure long term environmental compliance with environmental laws and regulations; the manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information for permit application requirements; and where authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.

I.11.1.2 For a partnership or sole proprietorship: By a general partner or the proprietor, respectively; or

I.11.1.3 For a municipality, state, federal, or other public agency: By either a principal executive officer or ranking elected official. For purposes of this subsection, a principal executive officer of a federal agency includes (i) the chief executive officer of the agency, or (ii) a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., Regional Administrator of EPA).

I.11.2 Your SWPPP, including changes to your SWPPP, inspection reports, and any other compliance documentation required under this permit, must be signed by a person described in Appendix I, Subsection I.11.1 above or by a duly authorized representative of that person. A person is a duly authorized representative only if:

I.11.2.1 The authorization is made in writing by a person described in Appendix I, Subsection I.11.1;

I.11.2.2 The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity such as the position of plant manager, operator of a well or a well field, superintendent, 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); and

I.11.2.3 The signed and dated written authorization is included in the SWPPP. A copy must be submitted to EPA, if requested.

I.11.3 Changes to Authorization. If an authorization under this permit is no longer accurate because a different operator has responsibility for the overall operation of the construction site, a new NOI must be submitted to EPA. See Table 1 in Part 1.4.2 of the permit. However, if the only change that is occurring is a change in contact information or a change in the facility's address, the operator need only make a modification to the existing NOI submitted for authorization.

I.11.4 Any person signing documents in accordance with Appendix I, Subsections I.11.1 or I.11.2 above must include 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 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 have no personal knowledge that the information submitted is other than true, accurate, and complete I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

I.11.5 For persons signing NOIs electronically, in addition to meeting other applicable requirements in Appendix I, Subsection I.11, such signatures must meet the same signature, authentication, and identity-proofing standards set forth at 40 CFR § 3.2000(b) for electronic reports (including robust second-factor authentication).

I.11.6 The CWA provides that any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this permit, including monitoring reports or reports of compliance or non-compliance shall, upon conviction, be punished by a fine of not more than $10,000 per violation, or by imprisonment for not more than 6 months per violation, or by both.

I.12 Reporting Requirements.

I.12.1 Planned changes. You must give notice to EPA as soon as possible of any planned physical alterations or additions to the permitted facility. Notice is required only when:

I.12.1.1 The alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a new source in 40 CFR 122.29(b); or

I.12.1.2 The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants which are subject neither to effluent limitations in the permit, nor to notification requirements under 40 CFR 122.42(a)(1).

I.12.2 Anticipated noncompliance. You must give advance notice to EPA of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements.

I.12.3 Transfers. This permit is not transferable to any person except after notice to EPA. Where a facility wants to change the name of the permittee, the original permittee (the first owner or operators) must submit a Notice of Termination pursuant to Part 8. The new owner or operator must submit a Notice of Intent in accordance with Part 1.7 and Table 1. See also requirements in Appendix I, Subsections I.11.1 and I.11.2.

I.12.4 Monitoring reports. Monitoring results must be reported at the intervals specified elsewhere in this permit.

I.12.4.1 Monitoring results must be reported on a Discharge Monitoring Report (DMR) or forms provided or specified by EPA for reporting results of monitoring of sludge use or disposal practices.

I.12.4.2 If you monitor any pollutant more frequently than required by the permit using test procedures approved under 40 CFR Part 136 or, in the case of sludge use or disposal, approved under 40 CFR 136 unless otherwise specified in 40 CFR Part 503, or as specified in the permit, the results of this monitoring must be included in the calculation and reporting of the data submitted in the DMR or sludge reporting form specified by EPA.

I.12.5 Compliance schedules. Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this permit must be submitted no later than 14 days following each schedule date.

I.12.6 Twenty-four hour reporting. In addition to reports required elsewhere in this permit:

I.12.6.1 You must report any noncompliance which may endanger health or the environment directly to the EPA Regional Office (see contacts at https://www2.epa.gov/national-pollutant-discharge-elimination-system-npdes/contact-us-stormwater#regional). Any information must be provided orally within 24 hours from the time you become aware of the circumstances. A written submission must also be provided within five days of the time you become aware of the circumstances. The written submission must contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.

I.12.6.2 The following shall be included as information which must be reported within 24 hours under this paragraph.

a. Any unanticipated bypass which exceeds any effluent limitation in the permit. (See 40 CFR 122.41(m)(3)(ii))

b. Any upset which exceeds any effluent limitation in the permit

c. Violation of a maximum daily discharge limit for any numeric effluent limitation. (See 40 CFR 122.44(g).)

I.12.6.3 EPA may waive the written report on a case-by-case basis for reports under Appendix I, Subsection I.12.6.2 if the oral report has been received within 24 hours.

I.12.7 Other noncompliance. You must report all instances of noncompliance not reported under Appendix I, Subsections I.12.4, I.12.5, and I.12.6, at the time monitoring reports are submitted. The reports must contain the information listed in Appendix I, Subsection I.12.6.

I.12.8 Other information. Where you become aware that you failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application

or in any report to the Permitting Authority, you must promptly submit such facts or information.

I.13 Bypass.

I.13.1 Definitions.

I.13.1.1 Bypass means the intentional diversion of waste streams from any portion of a treatment facility See 40 CFR 122.41(m)(1)(i).

I.13.1.2 Severe property damage means substantial physical damage to property, damage to the treatment facilities which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production. See 40 CFR 122.41(m)(1)(ii).

I.13.2 Bypass not exceeding limitations. You may allow any bypass to occur which does not cause effluent limitations to be exceeded, but only if it also is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions of Appendix I, Subsections I.13.3 and I.13.4. See 40 CFR 122.41(m)(2).

I.13.3 Notice.

I.13.3.1 Anticipated bypass. If you know in advance of the need for a bypass, you must submit prior notice, if possible at least ten days before the date of the bypass. See 40 CFR 122.41(m)(3)(i).

I.13.3.2 Unanticipated bypass. You must submit notice of an unanticipated bypass as required in Appendix I, Subsection I.12.6 (24-hour notice). See 40 CFR 122.41(m)(3)(ii).

I.13.4 Prohibition of bypass. See 40 CFR 122.41(m)(4).

I.13.4.1 Bypass is prohibited, and EPA may take enforcement action against you for bypass, unless:

a. Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;

b. There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance; and

c. You submitted notices as required under Appendix I, Subsection I.13.3.

I.13.4.2 EPA may approve an anticipated bypass, after considering its adverse effects, if EPA determines that it will meet the three conditions listed above in Appendix I, Subsection I.13.4.1.

I.14 Upset.

I.14.1 Definition. 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).

I.14.2 Effect of an upset. An upset constitutes an affirmative defense to an action brought for noncompliance with such technology based permit effluent limitations if the requirements of Appendix I, Subsection I.14.3 are met. No determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review. See 40 CFR 122.41(n)(2).

