CPX PICEANCE HOLDINGS LLC
TEPEE PARK RANCH
STORMWATER MANAGEMENT
PLAN PERMIT COR-030000
GARFIELD COUNTY, CO

JANUARY 2017

880 Wolverine Court
Castle Rock, CO 80108

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TABLES

FIGURES

APPENDICES

Table 1. Amendments to Stormwater Management Plan

Date	Editor	Edited Section and Page No.	Change(s) made to Stormwater Management Plan
1/16/17	M. Griggs	Though out	Changes to Operator name.
1/16/17	M. Griggs	Page 3	Change to anticipated construction date.
1/16/17	M. Griggs	Page 17	Reclamated vegetative cover will be 80%.

"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 **DATE**

Ward Giltner
General Manager
CPX Piceance Holdings LLC

1.0 INTRODUCTION

This Stormwater Management Plan (SWMP) was written to comply with the Colorado Department of Public Health and Environment (CDPHE) General Permit COR030000 (the "Permit"), which provides authorization to discharge stormwater associated with new and large construction activities. An operator who intends to seek coverage under General Permit COR030000 must prepare a SWMP for the construction activity. The primary objective of this SWMP is to identify pollutants that have the potential to leave the construction site in stormwater runoff and identify Best Management Practices (BMPs) that, when implemented, will meet the terms and conditions of the permit by minimizing or reducing the pollution of waters of the State of Colorado.

CP Exploration II LLC (CPX) has obtained coverage under the general stormwater permit (COR030000 **Appendix A**) and has prepared this SWMP for construction activities in accordance with the requirements of the CDPHE permit. This SWMP addresses construction activities associated with development of oil and gas resources in Garfield County, Colorado through the drilling and production of wells for commercial oil and gas production on private property located in Tepee Park Ranch.

This SWMP was prepared in accordance with good engineering, hydrologic, and pollution control practices. It is intended to be a dynamic document that will be updated, as needed, to address planned development, new disturbances, and other changes needed to manage stormwater and protect surface water quality.

2.0 SITE DESCRIPTION

The Project Area is located in Garfield County, Colorado (see Site Maps in **Section 3.0**). **Table 2** lists the location and sections of the disturbed areas associated with this plan. The construction disturbance associated with this plan is expected to be approximately 19 acres. The site specific stormwater diagrams and suggested stormwater BMP's are shown in **Appendix D.**

Table 2. Specific Areas of Project

Specific Areas of Disturbance	Township	Range	Section	Approx. Area of Disturbance
Main Road	7 South	94 West	Section 25 & 36	7.27
25A Pad	7 South	94 West	SW SE Section 25	3.10
Borrow Pit Road	7 South	94 West	Section 25 & 36	1.15
36A Access Road	7 South	94 West	NW Section 36	1.82
Equipment Storage Area	7 South	94 West	SW NE Section 36	0.72
Completion Fluids Facility	7 South	94 West	SW NE Section 36	2.09
Pipe Laydown Area	7 South	94 West	SW NE Section 36	0.58
36A Pad	7 South	94 West	SW SE Section 36	2.56
Total Acres of Disturbance:				**19.29**

a) NATURE OF CONSTRUCTION ACTIVITY

The project is located on private in-holding lands of the White River National Forest located south of Rifle, Colorado. The current development plan includes the construction activities associated with development of oil and gas resources in Garfield County, Colorado through the drilling of wells to test for commercial oil and gas production located in Tepee Park Ranch.

CPX intends to use BMP's where possible during development of Tepee Park Ranch. Additionally, CPX will use as much existing infrastructure as possible. For example, CPX will use rock from an existing borrow pit for surfacing well pads and areas of road improvement, thereby reducing traffic on Beaver Creek Road. Well pad placement has been carefully analyzed to minimize impacts. This included keeping well pads out of wetlands, and to the highest degree possible, away from creeks.

In some locations, the existing road may be re-routed to allow for better access and to develop a more established and stable road. In order to access the 36A well pad, a stream crossing over Beaver Creek has been constructed, which includes a culvert.

b) PROPOSED SEQUENCE FOR MAJOR ACTIVITY

The development phase includes construction activities associated with development of oil and gas resources in Garfield County, Colorado through the drilling of wells to test for commercial oil and gas production within Tepee Park Ranch. Previous owners started construction and development in August 2008 and ended in 2009. Additional development started again in August 2013 and continued until October 2014. Development may start again in the Spring of 2017, depending on economic conditions. Interim reclamation will begin after all the wells are drilled and the final restoration will be completed incrementally.

Construction and Development

Construction and development of the well pads and roads is complete. Stormwater inspections began in 2008. Temporary or permanent on-site perimeter erosion and sediment control BMPs were historically installed as appropriate (i.e., before, during, and after all grading activities and development). The well pads and access roads were constructed using conventional cut and fill earth moving techniques.

In areas disturbed by new construction, topsoil has been stripped and stockpiled near the site. Soil materials are managed so erosion and sediment transport are minimized. Nearby drainages are protected by appropriate BMPs. Any stockpiled excess cut material or topsoil has been segregated during construction and erosion and sediment control BMPs have been implemented to minimize sediment transport during temporary storage.

Sequencing of construction activities has been conducted to minimize the amount of time that portions of the site are disturbed. Inactive areas are stabilized to reduce erosion potential, slow runoff velocity, and promote infiltration and natural growth of vegetation encouraged.
All BMPs are installed in a phased approach as outlined in accordance with **Table 3** in **Section 4.0** of this plan.

Production

During the production phase, the BMPs are in place. The pad and access road are graveled and surface hardened.

Reclamation

After construction, development, and operation activities are complete, the grades of the slopes will be reduced. All reclaimed areas will both be permanently seeded and mulched according to the standard details provided in **Appendix C,** or natural vegetation will be allowed to grow. Final seeding, if applicable, of the reclaimed area will be done in the spring or fall depending on the completion time of the reclamation and weather conditions.

Following completion of final reclamation, a designated representative will inspect areas that have been reclaimed to ensure vegetation was established at the required predisturbance l e v e l .

If revegetation is not successful, spot reseeding or other remedial actions will be implemented to assure compliance with the Permit. An Inactivation Notice will be filed for the project once all of the construction activities have been completed and all areas have reached final stabilization or 70% of pre-disturbed vegetative conditions.

c) ESTIMATED TOTAL AREA OF SITE AND EXPECTED DISTURBANCE

The total area of disturbance and construction site boundary for the well pads and associated access roads is approximately 19 acres.

d) SOILS AND EXISTING POTENTIAL FOR SOIL EROSION

Runoff characteristics are based on site topography, soil type, and soil/vegetative cover. The facilities are located on highly erosive tracks of land and the potential for soil loss due to topography is high. The elevation in this area ranges from approximately 8,700 feet to 9,200 feet. Soil maps can be found in **Appendix B** for detailed soils information for the project area (Villa Grove and Zoltay loams, 15-30% slopes, Map Symbol 71, NRCS).

e) EXISTING VEGETATION AND PERCENT GROUND COVER

Within Garfield County, Colorado native vegetation primarily consists of Gambel Oak, Sedge, Cinnamon Fern, Pinyon, wild grasses, Sandbar Willow, Quaking Aspen, Water Birch, Mountain Alder, Soft Rush, Common Chokecherry, Cliffrose, Antelope Brush, Rocky Mountain Maple, Red-Osier Dogwood, Englemann Spruce, Blue Spruce, Broad-leaf Cattail, Jewelweed, Stinging Nettle, and Serviceberry. Vegetative cover ranges from 8% to 100%. A map showing the vegetative coverage in the project area can be found in **Appendix B**.

f) POTENTIAL POLLUTION SOURCES

The most common source of pollution from project construction and development is sediment, which can be carried away from the work site with stormwater runoff and possibly impact the water quality of a receiving stream. Clearing, grading, and altering previously undisturbed land will increase the rate of soil erosion over pre-disturbance rates.

Petroleum products can also be potential stormwater pollutants. These products are used in project construction to power or lubricate equipment and include: fuel, gear oil, hydraulic oil, brake fluid, and grease. Designated areas for storing of petroleum products are detailed on the site specific maps (during active drilling or completions).

Downhole fluids can also be potential stormwater pollutants. These fluids may include: condensate, produced water, and flowback from hydraulic fracturing operations. Designated areas for storing of downhole fluids are detailed on the site specific maps (during drilling and completions).

Debris from lay down areas, residue from equipment cleaning and maintenance, and solid waste generated from land clearing operations and human activity (trees, brush, paper, trash,

etc.) present other potential pollution sources within the construction site.

Potential pollution sources associated with construction, development, and production activities includes:

- Sediment resulting from erosion of soil stockpiles and other areas cleared of vegetation;
- Leakage of fuels and lubricants from equipment. Spills from fueling or equipment.

Leakage of downhole fluids which may include condensate, produced water, and flowback from hydraulic fracturing operations;

- Trash and debris from clearing activities, construction materials, and workers;
- Construction material storage areas, if improperly stored, or exposed to stormwater;
- Fugitive dust clouding due to heavy road use;
- Off-site vehicle tracking; and
- Temporary portable toilet services for construction workers.

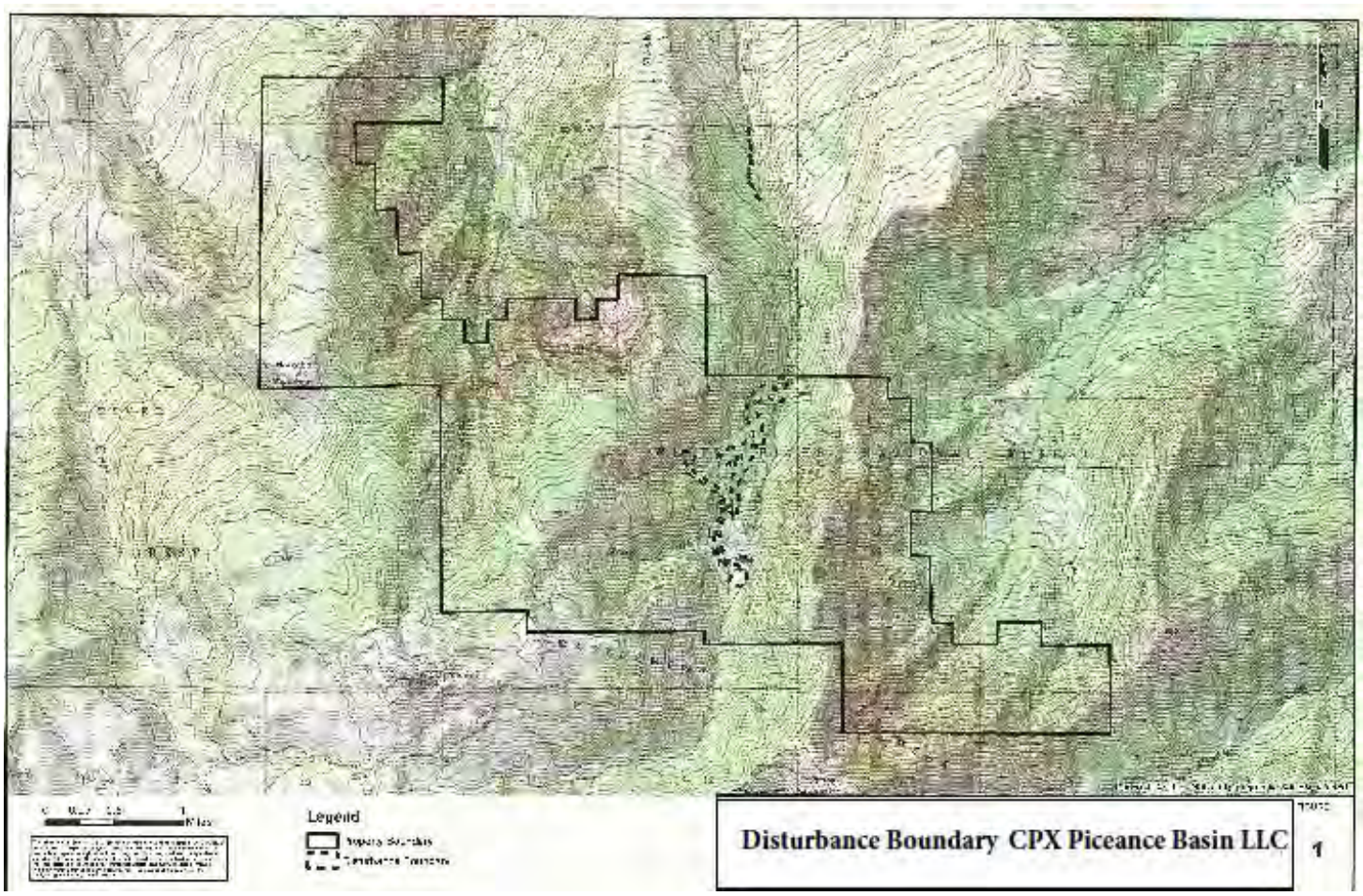
g) NON-STORMWATER DISCHARGES

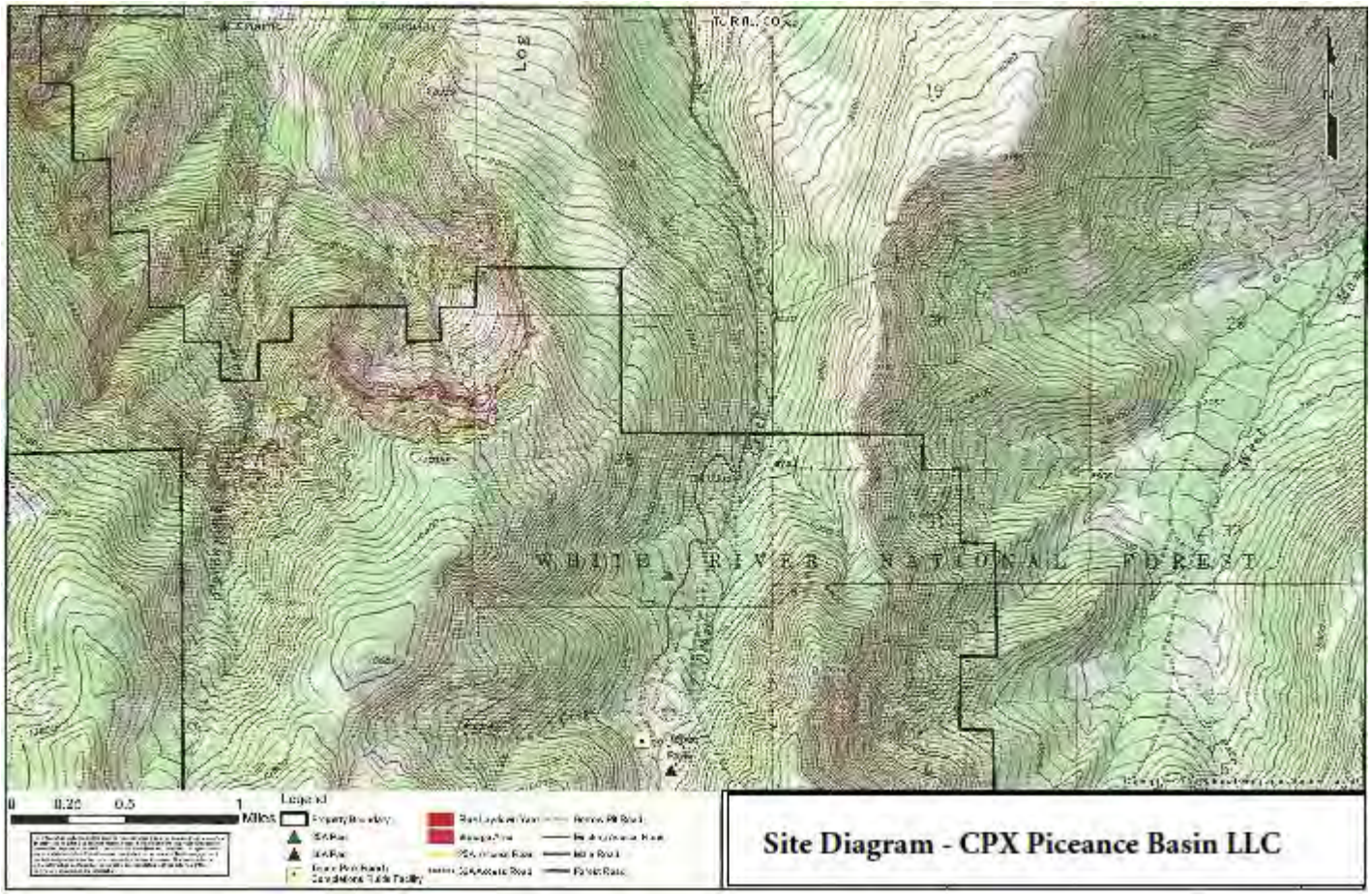
Non-Stormwater discharges are not expected from the Project. There are no municipal discharge outfalls within the Project Area. Storm culverts and diversion ditches in close proximity to construction activities associated with this Project are identified in the site-specific drawings.

h) RECEIVING WATERS

The Project Area is located in the Colorado Headwaters-Plateau (USGS Hydrologic Unit Code 14010005), which is part of the Upper Colorado River Basin. From the Project Area, stormwater runoff would flow into Beaver Creek, Porcupine Creek, and West Mamm Creek. Within the Project Area, there are also a few intermittent and ephemeral drainages. The ultimate receiving water is the Colorado River. See **Section 3.0** of this Plan for the general location of the surface water drainage features**.** Regional precipitation amounts vary from 12.7 inches per year in Rifle, Colorado to 14.3 inches in Collbran, Colorado. Due to site-specific characteristics such as elevation, precipitation is greater at the permit location than regional amounts suggest, and is estimated to be at least 30 inches per year.

3.0 SITE MAPS




WHITE RIVER NATIONAL FOREST
0 0.25 0.5 1
Miles
Legend
Site Diagram - CPX Piceance Basin LLC

4.0 STORMWATER MANAGEMENT PLANS

a) STORMWATER MANAGEMENT PLAN ADMINISTRATOR

Stormwater management involves several entities within CPX Piceance Holdings, LLC. The authorized officer(s) for this SWMP are listed below:

Discharge Monitoring Report Cognizant Official:
Ward Giltner
General Manager
CPX Piceance Holdings LLC
wgiltner@yahoo.com
(303) 489-8773

Operator in Responsible Charge:
Bryan Clark
BC Excavating
brbexcavating@aol.com
(970) 987-2220

Site Contact:
Mary C. Griggs
Regulatory Compliance Manager
CPX Piceance Holdings LLC (Contractor)
griggs.mary@comcast.net
(303) 912-8292

b) IDENTIFICATION OF POTENTIAL POLLUTANT SOURCES

Potential pollutant sources will be inspected on a regular basis and include:

1) All disturbed and stored soils

There is a moderate potential for disturbed and stored soils to contribute pollutants to stormwater discharges; however, as part of the regular stormwater inspections, all disturbed and stored soils will be monitored to ensure sediment transport is not occurring. BMPs will be installed and maintained along these areas.

2) Vehicle tracking of sediments

There is a low potential for vehicle tracking of sediments to contribute pollutants to stormwater discharges given that the roads in the area are not paved.

3) Management of contaminated soils

There is a low potential for contaminated soils to contribute pollutants to stormwater discharges. Contaminated soil stockpiles will be managed using appropriate BMPs. Subsequent soil sampling will be conducted to ensure contaminated soils have been removed.

4) Loading and unloading operations

There is a low potential for loading and unloading operations to contribute pollutants to stormwater discharges because BMPs have historically been installed for well development and pipelines.

5) Outdoor storage activities (building materials, fertilizers, and chemicals)

There is a low potential for outdoor storage activities to contribute pollutants to stormwater discharges. No fertilizers or building materials will be kept on-site and chemicals used for drilling operations will be stored within a weather-proof containers or will be kept in secondary containment.

6) Vehicle and equipment maintenance and fueling

There is a low potential for vehicle and equipment maintenance and fueling to contribute pollutants to stormwater discharges. Limited vehicle and equipment maintenance and fueling will take place at the project facilities. On-site maintenance and fueling will be done in designated areas cleared of vegetation and located away from any drainage areas.

7) Significant dust or particulate generating processes

There is a moderate potential for dust or particulate generating processes to contribute pollutants to stormwater discharges. During summer months, winds can pick up dust and sediment from construction activities or moving vehicles and deposit it along waterways. As needed, a water truck will be utilized to reduce dust generation. However, areas of disturbed soils will be stabilized and areas needed for post-construction operations will be hard-surfaced after construction operations are completed.

8) Routine maintenance activities involving detergents, fuels, solvents, oils, etc.

There is a small potential for routine maintenance activities to contribute pollutants to stormwater discharges due to the amount of vehicle activity during drilling and production operations. Fueling that does occur on-site will be done in designated areas cleared of vegetation and located away from any drainage areas.

9) On-site waste management practices (waste piles, liquid wastes, dumpsters, portable toilets, etc.)

There is a low potential for on-site waste management practices to contribute pollutants to stormwater discharges. Waste piles will be contained using BMPs to minimize sediment transport. During drilling operations, dumpsters may be retained on-site for worker trash and will be emptied as necessary. A Spill Prevention, Controls, and Countermeasures (SPCC) plan

has been written for the tank batteries to address liquid storage.

10) Concrete truck/equipment washing, including the concrete truck chute and associates fixtures and equipment.

There is a very low potential for concrete truck/equipment washing to contribute pollutants to stormwater discharges because concrete equipment washing is not scheduled as part of this project. If concrete washing does occur, designated washout areas will be assigned and concrete will be disposed of properly.

11) Dedicated asphalt and concrete batch plants

There is no potential for dedicated asphalt and concrete batch plants to contribute pollutants to stormwater discharges as there are no asphalt or concrete batch plants associated with the project.

12) Non-industrial waste sources such as worker trash and portable toilets

There is a low potential for non-industrial waste sources to contribute pollutants to stormwater discharges. Dumpsters for worker trash will be kept on site and portable toilets will be staked down and will be located in a safe area where accidental tipping will not occur. Dumpsters and portable toilets will only be on-site during drilling and completion operations.

13) Other areas or procedures where potential spills can occur

Spills may occur from vehicles accessing each location during construction and daily activities. Observations for soil staining will be conducted during the routine inspections. A SPCC Plan has been written for the project and covers each facility which addresses storage and spill procedures.

c) BEST MANAGEMENT PRACTICES (BMPs) FOR STORMWATER POLLUTION PREVENTION

The selection of erosion and sediment control BMPs is contingent upon site specific conditions (e.g. construction, vegetation, precipitation, and evaporation). The objective of erosion and sediment controls is to minimize the release of sediments. This can be accomplished through the use of structural and/or nonstructural controls. The types and locations of structural BMPs for oil and gas production and/or processing facilities and associated access roads are shown on the Stormwater Site Diagrams, which are provided in **Appendix D**.

1) Structural Practices for Erosion and Sediment Control

There are a number of structural practices which may be used on the project including: earthen berms, fiber rolls, diversion ditches (lined and unlined), check dams, culvert outlet protection, temporary slope drains, and sediment traps. Location of structural BMPs practices are shown on the Stormwater Site Diagrams, which are provided in **Appendix D**.

2) Non-Structural Practice for Erosion and Sediment Control

Non-structural erosion and sediment control BMPs use techniques such as phasing

construction, minimizing disturbances to existing vegetation, preservation of natural vegetation, re-establishing/replacing vegetation, mulching, rolled erosion control products, surface roughening, and land grading. Location of non-structural BMPs practices are shown on the Stormwater Site Diagrams, which are provided in **Appendix D**.

3) Phased BMP Implementation

BMPs for this site will be implemented in four phases – construction, development, production, and reclamation. **Table 3** lists BMPs that may be used during each phase of the project.

Construction

The Construction Phase has largely been completed. It began with the clearing and grubbing of all necessary areas to construct the access road and well pad. Topsoil and any excess cut material from these locations was stockpiled and saved for reclamation activities. The facilities and associated access roads were constructed utilizing standard cut and fill techniques. This phase lasted through 2009.

Structural sediment control BMPs were historically installed below the limits of disturbance to prevent sediment from leaving the construction site. These BMPs were installed prior to starting any earthwork activities. Site berms were installed and encompassed the facility surface and were constructed at the top of the fill slopes to act as run on control. Structural BMPs are and will be maintained during construction to the standards outlined in the BMP details located in **Appendix C**.

Development

The Development Phase began in August 2009. Activities during this phase included installation of facilities and buildings associated with oil and gas production. This phase is anticipated to occur intermittently for a number of years. All ground disturbing activities will be conducted on the working surface of the construction site during the development phase.

This phase will include setting up all facilities on site required to support a well pad. Various equipment will be mobilized on site during this phase as construction advances. Production and processing facilities, including separators, piping, and holding tanks will be installed on the working pad surface.

During development, all structural BMPs used for sediment control during the construction phase will be maintained or be replaced, and any necessary additional BMPs will be installed. Possible BMPs include diversion ditches (unlined and lined), check dams, temporary slope drains, fiber rolls, culvert outlet protection, sediment traps, and earthen berms.

Depending on site conditions, a variety of erosion control practices may be necessary to stabilize areas of disturbed soil that do not have gravel or that have not been surface hardened. Seed and mulch or erosion control blankets can be applied, if natural vegetation does not take over in a timely manner and may be applied to disturbed areas such as topsoil stockpiles and cut and fill slopes. Slopes may also be tracked to provide soil roughening.

Roads built to access the facilities may require ditches, culverts, culvert outlet protection, and other structural BMPs to contain sediment. The road surface will have to be periodically graded depending on the traffic volume and frequency of storm and melting events.

Phased reclamation utilizing BMPs is implemented periodically in areas not being utilized during development.

Production

During the production phase, the BMPs will remain in place. If the pad and access road are not graveled or surface hardened, then the BMPs will be maintained and inspected for the duration of the Production Phase. If the pad and access road are graveled or surface hardened, then the BMPs do not need to be maintained and inspected and the Permit can be terminated for the duration of the Production Phase.

Reclamation

Reclamation/interim reclamation activities will begin once all construction, development, and operation activities have been completed. The slopes and disturbed soils will be re- contoured to lessen slopes, stockpiled topsoil applied to the slopes and then tracked, and vegetated.

After interim reclamation the site will continue to be monitored on a monthly basis while the vegetation is being established to ensure that the proposed activities for final stabilization are adequate. After uniform vegetative cover has been established with an individual plant density of at least 70% of pre-existing conditions on all reclaimed areas, the site will be considered stabilized and inspections will cease. Structural BMPs, if present, may be removed after these conditions have been met.

The recommended times for seeding are spring (after snowmelt begins but generally between mid-April to mid-June) and fall (generally from late August until the first heavy snow). See **Appendix C** for details on the best times to apply seed.

Table 3. BMPs Used During Each Project Phase.

Construction	Development	Production (If Necessary)	Reclamation
Dust Control	Dust Control	Dust Control	Dust Control
Fiber Roll	Fiber Roll	Fiber Roll	Fiber Roll
Surface Roughening	Surface Roughening	Surface Roughening	Surface Roughening
Culvert Outlet Protection	Culvert Outlet Protection	Culvert Outlet Protection	Culvert Outlet Protection
Sediment Trap	Sediment Trap	Sediment Trap	Sediment Trap
Diversion Ditch	Diversion Ditch	Diversion Ditch	Diversion Ditch
Check Dams	Check Dams	Check Dams	Check Dams
Earthen Berms	Earthen Berms	Earthen Berms	Earthen Berms
Temporary Slope Drains	Temporary Slope Drains	Temporary Slope Drains	Temporary Slope Drains
Land Grading	Re-vegetation	Re-vegetation	Land Grading
Re-vegetation			Re-vegetation
Slope Stabilization			Slope Stabilization

4) Materials Handling and Spill Prevention

Spills at the construction site can be largely prevented through proper training and the conscientious efforts of construction personnel during the performance of routine activities. Efforts should be made to refuel equipment away from drainages and waterways. If possible, attempts should be made to use the same location for refueling activities, such as a designated equipment refueling/staging area. If a release of a hazardous substance does occur during construction activities, construction personnel will take appropriate action to minimize the impact of the spill through the use of absorbent material stored at the construction site. Absorbent material may consist of clay, sawdust, straw, kitty litter, booms, absorbent pads, or other suitable materials.