I.14.3 Conditions necessary for a demonstration of upset. See 40 CFR 122.41(n)(3). A permittee who wishes to establish the affirmative defense of upset must demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:

I.14.3.1 An upset occurred and that you can identify the cause(s) of the upset;

I.14.3.2 The permitted facility was at the time being properly operated; and

I.14.3.3 You submitted notice of the upset as required in Appendix I, Subsection I.12.6.2.b (24 hour notice).

I.14.3.4 You complied with any remedial measures required under Appendix I, Subsection I.4.

I.14.4 Burden of proof. In any enforcement proceeding, you, as the one seeking to establish the occurrence of an upset, have the burden of proof. See 40 CFR 122.41(n)(4).

I.15 Retention of Records.

Copies of the SWPPP and all documentation required by this permit, including records of all data used to complete the NOI to be covered by this permit, must be retained for at least three years from the date that permit coverage expires or is terminated. This period may be extended by request of EPA at any time.

I.16 Reopener Clause.

I.16.1 Procedures for modification or revocation. Permit modification or revocation will be conducted according to 40 CFR §122.62, §122.63, §122.64 and §124.5.

I.16.2 Water quality protection. If there is evidence indicating that the stormwater discharges authorized by this permit cause, have the reasonable potential to cause or contribute to an excursion above any applicable water quality standard, you may be required to obtain an individual permit, or the permit may be modified to include different limitations and/or requirements.

I.16.3 Timing of permit modification. EPA may elect to modify the permit prior to its expiration (rather than waiting for the new permit cycle) to comply with any new statutory or regulatory requirements, such as for effluent limitation guidelines that may be promulgated in the course of the current permit cycle.

I.17 Severability.

Invalidation of a portion of this permit does not necessarily render the whole permit invalid. EPA's intent is that the permit is to remain in effect to the extent possible; in the event that any part of this permit is invalidated, EPA will advise the regulated community as to the effect of such invalidation.

Appendix J - Notice of Intent (NOI) Form and Instructions

Part 1.4.1 requires you to use the NPDES eReporting Tool, or "NeT" system, to prepare and submit your NOI electronically. However, if the EPA Regional Office grants you a waiver to use a paper NOI form, and you elect to use it, you must complete and submit the following form.

NPDES FORM 3510-9	EPA	UNITED STATES ENVIRONMENTAL PROTECTION AGENCY WASHINGTON, DC 20460 NOTICE OF INTENT FOR THE 2017 NPDES CONSTRUCTION GENERAL PERMIT	Form Approved. OMB No. 2040-0004

Submission of this Notice of Intent (NOI) constitutes notice that the operator identified in Section III of this form requests authorization to discharge pursuant to the NPDES Construction General Permit (CGP) permit number identified in Section II of this form. Submission of this NOI also constitutes notice that the operator identified in Section III of this form meets the eligibility requirements of Part 1.1 CGP for the project identified in Section IV of this form. Permit coverage is required prior to commencement of construction activity until you are eligible to terminate coverage as detailed in Part 8 of the CGP. To obtain authorization, you must submit a complete and accurate NOI form. Discharges are not authorized if your NOI is incomplete or inaccurate or if you were never eligible for permit coverage. Refer to the instructions at the end of this form.

I. Approval to Use Paper NOI Form

Have you been granted a waiver from electronic reporting from the Regional Office *? ☐ YES ☐ NO

If yes, check which waiver you have been granted, , the name of the EPA Regional Office staff person who granted the waiver, and the date of approval:

Waiver granted:

☐ The owner/operator's headquarters is physically located in a geographic area (i.e., ZIP code or census tract) that is identified as under-served for broadband Internet access in the most recent report from the Federal Communications Commission.

☐ The owner/operator has issues regarding available computer access or computer capability.

Name of EPA staff person that granted the waiver:

Date approval obtained: / /

*** Note: You are required to obtain approval from the applicable Regional Office prior to using this paper NOI form. If you have not obtained a waiver, you must file this form electronically using the NPDES eReporting Tool (NeT).**

II. Permit Information

NPDES ID (EPA Use Only):

Master Permit Number: (see Appendix B of the CGP for the list of eligible permit numbers)

III. Operator Information

Operator Information

Operator Name:

Are you requesting coverage under this NOI as a "federal operator" as defined in Appendix A? ☐ YES ☐ NO

Mailing Address:

Street:

City: State: ZIP Code: -

County or Similar Government Division:

Phone: - - Ext.

E-mail:

Operator Point of Contact Information:

First Name, Middle Initial, Last Name:

Title:

NOI Preparer (Complete if NOI was prepared by someone other than the certifier):

First Name, Middle Initial, Last Name:

Organization:

Phone: - - Ext.

E-mail:

IV. Project/Site Information

Project/Site Name:

Project/Site Address:

Street/Location:

City: State: ZIP Code: -

County or Similar Government Subdivision:

For the project/site you are seeking permit coverage, provide the following information:

Latitude/Longitude (Use decimal degrees and specify method):

Latitude: __ __. __ __ __ __° N (decimal degrees) Longitude: __ __ __. __ __ __ __° W (decimal degrees)

Latitude/Longitude Data Source: ☐ Map ☐ GPS ☐ Other_____ Horizontal Reference Datum: ☐ NAD 27 ☐ NAD 83 ☐ WGS 84

Is your project/site located in Indian country lands, or located on a property of religious or cultural significance to an Indian tribe? ☐ YES ☐ NO

If yes, provide the name of the Indian tribe associated with the area of Indian country (including name of Indian reservation, if applicable), or if not in Indian country, provide the name of the Indian tribe associated with the property:

Estimated Project Start Date: / / Estimated Project Completion Date: / /

Estimated Area to be Disturbed (to the nearest quarter acre): .

Type of Construction Site (check all that apply): ☐ Single-Family Residential ☐ Multi-Family Residential ☐ Commercial ☐ Industrial

☐ Institutional ☐ Highway or Road ☐ Utility ☐ Other

Will there be demolition of any structure built or renovated before January 1, 1980? ☐ YES ☐ NO

If yes, do any of the structures being demolished have at least 10,000 square feet of floor space? ☐ YES ☐ NO

Was the pre-development land use used for agriculture (see Appendix A for definition of "agricultural land")? ☐ YES ☐ NO

Have earth-disturbing activities commenced on your project/site? ☐ YES ☐ NO

If yes, is your project an "emergency-related project" (see Appendix A)? ☐ YES ☐ NO

Have stormwater discharges from your project/site been covered previously under an NPDES permit? ☐ YES ☐ NO

If yes, provide the NPDES ID (if you had coverage under EPA's 2012 CGP or the NPDES permit number if you had coverage under an EPA individual permit:

V. Discharge Information

By indicating "Yes" below, I confirm that I understand that the CGP only authorizes the allowable stormwater discharges in Part 1.2.1 and the allowable non-stormwater discharges listed in Part 1.2.2. Any discharges not expressly authorized in this permit cannot become authorized or shielded from liability under CWA section 402(k) by disclosure to EPA, state, or local authorities after issuance of this permit via any means, including the Notice of Intent (NOI) to be covered by the permit, the Stormwater Pollution Prevention Plan (SWPPP), during an inspection, etc. If any discharges requiring NPDES permit coverage other than the allowable stormwater and non-stormwater discharges listed in Parts 1.2.1 and 1.2.2 will be discharged, they must be covered under another NPDES permit.
☐ YES

Does your project/site discharge stormwater into a Municipal Separate Storm Sewer System (MS4)? ☐ YES ☐ NO

Are there any waters of the U.S. within 50 feet of your project's earth disturbances? ☐ YES ☐ NO

Receiving Waters Information: (Attach a separate list if necessary)

Point of Discharge ID	For each point of discharge, provide the following receiving water information:		
	Provide the name of the first water of the U.S. that receives stormwater directly from the point of discharge and/or from the MS4 that the point of discharge discharges to:	**If the receiving water is impaired (on the CWA 303(d) list), list the pollutants that are causing the impairment:**	**If a TMDL been completed for this receiving waterbody, providing the following information:**
			TMDL Name and ID: **Pollutant(s) for which there is a TMDL:**
			TMDL Name and ID: **Pollutant(s) for which there is a TMDL:**
			TMDL Name and ID: **Pollutant(s) for which there is a TMDL:**
			TMDL Name and ID: **Pollutant(s) for which there is a TMDL:**

			TMDL Name and ID: **Pollutant(s) for which there is a TMDL:**
			TMDL Name and ID: **Pollutant(s) for which there is a TMDL:**

Are any of the waters of the U.S. to which you discharge designated by the state or tribal authority under its antidegradation policy as a Tier 2 (or Tier 2.5) water (water quality exceeds levels necessary to support propagation of fish, shellfish, and wildlife and recreation in and on the water) or as a Tier 3 water (Outstanding National Resource Water)? (See Appendix F).

☐ YES ☐ NO

If yes, name(s) of receiving water(s) and its designation (Tier 2, Tier 2.5 or Tier 3):

VI. Chemical Treatment Information

Will you use polymers, flocculants, or other treatment chemicals at your construction site? ☐ YES ☐ NO

If yes, will you use cationic treatment chemicals at your construction site*? ☐ YES ☐ NO

If yes, have you been authorized to use cationic treatment chemicals by your applicable EPA Regional Office in advance of filing your NOI*? ☐ YES ☐ NO

If you have been authorized to use cationic treatment chemicals by your applicable EPA Regional Office, attach a copy of your authorization letter and include documentation of the appropriate controls and implementation procedures designed to ensure that your use of cationic treatment chemicals will not lead to a violation of water quality standards.

Please indicate the treatment chemicals that you will use:

* Note: You are ineligible for coverage under this permit unless you notify your applicable EPA Regional Office in advance and the EPA office authorizes coverage under this permit after you have included appropriate controls and implementation procedures designed to ensure that your use of cationic treatment chemicals will not lead to a violation of water quality standards.

VII. Stormwater Pollution Prevention Plan (SWPPP) Information

Has the SWPPP been prepared in advance of filing this NOI, as required? ☐ YES ☐ NO

SWPPP Contact Information:

First Name, Middle Initial Last Name:

Professional Title:

Phone: ___ - ___ - ____ Ext. ____

E-mail:

VIII. Endangered Species Protection

Using the instructions in Appendix D of the CGP, under which criterion listed below are you eligible for coverage under this permit? Check only 1 box, include the required information and provide a sound basis for supporting the criterion selected**.** You must consider Endangered Species Act listed threatened or endangered species (ESA-listed) and/or designated critical habitat(s) under the jurisdiction of both the U.S. Fish and Wildlife Service (USFWS) and National Marine Fisheries Service (NMFS) and select the most conservative criterion that applies.

☐ **A** No ESA-listed species and/or designated critical habitat present in action area. Using the process outlined in Appendix D of this permit, you certify that ESA-listed species and designated critical habitat(s) under the jurisdiction of the USFWS or NMFS are not likely to occur in your site's "action area" as defined in Appendix A of this permit. ***[Basis statement content: A basis statement supporting the selection of this criterion should identify the USFWS and NMFS information sources used. Attaching aerial image(s) of the site to this NOI is helpful to EPA, USFWS, and NMFS in confirming eligibility under this criterion. Please Note: NMFS' jurisdiction includes ESA-listed marine and estuarine species that spawn in inland rivers.]***

☐ **B** Eligibility requirements met by another operator under the 2017 CGP. The construction site's discharges and discharge-related activities were already addressed in another operator's valid certification of eligibility for your "action area" under eligibility Criterion A, C, D, E, or F of the 2017 CGP and you have confirmed that no additional ESA-listed species and/or designated critical habitat under the jurisdiction of USFWS and/or NMFS not considered in the that certification may be present or located in the "action area." To certify your eligibility under this criterion, there must be no lapse of NPDES permit coverage in the other CGP operator's certification. By certifying eligibility under this criterion, you agree to comply with any conditions upon which the other CGP operator's certification was based. You must include in your NOI the NPDES ID from the other 2017CGP operator's notification of authorization under this permit. If your certification is based on another 2017 CGP operator's certification under criterion C, you must provide EPA with the relevant supporting information required of existing dischargers in criterion C in your NOI form. ***[Basis statement content: A basis statement supporting the selection of this criterion should identify the eligibility criterion of the other CGP NOI, the authorization date, and confirmation that the authorization is effective.]***

If you select criterion B, provide the NPDES ID from the other operator's notification of authorization under this permit: | | | | | | | | | | | |

☐ **C** Discharges not likely to adversely affect ESA-listed species and/or designated critical habitat. ESA-listed species and/or designated critical habitat(s) under the jurisdiction of the USFWS and/or NMFS are likely to occur in or near your site's "action area," and you certify to EPA that your site's discharges and discharge-related activities are not likely to adversely affect ESA-listed threatened or endangered species and/or designated critical habitat. This certification may include consideration of any stormwater controls and/or management practices you will adopt to ensure that your discharges and discharge-related activities are not likely to adversely affect ESA-listed species and/or designated critical habitat. To certify your eligibility under this criterion, indicate 1) the ESA-listed species and/or designated habitat located in your "action area" using the process outlined in Appendix D of this permit; 2) the distance between the site and the listed species and/or designated critical habitat in the action area (in miles); and 3) a rationale describing specifically how adverse effects to ESA-listed species will be avoided from the discharges and discharge-related activities. You must also include a copy of your site map from your SWPPP showing the upland and in-water extent of your "action area" with this NOI. ***[Basis statement content: A basis statement supporting the selection of this criterion should identify the information resources and expertise (e.g., state or federal biologists) used to arrive at this conclusion. Any supporting documentation should explicitly state that both ESA-listed species and designated critical habitat under the jurisdiction of the USFWS and/or NMFS were considered in the evaluation.]***