A list of all potentially toxic or hazardous chemicals used during the project will be maintained and kept on-site. Warning labels must be attached to all potentially toxic or hazardous chemicals. Safety Data Sheets (SDS) and other safety information will be on file and accessible during all periods in which the chemicals are used or stored. Construction site personnel must follow spill prevention and control practices as outlined in the SPCC plan developed for this site.

In addition to maintaining an inventory of potentially toxic, hazardous materials and associated safety information, the following materials management practices will be followed:

- Materials will be handled in accordance with Occupational Safety and Health Administration (OSHA) requirements and manufacturers' instructions;

- Chemicals regulated under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) will be reported and handled in accordance with relevant regulations;
- Materials stored at the construction site will be covered or otherwise protected from the elements;
- The quantity of fuel and lubricants stored on the construction site will be limited to the amount that is reasonable to support the specific construction or maintenance activity;
- Bulk storage areas for materials not consumed daily will be enclosed and protected from the elements and contained in a manner to prevent release to the environment;
- General construction site debris will be stored in trash containers and removed from the job site on a regular basis to prevent overflowing.

Lubricant, hydraulic, and miscellaneous oils and solvents will be stored in appropriately sized containers. Pollutants from petroleum products used during construction activities adhere easily to soil particles and other surfaces. In case of a spill or leak, soils contaminated with petroleum products will be contained and removed to a proper disposal site. Proposed soil erosion and sediment control practices will aid in retention of spills or leaks. Use of secondary containment and drip pans will reduce the likelihood of spills or leaks contacting the ground. Proposed maintenance and safe storage practices will reduce the chance of petroleum products contaminating on-site soils and drainages. Oily wastes will be placed in proper receptacles and disposed of or recycled. Additional sources of petroleum contamination are leaks from equipment and vehicles. Routine daily inspections will be conducted to identify leaks and initiate corrective actions, if needed.

The following guidelines for storing petroleum products will be used:

- All product containers will be clearly labeled;
- Chemical containers will be kept within secondary containment and stored under cover, if needed;
- Emergency spill response procedures will be available on-site. Persons trained in handling spills will be on call at all times;
- Spill cleanup and containment materials (absorbent, shovels, etc.) will be easily accessible. Spills will be cleaned in a timely manner and reported as required in accordance with applicable regulations; and
- Contaminated materials will be properly stored on site until they can be disposed of in accordance with applicable regulations.

Storage areas and containers will be regularly monitored for leaks and repaired or replaced as necessary. Workers will be reminded about proper storage and handling of materials during safety meetings.

In the event of a release of fuel, lubricant, or coolant from equipment, efforts will be made to stop the release. Spilled fluids will be cleaned up as soon as possible. All contaminated soils and spent/used clean up materials shall be segregated and stored on site and managed

using appropriate BMPs until appropriate disposal methods have been identified. Please contact Ward Giltner (303) 489-8773 to report any spills over five gallons. The necessary repairs will be made to the equipment to prevent a continued release of potential pollutants.

Spills of any size that impact or threaten to impact waters of the state must be immediately reported to the CDPHE Emergency Management Program Hotline at (877) 518-5608. Spills that impact or threaten to impact a surface water intake must be reported to the emergency contact for that facility immediately after discovery.

According to the CDPHE Construction Permit (COR-030000), the permittee shall also report the following instances of noncompliance:

1. Any noncompliance which may endanger health or the environment;
2. Any spill or discharge of hazardous substances or oil which may cause pollution of the waters of the state.
3. Any discharge of stormwater which may cause an exceedance of a water quality standard.

A written submission shall also be provided within 5 calendar days of the time the permittee becomes aware of the circumstances. The written submission shall contain a description of:

1. The noncompliance and its cause;
2. 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;
3. Steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.

5) Dedicated Concrete or Asphalt Batch Plants

No concrete or asphalt batch plants are included as part of this project.

6) Vehicle Tracking Controls

Vehicle tracking controls (VTCs) are used to reduce the potential for sediment to leave a construction area. Given that the majority of roads in the area are dirt or gravel, off site tracking is not anticipated to be a problem. If tracking does become an issue in other areas, VTC will be implemented.

7) Waste Management and Disposal

Construction will generate various other wastes, possibly including the following:

- Vegetation from clearing operations;
- Trash and debris from construction materials and workers; and
- Sanitary sewage.

Each of these wastes will be managed so as to not contribute to stormwater pollution. Vegetation may be piled along the toe of fill slopes to provide additional sediment control or be

hauled off-site. Construction trash and debris will be collected in containers and hauled off-site for disposal in suitable landfills.

8) Groundwater and Stormwater Dewatering

If groundwater is encountered during construction activities, a groundwater dewatering permit will be acquired from CDPHE and monitoring will be conducted in accordance with the permit requirements.

5.0 FINAL STABILIZATION AND LONG-TERM STORMWATER MANAGEMENT

a) FINAL STABILIZATION PRACTICES

For new disturbances, structural BMPs will be installed prior to, during, and immediately following construction, as practicable, with consideration given to safety, access, and ground conditions at the time of construction.

Final stabilization is defined as when all disturbed areas have been either built on, paved, stabilized as unpaved surfaces as needed for operation of the facility, well pad, or road after interim reclamation has occurred. A uniform vegetative cover must be established with a density of at least 70% percent of pre-disturbance levels or equivalent permanent, physical erosion reduction methods must be implemented.

b) SEED MIX APPLICATION AND SOIL STABILIZATION

Final stabilization practices for obtaining a vegetative cover can occur through natural vegetative cover or will include selecting a seed mix and application methods, soil preparation and amendments when necessary, implementing soil stabilization practices, and utilizing appropriate sediment control BMPs, as needed, until final stabilization is achieved. The area not required for production operations will be re-graded to reduce cut and fill slopes and be re-seeded. The seeding and stabilization practices may include drill- or broadcast-seeding, mulching and crimping, erosion control matting, or hydro-seeding. The BMPs implemented may be modified as needed to ensure site reclamation and stabilization leading to 80% percent of pre-disturbance vegetative cover.

c) ACHIEVING FINAL STABILIZATION

Re-vegetation will be accomplished by natural revegetation or by seeding using broadcast, drilling, or other appropriate method approved by CPX.

d) INACTIVATION NOTICE

On a site-specific basis, the Permittee no longer requires coverage under this permit if all soil disturbing activities are complete. At that time, the Permittee will submit an Inactivation Notice form that is signed in accordance with part I.F.1 of the issued permit. An Inactivation Notice form includes:

- Permit certification number,
- The Permittee's name, address, telephone number,
- Name, location, and county for the construction site for which the Inactivation Notice is being submitted, and
- Certification that the site has finally reached stabilization, and a description of the final stabilization methods.

6.0 INSPECTION AND MAINTENANCE

a) INSPECTION PROGRAM

To meet requirements of the General Permit, inspection and maintenance of erosion and sediment controls must occur during the Project. Continued inspection and maintenance is required for specific structures after construction is completed. The inspection program will include the following:

1) A qualified person familiar with the SWMP and control measures will conduct the inspections;
2) Inspections will cover these areas of the construction site:
   - Disturbed areas;
   - Material storage areas;
   - BMPs;
   - Surface water diversions; and
   - Down gradient areas.
3) A log of inspections will be kept on an electronic database, and be available within reasonable notice.
4) Sediment control BMPs will be inspected for evidence of deterioration, under-cutting, and buildup of sediment;
5) If a BMP needs to be revised, the SWMP map characterizing the revision will be updated within one week.
6) A signed inspection report summarizing the scope of the inspection, the name of the person conducting the inspection, date of inspection, and observations will be prepared and placed into the electronic database. Inspection reports will be retained for at least 3 years from the date that the site is finally stabilized;
7) Actions taken to modify any stormwater control measure will be recorded and maintained with the SWMP. Once adequate corrective action(s) have been taken, or where a report does not identify any incidents requiring corrective action, the report shall be signed indicating the site is in compliance. An updated diagram will accompany each report; and
8) As outlined in section 3.c.4, deficiencies found that are associated with the SPCC plan will be noted on the stormwater inspection paperwork.

b) MINIMUM INSPECTION SCHEDULE

A thorough inspection will be made at least every 14 calendar days. Also, post-storm event inspections will be conducted within 24 hours after the end of any precipitation or snowmelt event that causes surface erosion. Provided the timing is appropriate, the post-storm inspections may be used to fulfill the 14-day routine inspection requirement. A more frequent inspection schedule than the minimum inspections described may be necessary to assure that

BMPs continue to operate as needed to comply with the permit. The following conditional modifications to this minimum inspection schedule are allowed:

1) Post-Storm Event Inspections at Temporarily Idle Sites

If no construction activities occur immediately following a storm event, post-storm event inspections will be conducted prior to recommencing construction activities but no later than 72 hours following the storm event. The occurrence of any such delayed inspection will be documented in the inspection record. Routine inspections will still be conducted at least every 14 calendar days.

2) Inspections at Completed Sites/Areas

For sites or portions of sites that meet the following criteria but where final stabilization has not yet been achieved due to a vegetative cover that has not become established, an inspection will be conducted at least once every month and post-storm event inspections are not required. This reduced inspection schedule is allowed *only* if:

- All construction activities that will result in surface ground disturbance are completed;
- All activities required for final stabilization, in accordance with the SWMP, have been completed, with the exception of the application of seed that has not occurred due to seasonal conditions or the necessity for additional seed application to augment previous efforts; and
- The SWMP must be amended to indicate those areas that will be inspected in accordance with the reduced schedule allowed for in this subsection.

3) Winter Conditions Inspections Exclusion

Inspections will not be performed at sites where construction activities are temporarily halted, snow cover exists over the entire site for an extended period, and melting conditions posing a risk of surface erosion do not exist. This exception is applicable *only* during the period where melting conditions do not exist and applies to the routine 14-day and monthly inspections as well as post-storm event inspections. The following information will be documented in the inspection record for use of this exclusion:

- Dates when snow cover occurred,
- Date when construction ceased, and
- Date melting conditions began.

Inspections, as described above, are required at all other times.

4) Completed Construction

After completion of the construction, but prior to returning the disturbed areas to approximate preconstruction conditions, the disturbed areas will be inspected at least once a month.

c) INSPECTION REQUIREMENTS

1) Inspection Scope

The construction site perimeter, all disturbed areas, material or waste storage areas that are exposed to precipitation, discharge locations, and locations where vehicles access the site will be inspected for evidence of, or the potential for, pollutants leaving the construction site boundaries, entering the stormwater drainage system, or discharging to waters of the state. All erosion and sediment control practices identified in the SWMP will be evaluated to assure that they are operating correctly.

2) Inspection Report/Records

A record will be kept of inspections. Inspection reports will identify any incidents of non-compliance with the terms and conditions of the permit and a diagram will accompany each report. Copies of the inspection reports shall be retained in an electronic format. The SWMP will be kept in the cooler/shed located at the fuel/equipment storage area during construction, interim and reclamation operations, and for a minimum of 3 years following the completion of the activities. All reports will be provided to the Administrator upon request. The inspection reports will include:

- The inspection date,
- Names and title of the personnel making the inspection,
- Location of discharges of sediment or other pollutants from the site;
- Location of BMPs that need to be maintained,
- Location of BMPs that failed to operate as designed or proved inadequate for a particular location,
- Location where additional BMPs are needed that were not in place at the time of the inspection,
- Deviations from the minimum inspection schedule,
- Description of corrective action for above items, date corrective action taken, and measures taken to prevent future violations, including requisite changes to the SWMP as necessary, and
- After corrective action has been taken or where a report does not identify any incidents requiring corrective action, the report will contain a signed statement indicating that it is in compliance with the permit to the best of the signer's knowledge and belief.

d) REQUIRED ACTIONS FOLLOWING SITE INSPECTIONS

Where site inspections note the need for BMP maintenance activities, BMPs will be maintained in accordance with the SWMP. Repair, replacement, or installation of new BMPs determined necessary during site inspections to address ineffective or inadequate BMPs will be conducted as described below. Guidelines for specific BMP installation and maintenance are included in **Appendix C**.

e) BMP MAINTENANCE

All erosion and sediment control practices and other protective measures identified in the SWMP will be maintained in effective operating condition. Proper selection and installation of BMPs and installation of comprehensive inspection and maintenance procedures should be adequate to meet this condition. BMPs that are not adequately maintained in accordance with good engineering, hydrologic, and pollution control practices, including removal of collected sediment outside the acceptable tolerances of the BMPs and preparation for post-construction stormwater control, are considered no longer operating effectively and will be addressed. A specific timeline for implementing maintenance procedures is not included in the permit because BMP maintenance is intended to be proactive, not responsive. Observations resulting in BMP maintenance activities can be made during a site inspection or during general observations of site conditions. The BMP maintenance standards are outlined in the BMP details located in **Appendix C.**

f) REPLACEMENT OF FAILED BMPs

Adequate site assessment will be performed as part of a comprehensive inspection and maintenance procedures to assess the adequacy of BMPs at the site and the necessity of changes to those BMPs to assure continued effective performance. Where BMPs have failed, resulting in non-compliance with the permit, they must be addressed as soon as possible, immediately in most cases, to minimize the discharge of pollutants. When new BMPs are installed or replaced with different BMPs, the SWMP must be updated.

Appendix A. CDPHE Permit Certificate and CDPHE Stormwater General Permit

COLORADO
Department of Public Health & Environment

Dedicated to protecting and improving the health and environment of the people of Colorado

For Agency Use Only
Date Received ____/____/____
Effective Date ____/____/____

CHANGE OF CONTACT(s) for all PERMITS, CERTIFICATIONS, AND AUTHORIZATIONS

MAIL TO:
CDPHE WQCD Mail Code WQC-PCP-2034
4300 Cherry Creek Dr South Denver CO 80246

This form must be submitted for changes made to any of the contacts or information listed below.
PHOTO COPIES, FAXED COPIES, PDF COPIES OR EMAILS WILL NOT BE ACCEPTED.

PERMIT, CERTIFICATION, OR AUTHORIZATION NUMBER COR03D798 **(This number does not end in 0000)**
(A separate form must be prepared for each Permit, Certification, or Authorization covered by these changes.)

PERMITTEE ORGANIZATION FORMAL NAME (If more than one please add additional pages) :

CPX Piceance Holdings LLC

The legally responsible organization is either the owner or operator of the facility or project to which the permit has been issued, or both if designated as co-permittees by the Division.

FACILITY NAME Tepee Park Ranch Exploration Project

ENTER ALL OF THE INFORMATION FOR EACH CONTACT WHERE THERE IS A CHANGE.

1. **PERMITTEE** the person **authorized to sign and certify** the permit application. This person receives all permit correspondences and is **legally responsible** for compliance with the permit.

Responsible Position (title) General Manager
Held by (person) Ward Giltner
Telephone # (303) 489-8773 email address wgiltner@yahoo.com
Organization CPX Piceance Holdings LLC
Mailing address 880 Wolverine CT
City Castle Rock State CO Zip 80108

This form must be signed by the Permittee to be considered complete.

Per Regulation 61 In all cases, it shall be signed as follows:

a) In the case of corporations, by a responsible corporate officer. For the purposes of this section, the responsible corporate officer is responsible for the overall operation of the facility from which the discharge described in the application originates.
b) In the case of a partnership, by a general partner.
c) In the case of a sole proprietorship, by the proprietor.
d) In the case of a municipal, state, or other public facility, by either a principal executive officer or ranking elected official

Revised 4/1/2015

CHANGE OF CONTACT(S) FOR ALL PERMITS, CERTIFICATIONS AND AUTHORIZATIONS

2. **DMR COGNIZANT OFFICIAL** (i.e. authorized agent) the person **authorized to sign and certify** the Reports as required by the permit, including Discharge Monitoring Reports (DMR's), Annual Reports, Compliance Schedule submittals, and other information requested by the Division. The Division will transmit pre-printed reports (i.e. DMR's) to this person. If more than one person, please add additional pages. **This party may not sign application forms.**

Responsible Position (title): General Manager
Held by (person): Ward Giltner
Telephone #: (303) 489-8773 email address: wgiltner@yahoo.com
Organization: CPX Piceance Holdings LLC
Mailing address: 880 Wolverine CT
City: Castle Rock State: CO Zip: 80108

3. **SITE CONTACT** local contact for questions relating to the facility and discharge authorized by this permit for the facility

Responsible Position (title): Environmental Manager (Contractor)
Held by (person): Mary C Griggs
Telephone #: (303) 912-8292 email address: griggs.mary@comcast.net
Organization: CPX Piceance Holdings LLC
Mailing address: 3293 S. Jay St.
City: Denver State: CO Zip: 80227

4. **CERTIFIED OPERATOR IN RESPONSIBLE CHARGE (ORC)** may designate on or both if needed

A. Wastewater Treatment Facility ORC

Operator ID Number:
Legal Name:
Telephone #: email address:
Organization:
Mailing address:
City: State: Zip:

B. Wasterwater Collection System ORC

Operator ID Number:
Legal Name:
Telephone #: email address:
Organization:
Mailing address:
City: State: Zip:

CHANGE OF CONTACT(S) FOR ALL PERMITS, CERTIFICATIONS AND AUTHORIZATIONS

5. **BILLING CONTACT** if different than permittee

Responsible Position (title) _____

Held by (person) _____

Telephone # _____ email address _____

Organization _____

Mailing address _____

City _____ State _____ Zip _____

6. **OTHER CONTACT TYPES** (check below) Add pages if necessary.

Responsible Position (title) On-site Manager

Held by (person) Bryan Clark

Telephone # (970) 987-2220 email address brybcexcavating@aol.com

Organization BC Excavating

Mailing address 6659 County Road 301

City Parachute State CO Zip 81635-9123

- ☐ Pretreatment Coordinator
- ☐ Environmental Contact
- ☐ Biosolids Responsible Party
- ☐ Inspection Facility Contact
- ☐ Consultant
- ☑ Compliance Contact
- ☐ Stormwater MS4 Responsible Party
- ☑ Stormwater Authorized Representative
- ☐ Property Owner
- ☐ Other _____

REQUIRED CERTIFICATION SIGNATURE [Reg 61.4(1)(h)]

"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 gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

Signature (Legally Responsible Party) _____ Date 7/29/2016

Name (printed) Ward Giltner Title General Manager

STATE OF COLORADO

COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT
WATER QUALITY CONTROL DIVISION
TELEPHONE: (303) 692-3500

CERTIFICATION TO DISCHARGE
UNDER
CDPS GENERAL PERMIT COR-030000
STORMWATER DISCHARGES ASSOCIATED WITH CO STRUCTION

Certification Number **COR03D798**

This Certification to Discharge specifically authorizes:

Black Diamond Minerals LLC

LEGAL CONTACT:
Scott D. Hall, CEO
Black Diamond Minerals LLC
1600 Stout St Ste 1350
Denver, CO 80202
Phone # 303/973-3228
sdhall@bdminerals.com

LOCAL CONTACT:
Robert S. Vincent, VP Ops,
Phone # 303/973-3228
rvincent@bdminerals.com

During the Construction Activity: **Oil & Gas Production and/or Exploration**
to discharge stormwater from the facility identified as **Tepee Park Ranch Exploration Project**
which is located at:

CR 317 & USFS Rd 824
, Co

Latitude **39/24/03,** Longitude **107/50/16**
In **Garfield County**

to: Beaver Creek -- Colorado River

Anticipated Activity begins **06/01/2008** continuing through **06/01/2018**
On **4350.44** acres (**30** acres disturbed)

Certification is effective: **05/27/2008** Certification Expires: **06/30/2012**

Annual Fee: $245.00 **(DO NOT PAY NOW** – A prorated bill will be sent shortly.)

CDPS GENERAL PERMIT

STORMWATER DISCHARGES ASSOCIATED WITH
CONSTRUCTION ACTIVITY

AUTHORIZATION TO DISCHARGE UNDER THE

COLORADO DISCHARGE PERMIT SYSTEM

In compliance with the provisions of the Colorado Water Quality Control Act, (25-8-101 et seq., CRS, 1973 as amended) and the Federal Water Pollution Control Act, as amended (33 U.S.C. 1251 et seq.; the "Act"), this permit authorizes the discharge of stormwater associated with construction activities (and specific allowable non-stormwater discharges in accordance with Part I.D.3 of the permit) certified under this permit, from those locations specified throughout the State of Colorado to specified waters of the State. Such discharges shall be in accordance with the conditions of this permit.

This permit specifically authorizes the facility listed on page 1 of this permit to discharge, as of this date, in accordance with permit requirements and conditions set forth in Parts I and II hereof. All discharges authorized herein shall be consistent with the terms and conditions of this permit.

This permit and the authorization to discharge shall expire at midnight, **June 30, 2012.**

Issued and Signed this 31st day of May, 2007

COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT

Janet S. Kieler
Permits Section Manager
Water Quality Control Division

SIGNED AND ISSUED MAY 31, 2007

EFFECTIVE JULY 1, 2007

ADMINISTRATIVELY
CONTINUED EFFECTIVE
JULY 1, 2012

CDPS GENERAL PERMIT

STORMWATER DISCHARGES ASSOCIATED WITH
CONSTRUCTION ACTIVITY

AUTHORIZATION TO DISCHARGE UNDER THE

COLORADO DISCHARGE PERMIT SYSTEM

In compliance with the provisions of the Colorado Water Quality Control Act, (25-8-101 et seq., CRS, 1973 as amended) and the Federal Water Pollution Control Act, as amended (33 U.S.C. 1251 et seq.; the "Act"), this permit authorizes the discharge of stormwater associated with construction activities (and specific allowable non-stormwater discharges in accordance with Part I.D.3 of the permit) certified under this permit, from those locations specified throughout the State of Colorado to specified waters of the State. Such discharges shall be in accordance with the conditions of this permit.

This permit specifically authorizes the facility listed on the certification page (page 1) of this permit to discharge, as of this date, in accordance with permit requirements and conditions set forth in Parts I and II hereof. All discharges authorized herein shall be consistent with the terms and conditions of this permit.

This permit and the authorization to discharge shall expire at midnight, **June 30, 2012.**

Issued and Signed this 31st day of May, 2007

COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT

Janet S. Kieler
Permits Section Manager
Water Quality Control Division

SIGNED AND ISSUED MAY 31, 2007

EFFECTIVE JULY 1, 2007

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PART I

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PART I

A. COVERAGE UNDER THIS PERMIT

1. **Authority to Discharge**

Under this permit, facilities are granted authorization to discharge stormwater associated with construction activities into waters of the state of Colorado. This permit also authorizes the discharge of specific allowable non-stormwater discharges, in accordance with Part I.D.3 of the permit, which includes discharges to the ground. This includes stormwater discharges from areas that are dedicated to producing earthen materials, such as soils, sand and gravel, for use at a single construction site (i.e., borrow or fill areas). This permit also authorizes stormwater discharges from dedicated asphalt batch plants and dedicated concrete batch plants. (Coverage under the construction site permit is not required for batch plants if they have alternate CDPS permit coverage.) This permit does not authorize the discharge of mine water or process water from such areas.

a) **Applicable Sections:** In accordance with Part I.A.3 of this permit, some parts of this permit do not apply to sites covered under a Qualifying Local Program, as defined in I.A.2.d. For sites not covered by a Qualifying Local Program, all parts of the permit apply except Part I.A.3. The permittee will be responsible for determining and then complying with the applicable sections.

b) **Oil and Gas Construction:** Stormwater discharges associated with construction activities directly related to oil and gas exploration, production, processing, and treatment operations or transmission facilities are regulated under the Colorado Discharge Permit System Regulations (5CCR 1002-61), and require coverage under this permit in accordance with that regulation. However, references in this permit to specific authority under the Federal Clean Water Act (CWA) do not apply to stormwater discharges associated with these oil and gas related construction activities, to the extent that the references are limited by the federal Energy Policy Act of 2005.

2. **Definitions**

a) **Stormwater:** Stormwater is precipitation-induced surface runoff.

b) **Construction activity:** Construction activity refers to ground surface disturbing activities, which include, but are not limited to, clearing, grading, excavation, demolition, installation of new or improved haul roads and access roads, staging areas, stockpiling of fill materials, and borrow areas. Construction does not include routine maintenance to maintain original line and grade, hydraulic capacity, or original purpose of the facility.

c) **Small construction activity:** Stormwater discharge associated with small construction activity means the discharge of stormwater from construction activities that result in land disturbance of equal to or greater than one acre and less than five acres. Small construction activity also includes the 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.

d) **Qualifying Local Program:** This permit includes conditions that incorporate qualifying local erosion and sediment control program (Qualifying Local Program) requirements by reference. A Qualifying Local Program is a municipal stormwater program for stormwater discharges associated with small construction activity that has been formally approved by the Division.

Other Definitions: Definitions of additional terms can be found in Part I.E. of this permit.

3. **Permit Coverage Without Application – for small construction activities under a Qualifying Local Program only**

If a small construction site is within the jurisdiction of a Qualifying Local Program, the operator of the construction activity is authorized to discharge stormwater associated with small construction activity under this general permit without the submittal of an application to the Division.

a) **Applicable Sections:** For sites covered by a Qualifying Local Program, only Parts 1.A.1, 1.A.2, 1.A.3, I.D.1, I.D.2, I.D.3, I.D.4, I.D.7, I.D.8, I.D.11, I.E and Part II of this permit, with the exception of Parts II.A.1, II.B.3, II.B.8, and II.B10, apply.

A. COVERAGE UNDER THIS PERMIT (cont.)

b) **Local Agency Authority:** This permit does not pre-empt or supersede the authority of local agencies to prohibit, restrict, or control discharges of stormwater to storm drain systems or other water courses within their jurisdiction.

c) **Permit Coverage Termination:** When a site under a Qualifying Local Program has been finally stabilized, coverage under this permit is automatically terminated.

d) **Compliance with Qualifying Local Program:** A construction site operator that has authorization to discharge under this permit under Part I.A.3 shall comply with the requirements of the Qualifying Local Program with jurisdiction over the site.

e) **Full Permit Applicability:** The Division may require any operator within the jurisdiction of a Qualifying Local Program covered under this permit to apply for and obtain coverage under the full requirements of this permit. The operator must be notified in writing that an application for full coverage is required. When a permit certification under this permit is issued to an operator that would otherwise be covered under Part I.A.3 of this permit, the full requirements of this permit replace the requirements as per Part I.A.3 of this permit, upon the effective date of the permit certification. A site brought under the full requirements of this permit must still comply with local stormwater management requirements, policies or guidelines as required by Part I.D.1.g of this permit.

4. **Application, Due Dates**

a) **Application Due Dates:** At least **ten calendar days** prior to the commencement of construction activities, the applicant shall submit an application form as provided by the Division, with a certification that the Stormwater Management Plan (SWMP) is complete.

One original completed discharge permit application shall be submitted, by mail or hand delivery, to:

Colorado Department of Public Health and Environment
Water Quality Control Division
WQCD-Permits-B2
4300 Cherry Creek Drive South
Denver, Colorado 80246-1530

b) **Summary of Application:** The application requires, at a minimum, the following:

1) The applicant's company name; address; telephone number; and email address (if available); whether the applicant is the owner, developer, or contractor; and local contact information;
2) Project name, address, county and location of the construction site, including the latitude and longitude to the nearest 15 seconds of the approximate center of the construction activity;
3) Legal description or map of the construction site;
4) Estimates of: the total area of the site, the area of the site that is expected to be disturbed, and the total area of the larger common plan of development or sale to undergo disturbance;
5) The nature of the construction activity;
6) The anticipated start date and final stabilization date for the project;
7) The name of the receiving water(s), or the municipal separate storm sewer system and the ultimate (i.e., named) receiving water(s);
8) Certification that the SWMP for the construction site is complete (see Part I.C. below); and
9) The signature of the applicant, signed in accordance with Part I.F.1 of this permit.