What ESA-listed species and/or designated critical habitat are located in your "action area":

Distance between your site and the ESA-listed species and/or designated critical habitat within the action area (in miles, state "on site" if the ESA-listed species and/or designated critical habitat is within the area to be disturbed):

☐ **D** Coordination with USFWS and/or NMFS has successfully concluded. Coordination between you and the USFWS and/or NMFS has concluded. The coordination must have addressed the effects of your site's discharges and discharge-related activities on ESA-listed species and/or designated critical habitat under the jurisdiction of USFWS and/or NMFS, and resulted in a written concurrence from USFWS and/or NMFS that your site's discharges and discharge-related activities are not likely to adversely affect listed species and/or critical habitat. You must include copies of the correspondence with the participating agencies in your SWPPP and this NOI. ***[Basis statement content: A basis statement supporting the selection of this criterion should identify whether USFWS or NMFS or both agencies participated in coordination, the field office/regional office(s) providing that coordination, and the date that coordination concluded.]***

☐ **E** ESA Section 7 consultation has successfully concluded. Consultation between a Federal Agency and the USFWS and/or NMFS under section 7 of the ESA has concluded. The consultation must have addressed the effects of the construction site's discharges and discharge-related activities on ESA-listed species and/or designated critical habitat under the jurisdiction of USFWS and/or NMFS. To certify eligibility under this criterion, Indicate the result of the consultation:

☐ biological opinion from USFWS and/or NMFS that concludes that the action in question (taking into account the effects of your site's discharges and discharge-related activities) is not likely to jeopardize the continued existence of listed species, nor the destruction or adverse modification of critical habitat; or

☐ written concurrence from USFWS and/or NMFS with a finding that the site's discharges and discharge-related activities are not likely to adversely affect ESA-listed species and/or designated critical habitat.

You must include copies of the correspondence between yourself and the USFWS and/or NMFS in your SWPPP and this NOI. ***[Basis statement content: A basis statement supporting the selection of this criterion should identify the federal action agencie(s) involved, the field office/regional office(s) providing that consultation, any tracking numbers of identifiers associated with that consultation (e.g., IPaC number, PCTS number), and the date the consultation was completed.]***

☐ **F** Issuance of section 10 permit. Potential take is authorized through the issuance of a permit under section 10 of the ESA by the USFWS and/or NMFS, and this authorization addresses the effects of the site's discharges and discharge-related activities on ESA-listed species and designated critical habitat. You must include copies of the correspondence between yourself and the participating agencies in your SWPPP and your NOI. ***[Basis statement content: A basis statement supporting the selection of this criterion should identify whether USFWS or NMFS or both agencies provided a section 10 permit, the field office/regional office(s) providing permit(s), any tracking numbers of identifiers associated with that consultation (e.g., IPaC number, PCTS number), and the date the permit was granted.]***

Provide a brief summary of the basis for criterion selection listed above *[the necessary content for a supportive basis statement is provided under the criterion you selected.].*

IX. Historic Preservation

Are you installing any stormwater controls as described in Appendix E that require subsurface earth disturbance? (Appendix E, Step 1) ☐ YES ☐ NO

If yes, have prior surveys or evaluations conducted on the site have already determined historic properties do not exist, or that prior disturbances have precluded the existence of historic properties? (Appendix E, Step 2) ☐ YES ☐ NO

If no, have you determined that your installation of subsurface earth-disturbing stormwater controls will have no effect on historic properties? (Appendix E, Step 3) ☐ YES ☐ NO

If no, did the SHPO, THPO, or other tribal representative (whichever applies) respond to you within the 15 calendar days to indicate whether the subsurface earth disturbances caused by the installation of stormwater controls affect historic properties? (Appendix E, Step 4) ☐ YES ☐ NO

If yes, describe the nature of their response:

☐ Written indication that no historic properties will be affected by the installation of stormwater controls.

☐ Written indication that adverse effects to historic properties from the installation of stormwater controls can be mitigated by agreed upon actions.

☐ No agreement has been reached regarding measures to mitigate effects to historic properties from the installation of stormwater controls.

☐ Other:

X. Certification Information

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 have no personal knowledge that the information submitted is other than true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

First Name, Middle Initial, Last Name:

Title:

Signature: _____ Date: / /

Email:

Who Must File an NOI Form

Under the provisions of the Clean Water Act, as amended (33 U.S.C. 1251 et. seq.; the Act), federal law prohibits stormwater discharges from certain construction activities to waters of the U.S. unless that discharge is covered under a National Pollutant Discharge Elimination System (NPDES) permit. Operators of construction sites where one or more acres are disturbed, smaller sites that are part of a larger common plan of development or sale where there is a cumulative disturbance of at least one acre, or any other site specifically designated by the Director, must obtain coverage under an NPDES general permit. For coverage under the 2017 CGP, each person, firm, public organization, or any other entity that meets either of the following criteria must file a Notice of Intent form: (1) they have operational control over construction plans and specifications, including the ability to make modifications to those plans and specifications; or (2) they have day-to-day operational control of those activities at the project necessary to ensure compliance with the permit conditions. If you have questions about whether you need a NPDES stormwater permit, or if you need information to determine whether EPA or your state agency is the permitting authority, contact your EPA Regional Office.

Completing the Form

Obtain and read a copy of the 2017 CGP, viewable at https://www.epa.gov/npdes/stormwater-discharges-construction-activities#cgp. To complete this form, type or print uppercase letters, in the appropriate areas only. Please place each character between the marks (abbreviate if necessary to stay within the number of characters allowed for each item). Use one space for breaks between words, but not for punctuation marks unless they are needed to clarify your response. If you have any questions on this form, telephone EPA's NOI Processing Center at (866) 352-7755. **Please submit the original document with signature in ink - do not send a photocopied signature.**

Section I. Approval to Use Paper NOI Form

You must indicate whether you have been granted a waiver from electronic reporting from the EPA Regional Office. Note that you are not authorized to use this paper NOI form unless the EPA Regional Office has approved its use. Where you have obtained approval to use this form, indicate the waiver that you have been granted, the name of the EPA staff person who granted the waiver, and the date that approval was provided.

See https://www.epa.gov/npdes/contact-us-stormwater#regional

for a list of EPA Regional Office contacts.

Section II. Permit Number

Provide the master permit number of the permit under which you are applying for coverage (see Appendix B of the general permit for the list of eligible master permit numbers)

Section III. Operator Information

Provide the legal name of the person, firm, public organization, or any other entity that operates the project described in this NOI. Refer to Appendix A of the permit for the definition of "operator".

Indicate whether you are seeking coverage under this permit as a "federal operator" as defined in Appendix A.

Also provide a point of contact, the operator's mailing address, county, telephone number, and e-mail address (to be notified via e-mail of NOI approval when available). Correspondence for the NOI will be sent to this address.