5. **Permit Certification Procedures**

If this general permit is appropriate for the applicant's operation, then a certification will be developed and the applicant will be authorized to discharge stormwater under this general permit.

a) **Request for Additional Information**: The Division shall have up to **ten calendar days** after receipt of the above information to request additional data and/or deny the authorization for any particular discharge. Upon receipt of additional information, the Division shall have an additional **ten calendar days** to issue or deny authorization for the particular discharge. (Notification of denial shall be by letter, in cases where coverage under an alternate general permit or an individual permit is required, instead of coverage under this permit.)

A. COVERAGE UNDER THIS PERMIT (cont.)

b) **Automatic Coverage**: If the applicant does not receive a request for additional information or a notification of denial from the Division dated within ten calendar days of receipt of the application by the Division, authorization to discharge in accordance with the conditions of this permit shall be deemed granted.

c) **Individual Permit Required**: If, after evaluation of the application (or additional information, such as the SWMP), it is found that this general permit is not appropriate for the operation, then the application will be processed as one for an individual permit. The applicant will be notified of the Division's decision to deny certification under this general permit. For an individual permit, additional information may be requested, and 180 days may be required to process the application and issue the permit. At the Division's discretion, temporary coverage under this general permit may be allowed until the individual permit goes into effect.

d) **General vs. Individual Permit Coverage**: Any permittee authorized by this permit may request to be excluded from the coverage of this permit by applying for an individual CDPS permit. The permittee shall submit an individual application, with reasons supporting the request, to the Division at least 180 days prior to any discharge.

e) **Local Agency Authority:** This permit does not pre-empt or supersede the authority of local agencies to prohibit, restrict, or control discharges of stormwater to storm drain systems or other water courses within their jurisdiction.

6. **Inactivation Notice**

When a site has been finally stabilized in accordance with the SWMP, the permittee must submit an **Inactivation Notice** form that is signed in accordance with Part I.F.1. of this permit. The Inactivation Notice form is available from the Division and includes:

a) Permit certification number;
b) The permittee's name, address, telephone number;
c) Name, location, and county for the construction site for which the inactivation notice is being submitted; and
d) Certification that the site has been finally stabilized, and a description of the final stabilization method(s).

7. **Transfer of Permit**

When responsibility for stormwater discharges at a construction site changes from one entity to another, the permittee shall submit a completed **Notice of Transfer and Acceptance of Terms** form that is signed in accordance with Part I.F.1. of this permit. The Notice of Transfer form is available from the Division and includes:

a) Permit certification number;
b) Name, location, and county for the construction site for which the Notice of Transfer is being submitted;
c) Identifying information for the new permittee;
d) Identifying information for the current permittee; and
e) Effective date of transfer.

If the new responsible party will not complete the transfer form, the permit may be inactivated upon written request to the Division and completion of the Inactivation Notice if the permittee has no legal responsibility, through ownership or contract, for the construction activities at the site. In this case, the new owner or operator would be required to obtain permit coverage separately.

8. **Reassignment of Permit**

When a permittee no longer has control of a specific portion of a permitted site, and wishes to transfer coverage of that portion of the site to a second party, the permittee shall submit a completed **Notice of Reassignment of Permit Coverage** form that is signed in accordance with Part I.F.1. of this permit. The Notice of Reassignment of Permit Coverage form is available from the Division and includes:

a) Current permit certification number;
b) Identifying information and certification as required by Part I.A.4.b for the new permittee;
c) Identifying information for the current permittee, revised site information and certification for reassignment; and
d) Effective date of reassignment.

A. COVERAGE UNDER THIS PERMIT (cont.)

If the new responsible party will not complete the reassignment form, the applicable portion of the permitted site may be removed from permit coverage upon written request to the Division if the permittee has no legal responsibility, through ownership or contract, for the construction activities at the portion of the site. In this case, the new owner or operator would be required to obtain permit coverage separately.

9. **Sale of Residence to Homeowners**

For residential construction only, when a residential lot **has been conveyed to a homeowne**r and all criteria in paragraphs a through e, below, are met, coverage under this permit is no longer required and the conveyed lot may be removed from coverage under the permittee's certification. At such time, the permittee is no longer responsible for meeting the terms and conditions of this permit for the conveyed lot, including the requirement to transfer or reassign permit coverage. The permittee remains responsible for inactivation of the original certification.

a) The lot has been sold to the homeowner(s) for private residential use;
b) the lot is less than one acre of disturbed area;
c) all construction activity conducted by the permittee on the lot is completed;
d) a certificate of occupancy (or equivalent) has been awarded to the home owner; and
e) the SWMP has been amended to indicate the lot is no longer covered by permit.

Lots not meeting all of the above criteria require continued permit coverage. However, this permit coverage may be transferred (Part I.A.7, above) or reassigned (Part I.A.8, above) to a new owner or operator.

10. **Permit Expiration Date**

Authorization to discharge under this general permit shall expire on June 30, 2012. The Division must evaluate and reissue this general permit at least once every five years and must recertify the permittee's authority to discharge under the general permit at such time. Therefore, a permittee desiring continued coverage under the general permit must reapply by March 31, 2012. The Division will initiate the renewal process; however, it is ultimately the permittee's responsibility to ensure that the renewal is submitted. The Division will determine if the permittee may continue to operate under the terms of the general permit. An individual permit may be required for any facility not reauthorized to discharge under the reissued general permit.

11. **Individual Permit Criteria**

Various criteria can be used in evaluating whether or not an individual (or alternate general) permit is required instead of this general permit. This information may come from the application, SWMP, or additional information as requested by the Division, and includes, but is not limited to, the following:

a) the quality of the receiving waters (i.e., the presence of downstream drinking water intakes or a high quality fishery, or for preservation of high quality water);
b) the size of the construction site;
c) evidence of noncompliance under a previous permit for the operation;
d) the use of chemicals within the stormwater system; or
e) discharges of pollutants of concern to waters for which there is an established Total Maximum Daily Load (TMDL).

In addition, an individual permit may be required when the Division has shown or has reason to suspect that the stormwater discharge may contribute to a violation of a water quality standard.

B. STORMWATER MANAGEMENT PLAN (SWMP) – **GENERAL REQUIREMENTS**

1. A SWMP shall be developed for each facility covered by this permit. The SWMP shall be prepared in accordance with good engineering, hydrologic and pollution control practices. (The SWMP need not be prepared by a registered engineer.)

B. STORMWATER MANAGEMENT PLAN (SWMP) – **GENERAL REQUIREMENTS** (cont.)

2. The SWMP shall:

   a) Identify all potential sources of pollution which may reasonably be expected to affect the quality of stormwater discharges associated with construction activity from the facility;

   b) Describe the practices to be used to reduce the pollutants in stormwater discharges associated with construction activity at the facility; and ensure the practices are selected and described in accordance with good engineering practices, including the installation, implementation and maintenance requirements; and

   c) Be properly prepared, and updated in accordance with Part I.D.5.c, to ensure compliance with the terms and conditions of this permit.

3. Facilities must implement the provisions of the SWMP as written and updated, from commencement of construction activity until final stabilization is complete, as a condition of this permit. The Division reserves the right to review the SWMP, and to require the permittee to develop and implement additional measures to prevent and control pollution as needed.

4. The SWMP may reflect requirements for Spill Prevention Control and Countermeasure (SPCC) plans under section 311 of the CWA, or Best Management Practices (BMPs) Programs otherwise required by a separate CDPS permit, and may incorporate any part of such plans into the SWMP by reference, provided that the relevant sections of such plans are available as part of the SWMP consistent with Part I.D.5.b.

5. For any sites with permit coverage before June 30, 2007, the permittee's SMWP must meet the new SWMP requirements as summarized in Section II.I of the rationale. Any needed changes must be made by **October 1, 2007.**

C. STORMWATER MANAGEMENT PLAN (SWMP) – **CONTENTS**

The SWMP shall include the following items, at a minimum.

1. **Site Description.** The SWMP shall clearly describe the construction activity, to include:

   a) The nature of the construction activity at the site.
   b) The proposed sequence for major activities.
   c) Estimates of the total area of the site, and the area and location expected to be disturbed by clearing, excavation, grading, or other construction activities.
   d) A summary of any existing data used in the development of the site construction plans or SWMP that describe the soil or existing potential for soil erosion.
   e) A description of the existing vegetation at the site and an estimate of the percent vegetative ground cover.
   f) The location and description of all potential pollution sources, including ground surface disturbing activities (see Part I.A.2.b), vehicle fueling, storage of fertilizers or chemicals, etc.
   g) The location and description of any anticipated allowable sources of non-stormwater discharge at the site, e.g., uncontaminated springs, landscape irrigation return flow, construction dewatering, and concrete washout.
   h) The name of the receiving water(s) and the size, type and location of any outfall(s). If the stormwater discharge is to a municipal separate storm sewer system, the name of that system, the location of the storm sewer discharge, and the ultimate receiving water(s).

2. **Site Map.** The SWMP shall include a legible site map(s), showing the entire site, identifying:

   a) construction site boundaries;
   b) all areas of ground surface disturbance;
   c) areas of cut and fill;
   d) areas used for storage of building materials, equipment, soil, or waste;
   e) locations of dedicated asphalt or concrete batch plants;
   f) locations of all structural BMPs;
   g) locations of non-structural BMPs as applicable; and
   h) locations of springs, streams, wetlands and other surface waters.

C. STORMWATER MANAGEMENT PLAN (SWMP) – **CONTENTS** (cont.)

3. **Stormwater Management Controls.**

The SWMP must include a description of all stormwater management controls that will be implemented as part of the construction activity to control pollutants in stormwater discharges. The appropriateness and priorities of stormwater management controls in the SWMP shall reflect the potential pollutant sources identified at the facility.

The description of stormwater management controls shall address the following components, at a minimum:

a) **SWMP Administrator** - The SWMP shall identify a specific individual(s), position or title who is responsible for developing, implementing, maintaining, and revising the SWMP. The activities and responsibilities of the administrator shall address all aspects of the facility's SWMP.

b) **Identification of Potential Pollutant Sources** - All potential pollutant sources, including materials and activities, at a site must be evaluated for the potential to contribute pollutants to stormwater discharges. The SWMP shall identify and describe those sources determined to have the potential to contribute pollutants to stormwater discharges, and the sources must be controlled through BMP selection and implementation, as required in paragraph (c), below.

At a minimum, each of the following sources and activities shall be evaluated for the potential to contribute pollutants to stormwater discharges, and identified in the SWMP if found to have such potential:

1) all disturbed and stored soils;
2) vehicle tracking of sediments;
3) management of contaminated soils;
4) loading and unloading operations;
5) outdoor storage activities (building materials, fertilizers, chemicals, etc.);
6) vehicle and equipment maintenance and fueling;
7) significant dust or particulate generating processes;
8) routine maintenance activities involving fertilizers, pesticides, detergents, fuels, solvents, oils, etc.;
9) on-site waste management practices (waste piles, liquid wastes, dumpsters, etc.);
10) concrete truck/equipment washing, including the concrete truck chute and associated fixtures and equipment;
11) dedicated asphalt and concrete batch plants;
12) non-industrial waste sources such as worker trash and portable toilets; and
13) other areas or procedures where potential spills can occur.

c) **Best Management Practices (BMPs) for Stormwater Pollution Prevention** - The SWMP shall identify and describe appropriate BMPs, including, but not limited to, those required by paragraphs 1 through 8 below, that will be implemented at the facility to reduce the potential of the sources identified in Part I.C.3.b to contribute pollutants to stormwater discharges. The SWMP shall clearly describe the installation and implementation specifications for each BMP identified in the SWMP to ensure proper implementation, operation and maintenance of the BMP.

1) Structural Practices for Erosion and Sediment Control. The SWMP shall clearly describe and locate all structural practices implemented at the site to minimize erosion and sediment transport. Practices may include, but are not limited to: straw bales, wattles/sediment control logs, silt fences, earth dikes, drainage swales, sediment traps, subsurface drains, pipe slope drains, inlet protection, outlet protection, gabions, and temporary or permanent sediment basins.

2) Non-Structural Practices for Erosion and Sediment Control. The SWMP shall clearly describe and locate, as applicable, all non-structural practices implemented at the site to minimize erosion and sediment transport. Description must include interim and permanent stabilization practices, and site-specific scheduling for implementation of the practices. The SWMP should include practices to ensure that existing vegetation is preserved where possible. Non-structural practices may include, but are not limited to: temporary vegetation, permanent vegetation, mulching, geotextiles, sod stabilization, slope roughening, vegetative buffer strips, protection of trees, and preservation of mature vegetation.

C. STORMWATER MANAGEMENT PLAN (SWMP) – **CONTENTS** (cont.)

3) Phased BMP Implementation. The SWMP shall clearly describe the relationship between the phases of construction, and the implementation and maintenance of both structural and non-structural stormwater management controls. The SWMP must identify the stormwater management controls to be implemented during the project phases, which can include, but are not limited to, clearing and grubbing; road construction; utility and infrastructure installation; vertical construction; final grading; and final stabilization.

4) Materials Handling and Spill Prevention. The SWMP shall clearly describe and locate all practices implemented at the site to minimize impacts from procedures or significant materials (see definitions at Part I.E.) that could contribute pollutants to runoff. Such procedures or significant materials could include: exposed storage of building materials; paints and solvents; fertilizers or chemicals; waste material; and equipment maintenance or fueling procedures.

Areas or procedures where potential spills can occur must have spill prevention and response procedures identified in the SWMP.

5) Dedicated Concrete or Asphalt Batch Plants. The SWMP shall clearly describe and locate all practices implemented at the site to control stormwater pollution from dedicated concrete batch plants or dedicated asphalt batch plants covered by this certification.

6) Vehicle Tracking Control. The SWMP shall clearly describe and locate all practices implemented at the site to control potential sediment discharges from vehicle tracking. Practices must be implemented for all areas of potential vehicle tracking, and can include: minimizing site access; street sweeping or scraping; tracking pads; graveled parking areas; requiring that vehicles stay on paved areas on-site; wash racks; contractor education; and/or sediment control BMPs, etc.

7) Waste Management and Disposal, Including Concrete Washout.

i) The SWMP shall clearly describe and locate the practices implemented at the site to control stormwater pollution from all construction site wastes (liquid and solid), including concrete washout activities.
ii) The practices used for concrete washout must ensure that these activities do not result in the contribution of pollutants associated with the washing activity to stormwater runoff.
iii) Part I.D.3.c of the permit authorizes the conditional discharge of concrete washout water to the ground. The SWMP shall clearly describe and locate the practices to be used that will ensure that no washout water from concrete washout activities is discharged from the site as surface runoff or to surface waters.

8) Groundwater and Stormwater Dewatering.

i) The SWMP shall clearly describe and locate the practices implemented at the site to control stormwater pollution from the dewatering of groundwater or stormwater from excavations, wells, etc.
ii) Part I.D.3.d of the permit authorizes the conditional discharge of construction dewatering to the ground. For any construction dewatering of groundwater not authorized under a separate CDPS discharge permit, the SWMP shall clearly describe and locate the practices to be used that will ensure that no groundwater from construction dewatering is discharged from the site as surface runoff or to surface waters.

4. **Final Stabilization and Long-term Stormwater Management**

a) The SWMP shall clearly describe the practices used to achieve final stabilization of all disturbed areas at the site, and any planned practices to control pollutants in stormwater discharges that will occur after construction operations have been completed at the site.

b) Final stabilization practices for obtaining a vegetative cover should include, as appropriate: seed mix selection and application methods; soil preparation and amendments; soil stabilization practices (e.g., crimped straw, hydro mulch or rolled erosion control products); and appropriate sediment control BMPs as needed until final stabilization is achieved; etc.

C. STORMWATER MANAGEMENT PLAN (SWMP) – **CONTENTS** (cont.)

c) Final stabilization is reached when all ground surface disturbing activities at the site have been completed, and uniform vegetative cover has been established with an individual plant density of at least 70 percent of pre-disturbance levels, or equivalent permanent, physical erosion reduction methods have been employed.

The Division may, after consultation with the permittee and upon good cause, amend the final stabilization criteria in this section for specific operations.

5. **Inspection and Maintenance**

Part I.D.6 of the permit includes requirements for site inspections. Part I.D.7 of the permit includes requirements for BMP maintenance. The SWMP shall clearly describe the inspection and maintenance procedures implemented at the site to maintain all erosion and sediment control practices and other protective practices identified in the SWMP, in good and effective operating condition.

D. TERMS AND CONDITIONS

1. **General Limitations**

The following limitations shall apply to all discharges covered by this permit:

a) Stormwater discharges from construction activities shall not cause, have the reasonable potential to cause, or measurably contribute to an exceedance of any water quality standard, including narrative standards for water quality.

b) Concrete washout water shall not be discharged to state surface waters or to storm sewer systems. On-site permanent disposal of concrete washout waste is not authorized by this permit. Discharge to the ground of concrete washout waste that will subsequently be disposed of off-site is authorized by this permit. See Part I.D.3.c of the permit.

c) Bulk storage structures for petroleum products and any other chemicals shall have secondary containment or equivalent adequate protection so as to contain all spills and prevent any spilled material from entering State waters.

d) No chemicals are to be added to the discharge unless permission for the use of a specific chemical is granted by the Division. In granting the use of such chemicals, special conditions and monitoring may be addressed by separate correspondence.

e) The Division reserves the right to require sampling and testing, on a case-by-case basis, in the event that there is reason to suspect that compliance with the SWMP is a problem, or to measure the effectiveness of the BMPs in removing pollutants in the effluent. Such monitoring may include Whole Effluent Toxicity testing.

f) All site wastes must be properly managed to prevent potential pollution of State waters. This permit does not authorize on-site waste disposal.

g) All dischargers must comply with the lawful requirements of federal agencies, municipalities, counties, drainage districts and other local agencies regarding any discharges of stormwater to storm drain systems or other water courses under their jurisdiction, including applicable requirements in municipal stormwater management programs developed to comply with CDPS permits. Dischargers must comply with local stormwater management requirements, policies or guidelines including erosion and sediment control.

2. **BMP Implementation and Design Standards**

Facilities must select, install, implement, and maintain appropriate BMPs, following good engineering, hydrologic and pollution control practices. BMPs implemented at the site must be adequately designed to provide control for all potential pollutant sources associated with construction activity to prevent pollution or degradation of State waters.

D. TERMS AND CONDITIONS (cont.)

3. **Prohibition of Non-Stormwater Discharges**

a) Except as provided in paragraphs b, c, and d below, **all discharges covered by this permit shall be composed entirely of stormwater associated with construction activity**. Discharges of material other than stormwater must be addressed in a separate CDPS permit issued for that discharge.

b) Discharges from the following sources that are combined with stormwater discharges associated with construction activity may be authorized by this permit, provided that the non-stormwater component of the discharge is identified in the SWMP (see Part I.C.1.g of this permit):

- emergency fire fighting activities
- landscape irrigation return flow
- uncontaminated springs

c) Discharges to the ground of concrete washout water from washing of tools and concrete mixer chutes may be authorized by this permit, provided that:

1) the source is identified in the SWMP;
2) BMPs are included in the SWMP in accordance with Part I.C.3(c)(7) and to prevent pollution of groundwater in violation of Part I.D.1.a; and
3) these discharges do not leave the site as surface runoff or to surface waters

d) Discharges to the ground of water from construction dewatering activities may be authorized by this permit, provided that:

1) the source is groundwater and/or groundwater combined with stormwater that does not contain pollutants in concentrations exceeding the State groundwater standards in Regulations 5 CCR 1002-41 and 42;
2) the source is identified in the SWMP;
3) BMPs are included in the SWMP, as required by Part I.C.3(c)(8); and
4) these discharges do not leave the site as surface runoff or to surface waters.

Discharges to the ground from construction dewatering activities that do not meet the above criteria must be covered under a separate CDPS discharge permit. Contaminated groundwater requiring coverage under a separate CDPS discharge permit may include groundwater contaminated with pollutants from a landfill, mining activity, industrial pollutant plume, underground storage tank, or other source.

4. **Releases in Excess of Reportable Quantities**

This permit does not relieve the permittee of the reporting requirements of 40 CFR 110, 40 CFR 117 or 40 CFR 302. Any discharge of hazardous material must be handled in accordance with the Division's Noncompliance Notification Requirements (see Part II.A.3 of the permit).

5. **SWMP Requirements**

a) **SWMP Preparation and Implementation**: The SWMP shall be prepared prior to applying for coverage under the general permit, and certification of its completion submitted with the application. The SWMP shall be implemented prior to commencement of construction activities. The plan shall be updated as appropriate (see paragraph c, below), below). SWMP provisions shall be implemented until expiration or inactivation of permit coverage.

b) **SWMP Retention Requirements**: A copy of the SWMP must be retained on site unless another location, specified by the permittee, is approved by the Division.

c) **SWMP Review/Changes**: The permittee shall amend the SWMP:

1) when there is a change in design, construction, operation, or maintenance of the site, which would require the implementation of new or revised BMPs; or

2) if the SWMP proves to be ineffective in achieving the general objectives of controlling pollutants in stormwater discharges associated with construction activity; or

D. TERMS AND CONDITIONS (cont.)

3) when BMPs are no longer necessary and are removed.

SWMP changes shall be made prior to changes in the site conditions, except as allowed for in paragraph d, below. SWMP revisions may include, but are not limited to: potential pollutant source identification; selection of appropriate BMPs for site conditions; BMP maintenance procedures; and interim and final stabilization practices. The SWMP changes may include a schedule for further BMP design and implementation, provided that, if any interim BMPs are needed to comply with the permit, they are also included in the SWMP and implemented during the interim period.

d) **Responsive SWMP Changes**: SWMP changes addressing BMP installation and/or implementation are often required to be made in response to changing conditions, or when current BMPs are determined ineffective. The majority of SWMP revisions to address these changes can be made immediately with quick in-the-field revisions to the SWMP. In the less common scenario where more complex development of materials to modify the SWMP is necessary, SWMP revisions shall be made in accordance with the following requirements:

1) the SWMP shall be revised as soon as practicable, but in no case more than 72 hours after the change(s) in BMP installation and/or implementation occur at the site, and

2) a notation must be included in the SWMP prior to the site change(s) that includes the time and date of the change(s) in the field, an identification of the BMP(s) removed or added, and the location(s) of those BMP(s).

6. **Inspections**

Site inspections must be conducted in accordance with the following requirements and minimum schedules. The required minimum inspection schedules do not reduce or eliminate the permittee's responsibility to implement and maintain BMPs in good and effective operational condition, and in accordance with the SWMP, which could require more frequent inspections.

a) **Minimum Inspection Schedule:** The permittee shall, at a minimum, make a thorough inspection, in accordance with the requirements in I.D.6.b below, at least once every 14 calendar days. Also, post-storm event inspections must be conducted within 24 hours after the end of any precipitation or snowmelt event that causes surface erosion. Provided the timing is appropriate, the post-storm inspections may be used to fulfill the 14-day routine inspection requirement. A more frequent inspection schedule than the minimum inspections described may be necessary, to ensure that BMPs continue to operate as needed to comply with the permit. The following conditional modifications to this Minimum Inspection Schedule are allowed:

1) **Post-Storm Event Inspections at Temporarily Idle Sites** – If no construction activities will occur following a storm event, post-storm event inspections shall be conducted prior to re-commencing construction activities, but no later than 72 hours following the storm event. The occurrence of any such delayed inspection must be documented in the inspection record. Routine inspections still must be conducted at least every 14 calendar days.

2) **Inspections at Completed Sites/Areas** – For sites or portions of sites that meet the following criteria, but final stabilization has not been achieved due to a vegetative cover that has not become established, the permittee shall make a thorough inspection of their stormwater management system at least once every month, and post-storm event inspections are not required. This reduced inspection schedule is *only* allowed if:

i) all construction activities that will result in surface ground disturbance are completed;
ii) all activities required for final stabilization, in accordance with the SWMP, have been completed, with the exception of the application of seed that has not occurred due to seasonal conditions or the necessity for additional seed application to augment previous efforts; and
iii) the SWMP has been amended to indicate those areas that will be inspected in accordance with the reduced schedule allowed for in this paragraph.

D. TERMS AND CONDITIONS (cont.)

3) **Winter Conditions Inspections Exclusion** – Inspections are not required at sites where construction activities are temporarily halted, snow cover exists over the entire site for an extended period, and melting conditions posing a risk of surface erosion do not exist. This exception is applicable only during the period where melting conditions do not exist, and applies to the routine 14-day and monthly inspections, as well as the post-storm-event inspections. The following information must be documented in the inspection record for use of this exclusion: dates when snow cover occurred, date when construction activities ceased, and date melting conditions began. Inspections, as described above, are required at all other times.

When site conditions make the schedule required in this section impractical, the permittee may petition the Division to grant an alternate inspection schedule.

b) **Inspection Requirements**

1) **Inspection Scope** - The construction site perimeter, all disturbed areas, material and/or waste storage areas that are exposed to precipitation, discharge locations, and locations where vehicles access the site shall be inspected for evidence of, or the potential for, pollutants leaving the construction site boundaries, entering the stormwater drainage system, or discharging to state waters. All erosion and sediment control practices identified in the SWMP shall be evaluated to ensure that they are maintained and operating correctly.

2) **Inspection Report/Records** - The permittee shall keep a record of inspections. Inspection reports must identify any incidents of non-compliance with the terms and conditions of this permit. Inspection records must be retained for three years from expiration or inactivation of permit coverage. At a minimum, the inspection report must include:

i) The inspection date;
ii) Name(s) and title(s) of personnel making the inspection;
iii) Location(s) of discharges of sediment or other pollutants from the site;
iv) Location(s) of BMPs that need to be maintained;
v) Location(s) of BMPs that failed to operate as designed or proved inadequate for a particular location;
vi) Location(s) where additional BMPs are needed that were not in place at the time of inspection;
vii) Deviations from the minimum inspection schedule as provided in Part I.D.6.a above;
vii) Description of corrective action for items iii, iv, v, and vi, above, dates corrective action(s) taken, and measures taken to prevent future violations, including requisite changes to the SWMP, as necessary; and
viii) After adequate corrective action(s) has been taken, or where a report does not identify any incidents requiring corrective action, the report shall contain a signed statement indicating the site is in compliance with the permit to the best of the signer's knowledge and belief.

c) **Required Actions Following Site Inspections** – Where site inspections note the need for BMP maintenance activities, BMPs must be maintained in accordance with the SWMP and Part I.D.7 of the permit. Repair, replacement, or installation of new BMPs determined necessary during site inspections to address ineffective or inadequate BMPs must be conducted in accordance with Part I.D.8 of the permit. SWMP updates required as a result of deficiencies in the SWMP noted during site inspections shall be made in accordance with Part I.D.5.c of the permit.

7. **BMP Maintenance**

All erosion and sediment control practices and other protective measures identified in the SWMP must be maintained in effective operating condition. Proper selection and installation of BMPs and implementation of comprehensive Inspection and Maintenance procedures, in accordance with the SWMP, should be adequate to meet this condition. BMPs that are not adequately maintained in accordance with good engineering, hydrologic and pollution control practices, including removal of collected sediment outside the acceptable tolerances of the BMPs, are considered to be no longer operating effectively and must be addressed in accordance with Part I.D.8, below. A specific timeline for implementing maintenance procedures is not included in this permit because BMP maintenance is expected to be proactive, not responsive. Observations resulting in BMP maintenance activities can be made during a site inspection, or during general observations of site conditions.

D. TERMS AND CONDITIONS (cont.)

8. **Replacement and Failed BMPs**

Adequate site assessment must be performed as part of comprehensive Inspection and Maintenance procedures, to assess the adequacy of BMPs at the site, and the necessity of changes to those BMPs to ensure continued effective performance. Where site assessment results in the determination that new or replacement BMPs are necessary, the BMPs must be installed to ensure on-going implementation of BMPs as per Part I.D.2.

Where BMPs have failed, resulting in noncompliance with Part I.D.2, they must be addressed as soon as possible, immediately in most cases, to minimize the discharge of pollutants.

When new BMPs are installed or BMPs are replaced, the SWMP must be updated in accordance with Part I.D.5(c).

9. **Reporting**

No scheduled reporting requirements are included in this permit; however, the Division reserves the right to request that a copy of the inspection reports be submitted.

10. **SWMP Availability**

A copy of the SWMP shall be provided upon request to the Division, EPA, or any local agency in charge of approving sediment and erosion plans, grading plans or stormwater management plans, and within the time frame specified in the request. If the SWMP is required to be submitted to any of these entities, it must include a signed certification in accordance with Part I.F.1 of the permit, certifying that the SWMP is complete and meets all permit requirements.

All SWMPs required under this permit are considered reports that shall be available to the public under Section 308(b) of the CWA and Section 61.5(4) of the Colorado Discharge Permit System Regulations. The permittee shall make plans available to members of the public upon request. However, the permittee may claim any portion of a SWMP as confidential in accordance with 40 CFR Part 2.

11. **Total Maximum Daily Load (TMDL)**

If a TMDL has been approved for any waterbody into which the permittee discharges, and stormwater discharges associated with construction activity have been assigned a pollutant-specific Wasteload Allocation (WLA) under the TMDL, the Division will either:

a) Ensure that the WLA is being implemented properly through alternative local requirements, such as by a municipal stormwater permit; or

b) Notify the permittee of the WLA, and amend the permittee's certification to add specific BMPs and/or other requirements, as appropriate. The permittee may be required to do the following:

   1) Under the permittee's SWMP, implement specific management practices based on requirements of the WLA, and evaluate whether the requirements are being met through implementation of existing stormwater BMPs or if additional BMPs are necessary. Document the calculations or other evidence that show that the requirements are expected to be met; and

   2) If the evaluation shows that additional or modified BMPs are necessary, describe the type and schedule for the BMP additions/revisions.

Discharge monitoring may also be required. The permittee may maintain coverage under the general permit provided they comply with the applicable requirements outlined above. The Division reserves the right to require individual or alternate general permit coverage.

E. ADDITIONAL DEFINITIONS

For the purposes of this permit:

1. **Best Management Practices (BMPs)**: schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce the pollution of waters of the State. BMPs also include treatment requirements, operating procedures, pollution prevention, and practices to control site runoff, spillage or leaks, waste disposal, or drainage from material storage.

2. **Dedicated asphalt plants and concrete plants**: portable asphalt plants and concrete plants that are located on or adjacent to a construction site and that provide materials only to that specific construction site.

3. **Final stabilization**: when all ground surface disturbing activities at the site have been completed, and uniform vegetative cover has been established with an individual plant density of at least 70 percent of pre-disturbance levels, or equivalent permanent, physical erosion reduction methods have been employed. For purposes of this permit, establishment of a vegetative cover capable of providing erosion control equivalent to pre-existing conditions at the site will be considered final stabilization.

4. **Municipal separate storm sewer system**: a conveyance or system of conveyances (including: roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels, or storm drains), owned or operated by a State, city, town, county, district, or other public body (created by state law), having jurisdiction over disposal of sewage, industrial waste, stormwater, or other wastes; designed or used for collecting or conveying stormwater.

5. **Operator**: the entity that has day-to-day supervision and control of activities occurring at the construction site. This can be the owner, the developer, the general contractor or the agent of one of these parties, in some circumstances. It is anticipated that at different phases of a construction project, different types of parties may satisfy the definition of 'operator' and that the permit may be transferred as the roles change.

6. **Outfall**: a point source at the point where stormwater leaves the construction site and discharges to a receiving water or a stormwater collection system.

7. **Part of a larger 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.

8. **Point source**: any discernible, confined and discrete conveyance from which pollutants are or may be discharged. Point source discharges of stormwater result from structures which increase the imperviousness of the ground which acts to collect runoff, with runoff being conveyed along the resulting drainage or grading pattern.

9. **Pollutant**: dredged spoil, dirt, slurry, solid waste, incinerator residue, sewage, sewage sludge, garbage, trash, chemical waste, biological nutrient, biological material, radioactive material, heat, wrecked or discarded equipment, rock, sand, or any industrial, municipal or agricultural waste.

10. **Process water**: any water which, during manufacturing or processing, comes into contact with or results from the production of any raw material, intermediate product, finished product, by product or waste product. This definition includes mine drainage.

11. **Receiving Water**: any classified stream segment (including tributaries) in the State of Colorado into which stormwater related to construction activities discharges. This definition includes all water courses, even if they are usually dry, such as borrow ditches, arroyos, and other unnamed waterways.

12. **Significant Materials** include, but are not limited to: raw materials; fuels; materials such as solvents, detergents, and plastic pellets; finished materials such as metallic products; raw materials used in food processing or production; hazardous substances designated under section 101(14) of CERCLA; any chemical the facility is required to report pursuant to section 313 of title III of SARA; fertilizers; pesticides; and waste products such as ashes, slag and sludge that have the potential to be released with stormwater discharge.

13. **Stormwater**: precipitation-induced surface runoff.

F. GENERAL REQUIREMENTS

1. **Signatory Requirements**

a) All reports required for submittal shall be signed and certified for accuracy by the permittee in accordance with the following criteria:

1) In the case of corporations, by a principal executive officer of at least the level of vice-president or his or her duly authorized representative, if such representative is responsible for the overall operation of the facility from which the discharge described in the form originates;
2) In the case of a partnership, by a general partner;
3) In the case of a sole proprietorship, by the proprietor;
4) In the case of a municipal, state, or other public facility, by either a principal executive officer, ranking elected official, or other duly authorized employee, if such representative is responsible for the overall operation of the facility from which the discharge described in the form originates.

b) **Changes to authorization**. If an authorization under paragraph a) of this section is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of paragraph a) of this section must be submitted to the Division, prior to or together with any reports, information, or applications to be signed by an authorized representative.

c) **Certification**. Any person signing a document under paragraph a) of this section shall make the following certification:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

2. **Retention of Records**

a) The permittee shall retain copies of the SWMP and all reports required by this permit and records of all data used to complete the application to be covered by this permit, for three years after expiration or inactivation of permit coverage.

b) The permittee shall retain a copy of the SWMP required by this permit at the construction site from the date of project initiation to the date of expiration or inactivation of permit coverage, unless another location, specified by the permittee, is approved by the Division.

3. **Monitoring**

The Division reserves the right to require sampling and testing, on a case-by-case basis (see Part I.D.1.e), for example to implement the provisions of a TMDL (see Part I.D.11 of the permit). Reporting procedures for any monitoring data collected will be included in the notification by the Division of monitoring requirements.

If monitoring is required, the following definitions apply:

a) The **thirty (30) day average** shall be determined by the arithmetic mean of all samples collected during a thirty (30) consecutive-day period.

b) A **grab** sample, for monitoring requirements, is a single "dip and take" sample.

PART II

A. MANAGEMENT REQUIREMENTS

1. **Amending a Permit Certification**

The permittee shall inform the Division (Permits Section) in writing of changes to the information provided in the permit application, including the legal contact, the project legal description or map originally submitted with the application, or the planned total disturbed acreage. The permittee shall furnish the Division with any plans and specifications which the Division deems reasonably necessary to evaluate the effect on the discharge and receiving stream. If applicable, this notification may be accomplished through submittal of an application for a CDPS process water permit authorizing the discharge. The SWMP shall be updated and implemented prior to the changes (see Part I.D.5.c).

Any discharge to the waters of the State from a point source other than specifically authorized by this permit or a different CDPS permit is prohibited.

2. **Special Notifications - Definitions**

a) **Spill:** An unintentional release of solid or liquid material which may cause pollution of state waters.

b) **Upset:** An exceptional incident in which there is unintentional and temporary noncompliance with permit discharge limitations because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventative maintenance, or careless or improper operation.

3. **Noncompliance Notification**

a) The permittee shall report the following instances of noncompliance:

1) Any noncompliance which may endanger health or the environment;

2) Any spill or discharge of hazardous substances or oil which may cause pollution of the waters of the state.

3) Any discharge of stormwater which may cause an exceedance of a water quality standard.

b) For all instances of noncompliance based on environmental hazards and chemical spills and releases, all needed information must be provided orally to the Colorado Department of Public Health and Environment spill reporting line (24-hour number for environmental hazards and chemical spills and releases: 1-877-518-5608) within 24 hours from the time the permittee becomes aware of the circumstances.

For all other instances of noncompliance as defined in this section, all needed information must be provided orally to the Water Quality Control Division within 24 hours from the time the permittee becomes aware of the circumstances.

For all instances of noncompliance identified here, a written submission shall also be provided within 5 calendar days of the time the permittee becomes aware of the circumstances. The written submission shall contain a description of:

1) The noncompliance and its cause;

2) 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;

3) Steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.

A. MANAGEMENT REQUIREMENTS (cont.)

4. **Submission of Incorrect or Incomplete Information**

Where the permittee failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or report to the Division, or relevant new information becomes available, the permittee shall promptly submit the relevant application information which was not submitted or any additional information needed to correct any erroneous information previously submitted.

5. **Bypass**

a) A bypass, which causes effluent limitations (i.e., requirements to implement BMPs in accordance with Parts I.B.3 and I.D.2 of the permit) to be exceeded is prohibited, and the Division may take enforcement action against a permittee for such a bypass, unless:

1) Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;

2) There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities (e.g., alternative BMPs), retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if the permittee could have installed adequate backup equipment (e.g., implemented additional BMPs) to prevent a bypass which occurred during normal periods of equipment downtime or preventative maintenance; and

3) The permittee submitted notices as required in "Non-Compliance Notification," Part II.A.3.

6. **Upsets**

a) **Effect of an Upset:** An upset constitutes an affirmative defense to an action brought for noncompliance with permit limitations and requirements if the requirements of paragraph b of this section 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.)

b) **Conditions Necessary for a Demonstration of Upset:** A permittee who wishes to establish the affirmative defense of upset shall demonstrate through properly signed contemporaneous operating logs, or other relevant evidence that:

1) An upset occurred and that the permittee can identify the specific cause(s) of the upset;

2) The permitted facility was at the time being properly operated;

3) The permittee submitted notice of the upset as required in Part II.A.3. of this permit (24-hour notice); and

4) The permittee complied with any remedial measures required under 40 CFR Section 122.41(d) of the federal regulations or Section 61.8(3)(h) of the Colorado Discharge Permit System Regulations.

c) **Burden of Proof:** In any enforcement proceeding the permittee seeking to establish the occurrence of an upset has the burden of proof.

7. **Removed Substances**

Solids, sludges, or other pollutants removed in the course of treatment or control of discharges shall be properly disposed of in a manner such as to prevent any pollutant from such materials from entering waters of the State.

8. **Minimization of Adverse Impact**

The permittee shall take all reasonable steps to minimize any adverse impact to waters of the State resulting from noncompliance with any terms and conditions specified in this permit, including such accelerated or additional monitoring as necessary to determine the nature and impact of the noncomplying discharge.

A. MANAGEMENT REQUIREMENTS (cont.)

9. **Reduction, Loss, or Failure of Stormwater Controls**

The permittee has the duty to halt or reduce any activity if necessary to maintain compliance with the permit requirements. Upon reduction, loss, or failure of any stormwater controls, the permittee shall, to the extent necessary to maintain compliance with its permit, control production, or remove all pollutant sources from exposure to stormwater, or both, until the stormwater controls are restored or an alternative method of treatment/control is provided. It shall not be a defense for a permittee in an enforcement action that it would be necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

10. **Proper Operation and Maintenance**

The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance includes effective performance, adequate funding, adequate operator staffing and training, and adequate laboratory and process controls, including appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems only when necessary to achieve compliance with the conditions of the permit.

B. RESPONSIBILITIES

1. **Inspections and Right to Entry**

The permittee shall allow the Director of the State Water Quality Control Division, the EPA Regional Administrator, and/or their authorized representative(s), upon the presentation of credentials:

a) To enter upon the permittee's premises where a regulated facility or activity is located or in which any records are required to be kept under the terms and conditions of this permit;

b) At reasonable times to have access to and copy any records required to be kept under the terms and conditions of this permit and to inspect any monitoring equipment or monitoring method required in the permit; and

c) To enter upon the permittee's premises to investigate, within reason, any actual, suspected, or potential source of water pollution, or any violation of the Colorado Water Quality Control Act. The investigation may include, but is not limited to, the following: sampling of any discharge and/or process waters, the taking of photographs, interviewing permittee staff on alleged violations and other matters related to the permit, and access to any and all facilities or areas within the permittee's premises that may have any effect on the discharge, permit, or any alleged violation.

2. **Duty to Provide Information**

The permittee shall furnish to the Division, within the time frame specified by the Division, any information which the Division may request to determine whether cause exists for modifying, revoking and reissuing, or inactivating coverage under this permit, or to determine compliance with this permit. The permittee shall also furnish to the Division, upon request, copies of records required to be kept by this permit.

3. **Transfer of Ownership or Control**

Certification under this permit may be transferred to a new permittee if:

a) The current permittee notifies the Division in writing when the transfer is desired as outlined in Part I.A.7; and

b) The notice includes a written agreement between the existing and new permittees containing a specific date for transfer of permit responsibility, coverage and liability between them; and

c) The current permittee has met all fee requirements of the Colorado Discharge Permit System Regulations, Section 61.15.

B. RESPONSIBILITIES (cont.)

4. **Modification, Suspension, or Revocation of Permit By Division**

All permit modification, inactivation or revocation and reissuance actions shall be subject to the requirements of the Colorado Discharge Permit System Regulations, Sections 61.5(2), 61.5(3), 61.7 and 61.15, 5 C.C.R. 1002-61, except for minor modifications.

a) This permit, and/or certification under this permit, may be modified, suspended, or revoked in whole or in part during its term for reasons determined by the Division including, but not limited to, the following:

1) Violation of any terms or conditions of the permit;

2) Obtaining a permit by misrepresentation or failing to disclose any fact which is material to the granting or denial of a permit or to the establishment of terms or conditions of the permit;

3) Materially false or inaccurate statements or information in the application for the permit;

4) Promulgation of toxic effluent standards or prohibitions (including any schedule of compliance specified in such effluent standard or prohibition) which are established under Section 307 of the Clean Water Act, where such a toxic pollutant is present in the discharge and such standard or prohibition is more stringent than any limitation for such pollutant in this permit.

b) This permit, and/or certification under this permit, may be modified in whole or in part due to a change in any condition that requires either a temporary or permanent reduction or elimination of the permitted discharge, such as:

1) Promulgation of Water Quality Standards applicable to waters affected by the permitted discharge; or

2) Effluent limitations or other requirements applicable pursuant to the State Act or federal requirements; or

3) Control regulations promulgated; or

4) Other available information indicates a potential for violation of adopted Water Quality Standards or stream classifications.

c) This permit, or certification under this permit, may be modified in whole or in part to include new effluent limitations and other appropriate permit conditions where data submitted pursuant to Part I indicate that such effluent limitations and permit conditions are necessary to ensure compliance with applicable water quality standards and protection of classified uses.

d) At the request of the permittee, the Division may modify or inactivate certification under this permit if the following conditions are met:

1) In the case of inactivation, the permittee notifies the Division of its intent to inactivate the certification, and certifies that the site has been finally stabilized;

2) In the case of inactivation, the permittee has ceased any and all discharges to state waters and demonstrates to the Division there is no probability of further uncontrolled discharge(s) which may affect waters of the State.

3) The Division finds that the permittee has shown reasonable grounds consistent with the Federal and State statutes and regulations for such modification, amendment or inactivation;

4) Fee requirements of Section 61.15 of the Colorado Discharge Permit System Regulations have been met; and

5) Applicable requirements of public notice have been met.

For small construction sites covered by a Qualifying Local Program, coverage under this permit is automatically terminated when a site has been finally stabilized.

B. RESPONSIBILITIES (cont.)

5. **Permit Violations**

Failure to comply with any terms and/or conditions of this permit shall be a violation of this permit.

Dischargers of stormwater associated with industrial activity, as defined in the EPA Stormwater Regulation (40 CFR 122.26(b)(14) and Section 61.3(2) of the Colorado Discharge Permit System Regulations, which do not obtain coverage under this or other Colorado general permits, or under an individual CDPS permit regulating industrial stormwater, will be in violation of the federal Clean Water Act and the Colorado Water Quality Control Act, 25-8-101, as amended. Failure to comply with CDPS permit requirements will also constitute a violation.

6. **Legal Responsibilities**

The issuance of this permit does not convey any property or water rights in either real or personal property, or stream flows, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of Federal, State or local laws or regulations.

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties established pursuant to any applicable State law or regulation under authority granted by Section 510 of the Clean Water Act.

7. **Severability**

The provisions of this permit are severable. If any provisions of this permit, or the application of any provision of this permit to any circumstance, are held invalid, the application of such provision to other circumstances and the application of the remainder of this permit shall not be affected.

8. **Renewal Application**

If the permittee desires to continue to discharge, a permit renewal application shall be submitted at least ninety (90) days before this permit expires. If the permittee anticipates that there will be no discharge after the expiration date of this permit, the Division should be promptly notified so that it can inactivate the certification in accordance with Part II.B.4.d.

9. **Confidentiality**

Except for data determined to be confidential under Section 308 of the Federal Clean Water Act and Colorado Discharge Permit System Regulations, Section 61.5(4), all reports prepared in accordance with the terms of this permit shall be available for public inspection at the offices of the Division. The permittee must state what is confidential at the time of submittal.

Any information relating to any secret process, method of manufacture or production, or sales or marketing data which has been declared confidential by the permittee, and which may be acquired, ascertained, or discovered, whether in any sampling investigation, emergency investigation, or otherwise, shall not be publicly disclosed by any member, officer, or employee of the Commission or the Division, but shall be kept confidential. Any person seeking to invoke the protection of this section shall bear the burden of proving its applicability. This section shall never be interpreted as preventing full disclosure of effluent data.

10. **Fees**

The permittee is required to submit payment of an annual fee as set forth in the Water Quality Control Act. Failure to submit the required fee when due and payable is a violation of the permit and will result in enforcement action pursuant to Section 25-8-601 et. seq., C.R.S. 1973 as amended.

B. RESPONSIBILITIES (cont.)

11. **Requiring an Individual CDPS Permit**

The Director may require the permittee to apply for and obtain an individual or alternate general CDPS permit if:

a) The discharger is not in compliance with the conditions of this general permit;

b) Conditions or standards have changed so that the discharge no longer qualifies for a general permit; or

c) Data/information become available which indicate water quality standards may be violated.

The permittee must be notified in writing that an application for an individual or alternate general CDPS permit is required. When an individual or alternate general CDPS permit is issued to an operator otherwise covered under this general permit, the applicability of this general permit to that operator is automatically inactivated upon the effective date of the individual or alternate general CDPS permit.

4300 Cherry Creek Drive South
Denver, Colorado 80246-1530

RATIONALE

STORMWATER DISCHARGES ASSOCIATED WITH CONSTRUCTION ACTIVITY

GENERAL PERMIT IN COLORADO
THIRD RENEWAL
COLORADO DISCHARGE PERMIT NUMBER COR-030000

I. INTRODUCTION

This permit is for the regulation of stormwater runoff from construction activities, and specific allowable non-stormwater discharges in accordance with Part I.D.3 of the permit. The term "construction activity" includes ground surface disturbing activities, including, but not limited to, clearing, grading, excavation, demolition, installation of new or improved haul and access roads, staging areas, stockpiling of fill materials, and borrow areas. "Stormwater" is precipitation-induced surface runoff. This rationale will explain the background of the Stormwater program, activities which are covered under this permit, how to apply for coverage under this permit, and the requirements of this permit.

The forms discussed in the rationale and permit are available on the Water Quality Control Division's website at: www.cdphe.state.co.us/wq/PermitsUnit

II. CHANGES IN THIS GENERAL PERMIT

Several notable changes from the previous General Permit for Construction Activities have been incorporated into this permit. Significant changes are listed below. Numerous other minor changes were made for clarification purposes only.

A. Authority to Discharge

This section has been restructured to list all of the types of activities covered by this permit, and to be consistent with the definition of "construction activity." The definition of construction activity has been expanded to provide clarification. See Part I.A.1 of the permit.

II. CHANGES IN THIS GENERAL PERMIT (cont.)

B. Authority to Discharge – Oil and Gas Construction

This section has been added, to take into account a regulatory change. The federal Energy Policy Act of 2005 exempts nearly all oil and gas construction activities from federal requirements under the Clean Water Act's NPDES stormwater discharge permit program. In January 2006, the Colorado Water Quality Control Commission held a hearing to determine what effects, if any, the change in federal law would have upon Colorado's stormwater regulations. The Commission determined that oil and gas construction sites in Colorado that disturb one or more acres are still required to be covered under Colorado's stormwater permitting regulations (Colorado Discharge Permit System (CDPS) regulations (5CCR 1002-61)). In practice, oil and gas construction sites have the same requirements under this permit as do other types of construction. However, this permit contains some references to the federal Clean Water Act; generally these references are not applicable to oil and gas construction sites to the extent that the references are limited by the federal Energy Policy Act of 2005. See Part I.A.1(b) of the permit.

C. Application Requirements

The permit application requirements have changed slightly, including the addition of an email address, if available. See Part I.A.4(b).

The applicant must be either the owner and/or operator of the construction site. An operator at a construction site that is not covered by a certification held by an appropriate entity may be held liable for operating without the necessary permit coverage.

D. Temporary Coverage

Part I.A.5(d) of the previous permit (effective July 1, 2002) dealt with temporarily covering a facility under the general permit even if an individual permit is more appropriate. This permit section essentially duplicated the previous section (see Part I.A.5(c)), and so it has been deleted.

E. Reassignment of Permit Coverage

Procedures have been added to clarify the requirements for the transfer of coverage of specific portions of a permitted site to a second party. See Section VIII.I.3 of the rationale and Part I.A.8 of the permit.

F. Individual Permit Criteria

This section has been modified to include situations involving a Total Maximum Daily Load (TMDL). See Part I.A.11 of the permit.

G. Stormwater Management Plan (SWMP)

The Stormwater Management Plan section has been divided into two parts: Stormwater Management Plan (SWMP) – General Requirements, which provides the basic framework and general requirements for the SWMP, and Stormwater Management Plan (SWMP) – Contents, which specifically identifies each item that must be addressed in the SWMP. See Parts I.B and I.C of the permit.

H. Stormwater Management Plan (SWMP) – General Requirements

The SWMP General Requirements section has been modified to require that the SWMP be updated in accordance with Parts I.D.5(c) and I.D.5(d) of the permit (SWMP Review/Changes). This additional requirement ensures that the SWMP provisions reflect current site conditions. See Part I.B.2(c) of the permit.

II. CHANGES IN THIS GENERAL PERMIT (cont.)

I. Stormwater Management Plan (SWMP) – Contents

The SWMP Contents section has been modified. Some of the changes are limited to organization of information, which does not require modification of an existing permittee's current SWMP. Most of the SWMP changes involve either clarifications, reformatting, or taking recommendations from the Division's SWMP guide and making them permit requirements (e.g., vehicle tracking controls, BMP installation specifications). If an ***existing permittee (i.e., those with permit coverage before June 30, 2007)*** *followed the recommendations in the SWMP guide (Appendix A of the permit application), then their SWMP will presumably meet the new requirements. However, for any existing permittees who did not follow the applicable SWMP guide recommendations, their SMWP must be amended to include the new required items:*

-SWMP Administrator
-Identification of potential pollutant sources
-Best Management Practices descriptions and installation specifications, including dedicated concrete or asphalt batch plants; vehicle tracking control; and waste management and disposal (including concrete washout activities).

For existing permittees, any SWMP changes based on the change in permit requirements must be completed by ***October 1, 2007****. The plan is not to be submitted to the Division unless requested, but must be available on site as outlined in Part I.D.5(b) of the permit.*

The BMP requirement clarifications included in this renewed permit in no way imply that adequate BMPs to address all pollutant sources at a permitted site were not required in previous permits. The revised requirements are intended only to better clarify SWMP content requirements and provide improved direction to permittees.

The SWMP changes are listed below. All new applicants (after June 30, 2007) for permit coverage for their sites must fully comply with the new SWMP organization, plan requirements, and implementation.

1. ***Site Description:*** *The requirement to provide an estimate of the run-off coefficient has been removed. The run-off coefficient as currently utilized in the SWMP may not contribute sufficiently to permit compliance to justify the effort in determining accurate values. See Part I.C.1 of the permit. However, the Division still encourages use of the coefficient as needed to adequately evaluate site-specific BMP selection and design criteria (e.g., pond capacities, BMP location, etc.) See Section C.2 of the SWMP guidance (Appendix A of the permit application).*

2. ***Site Map:*** *The requirement to identify boundaries of the 100-year flood plain has been removed. The boundaries as currently utilized in the SWMP may not contribute sufficiently to permit compliance to justify the effort in determining their location. See Part I.C.2 of the permit.*

3. ***Stormwater Management Controls:*** *This section has been modified to require identification of a SWMP Administrator and all potential pollutants sources in the SWMP. See Part I.C.3 of the permit.*

    a) *The SWMP Administrator is a specific individual(s), position or title who is responsible for the process of developing, implementing, maintaining, and revising the SWMP. This individual serves as the comprehensive point of contact for all aspects of the facility's SWMP.* ***This requirement may necessitate changes to existing permittees' SWMPs.***

II. CHANGES IN THIS GENERAL PERMIT (cont.)

b) The requirement to identify Potential Pollutant Sources has been expanded to include more details for the evaluation of such sources. This evaluation allows for the appropriate selection of BMPs for implementation at a facility or site. Additionally, this section was added to be consistent with the SWMP guide. ***This requirement may necessitate changes to existing permittees' SWMPs.***

c) Best Management Practices (BMPs) for Stormwater Pollution Prevention: This section was modified to require the following items to be addressed in the SWMP. ***These requirements may necessitate changes to existing permittees' SWMPs.*** *This section also requires that the SWMP provide installation and implementation specifications for each BMP identified in the SWMP. For structural BMPs, in most cases, this must include a technical drawing to provide adequate installation specifications. See Part I.C.3(c).*

i) Dedicated concrete or asphalt batch plants. This section requires that the practices used to reduce the pollutants in stormwater discharges associated with dedicated concrete or asphalt batch plants be identified in the SWMP. (Coverage under the construction site SWMP and permit is <u>not</u> required for batch plants if they have alternate CDPS permit coverage.)

ii) Vehicle tracking control. This section requires that practices be implemented to control sediment from vehicle tracking, and that all such practices implemented at the site be clearly described in the SWMP.

iii) Waste management and disposal. This section requires that the practices implemented at the site to control stormwater pollution from construction site waste, including concrete washout activities, be clearly described in the SWMP. It also requires that concrete washout activities be conducted in a manner that does not contribute pollutants to surface waters or stormwater runoff.

iv) Concrete Washout Water. Part I.D.3(c) of the permit has been revised to conditionally authorize discharges to the ground of concrete wash water from washing of tools and concrete mixer chutes when appropriate BMPs are implemented. The permit prohibits the discharge of concrete washout water to surface waters and to storm sewer systems. Part I.C.3(c)(7) of the permit requires that BMPs be in place to prevent surface discharges of concrete washout water from the site.