If the NOI was prepared by someone other than the certifier (for example, if the NOI was prepared by the facility SWPPP contact or a consultant for the certifier's signature), include the full name, organization, phone number, and email address of the NOI preparer.

Section IV. Project/Site Information

Enter the official or legal name and complete street address, including city, state, ZIP code, and county or similar government subdivision of the project or site. If the project or site lacks a street address, indicate the general location of the site (e.g., Intersection of State Highways 61 and 34). Complete site information must be provided for permit coverage to be granted.

Provide the latitude and longitude of your facility in decimal degrees format. The latitude and longitude of your facility can be determined in several different ways, including through the use of global positioning system (GPS) receivers, U.S. Geological Survey (U.S.G.S.) topographic or quadrangle maps, and web-based siting tools, among others. For consistency, EPA requests that measurements be taken from the approximate center of the construction site. For linear construction sites, the measurement should be taken midpoint of the site. If known, enter the horizontal reference datum for your latitude and longitude. The horizontal reference datum is shown on the bottom left corner of USGS topographic maps; it is also available for GPS receivers.

Indicate whether the project is in Indian country lands or located on a property of religious or cultural significance to an Indian tribe, and if so, provide the name of the Indian tribe associated with the area of Indian country (including name of Indian reservation, if applicable), or if not in Indian country, provide the name of the Indian tribe associated with the property.

Enter the estimated construction start and completion dates using four digits for the year (i.e., 10/06/2012). Indicate to the nearest quarter acre the estimated area to be disturbed.

Indicate the type of construction site, if demolition is occurring, and if so, if the structure has at least 10,000 square feet of floor space. Indicate whether the pre-development land use of the site was used for agriculture Appendix A defines "agricultural land" as 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.

Indicate whether earth-disturbing activities have already commenced on your project/site. If earth-disturbing activities have commenced on your site because stormwater discharges from the site have been previously covered under a NPDES permit, you must provide the 2012 CGP NPDES ID or the NPDES permit number if coverage was under an individual permit.

Section V. Discharge Information

You must confirm that you understand that the CGP only authorizes the allowable stormwater discharges listed in Part 1.2.1 and the allowable non-stormwater discharges listed in Part 1.2.2.

Any discharges not expressly authorized under the CGP are not covered by the CGP or the permit shield provision of the CWA Section 402(k) and they cannot become authorized or shielded by disclosure to EPA, state, or local authorities via the NOI to be covered by the permit or by any other means (e.g., in the SWPPP or during an inspection). If any discharges requiring NPDES permit coverage other than the allowable stormwater and non-stormwater discharges listed in Parts 1.2.1 and 1.2.2 will be discharged, they must either be eliminated or covered under another NPDES permit.

Indicate whether discharges from the site will enter into a municipal separate storm sewer system (MS4), as defined in Appendix A.

Also, indicate whether any waters of the U.S. exist within 50 feet from your site. Note that if "yes", you are required to comply with the requirement in Part 2.2.1 of the permit to provide natural buffers or equivalent erosion and sediment controls.

For each unique point of discharge you list, you must specify the name of the first water of the U.S. that receives stormwater directly from the point of discharge and/or from the MS4 that the point of discharge discharges to. You must specify whether any waters of the U.S. that you discharge to are listed as "impaired" as defined in Appendix A, and the pollutants for which the water is impaired. You must identify any Total Maximum Daily Loads (TMDL) that have been completed for any of the waters of the U.S. that you discharge to.

Indicate whether discharges from the site will enter into a water of the U.S. that is designated as a Tier 2, Tier 2.5, or Tier 3 water. A list of Tier 2, 2.5, and 3 waters is provided as Appendix F. If the answer is "yes", name all waters designated as Tier 2, Tier 2.5, or Tier 3 to which the site will discharge.

Section VI. Chemical Treatment Information

Indicate whether the site will use polymers, flocculants, or other treatment chemicals. Indicate whether the site will employ cationic treatment chemicals. If the answer is "yes" to either question, indicate which chemical(s) you will use. Note that you are not eligible for coverage under this permit to use cationic treatment chemicals unless you notify your applicable EPA Regional Office in advance and the EPA office authorizes coverage under this permit after you have included appropriate controls and implementation procedures designed to ensure that your use of cationic treatment chemicals will not lead to a violation of water quality standards. If you have been authorized to use cationic treatment chemicals by your applicable EPA Regional Office, attach a copy of your authorization letter and include documentation of the appropriate controls and implementation procedures designed to ensure that your use of cationic treatment chemicals will not lead to a violation of water quality standards. Examples of cationic treatment chemicals include, but are not limited to, cationic polyacrylamide (C-PAM), PolyDADMAC (POLYDIALLYLDIMETHYLAMMONIUM CHLORIDE), and chitosan.

Section VII. Stormwater Pollution Prevention Plan (SWPPP) Information

All sites eligible for coverage under this permit are required to prepare a SWPPP in advance of filing the NOI, in accordance with Part 7. Indicate whether the SWPPP has been prepared in advance of filing the NOI.

Indicate the street, city, state, and ZIP code where the SWPPP can be found. Indicate the contact information (name, organization, phone, and email) for the person who developed the SWPPP for this project.

Section VIII. Endangered Species Information

Using the instructions in Appendix D, indicate under which criterion (i.e., A, B, C, D, E, or F) of the permit the applicant is eligible with regard to protection of ESA-listed endangered and threatened species and designated critical habitat. A description of the basis for the criterion selected must also be provided.

If criterion B is selected, provide the NPDES Number for the other operator who had previously certified their eligibility for the CGP under criterion A, C, D, E, or F. The Tracking Number was assigned when the operator received coverage under this permit, and is included in the notice of authorization.

If criterion C is selected, you must attach copies of your site map. See Part 7.2.4 of the permit for information about what is required to be in your site map. You must also specify the federally-listed species and/or federally-designated critical habitat that are located in the "action area" of the project, and provide the distance between the construction site and any listed endangered species and/or their designated critical habitat.

If criterion D, E, or F is selected, attach copies of any communications between you and the U.S. Fish and Wildlife Service and National Marine Fisheries Service and identify the participating agencies and Field Offices/Regional Offices you worked with in the basis statement of this NOI.

Section IX. Historic Preservation

Use the instructions in Appendix E to complete the questions on the NOI form regarding historic preservation.

Section X. Certification Information

The NOI must be signed as follows:

For a corporation: By a responsible corporate officer. For the purpose of this Section, a responsible corporate officer means:

(i) 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 (ii) the manager of one or more manufacturing, production, or operating facilities, provided, the manager is authorized to make management decisions which govern the operation of the regulated facility including having the explicit or implicit duty of making major capital investment recommendations, and initiating and directing other comprehensive measures to assure long-term environmental compliance with environmental laws and regulations; the manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information for permit application requirements; and where 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, respectively; or

For a municipality, state, federal, or other public agency: By either a principal executive officer or ranking elected official. For purposes of this Part, a principal executive officer of a federal agency includes (i) the chief executive officer of the agency, or

(ii) a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., Regional Administrator of EPA). Include the name and title of the person signing the form and the date of signing. An unsigned or undated NOI form will not be considered eligible for permit coverage.

Modifying Your NOI

If you have been granted a waiver from your Regional Office from electronic reporting, and if after submitting your NOI you need to correct or update any fields on this NOI form, you may do so by indicating changes on this same form. Paperwork Reduction Act Notice

Public reporting burden for this NOI is estimated to average 3.7 hours. This estimate includes time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number. Send comments regarding the burden estimate, any other aspect of the collection of information, or suggestions for improving this form, including any suggestions which may increase or reduce this burden to: Chief, Information Policy Branch 2136, U.S. Environmental Protection, Agency, 1200 Pennsylvania Avenue, NW, Washington, D.C. 20460. Include the OMB control number on any correspondence. Do not send the completed form to this address.

Submitting Your Form

Submit your NOI form by mail to one of the following addresses:

For Regular U.S. Mail Delivery:
Stormwater Notice Processing Center
Mail Code 4203M, ATTN: 2017 CGP
U.S. EPA
1200 Pennsylvania Avenue, NW
Washington, DC 20460

For Overnight/Express Mail Delivery:
Stormwater Notice Processing Center
William Jefferson Clinton East Building - Room 7420
ATTN: 2017 CGP
U.S. EPA
1201 Constitution Avenue, NW
Washington, DC 20004

Visit this website for instructions on how to submit electronically:

https://www.epa.gov/npdes/stormwater-discharges-construction-activities#ereporting

Appendix K - Notice of Termination (NOT) Form and Instructions

Part 8.3 requires you to use the NPDES eReporting Tool, or "NeT" system, to prepare and submit your NOT electronically. However, if you are given a waiver by the EPA Regional Office to use a paper NOT form, and you elect to use it, you must complete and submit the following form.

NPDES FORM 3510-13	EPA	UNITED STATES ENVIRONMENTAL PROTECTION AGENCY WASHINGTON, DC 20460 NOTICE OF TERMINATION (NOT) FOR THE 2017 NPDES CONSTRUCTION GENERAL PERMIT	Form Approved. OMB No. 2040-0004

Submission of this Notice of Termination constitutes notice that the operator identified in Section III of this form is no longer authorized discharge pursuant to the NPDES Construction General Permit (CGP) from the site identified in Section IV of this form. All necessary information must be included on this form. Refer to the instructions at the end of this form.

I. Approval to Use Paper NOT Form

Have you been granted a waiver from electronic reporting from the Regional Office *? ☐ YES ☐ NO

If yes, check which waiver you have been granted, the name of the EPA Regional Office staff person who granted the waiver, and the date of approval:

Waiver granted:
- ☐ The owner/operator's headquarters is physically located in a geographic area (i.e., ZIP code or census tract) that is identified as under-served for broadband Internet access in the most recent report from the Federal Communications Commission.
- ☐ The owner/operator has issues regarding available computer access or computer capability.

Name of EPA staff person that granted the waiver:

Date approval obtained: / /

*** Note: You must have been given approval by the Regional Office prior to using this paper NOT form. If you have not obtained a waiver, you must file this form electronically using the NDPES eReporting Tool (NeT).**

II. Permit Information

NPDES ID:

Reason for Termination (Check only one):

- ☐ You have completed all construction activities at your site, and you have met all other requirements in Part 8.2.1.
- ☐ Another operator has assumed control over all areas of the site and that operator has submitted an NOI and obtained coverage under the CGP.
- ☐ You have obtained coverage under an individual permit or another general NPDES permit addressing stormwater discharges from the construction site.

III. Operator Information

Operator Name:

Mailing Address:

Street:

City: State: ZIP Code: -

County or Similar Government Division:

Phone: - - Ext.

E-mail:

IV. Project/Site Information

Project/Site Name:

Project/Site Address:

Street/Location:

City: State: ZIP Code: -

County or Similar Government Division:

V. Certification Information

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.

First Name, Middle Initial, Last Name:

Title:

Signature: _____ Date: / /

Email:

Instructions for Completing EPA Form 3510-13

Notice of Termination for the 2017 NPDES Construction General Permit

NPDES Form Date (2/17) This Form Replaces Form 3510-13 (02/12) Form Approved OMB No. 2040-0004

Who May File an NOT Form

Permittees who are presently covered under the EPA-issued 2017 Construction General Permit (CGP) for Stormwater Discharges Associated with Construction Activity may submit an NOT form when: (1) earth-disturbing activities at the site are completed and the conditions in Parts 8.2.1.a through 8.2.1.b are met; or (2) the permittee has transferred all areas under its control to another operator, and that operator has submitted and obtained coverage under this permit; or (3) the permittee has obtained coverage under a different NPDES permit for the same discharges.

Completing the Form

Type or print, using uppercase letters, in the appropriate areas only. Please place each character between the marks. Abbreviate if necessary to stay within the number of characters allowed for each item. Use only one space for breaks between words, but not for punctuation marks unless they are needed to clarify your response. If you have any questions about this form, refer to https://www.epa.gov/npdes/stormwater-discharges-construction-activities#cgp or telephone EPA's NOI Processing Center at (866) 352-7755. Please submit original document with signature in ink - do not send a photocopied signature.

Section I. Approval to Use Paper NOT Form

You must indicate whether you have been granted a waiver from electronic reporting from the EPA Regional Office. Note that you are not authorized to use this paper NOT form unless the EPA Regional Office has approved its use. Where you have obtained approval to use this form, indicate the waiver that you have been granted, the name of the EPA staff person who granted the waiver, and the date that approval was provided.

Seehttps://www.epa.gov/npdes/contact-us-stormwater#regional for a list of EPA Regional Office contacts.

Section II. Permit Information

Enter the existing NPDES ID assigned to the project . If you do not know the permit tracking number, or contact EPA's NOI Processing Center at (866) 352-7755.

Indicate your reason for submitting this Notice of Termination by checking the appropriate box. Check only one.

Section III. Operator Information

Provide the legal name of the person, firm, public organization, or any other entity that operates the project described in this NOT and is covered by the NPDES ID identified in Section II. Enter the complete mailing address, telephone number, and email address of the operator.

Section IV. Project/Site Information

Enter the official or legal name and complete street address, including city, state, ZIP code, and county or similar government subdivision of the project or site. If the project or site lacks a street address, indicate the general location of the site (e.g., Intersection of State Highways 61 and 34). Complete site information must be provided for termination of permit coverage to be valid.