The use of unlined pits to contain concrete washout water is a common practice in Colorado. The Division has further evaluated the need for a permit for discharge of concrete washout water to the ground. The Division has determined that the use of appropriate BMPs for on-site washing of tools and concrete mixer chutes would prevent any significant discharge to groundwater. BMPs to protect groundwater are required by Part I.C.3(c)(7) of the permit. Because pH is a pollutant of concern for washout activities, the soil must have adequate buffering capacity to result in protection of the groundwater standard, or a liner/containment must be used. The following management practices are recommended to prevent an impact from unlined pits to groundwater:

(1) the use of the washout site should be temporary (less than 1 year), and
(2) the washout site should be not be located in an area where shallow groundwater may be present, such as near natural drainages, springs, or wetlands.

II. CHANGES IN THIS GENERAL PERMIT (cont.)

Where adequate management practices are not followed to protect groundwater quality, the Department may require discharges to unlined pits to cease, or require the entity to obtain alternate regulatory approval through notice from either the Water Quality Control Division or the Hazardous Materials and Waste Management Division.

In addition, Part I.D.1(b) of the permit has been revised to clearly state that the permit does not authorize on-site permanent disposal of concrete washout waste, only temporary containment of concrete washout water from washing of tools and concrete mixer chutes. Upon termination of use of the washout site, accumulated solid waste, including concrete waste and any contaminated soils, must be removed from the site to prevent on-site disposal of solid waste.

v) *Construction Dewatering. Part I.D.3(d) of the permit has been revised to conditionally authorize discharges to the ground of water from construction dewatering activities when appropriate BMPs are implemented. The permit does not authorize the discharge of groundwater from construction dewatering to surface waters or to storm sewer systems. Part I.C.3(c)(8) of the permit requires that BMPs be in place to prevent surface discharges. The permittee may apply for coverage under a separate CDPS discharge permit, such as the Construction Dewatering general permit, if there is a potential for discharges to surface waters.*

The Division has determined that potential pollutant sources introduced into groundwater from construction dewatering operations do not have a reasonable potential to result in exceedance of groundwater standards when the discharge is to the ground. The primary pollutant of concern in uncontaminated groundwater is sediment. Although technology-based standards for sediment do exist in 5 CCR 1002-41, the discharge of sediment to the ground as part of construction dewatering does not have the reasonable potential to result in transport of sediment to the groundwater table so as to result in an exceedance of those standards.

For a discharge of water contaminated with other pollutants that are present in concentrations that may cause an exceedance of groundwater standards, separate CDPS discharge permit coverage is required. Contaminated groundwater may include that contaminated with pollutants from a landfill, mining activity, industrial pollutant plume, underground storage tank, or other source of human-induced groundwater pollution and exceeding the State groundwater standards in Regulations 5 CCR 1002-41 and 42.

J. *Terms and Conditions, General Limitations and Design Standards*

This section reiterates the requirement that facilities select, install, implement, and maintain appropriate BMPs, following good engineering, hydrologic and pollution control practices. In addition, requirements for protection of water quality standards (see Part I.D.1.(a) of the permit) and requirements to adequately design BMPs to prevent pollution or degradation of State waters (see Part I.D.2 of the permit) have been revised and are fully discussed in Part III.B of the rationale, below. Additional language was also added to Section III.B of the rationale further clarifying the expectations for compliance with this permit.

1. *Management of Site Waste*

This section has been modified to clarify that on-site waste must be properly managed to prevent potential pollution of State waters, and that this permit does not authorize on-site waste disposal. Solid waste disposal is regulated by the Hazardous Materials and Waste Management Division.

II. CHANGES IN THIS GENERAL PERMIT (cont.)

K. Terms and Conditions, SWMP Requirements

1. ***SWMP Review/Changes:*** *This section now requires that when changes are made to site conditions, the SWMP must be revised immediately, except for some BMP description changes which conditionally may occur within 72 hours. This requirement is included to both ensure that the SWMP be kept accurate and up-to-date, and to clarify that stormwater management at a site typically should be proactive instead of responsive, and be integrated into site management to ensure it is calibrated with those changes. The section was also clarified to state that only changes in site conditions that do not require new or modified BMPs do not need to be addressed in the SWMP. See Part I.D.5(c) of the permit.*

2. ***SWMP Certification:*** *The previous permit was unclear on a requirement that the copy of SWMP that remains at the facility had to be signed in accordance with permit signatory requirements. This requirement has been deleted. The signatory requirement of Part I.F.1 only applies to the SWMP if it is to be submitted to the Division or to EPA. See Part I.F.1 of the permit.*

L. Terms and Conditions, Post-Storm Inspections

The previous permit required post-storm inspections, but did not specify the timing of inspections. This section now requires that post-storm event inspections generally be conducted within 24 hours of the event. An alternative timeline has been allowed, only for sites where there are no construction activities occurring following a storm event. For this condition, post-storm event inspections shall instead be conducted prior to commencing construction activities, but no later than 72 hours following the storm event, and the delay noted in the inspection report.

Any exception from the minimum inspection schedule is temporary, and does not eliminate the requirement to perform routine maintenance due to the effects of a storm event, including maintaining vehicle tracking controls and removing sediment from impervious areas. In many cases, maintenance needs will require a more frequent inspection schedule than the minimum inspections required in the permit, to ensure that BMPs continue to operate as needed to comply with the permit. See Part I.D.6(a) of the permit.

M. Terms and Conditions, Inspections

1. *The Winter Conditions Inspection Exclusion section has been modified to include documentation requirements for this exclusion. See Part I.D.6(a) of the permit. The Inspection Scope has been modified to include the requirement to inspect waste storage areas during inspections conducted in accordance with the permit. See Part I.D.6(b) of the permit.*

2. *The requirements for sites to qualify for reduced inspection frequencies for completed sites have been slightly modified (see Part I.D.6(a)(2) of the permit,). The requirement now is that only construction activities that disturb the ground surface must be completed. Construction activities that can be conducted without disturbance of the ground surface; for example, interior building construction, and some oil well activities, would not prohibit a site from otherwise qualifying for the reduced inspection frequency. In addition, the requirement for the site to be prepared for final stabilization has been slightly modified to allow for sites that have not yet been seeded to qualify, as long as the site has otherwise been prepared for final stabilization, including completion of appropriate soil preparation, amendments and stabilization practice. This will allow for sites with seasonal seeding limitations or where additional seed application may be needed in the future to still qualify.*

II. CHANGES IN THIS GENERAL PERMIT (cont.)

3. *The Inspection Report/Records section (Part I.D.6(b)(2)) was added to clarify requirements for inspection reports generated during an inspection conducted in accordance with Part I.D.6 of the permit. Inspection reports must be signed by the inspector, or the individual verifying the corrective action indicated in the inspection report, on behalf of the permittee. Inspection reports are not typically required to be submitted to the Division, and therefore, are not required to be signed and certified for accuracy in accordance with Part I.F.1 of the permit. However, any inspection reports that are submitted to the Division must follow the signatory requirements contained in that section.*

N. *Terms and Conditions, Maintenance, Repair, and Replacement of Control Practices*

These sections have been added to clarify requirements for maintaining the BMPs identified in the SWMP and for addressing ineffective or failed BMPs. BMP maintenance and site assessment to determine the overall adequacy of stormwater quality management at the site must occur proactively, in order to ensure adequate control of pollutant sources at the site. In most cases, if BMPs are already not operating effectively, or have failed, the issue must be addressed immediately, to prevent discharge of pollutants. See Parts I.D.7 and I.D.8 of the permit.

O. *Total Maximum Daily Load (TMDL)*

A section on TMDLs has been added. This section gives a general outline of the additional requirements that may be imposed by the Division if the facility discharges to a waterbody for which a stormwater-related TMDL is in place. See Section VIII.C of the rationale and Part I.D.11 of the permit.

P. *Additional Definitions*

Part I.E of the permit has been modified to remove the definition of runoff coefficient, as it is no longer a permit requirement. The definition for state waters has also been deleted, but can be found in Regulation 61.

Q. *Changes in Discharge*

The section on the types of discharge or facility changes that necessitate Division notification has been clarified. See Part II.A.1 of the permit.

R. *Non-Compliance Notification*

The section on notification to the Division regarding instances of non-compliance has been amended to clarify which types of noncompliance require notification. See Part II.A.3 of the permit.

S. *Short Term Certifications*

The previous permit allowed small short-term construction activities to be authorized for a predetermined period from 3 to 12 months, and then automatically expire (an inactivation request did not need to be submitted). The issuance of these certifications has led to significant confusion and incidents of noncompliance resulting from permittees unintentionally letting their certifications expire prior to final stabilization, as well as issues regarding billing. Therefore, the provisions for short-term certifications have been deleted.

T. *Bypass*

The Division has revised the Bypass conditions in Part II.A.5 of the permit to be consistent with the requirements of Regulation 61.8(3)(i). The revised language addresses under what rare occurrences BMPs may be bypassed at a site.

III. BACKGROUND

As required under the Clean Water Act amendments of 1987, the Environmental Protection Agency (EPA) has established a framework for regulating municipal and industrial stormwater discharges. This framework is under the National Pollutant Discharge Elimination System (NPDES) program (Note: The Colorado program is referred to as the Colorado Discharge Permit System, or CDPS, instead of NPDES.) The Water Quality Control Division ("the Division") has stormwater regulations (5CCR 1002-61) in place. These regulations require specific types of industrial facilities that discharge stormwater associated with industrial activity (industrial stormwater), to obtain a CDPS permit for such discharge. The regulations specifically include construction activities that disturb one acre of land or more as industrial facilities. Construction activities that are part of a larger common plan of development which disturb one acre or more over a period of time are also included.

A. General Permits

The Division has determined that the use of general permits is the appropriate procedure for handling most of the thousands of industrial stormwater applications within the State.

B. Permit Requirements

This permit does not impose numeric effluent limits or require submission of effluent monitoring data in the permit application or in the permit itself. The permit instead imposes practice-based effluent limitations for stormwater discharges through the requirement to develop and implement a Stormwater Management Plan (SWMP). The narrative permit requirements include prohibitions against discharges of non-stormwater (e.g., process water). See Part I.D.3 of the permit.

The permit conditions for the SWMP include the requirement for dischargers to select, implement and maintain Best Management Practices (BMPs) at a permitted construction site that adequately minimize pollutants in the discharges to assure compliance with the terms and conditions of the permit. Part I.D.2 of the permit includes basic design standards for BMPs implemented at the site. Facilities must select, install, implement, and maintain appropriate BMPs, following good engineering, hydrologic and pollution control practices. BMPs implemented at the site must be adequately designed to control all potential pollutant sources associated with construction activity to prevent pollution or degradation of State waters. Pollution is defined in CDPS regulations (5CCR 1002-61) as man-made or man-induced, or natural alteration of the physical, chemical, biological, and radiological integrity of water. Utilizing industry-accepted standards for BMP selection that are appropriate for the conditions and pollutant sources present will typically be adequate to meet these criteria, since construction BMPs are intended to prevent the discharge of all but minimal amounts of sediment or other pollutants that would not result in actual pollution of State waters, as defined above. However, site-specific design, including ongoing assessment of BMPs and pollutant sources, is necessary to ensure that BMPs operate as intended.

The permit further requires that stormwater discharges from construction activities shall not cause, have the reasonable potential to cause, or measurably contribute to an excursion above any water quality standard, including narrative standards for water quality. This condition is the basis for all CDPS Discharge permits, and addresses the need to ensure that waters of the State maintain adequate water quality, in accordance with water quality standards, to continue to meet their designated uses. It is believed that, in most cases, BMPs can be adequate to meet applicable water quality standards. If water quality impacts are noted, or the Division otherwise determines that additional permit requirements are necessary, they are typically imposed as follows: 1) at the renewal of this general permit or through a general permit specific to an industrial sector (if the issue is sector-based); 2) through direction from the Division based on the implementation of a TMDL (if the issue is watershed-based); or 3) if the issue is site-specific, through a revision to the certification from the Division based on an inspection or SWMP review, or through an individual permit.

III. BACKGROUND (cont.)

Some construction sites may be required to comply with a Qualifying Local Program in place of meeting several of the specific requirements in this permit. Sites covered by a Qualifying Local Program may not be required to submit an application for coverage or a notice of inactivation and may not be required to pay the Division's annual fee. See Section VII of the rationale.

C. Violations/Penalties

Dischargers of stormwater associated with industrial activity, as defined in the CDPS regulations (5CCR 1002-61), that do not obtain coverage under this or other Colorado general permits, or under an individual CDPS permit regulating industrial stormwater, will be in violation of the Federal Clean Water Act and the Colorado Water Quality Control Act, 25-8-101. For facilities covered under a CDPS permit, failure to comply with any CDPS permit requirement constitutes a violation. As of the time of permit issuance, civil penalties for violations of the Act or CDPS permit requirements may be up to $10,000 per day, and criminal pollution of state waters is punishable by fines of up to $25,000 per day.

IV. STORMWATER DISCHARGES ASSOCIATED WITH CONSTRUCTION ACTIVITY

The stormwater regulations (CDPS regulations (5CCR 1002-61)), require that stormwater discharges associated with certain industrial activities be covered under the permit program. Construction activity that disturbs one acre or more during the life of the project is specifically included in the listed industrial activities. This permit is intended to cover most stormwater discharges from construction facilities required by State regulation to obtain a permit.

A. Construction Activity

Construction activity includes ground surface disturbing activities including, but not limited to, clearing, grading, excavation, demolition, installation of new or improved haul and access roads, staging areas, stockpiling of fill materials, and dedicated borrow/fill areas. Construction does not include routine maintenance to maintain original line and grade, hydraulic capacity, or original purpose of the facility. (The maintenance exclusion is intended for projects such as road resurfacing, and where there will be less than one acre of additional ground disturbed. Improvements or upgrades to existing facilities or roads, where at least one acre is disturbed, would not qualify as "routine maintenance.")

Definitions of additional terms can be found in Part I.E of the permit.

Stormwater discharges from all construction activity require permit coverage, except for operations that result in the disturbance of less than one acre of total land area and which are not part of a larger common plan of development or sale. A "larger common plan of development or sale" is a contiguous area where multiple separate and distinct construction activities may be taking place at different times on different schedules.

B. Types of Discharges/Activities Covered

1. ***Stormwater:*** *This permit is intended to cover most new or existing discharges composed* ***entirely*** *of stormwater from construction activities that are required by State regulation to obtain a permit. This includes stormwater discharges associated with areas that are dedicated to producing earthen materials, such as soils, sand, and gravel, for use at a single construction site. These areas may be located at the construction site or at some other location. This permit does not authorize the discharge of mine water or process water from borrow areas. This permit may also cover stormwater discharges associated with dedicated asphalt plants and concrete plants located at a specific construction site.*

IV. STORMWATER DISCHARGES ASSOCIATED WITH CONSTRUCTION ACTIVITY (cont.)

2. ***Process water:*** *Under certain restrictions, discharges to the ground from construction dewatering, and from concrete washout activities, are also covered (see Parts I.C.3(c)(7), I.C.3(c)(8), I.D.3(c) and I.D.3(d) of the permit).*

C. *Types of Activities NOT Covered*

1. ***Stormwater:*** *Aside from the sources listed in subparagraph B.1, above, this permit does not cover stormwater discharged from construction sites that is mixed with stormwater from other types of industrial activities, or process water of any kind. Other types of industrial activities that require stormwater discharge permits pursuant to different sections of the regulations (Regulation 5 CCR 1002-61, Section 61.2(e)(iii)(A-I, K)], are not covered by this permit.*

2. ***Process water:*** *This permit also does not cover any discharge of process water to surface waters. If the construction activity encounters groundwater, in order to discharge this groundwater to surface waters, a Construction Dewatering Discharge Permit (permit number COG-070000) must also be obtained. An application for this permit can be obtained from the Division at the address listed in Part I.A.4(a) of the permit, or at the website in Section I of the rationale.*

V. COVERAGE UNDER THIS GENERAL PERMIT

Under this general permit, owners or operators of stormwater discharges associated with construction activity may be granted authorization to discharge stormwater into waters of the State of Colorado. This includes stormwater discharges associated with industrial activity from areas that are dedicated to producing earthen materials, such as soils, sand and gravel, for use at a single construction site, and dedicated asphalt plants and dedicated concrete plants.

This permit does not pre-empt or supersede the authority of other local, state or federal agencies to prohibit, restrict or control discharges of stormwater to storm drain systems or other water courses within their jurisdiction.

Authorization to discharge under the permit requires submittal of a completed application form and a certification that the SWMP is complete, unless the site is covered by a Qualifying Local Program. Upon receipt of all required information, the Division may allow or disallow coverage under the general permit.

VI. APPLICATION AND CERTIFICATION

*At least **ten days** prior to the commencement of construction activities, the owner or operator of the construction site shall submit an original completed application which includes the signed certification that the SWMP is complete. Original signatures are required for the application to be considered complete. For small construction sites only, if the site is covered by a Qualifying Local Program (see below), submittal of an application is not required.*

For the purposes of this permit, the "operator" is the person who has day-to-day control over the project. This can be the owner, the developer, the general contractor or the agent of one of these parties, in some circumstances. At different times during a construction project, different types of parties may satisfy the definition of "operator" and the certification may be transferred as roles change.

(Note - Under the Federal regulations, this application process is referred to as a Notice of Intent, or NOI. For internal consistency with its current program, the Division will continue to use the term "application.") A summary of the permit application requirements is found in the permit at Part I.A.4(b).

If coverage under this general permit is appropriate, then a certification will be developed and the applicant will be certified under this general permit.

VIII. TERMS AND CONDITIONS OF PERMIT (cont.)

2. ***Permit Terms and Conditions**: The permittee covered by a Qualifying Local Program must comply with the requirements of that Qualifying Local Program. In addition, the following permit sections are applicable:*

   a) Parts I.A.1, I.A.2, and I.A.3: Authorization to discharge and discussion of coverage under the permit.

   b) Part I.D.1: General limitations that must be met in addition to local requirements.

   c) Parts I.D.2, I.D.3, I.D.4: BMP implementation, prohibition of non-stormwater discharges unless addressed in a separate CDPS permit, and requirements related to releases of reportable quantities.

   d) Part I.D.11: Potential coverage under a Total Maximum Daily Load (TMDL).

   e) Part I.E: Additional definitions.

   f) Part II (except for Parts II.A.1, II.B.3, II.B.8, and II.B.10): Specifically includes, but is not limited to, provisions applicable in the case of noncompliance with permit requirements, and requirements to provide information and access.

B. Stormwater Management Plans (SWMPs)

Prior to commencement of construction, a stormwater management plan (SWMP) shall be developed and implemented for each facility covered by this permit. A certification that the SWMP is complete must be submitted with the permit application. The SWMP shall identify potential sources of pollution (including sediment) which may reasonably be expected to affect the quality of stormwater discharges associated with construction activity from the facility. In addition, the plan shall describe the Best Management Practices (BMPs) which will be used to reduce the pollutants in stormwater discharges from the construction site. (Note that permanent stormwater controls, such as ponds, that are used as temporary construction BMPs must be adequately covered in the SWMP.) Facilities must implement the provisions of their SWMP as a condition of this permit. The SWMP shall include the following items:

1. *Site Description*
2. *Site Map*
3. *Stormwater Management Controls*
4. *Long-term Stormwater Management*
5. *Inspection and Maintenance*

(See Parts I.B. and I.C of the permit for a more detailed description of SWMP requirements.) The Division has a guidance document available on preparing a SWMP. The document is included as Appendix A of the permit application, and is available on the Division's website at www.cdphe.state.co.us/wq/PermitsUnit.

Some changes have been made to the SWMP requirements. See Section II.I of the rationale for a discussion on permittee responsibilities regarding those changes.

VIII. TERMS AND CONDITIONS OF PERMIT (cont.)

Master SWMP

Often, a large construction project will involve multiple smaller construction sites that are within a common plan of development, or multiple well pads under construction within an oil and gas well field. Pollutant sources and the types of BMPs used can be relatively consistent in such cases. A permittee could significantly streamline the SWMP development process through the use of a master SWMP. SWMP information must be developed and maintained for all construction activities that exceed one acre (or are part of a common plan of development exceeding one acre) conducted within the permitted area. By developing a single master plan, the permittee can eliminate the need to develop repetitive information in separate plans. Such a plan could include two sections, one containing a reference section with information applicable to all sites (e.g., installation details and maintenance requirements for many standard BMPs, such as silt fence and erosion blankets), and the second containing all of the information specific to each site (e.g., site BMP map, drainage plans, details for BMPs requiring site specific design, such as retention ponds).

As new activities begin, information required in the SWMP is added to the plan, and as areas become finally stabilized, the related information is removed. Records of information related to areas that have been finally stabilized that are removed from the active plan must be maintained for a period of at least three years from the date that the associated site is finally stabilized.

C. *Total Maximum Daily Load (TMDL)*

If the designated use of a stream or water body has been impaired by the presence of a pollutant(s), development of a Total Maximum Daily Load (TMDL) may be required. A TMDL is an estimate of allowable loading in the waterbody for the pollutant in question. Types of discharges that are or have the potential to be a significant source of the pollutant are also identified. If a TMDL has been approved for any waterbody into which the permittee discharges, and stormwater discharges associated with construction activity have been assigned a pollutant-specific Wasteload Allocation (WLA) under the TMDL, the Division will either:

1. *Notify the permittee of the TMDL, and amend the permittee's certification to add specific BMPs and/or other requirements, as appropriate; or*
2. *Ensure that the TMDL is being implemented properly through alternative local requirements, such as by a municipal stormwater permit. (The only current example of this is the Cherry Creek Reservoir Control Regulation (72.0), which mandates that municipalities within the basin require specific BMPs for construction sites.)*

See Part I.D.11 of the permit for further information.

D. *Monitoring*

Sampling and testing of stormwater for specific parameters is not required on a routine basis under this permit. However, the Division reserves the right to require sampling and testing on a case-by-case basis, in the event that there is reason to suspect that compliance with the SWMP is a problem, or to measure the effectiveness of the BMPs in removing pollutants in the effluent. See Part I.D.1(e) of the permit.

E. *Facility Inspections*

Construction sites typically must inspect their stormwater management controls at least every 14 days and within 24 hours after the end of any precipitation or snowmelt event that causes surface erosion. At sites or portions of sites where ground-disturbing construction has been completed but a vegetative cover has not been established, these inspections must occur at least once per month. (At sites where persistent snow cover conditions exist, inspections are not required during the period that melting conditions do not exist. These

VIII. TERMS AND CONDITIONS OF PERMIT (cont.)

conditions are only expected to occur at high elevations within the Colorado mountains.) For all of these inspections, records must be kept on file. Exceptions to the inspection requirements are detailed in Part I.D.6 of the permit.

F. SWMP Revisions

The permittee shall amend the SWMP whenever there is a change in design, construction, operation, or maintenance of the site, which would require the implementation of new or revised BMPs. The SWMP shall also be amended if it proves to be ineffective in achieving the general objectives of controlling pollutants in stormwater discharges associated with construction activity. The timing for completion of SWMP changes is detailed in Parts I.D.5(c) and I.D.5(d) of the permit.

SWMP revisions shall be made prior to change in the field, or in accordance with Part I.D.5(d) of the permit.

G. Reporting

The inspection record shall be made available to the Division upon request. Regular submittal of an annual report is not required in this permit. See Part I.D.9 of the permit.

H. Annual Fee

The permittee is required to submit payment of an annual fee as set forth in the Water Quality Control Act. Permittees will be billed for the initial permit fee within a few weeks of permit issuance and then annually, based on a July 1 through June 30 billing cycle.

I. Responsibility for Permit

The permit certification for a site may be inactivated, once coverage is no longer needed. The certification may be transferred, if another party is assuming responsibility for the entire area covered by the certification. In addition, permit responsibility for ***part*** *of the area covered by the certification may be reassigned to another party. These actions are summarized below. The Stormwater Program construction fact sheet explains these actions in further detail under the section on Multiple Owner/Developer Sites, and is available on the Division website at http://www.cdphe.state.co.us/wq/PermitsUnit/stormwater/ConstFactSheet.PDF, Section F.*

1. ***Inactivation Notice****: When a site has been finally stabilized in accordance with the SWMP, the permittee shall submit an* ***Inactivation Notice*** *that is signed in accordance with Part I.F.1 of the permit. A summary of the Inactivation Notice content is described in Part I.A.6 of the permit. A copy of the Inactivation Notice form will be mailed to the permittee along with the permit certification. Additional copies are available from the Division.*

For sites where all areas have been removed from permit coverage, the permittee may submit an inactivation notice and terminate permit coverage. In such cases the permittee would no longer have any land covered under their permit certification, and therefore there would be no areas remaining to finally stabilize. Areas may be removed from permit coverage by:
-reassignment of permit coverage (Part I.A.8 of the permit);
-sale to homeowner(s) (Part I.A.9 of the permit); or
-amendment by the permittee, in accordance with Division guidance for areas where permit coverage has been obtained by a new operator or returned to agricultural use.

VIII. TERMS AND CONDITIONS OF PERMIT (cont.)

2. ***Transfer of Permit**: When responsibility for stormwater discharges for an entire construction site changes from one individual to another, the permit shall be transferred in accordance with Part I.A.7 of the permit. The permittee shall submit a completed **Notice of Transfer form**, which is available from the Division, and at www.cdphe.state.co.us/wq/PermitsUnit. If the new responsible party will not complete the transfer form, the permit may be inactivated if the permittee has no legal responsibility, through ownership or contract, for the construction activities at the site. In this case, the new owner or operator would be required to obtain permit coverage separately.*

3. ***Reassignment of Permit**: When a permittee no longer has control of a specific portion of a permitted site, and wishes to transfer coverage of that portion of the site to a second party, the permittee shall submit a completed **Notice of Reassignment of Permit Coverage form**, which is available from the Division, and at www.cdphe.state.co.us/wq/PermitsUnit. The form requires that both the existing permittee and new permittee complete their respective sections. See Part I.A.8 of the permit.*

J. Duration of Permit

The general permit will expire on June 30, 2012. The permittee's authority to discharge under this permit is approved until the expiration date of the general permit. Any permittee desiring continued coverage under the general permit past the expiration date must apply for recertification under the general permit at least 90 days prior to its expiration date.

Kathleen Rosow
December 18, 2006

IX. PUBLIC NOTICE – 12/22/06

The permit was sent to public notice on December 22, 2006. A public meeting was requested, and was held on February 2, 2007. Numerous comments were received on the draft permit. Responses to those comments, and a summary of changes made to the draft permit, are in a separate document entitled "Division Response To Public Comments." The permit will be sent to a second public notice on March 23, 2007. Any changes resulting from the second public notice will be summarized in the rationale.