Section V. Certification Information

The NOT, must be signed as follows:

For a corporation: By a responsible corporate officer. For the purpose of this Part, a responsible corporate officer means: (i) 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 (ii) the manager of one or more manufacturing, production, or operating facilities, provided, the manager is authorized to make management decisions which govern the operation of the regulated facility including having the explicit or implicit duty of making major capital investment recommendations, and initiating and directing other comprehensive measures to assure long-term environmental compliance with environmental laws and regulations; the manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information for permit application requirements; and where 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, respectively; or

For a municipality, state, federal, or other public agency: By either a principal executive officer or ranking elected official. For purposes of this Part, a principal executive officer of a federal agency includes (i) the chief executive officer of the agency, or (ii) a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., Regional Administrator of EPA).

Include the name, title, and email address of the person signing the form and the date of signing. An unsigned or undated NOT form will not be considered valid termination of permit coverage.

Paperwork Reduction Act Notice

Public reporting burden for this NOT is estimated to average 0.5 hours per notice, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number. Send comments regarding the burden estimate, any other aspect of the collection of information, or suggestions for improving this form including any suggestions which may increase or reduce this burden to: Chief, Information Policy Branch, 2136, U.S. Environmental Protection Agency, 1200 Pennsylvania Avenue, NW, Washington, DC 20460. Include the OMB number on any correspondence. Do not send the completed form to this address.

Submitting Your Form:

Submit your NOT form by mail to one of the following addresses:

For Regular U.S. Mail Delivery:

Stormwater Notice Processing Center
Mail Code 4203M, ATTN: 2017 CGP
U.S. EPA
1200 Pennsylvania Avenue, NW
Washington, DC 20460

For Overnight/Express Mail Delivery:

Stormwater Notice Processing Center
William Jefferson Clinton East Building - Room 7420
ATTN: 2017 CGP
U.S. EPA
1201 Constitution Avenue, NW
Washington, DC 20004

Visit this website for instructions on how to submit electronically: https://www.epa.gov/npdes/stormwater-discharges-construction-activities#ereporting

Appendix L – Suggested Format for Request for Chemical Treatment

If you plan to add "cationic treatment chemicals" (as defined in Appendix A) to stormwater and/or authorized non-stormwater prior to discharge, Part 1.1.9 requires you to notify your applicable EPA Regional Office in advance of submitting your NOI. The EPA Regional Office will authorize coverage under this permit after you have included appropriate controls and implementation procedures designed to ensure that your use of cationic treatment chemicals will not lead to an exceedance of water quality standards. To notify your EPA Regional Office, you may use following form.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, DC 20460
SUGGESTED FORMAT FOR NOTIFYING EPA ABOUT PROPOSED USE OF CATIONIC TREATMENT CHEMICALS UNDER THE 2017 NPDES CONSTRUCTION GENERAL PERMIT

Under Part 1.1.9 of the 2017 CGP, if you plan to add "cationic treatment chemicals" (as defined in Appendix A) to stormwater and/or authorized non-stormwater prior to discharge, you may not submit your Notice of Intent (NOI) until you notify your applicable EPA Regional Office in advance and the EPA Regional Office authorizes coverage under this permit after you have included appropriate controls and implementation procedures designed to ensure that your use of cationic treatment chemicals will not lead to a violation of water quality standards. You may use this suggested form to notify your EPA Regional Office about your proposed use of cationic treatment chemicals.

I. Operator Information

Operator Name:

Mailing Address:

Street:

City: State: ZIP Code: -

Phone: - - Ext.

E-mail:

II. Project/Site Information

Project/Site Name:

Project/Site Address:

Street/Location:

City: State: ZIP Code: -

County or Similar Government Subdivision:

Site contact name (if different from operator):

Site contact phone (if different from operator): - -

Name(s) of receiving waterbodies: _____

_____

_____

_____

III. Map

Attach a map that illustrates the entire site including all of the below items. Include this map in your Stormwater Pollution Prevention Plan (SWPPP):
- All receiving waterbodies
- All proposed location(s) of chemical treatment system(s)
- All proposed point(s) of discharge to receiving waterbodies
- All soil types within areas to be disturbed
- All area of earth disturbance
- Sufficient indication of topography to indicate where stormwater flows

Attach a schematic drawing of the proposed treatment system(s). Include all components of the treatment train, sample points, and pipe configurations. In addition to sufficient holding capacity upstream of treatment, the system must have the capacity to hold water for testing and to re-treat water that does not meet water quality standards.

IV. Responsible Personnel

Treatment System Operator or Company Name (if subcontracted out):

Street/Location:

City: State: Zip Code: -

Responsible personnel. List personnel who will be responsible for operating the chemical treatment systems and application of the chemicals. Cite the training that the personnel have received in operation and maintenance of the treatment system(s) and use of the specific chemical(s) proposed.

V. Proposed Treatment

Check proposed treatment system.

- ☐ Chitosan enhanced sand filtration with discharge to infiltration (ground water)
- ☐ Chitosan enhanced sand filtration with discharge to temporary holding ponds (batch).
- ☐ Chitosan enhanced sand filtration with discharge to surface waters (flow-through).
- ☐ Other (describe below and submit documentation that the proposed system and chemical(s) demonstrate the ability to remove turbidity and produce non-toxic effluent/ discharge)

Check proposed cationic chemical(s) to be used:

- ☐ FlocClear™ (2% chitosan acetate solution)
- ☐ StormKlear™ LiquiFloc™ (1% chitosan acetate solution).
- ☐ ChitoVan™ (1% chitosan acetate solution).
- ☐ StormKlear™ LiquiFloc™ (3% Chitosan acetate solution)
- ☐ Other _____

Estimated Treatment Period Start Date: / / Estimated Treatment Period End Date: / /

Describe sampling and recordkeeping schedule. Attach additional sheets as needed:

Explain why you have selected this proposed treatment system and chemicals. Include an explanation of why the use of cationic treatment chemicals is necessary at the site. Reference how the soil types on your site influenced your choices. Describe or provide an illustration of how the site of the discharge will be stabilized and why the discharge location will not cause erosion of the discharge water's bank or bed (please note that a permit from the Corps and state agencies may be necessary to place rock in the water body for this stabilization). Attach as many additional sheets as needed for a full explanation. If you have a report from a chemical treatment contractor describing their recommended approach you may attach that.

VI. Certification Information

I have documented and hereby certify that the following information is correct and has been documented in the SWPPP for this project:

- The SWPPP includes a complete site-specific description of the chemical treatment system herein proposed for use, including specifications, design, and Material Safety Data Sheets for all chemicals to be used.
- The controls to be used on the site are compatible with the safe and effective use of cationic chemical treatment.
- I verified through jar tests that the site soil is conducive to chemical treatment.
- I verified that the chemical treatment system operators for this project received training.
- I read, understand, and will follow all conditions and design criteria in the applicable use designation(s).
- If the discharge is to tribal waters, I notified the appropriate tribal government of the intent to use chemical treatment on a site located within that jurisdiction.
- I will keep the use level designation, operation and maintenance manual, and training certificate on site prior to and during use of chemical treatment.
- A licensed engineer designed the system for this project including system sizing, pond sizing, and flow requirements.
- I verify that the discharge will not adversely affect downstream conveyance systems or stream channels (e.g. cause erosion).