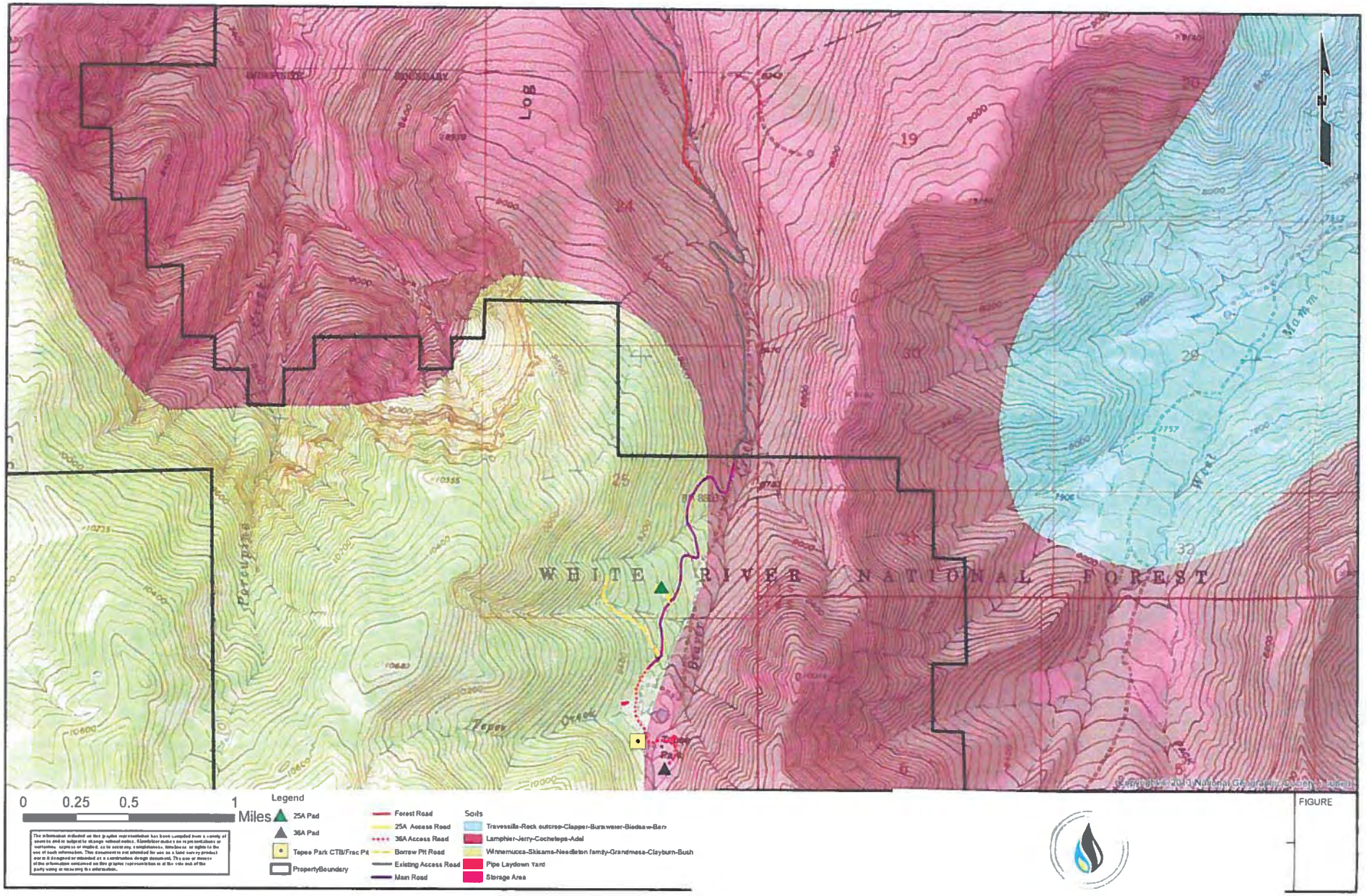
Kathleen Rosow
March 22, 2007

X. PUBLIC NOTICE – 3/23/07

The permit was sent to public notice for a second time on March 23, 2007. Numerous comments were received on the second draft permit. Responses to those comments, and a summary of the additional changes made to the draft permit, are contained in a separate document entitled "Division Response To Public Comments Part II". This document is part of the rationale. Any changes based on the Division response are incorporated into the rationale and permit. The response document is available online at http://www.cdphe.state.co.us/wq/PermitsUnit/stormwater/construction.html, or by emailing cdphe.wqstorm@state.co.us, or by calling the Division at 303-692-3517.

Kathleen Rosow
May 31, 2007

Appendix B. Soil and Vegetation Maps



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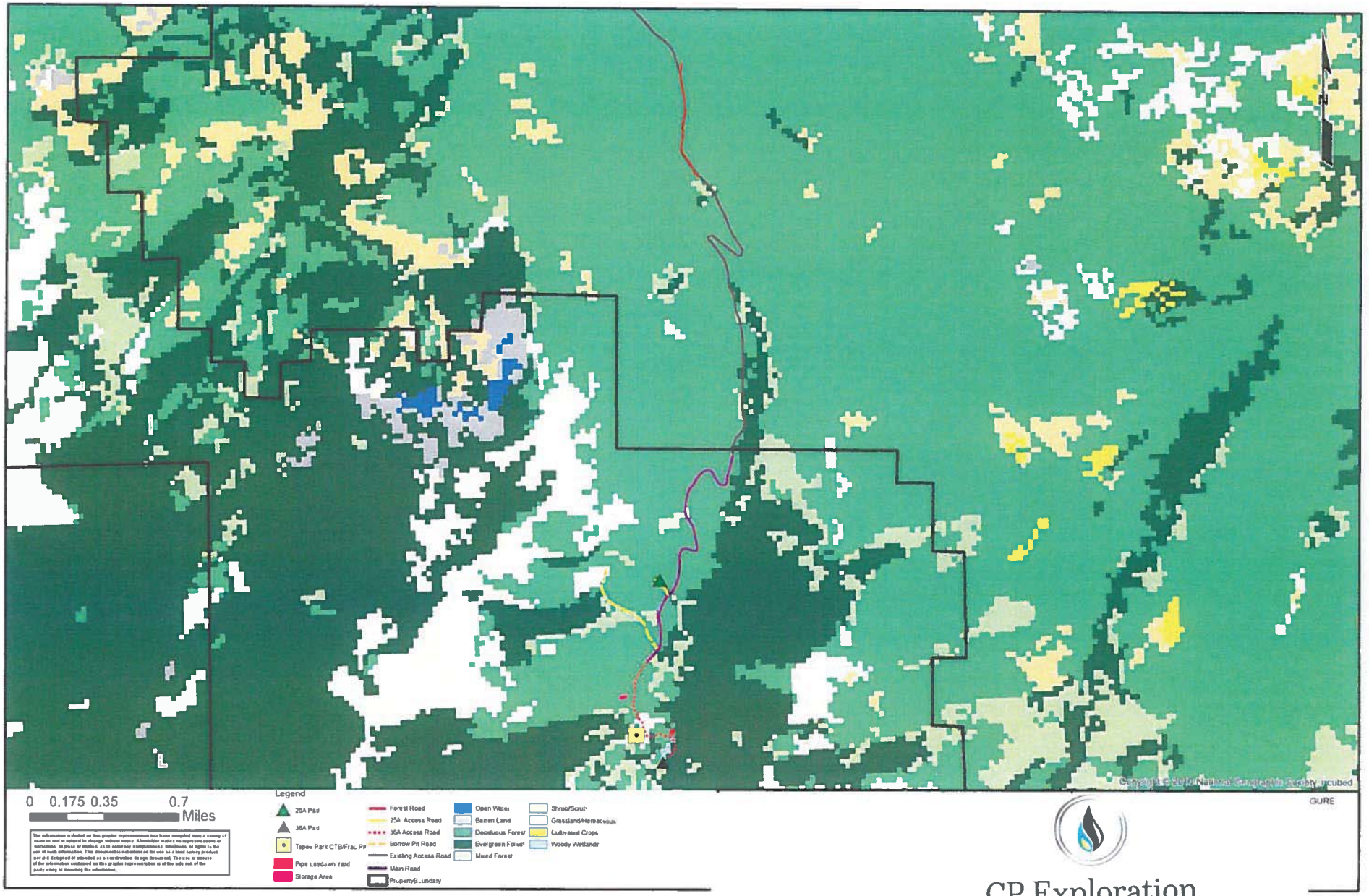

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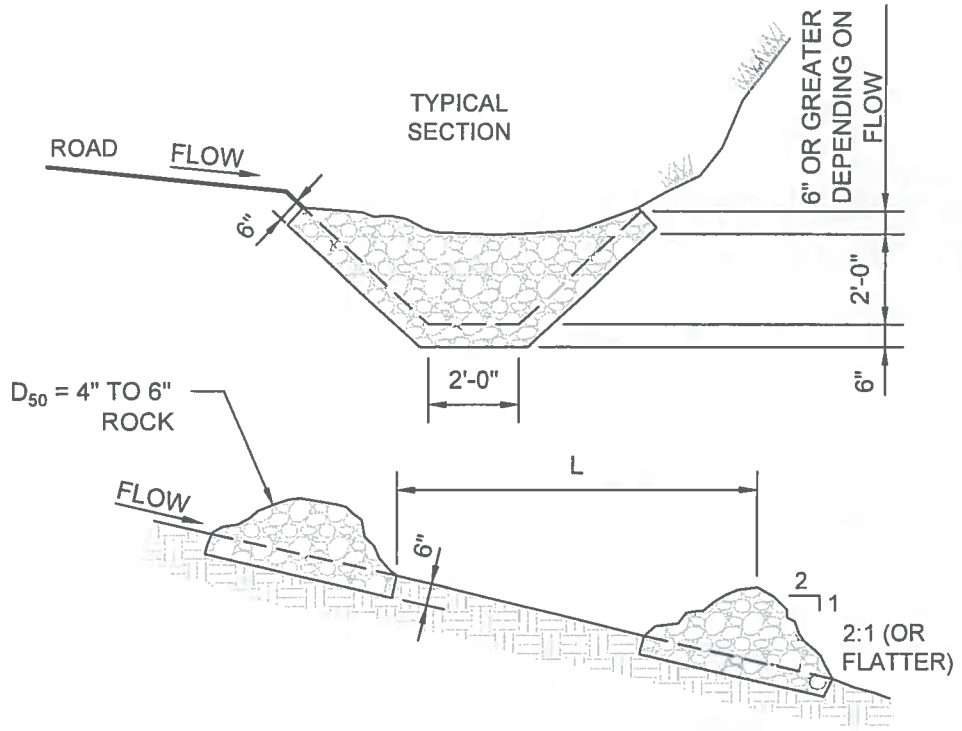
Appendix C. BMP Details

CHECK DAMS

Definition: Check dams are small temporary dams constructed within a diversion ditch. Check dams can be constructed using gravel, rock (in a gabion basket, filter sock, or contained within wire mesh), sandbags, gravel bags, earth with erosion control blanketing, straw bales, or fiber rolls, and are used to slow the velocity of concentrated flow in a channel and thus reduce erosion. As a secondary function, check dams can also be used to catch sediment from the channel itself or from the contributing drainage area as stormwater runoff flows through or over the structure.

Criteria for Maintenance: Sediment, large debris, and trash should be removed. The center of a check dams should always be lower than its edges. If erosion or heavy flow causes the edge of a dam to fall to a height equal to or below the height of the center, repairs will be made.

Maintenance Procedures: Check dams will be maintained by removing sediment when depth reaches one-third of the check dams height. Check dams will be re-moved when they are no longer needed or when required by the inspector. Check dams used in roadside v-dithes will be removed in late fall and reinstalled in early spring to accommodate snow removal operations.



INSTALLATION NOTES:

1. ROCK SHALL BE HAND PLACED.
2. CENTER SHALL BE SLIGHTLY DEPRESSD TO ALLOW OVER TOPPING WITHOUT INUNDATING ROAD.
3. TOP OF CHECK DAM SHALL BE THE SAME ELEVATION AS THE TOE OF THE CHECK DAM DIRECTLY UPSTREAM.
4. CHECK DAMS CAN BE CONSTRUCTED USING PILED ROCK, ROCK IN A GABION BASKET, FILTER SOCK OR GRAVEL BAG.
5. DIMENSIONS ARE APROXIMATE. FEILD CONDITIONS WILL DETERMINE ACTUAL DIMENSIONS OF STRUCTURES.

CP Exploration

CHECK DAM

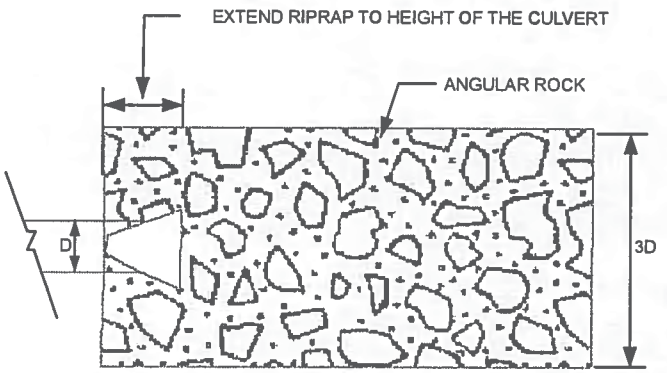
STORMWATER
BMP DETAILS

Culvert Outlet Protection

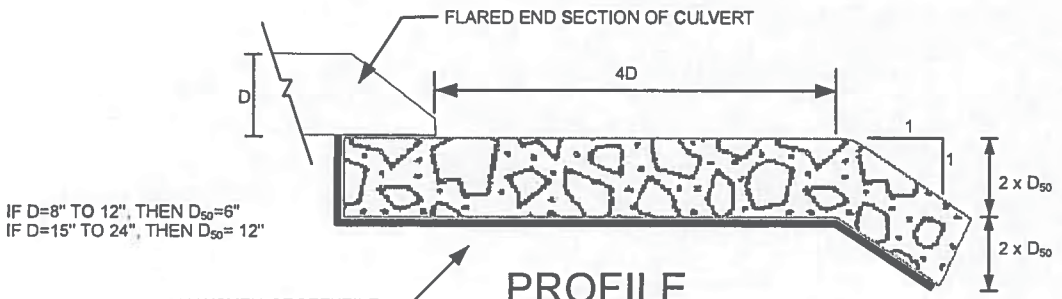
Definition: Riprap is an erosion-resistant layer made up of stones, rock, or boulders. Riprap will reduce the velocity of stormwater flows, dissipate hydraulic energies, and provide an erosion-resistant lining at culvert outlets to protect against scouring and undercutting.

Criteria for Maintenance: Inspect riprap at culvert outlets for damage or dislodged stones. If displacement occurs, the riprap will be replaced or repaired.

Maintenance Procedures: Where sediment has filled the riprap, the sediment will be removed and incorporated into the project area at locations designated by the inspector. Anything that is found to reduce the effectiveness of the culvert or culvert outlet protection should be repaired immediately and more riprap will be added if necessary.



PLAN
NOT TO SCALE



PROFILE
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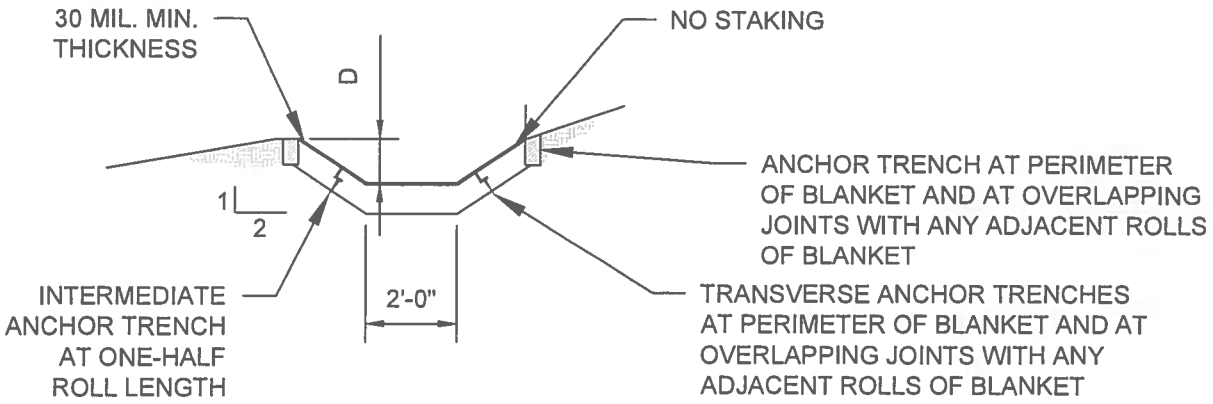
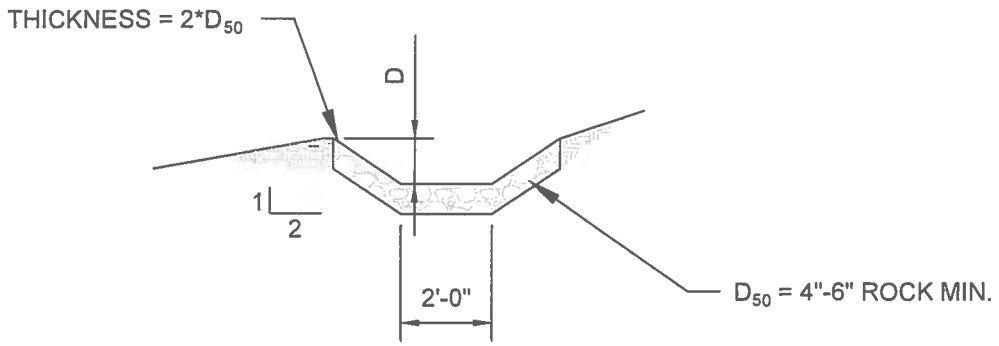
CULVERT OUTLET PROTECTION

STORMWATER
BMP DETAILS



SYNTHETIC-LINED DITCH

Not to Scale



RIPRAP-LINED DITCH

Not to Scale

DITCH INSTALLATION NOTES:

1. EARTH DIKES AND SWALES INDICATED ON SITE DIAGRAM PLAN SHALL BE INSTALLED PRIOR TO LAND-DISTRUBING ACTIVITIES IN PROXIMITY.
2. EMBANKMENT IS TO BE COMPACTED TO 90% OF MAXIMUM DENSITY AND WITHIN 2% OF OPTIMUM MOISTURE CONTENT ACCORDING TO ASTM D698.
3. D=12" TYPICAL, BUT MAY NEED TO BE DEEPER, DEPENDING ON OFF-SITE FLOW.

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DIVERSION DITCH - LINED

STORMWATER
BMP DETAILS

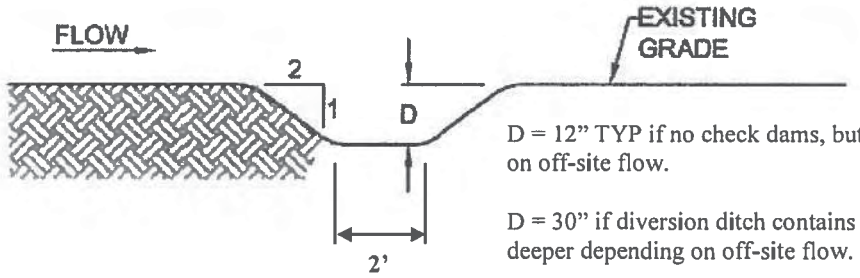
Diversion Ditch

✦ **Definition:** A diversion ditch is a drainage channel of parabolic or trapezoidal cross-section with a supporting ridge on the lower side that is constructed across the slope. A diversion ditch can be used to:

- o prevent off-site runoff from entering a disturbed area (run-on control)
- o prevent runoff from leaving a construction site or disturbed area
- o prevent flows from eroding slopes or interfereing with the establishment of vegetation
- o direct runoff or run-on to a water detention area or to a sediment trapping structure
- o transport run-on over a pipeline to prevent erosion

Criteria for Maintenance: Channels should be cleared of sediment and repairs made when necessary, especially areas that have washed out. Diversion ditch capacity, ridge height, and outlet elevations must be maintained, especially if high sediment yielding areas are above the diversion ditch. Energy dissipation (e.g., riprap) should be considered in high velocity areas.

Maintenance Procedures: Maintenance personnel shall establish a routine cleanout schedule. Sediment shall be redistributed as necessary to maintain



D = 12" TYP if no check dams, but may need to be deeper depending on off-site flow.

D = 30" if diversion ditch contains check dams, but may need to be deeper depending on off-site flow.

Note: Dimensions are approximate. Field conditions will determine actual dimensions of ditch.

TYPICAL SECTION
NOT TO SCALE

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DIVERSION DITCH

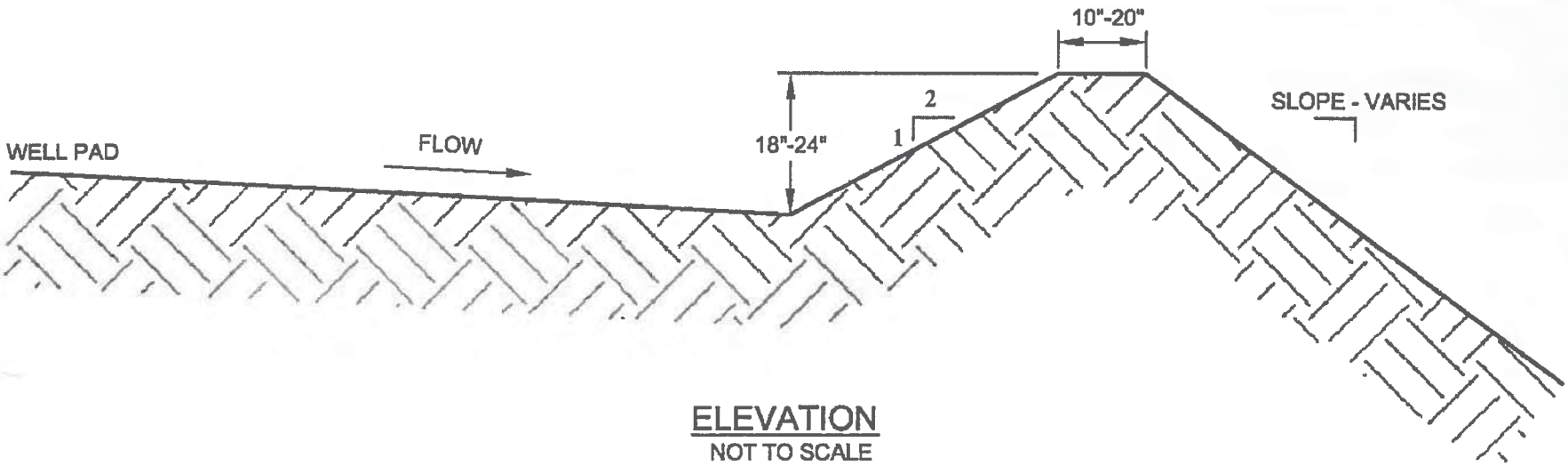
STORMWATER
BMP DETAILS

Berms

Definition: A berm is a ridge of compacted soil around the edge of a well pad or at the top or base of a slope to contain or divert surface runoff. Berms may be constructed from either excavated topsoil or subsoil. The purpose of a berm is to control runoff velocity, divert on-site surface runoff to a sediment trapping device, and/or divert clean water away from disturbed areas.

Criteria for Maintenance: Berms should be inspected for evidence of erosion or deterioration to ensure continued effectiveness. Berms should be maintained at the original height.

Maintenance Procedures: Any decrease in height due to settling, erosion, or damage which impacts the effectiveness of the BMP, should be repaired immediately.



ELEVATION
NOT TO SCALE

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EARTHEN BERM

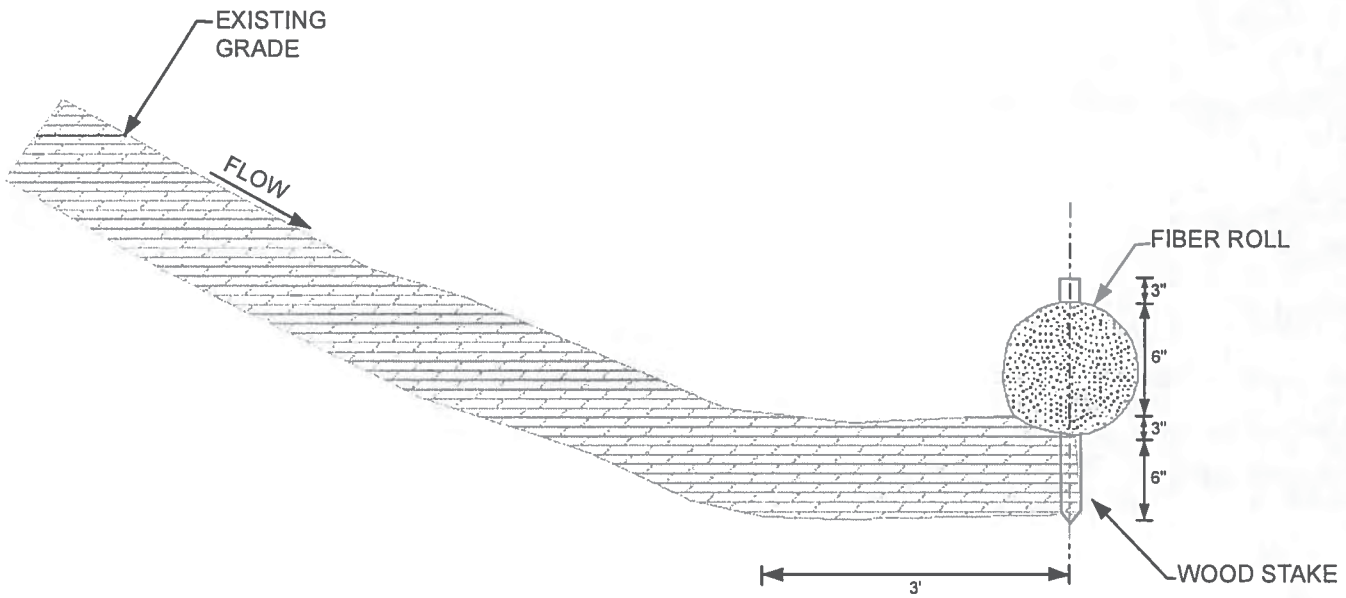
STORMWATER
BMP DETAILS

Fiber Roll

Definition: A fiber roll consists of wood excelsior, rice or wheat straw, or coconut fibers that is rolled or bound into a tight tubular roll and placed on the toe and face of slopes to intercept runoff, reduce its flow velocity, release the runoff as sheet flow and provide removal of sediment from the runoff. Fiber rolls may also be used for inlet protection and as check dams under certain situations, along the toe, top, face, and at grade breaks of exposed and erodible slopes to shorten slope length and spread runoff as sheet flow, down-slope of exposed soil areas, around temporary stockpiles, and along the perimeter of a project. A straw bale barrier consists of weed free straw, or other natural material and placed by entrenching and staking the bales in place. Straw bales are used in the same manner as fiber rolls.

Criteria for Maintenance: When sediment build up reaches ½ the height of the fiber roll or bale, the sediment will be removed. Repair damaged or rotting fiber rolls or bales inspect for undercutting beneath fiber rolls or bales.

Maintenance Procedures: Remove sediment build up. Replace fiber rolls and bales as necessary. As fiber rolls or straw bales become worn out or are no longer needed, they may be allowed to naturally degrade in the field.



CP Exploration

FIBER ROLL

STORMWATER
BMP DETAILS

DESCRIPTION

Mulching consists of evenly applying straw, hay, shredded wood mulch, rock, bark or compost to disturbed soils and securing the mulch by crimping, tackifiers, netting or other measures. Mulching helps reduce erosion by protecting bare soil from rainfall impact, increasing infiltration, and reducing runoff. Although often applied in conjunction with temporary or permanent seeding, it can also be used for temporary stabilization of areas that cannot be reseeded due to seasonal constraints.

Photograph MU-1. An area that was recently seeded, mulched, and crimped.

Mulch can be applied either using standard mechanical dry application methods or using hydromulching equipment that hydraulically applies a slurry of water, wood fiber mulch, and often a tackifier.

APPROPRIATE USES

Use mulch in conjunction with seeding to help protect the seedbed and stabilize the soil. Mulch can also be used as a temporary cover on low to mild slopes to help temporarily stabilize disturbed areas where growing season constraints prevent effective reseeding. Disturbed areas should be properly mulched and tacked, or seeded, mulched and tacked promptly after final grade is reached (typically within no longer than 14 days) on portions of the site not otherwise permanently stabilized.

Standard dry mulching is encouraged; however, hydromulching should not be performed near waterways.

Do not apply mulch during windy conditions.

DESIGN AND INSTALLATION

Prior to mulching, surface-roughen areas by rolling with a crimping or punching type roller or by track walking. Track walking should only be used where other methods are impractical because track walking with heavy equipment typically compacts the soil.

A variety of mulches can be used effectively at construction sites. Consider the following:

Mulch	
Functions	
Erosion Control	Yes
Sediment Control	Moderate
Site/Material Management	No

Clean, weed-free and seed-free cereal grain straw should be applied evenly at a rate of 2 tons per acre and must be tacked or fastened by a method suitable for the condition of the site. Straw mulch must be anchored (and not merely placed) on the surface. This can be accomplished mechanically by crimping or with the aid of tackifiers or nets. Anchoring with a crimping implement is preferred, and is the recommended method for areas flatter than 3:1. Mechanical crimpers must be capable of tucking the long mulch fibers into the soil to a depth of 3 inches without cutting them. An agricultural disk, while not an ideal substitute, may work if the disk blades are dull or blunted and set vertically; however, the frame may have to be weighted to afford proper soil penetration.

Grass hay may be used in place of straw; however, because hay is comprised of the entire plant including seed, mulching with hay may seed the site with non-native grass species which might in turn out-compete the native seed. Alternatively, native species of grass hay may be purchased, but can be difficult to find and are more expensive than straw. Purchasing and utilizing a certified weed-free straw is an easier and less costly mulching method. When using grass hay, follow the same guidelines as for straw (provided above).

CP Exploration

Mulching

Source: Urban Drainage and Flood Control District,
Urban Storm Drainage Criteria Manual Volume 3 , November 2010
With Modifications

On small areas sheltered from the wind and heavy runoff, spraying a tackifier on the mulch is satisfactory for holding it in place. For steep slopes and special situations where greater control is needed, erosion control blankets anchored with stakes should be used instead of mulch.

Hydraulic mulching consists of wood cellulose fibers mixed with water and a tackifying agent and should be applied at a rate of no less than 1,500 pounds per acre (1,425lbs of fibers mixed with at least 75 lbs of tackifier) with a hydraulic mulcher. For steeper slopes, up to 2000 pounds per acre may be required for effective hydroseeding. Hydromulch typically requires up to 24 hours to dry; therefore, it should not be applied immediately prior to inclement weather. Application to roads, waterways and existing vegetation should be avoided.

Erosion control mats, blankets, or nets are recommended to help stabilize steep slopes (generally 3:1 and steeper) and waterways. Depending on the product, these may be used alone or in conjunction with grass or straw mulch. Normally, use of these products will be restricted to relatively small areas. Biodegradable mats made of straw and jute, straw-coconut, coconut fiber, or excelsior can be used instead of mulch.

Some tackifiers or binders may be used to anchor mulch. Check with the local jurisdiction for allowed tackifiers. Manufacturer's recommendations should be followed at all times.

Rock can also be used as mulch. It provides protection of exposed soils to wind and water erosion and allows infiltration of precipitation. An aggregate base course can be spread on disturbed areas for temporary or permanent stabilization. The rock mulch layer should be thick enough to provide full coverage of exposed soil on the area it is applied.

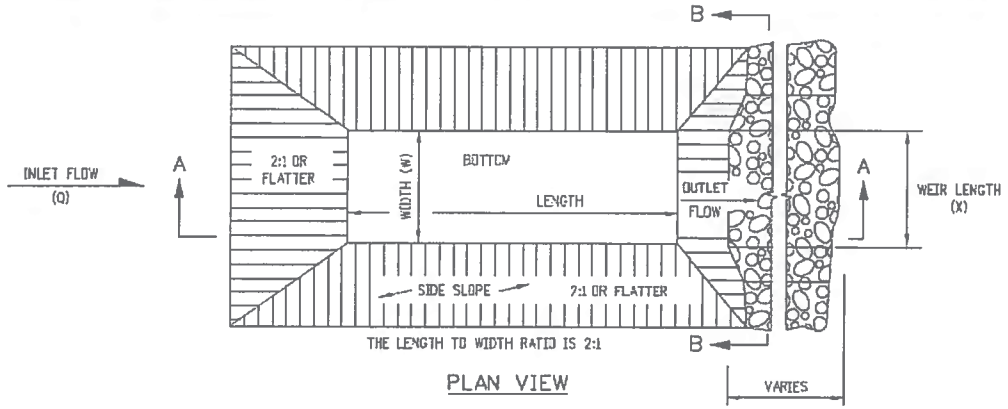
MAINTENANCE AND REMOVAL

After mulching, the bare ground surface should not be more than 10 percent exposed. Reapply mulch, as needed, to cover bare areas.

CP Exploration

Mulching

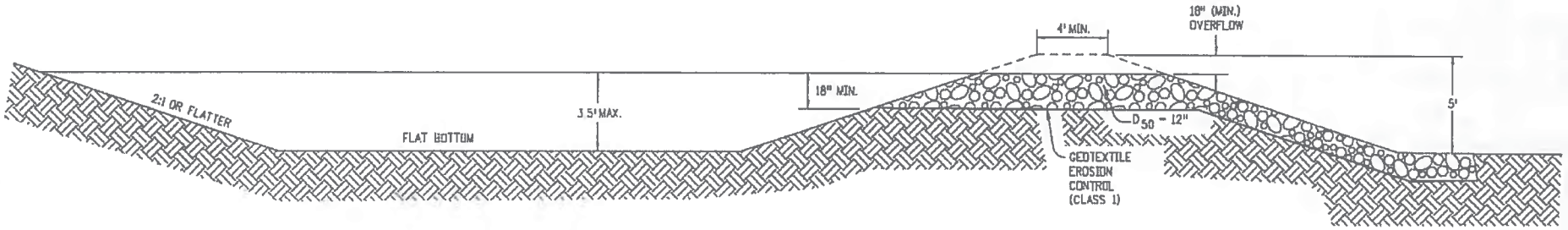
Source: Urban Drainage and Flood Control District,
Urban Storm Drainage Criteria Manual Volume 3 , November 2010
With Modifications



PLAN VIEW

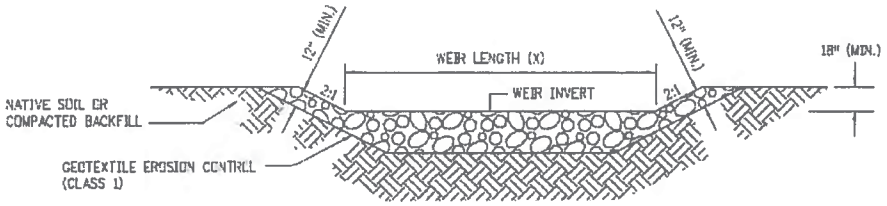
NOTES

1. THE MAXIMUM DRAINAGE AREA IS 5 ACRES.
2. THE MAXIMUM STRUCTURE LIFE IS 2 YEARS.
3. THE STORAGE AREA IS 1800 CUBIC FEET PER ACRE.
4. THE MAXIMUM EMBANKMENT HEIGHT SHALL BE 5 FT. MEASURED ON THE DOWNSTREAM SIDE.
5. THE LENGTH/WIDTH RATIO MAY BE ADJUSTED TO MEET SITE CONDITIONS WHEN APPROVED BY THE ENGINEER.
6. WIDTH (W) OF SEDIMENT TRAP IS APPROXIMATELY EQUAL TO THE WEIR LENGTH (X).
7. SEDIMENT TRAP DESIGN SHALL BE APPROVED BY THE ENGINEER.



SECTION A-A

Sediment traps are augmented by slope drains, diversion ditches, silt fences, and natural vegitation.



SECTION B-B

DRAINAGE AREA (ACRES)	WEIR LENGTH (FEET)
1	4
2	6
3	8
4	10
5	12

WEIR LENGTH TABLE

Source: Colorado Department of Transportation
Standard Plan No. M-208-1
Sheet No. 11 of 12

SEDIMENT TRAP

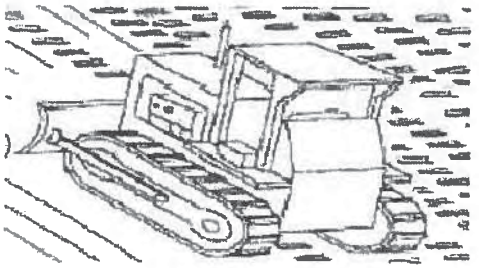
CP Exploration

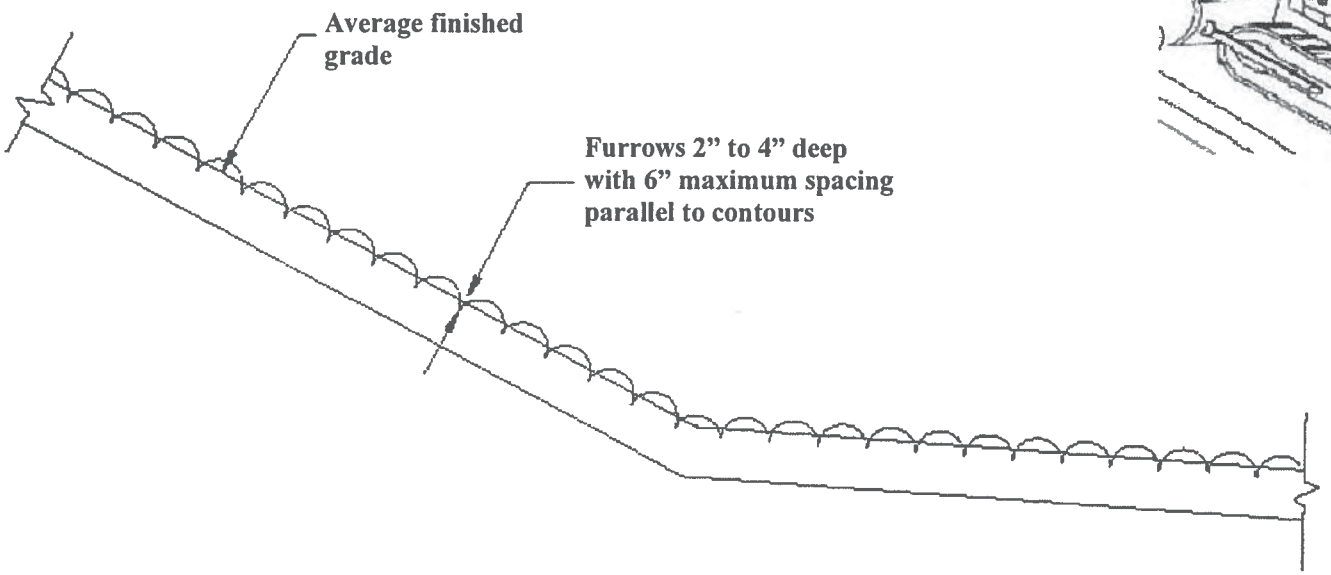
SEDIMENT TRAP

STORMWATER
BMP DETAILS

Installation Notes:

1. Disturbed surfaces shall be roughened using ripping or tilling equipment on the contours or tracking up and down the slope using equipment treads.





CP Exploration

SURFACE ROUGHENING

STORMWATER
BMP DETAILS

DESCRIPTION

Temporary seeding can be used to stabilize disturbed areas that will be inactive for an extended period. Permanent seeding should be used to stabilize areas at final grade that will not be otherwise stabilized. Effective seeding includes preparation of a seedbed, selection of an appropriate seed mixture, proper planting techniques, and protection of the seeded area with mulch, geotextiles, or other appropriate measures.

Photograph TS/PS -1. Equipment used to drill seed. Photo courtesy of Douglas County.

APPROPRIATE USES

When the soil surface is disturbed and will remain inactive for an extended period (typically 30 days or longer), proactive stabilization measures should be implemented. If the inactive period is short-lived (on the order of two weeks), techniques such as surface roughening may be appropriate. For longer periods of inactivity, temporary seeding and mulching can provide effective erosion control. Permanent seeding should be used on finished areas that have not been otherwise stabilized.

Local governments may have their own seed mixes and timelines for seeding. Check jurisdictional requirements for seeding and temporary stabilization.

DESIGN AND INSTALLATION

Effective seeding requires proper seedbed preparation, selection of an appropriate seed mixture, use of appropriate seeding equipment to ensure proper coverage and density, and protection with mulch or fabric until plants are established.

Drill seeding is the preferred seeding method. Hydroseeding is not recommended except in areas where steep slopes prevent use of drill seeding equipment, and even in these instances it is preferable to hand seed and mulch. Some jurisdictions do not allow hydroseeding or hydromulching.

Seedbed Preparation

Prior to seeding, ensure that areas to be revegetated have soil conditions capable of supporting vegetation. Overlot grading can result in loss of topsoil, resulting in poor quality subsoils at the ground surface that have low nutrient value, little organic matter content, few soil microorganisms, rooting restrictions, and conditions less conducive to infiltration of precipitation. As a result, it is typically necessary to provide stockpiled topsoil, compost, or other soil amendments and rototill them into the soil to a depth of 6 inches or more.

Temporary and Permanent Seeding	
Functions	
Erosion Control	Yes
Sediment Control	No
Site/Material Management	No

Prior to seeding, ensure that areas to be revegetated have soil conditions capable of supporting vegetation. Overlot grading can result in loss of topsoil, resulting in poor quality subsoils at the ground surface that have low nutrient value, little organic matter content, few soil microorganisms, rooting restrictions, and conditions less conducive to infiltration of precipitation. As a result, it is typically necessary to provide stockpiled topsoil, compost, or other soil amendments and rototill them into the soil to a depth of 6 inches or more.

Topsoil should be salvaged during grading operations for use and spread on areas to be revegetated later. Topsoil should be viewed as an important resource to be utilized for vegetation establishment, due to its water-holding capacity, structure, texture, organic matter content, biological activity, and nutrient content. The rooting depth of most native grasses in the semi-arid Western United States is 6 to 18 inches. At a minimum, the upper 6 inches of topsoil should be stripped, stockpiled, and ultimately respread across areas that will be revegetated.

Due to favorable growing conditions, natural seeding / revegetation is used and augmented by purchased seeding.

CP Exploration

Temporary and Permanent Seeding

Source: Urban Drainage and Flood Control District,
Urban Storm Drainage Criteria Manual Volume 3 , November 2010
With Modifications

Where topsoil is not available, subsoils should be amended to provide an appropriate plant-growth medium. Organic matter, such as well digested compost, can be added to improve soil characteristics conducive to plant growth. Other treatments can be used to adjust soil pH conditions when needed. Soil testing, which is typically inexpensive, should be completed to determine and optimize the types and amounts of amendments that are required.

If the disturbed ground surface is compacted, rip or rototill the surface prior to placing topsoil. If adding compost to the existing soil surface, rototilling is necessary. Surface roughening will assist in placement of a stable topsoil layer on steeper slopes and allow infiltration and root penetration to greater depth.

Prior to seeding, the soil surface should be rough and the seedbed should be firm, but neither too loose nor compacted. The upper layer of soil should be in a condition suitable for seeding at the proper depth and conducive to plant growth. Seed-to-soil contact is the key to good germination.

Seed Mix For Temporary Vegetation

To provide temporary vegetative cover on disturbed areas which will not be paved, built upon, or fully landscaped or worked for an extended period (typically 30 days or more), plant an annual grass appropriate for the time of planting and mulch the planted areas. Suitable annual grasses are listed in Table TS/PS-1.

Seed Mix For Permanent Revegetation

To provide vegetative cover on disturbed areas that have reached final grade, a perennial grass mix should be established. Permanent seeding should be performed promptly (typically within 14 days) after reaching final grade. One of the perennial grass mixes appropriate for site conditions and growth season listed in Table TS/PS-2 can be used. The pure live seed (PLS) rates of application recommended in these tables are considered to be absolute minimum rates for seed applied using proper drill-seeding equipment.

If desired for wildlife habitat or landscape diversity, shrubs such as rubber rabbitbrush *(Chrysothamnus nauseosus),* fourwing saltbush *(Atriplex canescens)* and skunkbrush sumac *(Rhus trilobata)* could be added to the upland seed mixes at 0.25, 0.5 and 1 pound PLS/acre, respectively. In riparian zones, planting root stock of such species as American plum *(Primus americana),* woods rose *(Rosa woodsii),* plains cottonwood *(Populus sargentii),* and willow *(Populus spp.)* may be considered. On non-topsoiled upland sites, a legume such as Ladak alfalfa at 1 pound PLS/acre can be included as a source of nitrogen for perennial grasses.

Seeding dates for the highest success probability of perennial species are generally in the spring from April through early May and in the fall after the first of September until the ground freezes. If the area is irrigated, seeding may occur in summer months, as well. See Table TS/PS-3 for appropriate seeding dates.

TABLE TS/PS-1
MINIMUM DRILL SEEDING RATES FOR VARIOUS TEMPORARY ANNUAL GRASSES

Species[a] (Common name)	Growth Season[b]	Pounds of Pure Live Seed (PLS)/acre[c]	Planting Depth (inches)
1. Oats	Cool	35-50	1 -2
2. Spring wheat	Cool	25-35	1 -2
3. Spring barley	Cool	25-35	1 -2
4. Annual ryegrass	Cool	10-15	1/2
5. Millet	Warm	3-15	1/2 - 3/4
6. Sudangrass	Warm	5-10	1/2 - 3/4
7. Sorghum	Warm	5-10	1/2 - 3/4
8. Winter wheat	Cool	20-35	1 -2
9. Winter barley	Cool	20-35	1 -2
10. Winter rye	Cool	20-35	1 -2
11. Triticale	Cool	25-40	1 -2

a. Successful seeding of annual grass resulting in adequate plant growth will usually produce enough dead-plant residue to provide protection from wind and water erosion for an additional year. This assumes that the cover is not disturbed or mowed closer than 8 inches.
Hydraulic seeding may be substituted for drilling only where slopes are steeper than 3:1 or where access limitations exist. When hydraulic seeding is used, hydraulic mulching should be applied as a separate operation, when practical, to prevent the seeds from being encapsulated in the mulch.
b. See Table TS/PS-3 for seeding dates. Irrigation, if consistently applied, may extend the use of cool season species during the summer months.
c. Seeding rates should be doubled if seed is broadcast, or increased by 50 percent if done using a Brillion Drill or by hydraulic seeding.

CP Exploration

Temporary and Permanent Seeding

Source: Urban Drainage and Flood Control District,
Urban Storm Drainage Criteria Manual Volume 3 , November 2010
With Modifications

TABLE TS/PS-2
MINIMUM DRILL SEEDING RATES FOR PERENNIAL GRASSES

Common Name[a]	Botanical Name	Growth Season"	Growth Form	Seeds/ Pound	Pounds of PLS/ acre
Alakali Soil Seed Mix					
Alkali sacaton	*Sporobolus airoides*	Cool	Bunch	1,750,000	0.25
Basin wildrye	*Elymus cinereus*	Cool	Bunch	165,000	2.5
Sodar streambank wheatgrass	*Agropyron riparium 'Sodar'*	Cool	Sod	170,000	2.5
Jose tall wheatgrass	*Agropyron elongatum 'Jose'*	Cool	Bunch	79,000	7.0
Arriba western wheatgrass	*Agropyron smithii 'Arriba'*	Cool	Sod	110,000	5.5
Total					**17.75**
Fertile Loamy Soil Seed Mix					
Ephraim crested wheatgrass	*Agropyron cristatum 'Ephraim'*	Cool	Sod	175,000	2.0
Dural hard fescue	*Festuca ovina 'duriuscula'*	Cool	Bunch	565,000	1.0
Lincoln smooth brome	*Bromus inermis leyss 'Lincoln'*	Cool	Sod	130,000	3.0
Sodar streambank wheatgrass	*Agropyron riparium 'Sodar'*	Cool	Sod	170,000	2.5
Arriba western wheatgrass	*Agropyron smithii 'Arriba'*	Cool	Sod	110,000	7.0
Total					**15.5**

CP Exploration

Temporary and Permanent Seeding

Source: Urban Drainage and Flood Control District,
Urban Storm Drainage Criteria Manual Volume 3 , November 2010
With Modifications

TABLE TS/PS-2
MINIMUM DRILL SEEDING RATES FOR PERENNIAL GRASSES (CONT.)

High Water Table Soil Seed Mix					
Meadow foxtail	*Alopecurus pratensis*	Cool	Sod	900,000	0.5
Redtop	*Agrostis alba*	Warm	Open sod	5,000,000	0.25
Reed canarygrass	*Phalaris arundinacea*	Cool	Sod	68,000	0.5
Lincoln smooth brome	*Bromus inermis leyss 'Lincoln'*	Cool	Sod	130,000	3.0
Pathfinder switchgrass	*Panicum virgatum 'Pathfinder'*	Warm	Sod	389,000	1.0
Alkar tall wheatgrass	*Agropyron elonga-tum 'Alkar'*	Cool	Bunch	79,000	5.5
Total					**10.75**
Transition Turf Seed Mix[c]					
Ruebens Canadian bluegrass	*Poa compressa 'Ruebens'*	Cool	Sod	2,500,000	0.5
Dural hard fescue	*Festuca ovina 'duriuscula'*	Cool	Bunch	565,000	1.0
Citation perennial ryegrass	*Loliumperenne 'Citation'*	Cool	Sod	247,000	3.0
Lincoln smooth brome	*Bromus inermis leyss 'Lincoln'*	Cool	Sod	130,000	3.0
Total					**7.5**

CP Exploration

Temporary and Permanent Seeding

Source: Urban Drainage and Flood Control District,
Urban Storm Drainage Criteria Manual Volume 3 , November 2010
With Modifications

TABLE TS/PS-2
MINIMUM DRILL SEEDING RATES FOR PERENNIAL GRASSES (CONT.)

Common Name[a]	Botanical Name	Growth Season[b]	Growth Form	Seeds/ Pound	Pounds of PLS/acre
Sandy Soil Seed Mix					
Blue grama	*Bouteloua gracilis*	Warm	Sod-forming bunchgrass	825,000	0.5
Camper little bluestem	*Schizachyrium scoparium 'Camper'*	Warm	Bunch	240,000	1.0
Prairie sandreed	*Calamovilfa longifolia*	Warm	Open sod	274,000	1.0
Sand dropseed	*Sporobolus cryptandrus*	Cool	Bunch	5,298,000	0.25
Vaughn sideoats grama	*Bouteloua curtipendula 'Vaughn'*	Warm	Sod	191,000	2.0
Arriba western wheatgrass	*Agropyron smithii 'Arriba'*	Cool	Sod	110,000	5.5
Total					**10.25**
Heavy Clay, Rocky Foothill Seed Mix					
Ephraim crested wheatgrass[d]	*Agropyron cristatum 'Ephraim'*	Cool	Sod	175,000	1.5
Oahe Intermediate wheatgrass	*Agropyron intermedium 'Oahe'*	Cool	Sod	115,000	5.5
Vaughn sideoats gramae	*Bouteloua curtipendula 'Vaughn'*	Warm	Sod	191,000	2.0
Lincoln smooth brome	*Bromus inermis leyss 'Lincoln'*	Cool	Sod	130,000	3.0
Arriba western wheatgrass	*Agropyron smithii 'Arriba'*	Cool	Sod	110,000	5.5
Total					**17.5**

a. All of the above seeding mixes and rates are based on drill seeding followed by crimped straw mulch. These rates should be doubled if seed is broadcast and should be increased by 50 percent if the seeding is done using a Brillion Drill or is applied through hydraulic seeding. Hydraulic seeding may be substituted for drilling only where slopes are steeper than 3:1. If hydraulic seeding is used, hydraulic mulching should be done as a separate operation.

b. See Table TS/PS-3 for seeding dates.

c. If site is to be irrigated, the transition turf seed rates should be doubled.

d. Crested wheatgrass should not be used on slopes steeper than 6H to IV. Can substitute 0.5lbs PLS of blue grama for the 2.0lbs PLS of Vaughn sideoats grama.

CP Exploration

Temporary and Permanent Seeding

Source: Urban Drainage and Flood Control District,
Urban Storm Drainage Criteria Manual Volume 3 , November 2010
With Modifications

TABLE TS/PS-3
SEEDING DATES FOR ANNUAL AND PERENNIAL GRASSES

	Annual Grasses (Numbers in table reference species in Table TS/PS-1)		Perennial Grasses	
Seeding Dates	**Warm**	**Cool**	**Warm**	**Cool**
January 1-March 15			✓	✓
March 16-April 30	4	1,2,3	✓	✓
May 1-May 15	4		✓	
May 16-June 30	4,5,6,7			
July 1-July 15	5,6,7			
July 16-August 31				
September 1-September 30		8,9,10,11		
October 1-December 31			✓	✓

Mulch

Cover seeded areas with mulch or an appropriate rolled erosion control product to promote establishment of vegetation. Anchor mulch by crimping, netting or use of a non-toxic tackifier. See the Mulching Standard Detail for additional guidance.

MAINTENANCE AND REMOVAL

Monitor and observe seeded areas to identify areas of poor growth or areas that fail to germinate. Reseed and mulch these areas, as needed.

An area that has been permanently seeded should have a good stand of vegetation within one growing season if irrigated and within three growing seasons without irrigation. Reseed portions of the site that fail to germinate or remain bare after the first growing season.

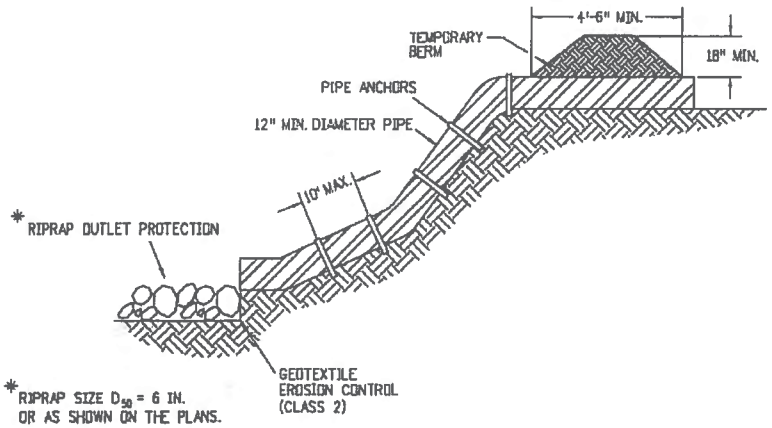
Seeded areas may require irrigation, particularly during extended dry periods. Targeted weed control may also be necessary.

Protect seeded areas from construction equipment and vehicle access.

CP Exploration

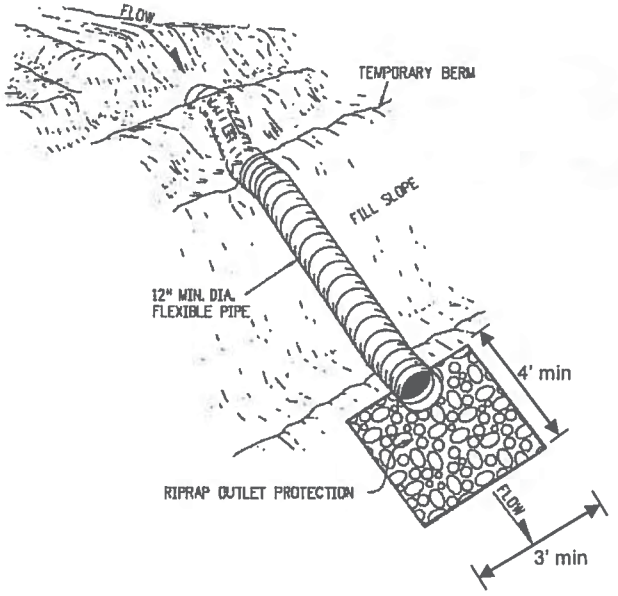
Temporary and Permanent Seeding

Source: Urban Drainage and Flood Control District,
Urban Storm Drainage Criteria Manual Volume 3 , November 2010
With Modifications



TEMPORARY SLOPE DRAIN

ANCHOR SIZE VARIES ACCORDING TO PIPE SIZE.