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.

Authorized Official First Name, Middle Initial, Last Name:

Title:

Signature: _____ Date: / /

Email:

Instructions for Submitting This Form:

Submit your this form to your applicable EPA Regional Office. Contact information can be found at: https://www.epa.gov/npdes/contact-us-stormwater#regional

TAB 10

Development & Commercial Stormwater Construction Site Inspection Report

General Information			
Project Name			
Owners/Operators Name			
Date of Inspection		**Start Time**	
Inspector's Name(s)			
Inspector's Title(s)	Inspector		
Inspector's Contact Information			
Inspector's Qualifications	Training and work experience – see inspector qualification page in section 2 of the SWPPP.		

Type of Inspection:
☐ Regular ☐ During storm event ☐ Post-storm event

Weather Information

Has there been a storm event since the last inspection?
If yes, provide:
Storm Start Date: Approximate Amount of Precipitation (in):

Weather at time of this inspection?
☐ Clear ☐ Cloudy ☐ Rain ☐ Sleet ☐ Snowing ☐ High Winds ☐ Partly Cloudy
☐ Other:

Have any discharges occurred since the last inspection?
If yes, describe:
What did the water look like at the time of the discharge? Clear ☐ Partly turbid ☐ Very turbid

Are there any discharges at the time of inspection?
If yes, describe:
What did the water look like at the time of the discharge? Clear ☐ Partly turbid ☐ Very turbid

1. **Is a rain gage installed on site? Where is it located?**
2. **Has the Rain Event page been filled out?**
3. **Are there MSDS sheets on site? Where are they located?**
4. **Has the SWPPP been signed on the certification page? What companies have signed?**
5. **Have the delegation letters been signed? What companies have signed?**
6. **Has a delegation of authority been filled out for who is signing the inspection reports? Who is signing the inspection reports?**
7. **Has the "Chemical On Site" form been filled out?**
8. **Is there a spill kit on site? Where is it located?**
9. **Have they done any training for the supervisors or others?**
10. **Was the inspector able to train any one on this visit? Who did you speak with?**

Are the SWPPP and inspections available on site?		The SWPPP book and inspections are located at .

Notes
1.
2.
3.

Final Stabilization/Termination Checklist.			
1.	Are all soil-disturbing activities complete?		
2.	Have all inactive areas of the site not covered by pavement or structure achieved a density of 70% coverage?		
3.	Date of Final Stabilization.		

If construction ceases on the site for more than 14 days, the site must be stabilized until construction resumes.			
Date Construction Stopped		**Date Construction Resumed**	
Measures Taken to Stabilize the Site.			

Verify what stage of construction the project is in, and record dates when activities started and were completed.		
Construction Phasing		
Activity	**Current Status**	**Activity Started / Completed**
Installed BMPs		Started: Completed:
Site Clearing and Grading		Started: Completed:
Installing Utilities		Started: Completed:
Building Structure		Started: Completed:
Paving and Walks		Started: Completed:
Final Grading/ Stabilize Site		Started: Completed:
Other		Started: Completed:

Site-specific BMPs

- *The corrective actions initiated and date completed are in the Corrective Action Log.*

	List of BMPs Installed	BMP Installed?	BMP Maintenance Required?	Notes
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				

1	Are the BMPs shown on the map?		
2	Were there changes to the SWPPP?		
3	Has the SWPPP been updated?		
4	Were the changes to the SWPPP implemented within 7 days?		

	New BMPs needed	Notes
1		
2		
3		
4		
5		

Overall Site Issues

A list of corrective actions will be supplied with this inspection.

	BMP/activity	Implemented?	Maintenance Required?	Corrective Action Needed and Notes.
1	Are all slopes and disturbed areas not actively being worked properly stabilized?			
2	Are natural resource areas (e.g., streams, Arroyos, mature trees, etc.) protected with barriers or similar BMPs?			
3	Are perimeter controls and sediment barriers adequately installed (keyed into substrate) and maintained?			
4	Are discharge points and receiving waters free of any sediment deposits?			
5	Are storm drain inlets properly protected?			
6	Is the construction exit preventing sediment from being tracked into the street?			
7	Is trash/litter from work areas collected and placed in dumpsters?			
8	Are washout facilities (e.g., paint, stucco, concrete) available, clearly marked, and maintained?			

	BMP/activity	Implemented?	Maintenance Required?	Corrective Action Needed and Notes.
9	Are vehicle and equipment fueling, cleaning, and maintenance areas free of spills, leaks, or any other deleterious material?			
10	Are materials that are potential storm water contaminants stored inside or under cover?			
11	Are non-storm water discharges (e.g., wash water, dewatering) properly controlled?			
12	Has the Site map been updated to reflect current conditions?			The map has been updated.
13	Is the NOI posted			NOI Posting Location:
14	Were previous corrections made within 7 days of last inspection or before the next storm event?			
15	(Other)			

Walk through the facility and look for signs of pollution including paint, solvents, chemicals, solid waste, oil, and fuel.			
1	Are there any signs of hazardous materials being exposed to storm water runoff?		
2	Have there been any reportable quantities releases of hazardous materials?		

CERTIFICATION STATEMENT

"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."

Print name: _____ **Title:** Inspector

Signature: _____ **Date:** _____

SWPPP Management Signature: _____ **Date:** _____

Date:

Project:

Corrective Action Log

Number	Corrective Action Needed	Date Action Noted	Date Corrected	Date Correction Noted By Inspector

SWPPP Management Signature: **Date:**

Date:

After Rain Event Construction Compliance Inspection For

Contractor: _____

Site: _____

Conducted By:

Time of visit: _____

Part 1: Walk through the facility and look for signs of erosion control measures that may have failed or been damaged from the recent rainfall event.			
a. Site Inspection	**Y**	**N**	**Notes**
1. Are there any erosion control structures damaged from the rain event?	☐	☐	
2. Are there signs of new ruts or gullies from the rain event?	☐	☐	
3. Are there signs of significant amounts of mud in the street or outfalls from the rainfall event?	☐	☐	
4. Are there any conditions that need immediate attention?	☐	☐	
Part 2: Inspection report summary.			
b. Inspection Report Summary	**Information/Comments**		
1. Name of Inspector			
2. Qualifications of Inspector	Training and work experience – see inspector qualification page in the SWPPP		
3. Measures/Areas Inspected			
4. Observed Conditions.			
5. Changes Necessary to the SWPPP.			
6. Were there any discharges?			
What did the water look like at the time of the discharge? 7. Clear ☐ Partly sandy ☐ Very sandy			
8. Was Inspection Conducted Within 24 Hours of Last Rainfall Over 1/4"? How much did it rain?			

"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."

Signature: _____ Printed Name: _____

Date: Title: Inspector

SWPPP Management Signature _____ Date: _____