Source: Colorado Department of Transportation
Standard Plan No. M-208-1
Sheet No. 9 of 12

CP Exploration

TEMPORARY SLOPE DRAIN

STORMWATER
BMP DETAILS

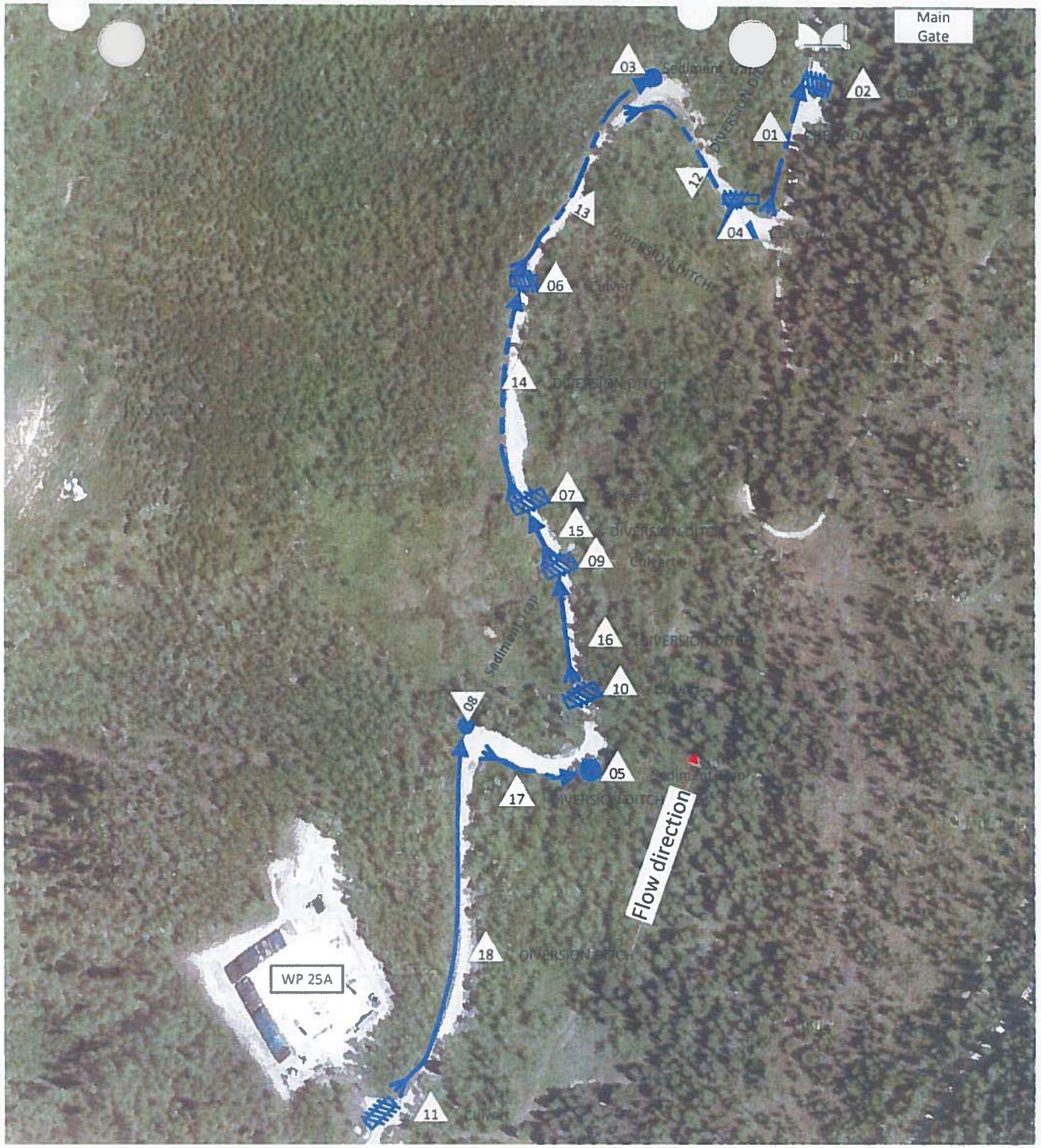
Inspection reports are archived electronically.

Stormwater Inspection Locations	Site ID
Main Road	AR-00003
Pad 25A	WP-00001
Borrow Pit Road	AR-00002
Pad 36A Access Road	AR-00001
Equipment Storage Area	OE-00002
Completion Fluids Facility	OE-00001
Pipe Laydown Yard	OE-00003
Pad 36A	WP-00002

BMP Type Reference.

(BB)	SC-05	Brush Barrier
(CCD)	RC-02	Culvert Cross-Drain
(CD)	RC-05	Check Dam (in ditch) (outside ditch)
(CIP)	RC-09	Culvert Inlet Protection (CIP) - COMBINED WITH RC-2
(COP)	RC-03	Culvert Outlet Protection (COP) - COMBINED WITH RC-2
(DD)	RC-07	Drainage Dip
(DD)	RC-10	Diversion Ditch
(ECB)	EC-09	Erosion Control Blanket
(FB)	SC-07	Filter Berm
(G)	EC-17	Gabions
(GS)	EC-03	Gravel Surfacing
(HMLCH/HVEG)	EC-21	Hydraulic Mulching/Seeding
(LG)	EC-01	Land Grading - Well Pads and Pipelines
(LGR)	EC-02	Land Grading – Roads
(LS)	EC-18	Level Spreader
(LWC)	EC-10	Low Water Crossing
(MLCH)	EC-07	Mulching
(PD)	RC-12	Permanent Diversion (PD) - COMBINED WITH RC-10
(PEV)	EC-13	Preserve Existing Vegetation
(RIP)	RC-04	Riprap
(RS)	RC-06	Road Slope - COMBINED WITH EC-2
(RSD)	RC-01	Roadside (RSD) & Turnout (TO) Ditches
(RW)	EC-19	Retaining Wall
(SBB)	SC-01	Straw Bale Barrier
(SD)	EC-15	Slope Drain
(SEDB)	SC-03	Sediment Basin
(SF)	SC-02	Silt Fence
(SR)	EC-04	Surface Roughening
(ST)	SC-06	Sediment Trap
(T)	EC-12	Terracing /Benching
(TB)	RC-08	Temporary Berm
(TD)	RC-11	Temporary Diversion (TD) - COMBINED WITH RC-10
(TP)	SC-04	Tracking Pad
(TT)	RC-14	Toe Trench
(VB)	EC-14	Vegetated Buffer
(VEGP)	EC-06	Permanent Vegetation
(VEGT)	EC-05	Temporary Vegetation
(W)	EC-08	Wattles
(WB)	RC-13	Water Bar

Please note this list of BMP Types is for reference only.



Site ID: AR-00003
Site Name: Main Road
Field: Tepee
Phase: Interim Stabilization
Map Date: 5/17/2015

01	CHECK DAM
02	Culvert
03	Sediment Trap
04	Culvert
05	Sediment Trap
06	Culvert
07	Culvert
08	Sediment Trap
09	Culvert
10	Culvert
11	Culvert
12	DIVERSION DITCH
13	DIVERSION DITCH
14	DIVERSION DITCH
15	DIVERSION DITCH
16	DIVERSION DITCH
17	DIVERSION DITCH
18	DIVERSION DITCH
19	
20	
21	
22	
23	
24	
25	

BMP Type Reference.

(BB)	SC-05	Brush Barrier
(CCD)	RC-02	Culvert Cross-Drain
(CD)	RC-05	Check Dam (in ditch) (outside ditch)
(CIP)	RC-09	Culvert Inlet Protection (CIP) - COMBINED WITH RC-2
(COP)	RC-03	Culvert Outlet Protection (COP) - COMBINED WITH RC-2
(DD)	RC-07	Drainage Dip
(DD)	RC-10	Diversion Ditch
(ECB)	EC-09	Erosion Control Blanket
(FB)	SC-07	Filter Berm
(G)	EC-17	Gabions
(GS)	EC-03	Gravel Surfacing
(HMLCH/HVEG)	EC-21	Hydraulic Mulching/Seeding
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(LWC)	EC-10	Low Water Crossing
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(PD)	RC-12	Permanent Diversion (PD) - COMBINED WITH RC-10
(PEV)	EC-13	Preserve Existing Vegetation
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(RS)	RC-06	Road Slope - COMBINED WITH EC-2
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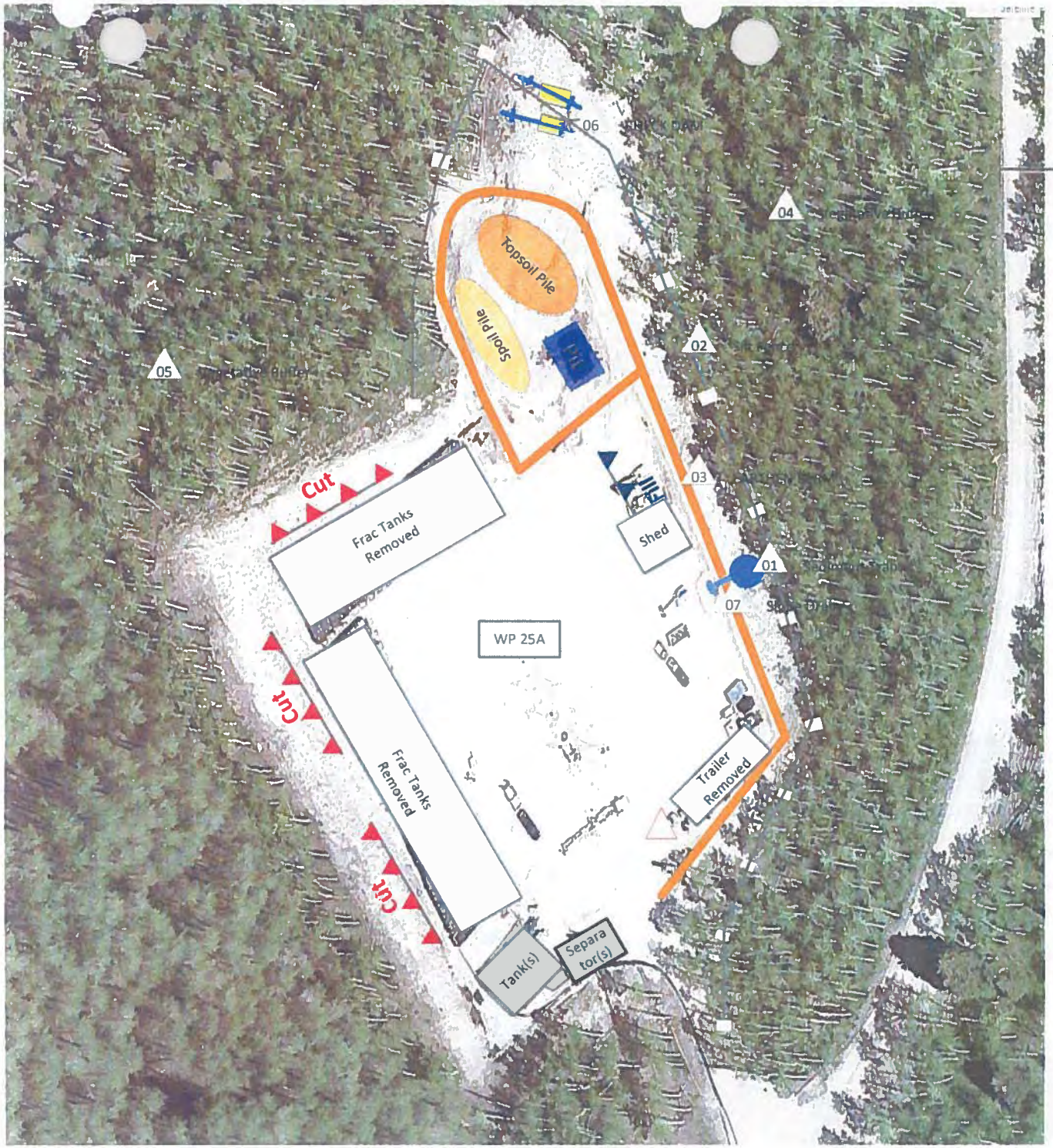
(SBB)	SC-01	Straw Bale Barrier
(SD)	EC-15	Slope Drain
(SEDB)	SC-03	Sediment Basin
(SF)	SC-02	Silt Fence
(SR)	EC-04	Surface Roughening
(ST)	SC-06	Sediment Trap
(T)	EC-12	Terracing /Benching
(TB)	RC-08	Temporary Berm
(TD)	RC-11	Temporary Diversion (TD) - COMBINED WITH RC-10
(TP)	SC-04	Tracking Pad
(TT)	RC-14	Toe Trench
(VB)	EC-14	Vegetated Buffer
(VEGP)	EC-06	Permanent Vegetation
(VEGT)	EC-05	Temporary Vegetation
(W)	EC-08	Wattles
(WB)	RC-13	Water Bar

Please note this list of BMP Types is for reference only.



Site ID: WP-00001
Site Name: 25A Pad
Field: Tepee
Phase: Interim Stabilization
Map Date: 5/17/2015

01	Sediment Trap
02	Silt Fence
03	EARTHEN BERM
04	Vegetative Buffer
05	Vegetative Buffer
06	CHECK DAM
07	Slope Drain
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BMP Type Reference.

(BB)	SC-05	Brush Barrier
(CCD)	RC-02	Culvert Cross-Drain
(CD)	RC-05	Check Dam (in ditch) (outside ditch)
(CIP)	RC-09	Culvert Inlet Protection (CIP) - COMBINED WITH RC-2
(COP)	RC-03	Culvert Outlet Protection (COP) - COMBINED WITH RC-2
(DD)	RC-07	Drainage Dip
(DD)	RC-10	Diversion Ditch
(ECB)	EC-09	Erosion Control Blanket
(FB)	SC-07	Filter Berm
(G)	EC-17	Gabions
(GS)	EC-03	Gravel Surfacing
(HMLCH/HVEG)	EC-21	Hydraulic Mulching/Seeding
(LG)	EC-01	Land Grading - Well Pads and Pipelines
(LGR)	EC-02	Land Grading – Roads
(LS)	EC-18	Level Spreader
(LWC)	EC-10	Low Water Crossing
(MLCH)	EC-07	Mulching
(PD)	RC-12	Permanent Diversion (PD) - COMBINED WITH RC-10
(PEV)	EC-13	Preserve Existing Vegetation
(RP)	RC-04	Riprap
(RS)	RC-06	Road Slope - COMBINED WITH EC-2
(RSD)	RC-01	Roadside (RSD) & Turnout (TO) Ditches
(RW)	EC-19	Retaining Wall
(SBB)	SC-01	Straw Bale Barrier
(SD)	EC-15	Slope Drain
(SEDB)	SC-03	Sediment Basin
(SF)	SC-02	Silt Fence
(SR)	EC-04	Surface Roughening
(ST)	SC-06	Sediment Trap
(T)	EC-12	Terracing /Benching
(TB)	RC-08	Temporary Berm
(TD)	RC-11	Temporary Diversion (TD) - COMBINED WITH RC-10
(TP)	SC-04	Tracking Pad
(TT)	RC-14	Toe Trench
(VB)	EC-14	Vegetated Buffer
(VEGP)	EC-06	Permanent Vegetation
(VEGT)	EC-05	Temporary Vegetation
(W)	EC-08	Wattles
(WB)	RC-13	Water Bar

Please note this list of BMP Types is for reference only.

Site ID: AR-00002
Site Name: Borrow Pit Road
Field: Tepee
Phase: Interim Stabilization
Map Date: 5/17/2015

01	Culvert
02	CHECK DAM
03	Culvert
04	CHECK DAM
05	Culvert
06	Culvert
07	Sediment Trap
08	CHECK DAM
09	CHECK DAM
10	CHECK DAM
11	Culvert
12	Culvert
13	Culvert
14	CHECK DAM
15	CHECK DAM
16	
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BMP Type Reference.

(BB)	SC-05	Brush Barrier
(CCD)	RC-02	Culvert Cross-Drain
(CD)	RC-05	Check Dam (in ditch) (outside ditch)
(CIP)	RC-09	Culvert Inlet Protection (CIP) - COMBINED WITH RC-2
(COP)	RC-03	Culvert Outlet Protection (COP) - COMBINED WITH RC-2
(DD)	RC-07	Drainage Dip
(DD)	RC-10	Diversion Ditch
(ECB)	EC-09	Erosion Control Blanket
(FB)	SC-07	Filter Berm
(G)	EC-17	Gabions
(GS)	EC-03	Gravel Surfacing
(HMLCH/HVEG)	EC-21	Hydraulic Mulching/Seeding
(LG)	EC-01	Land Grading - Well Pads and Pipelines
(LGR)	EC-02	Land Grading – Roads
(LS)	EC-18	Level Spreader
(LWC)	EC-10	Low Water Crossing
(MLCH)	EC-07	Mulching
(PD)	RC-12	Permanent Diversion (PD) - COMBINED WITH RC-10
(PEV)	EC-13	Preserve Existing Vegetation
(RP)	RC-04	Riprap
(RS)	RC-06	Road Slope - COMBINED WITH EC-2
(RSD)	RC-01	Roadside (RSD) & Turnout (TO) Ditches
(RW)	EC-19	Retaining Wall
(SBB)	SC-01	Straw Bale Barrier
(SD)	EC-15	Slope Drain
(SEDB)	SC-03	Sediment Basin
(SF)	SC-02	Silt Fence
(SR)	EC-04	Surface Roughening
(ST)	SC-06	Sediment Trap
(T)	EC-12	Terracing /Benching
(TB)	RC-08	Temporary Berm
(TD)	RC-11	Temporary Diversion (TD) - COMBINED WITH RC-10
(TP)	SC-04	Tracking Pad
(TT)	RC-14	Toe Trench
(VB)	EC-14	Vegetated Buffer
(VEGP)	EC-06	Permanent Vegetation
(VEGT)	EC-05	Temporary Vegetation
( )	EC-08	Wattles
(WB)	RC-13	Water Bar

Please note this list of BMP Types is for reference only.

Site ID: AR-00001
Site Name: 36A Pad Access Road
Field: Tepee
Phase: Interim Stabilization
Map Date: 5/17/2015

01	CHECK DAM
02	Culvert
03	CHECK DAM
04	Culvert
05	CHECK DAM
06	Culvert
07	CHECK DAM
08	Culvert
09	Culvert
10	Culvert
11	Sediment Trap
12	Sediment Trap
13	DIVERSION DITCH
14	CHECK DAM
15	CHECK DAM
16	DIVERSION DITCH
17	Outlet protection
18	
19	
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BMP Type Reference.

(BB)	SC-05	Brush Barrier
(CD)	RC-02	Culvert Cross-Drain
(CD)	RC-05	Check Dam (in ditch) (outside ditch)
(CIP)	RC-09	Culvert Inlet Protection (CIP) - COMBINED WITH RC-2
(COP)	RC-03	Culvert Outlet Protection (COP) - COMBINED WITH RC-2
(DD)	RC-07	Drainage Dip
(DD)	RC-10	Diversion Ditch
(ECB)	EC-09	Erosion Control Blanket
(FB)	SC-07	Filter Berm
(G)	EC-17	Gabions
(GS)	EC-03	Gravel Surfacing
(HMLCH/HVEG)	EC-21	Hydraulic Mulching/Seeding
(LG)	EC-01	Land Grading - Well Pads and Pipelines
(LGR)	EC-02	Land Grading – Roads
(LS)	EC-18	Level Spreader
(LWC)	EC-10	Low Water Crossing
(MLCH)	EC-07	Mulching
(PD)	RC-12	Permanent Diversion (PD) - COMBINED WITH RC-10
(PEV)	EC-13	Preserve Existing Vegetation
(P)	RC-04	Riprap
(RS)	RC-06	Road Slope - COMBINED WITH EC-2
(RSD)	RC-01	Roadside (RSD) & Turnout (TO) Ditches
(RW)	EC-19	Retaining Wall
(SBB)	SC-01	Straw Bale Barrier
(SD)	EC-15	Slope Drain
(SEDB)	SC-03	Sediment Basin
(SF)	SC-02	Silt Fence
(SR)	EC-04	Surface Roughening
(ST)	SC-06	Sediment Trap
(T)	EC-12	Terracing /Benching
(TB)	RC-08	Temporary Berm
(TD)	RC-11	Temporary Diversion (TD) - COMBINED WITH RC-10
(TP)	SC-04	Tracking Pad
(TT)	RC-14	Toe Trench
(VB)	EC-14	Vegetated Buffer
(VEGP)	EC-06	Permanent Vegetation
(VEGT)	EC-05	Temporary Vegetation
( )	EC-08	Wattles
(WB)	RC-13	Water Bar

Please note this list of BMP Types is for reference only.

Site ID: OE-00002
Site Name: Equipment Storage A[illegible]
Field: Tepee
Phase: Interim Stabilization
Map Date: 5/17/2015

01	EARTHEN BERM
02	Sediment Trap
03	Sediment Trap
04	DIVERSION DITCH
05	Vegetative Buffer
06	Vegetative Buffer
07	EARTHEN BERM
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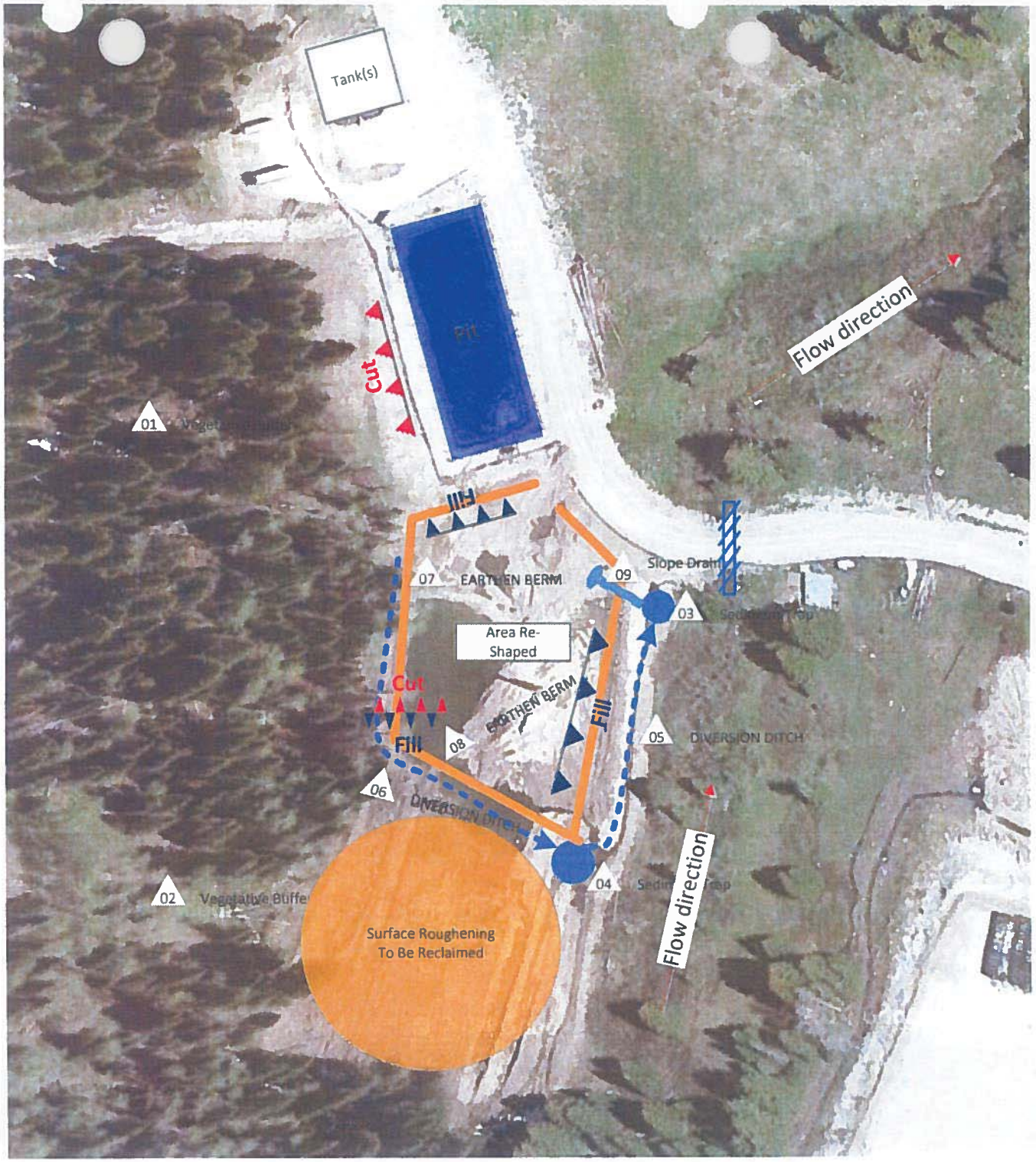
BMP Type Reference.

(BB)	SC-05	Brush Barrier
(CCD)	RC-02	Culvert Cross-Drain
(CD)	RC-05	Check Dam (in ditch) (outside ditch)
(CIP)	RC-09	Culvert Inlet Protection (CIP) - COMBINED WITH RC-2
(COP)	RC-03	Culvert Outlet Protection (COP) - COMBINED WITH RC-2
(DD)	RC-07	Drainage Dip
(DD)	RC-10	Diversion Ditch
(ECB)	EC-09	Erosion Control Blanket
(FB)	SC-07	Filter Berm
(G)	EC-17	Gabions
(GS)	EC-03	Gravel Surfacing
(HMLCH/HVEG)	EC-21	Hydraulic Mulching/Seeding
(LG)	EC-01	Land Grading - Well Pads and Pipelines
(LGR)	EC-02	Land Grading – Roads
(LS)	EC-18	Level Spreader
(LWC)	EC-10	Low Water Crossing
(MLCH)	EC-07	Mulching
(PD)	RC-12	Permanent Diversion (PD) - COMBINED WITH RC-10
(PEV)	EC-13	Preserve Existing Vegetation
(RP)	RC-04	Riprap
(RS)	RC-06	Road Slope - COMBINED WITH EC-2
(RSD)	RC-01	Roadside (RSD) & Turnout (TO) Ditches
(RW)	EC-19	Retaining Wall
(SBB)	SC-01	Straw Bale Barrier
(SD)	EC-15	Slope Drain
(SEDB)	SC-03	Sediment Basin
(SF)	SC-02	Silt Fence
(SR)	EC-04	Surface Roughening
(ST)	SC-06	Sediment Trap
(T)	EC-12	Terracing /Benching
(TB)	RC-08	Temporary Berm
(TD)	RC-11	Temporary Diversion (TD) - COMBINED WITH RC-10
(TP)	SC-04	Tracking Pad
(TT)	RC-14	Toe Trench
(VB)	EC-14	Vegetated Buffer
(VEGP)	EC-06	Permanent Vegetation
(VEGT)	EC-05	Temporary Vegetation
( )	EC-08	Wattles
(WB)	RC-13	Water Bar

Please note this list of BMP Types is for reference only.



Site ID: OE-00001
Site Name: Completion Fluids Fac[illegible]y
Field: Tepee
Phase: Interim Stabilization
Map Date: 5/17/2015

01	Vegetative Buffer
02	Vegetative Buffer
03	Sediment Trap
04	Sediment Trap
05	DIVERSION DITCH
06	DIVERSION DITCH -
07	EARTHEN BERM
08	EARTHEN BERM
09	Slope Drain
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BMP Type Reference.

(BB)	SC-05	Brush Barrier
(CCD)	RC-02	Culvert Cross-Drain
(CD)	RC-05	Check Dam (in ditch) (outside ditch)
(CIP)	RC-09	Culvert Inlet Protection (CIP) - COMBINED WITH RC-2
(COP)	RC-03	Culvert Outlet Protection (COP) - COMBINED WITH RC-2
(DD)	RC-07	Drainage Dip
(DD)	RC-10	Diversion Ditch
(ECB)	EC-09	Erosion Control Blanket
(FB)	SC-07	Filter Berm
(G)	EC-17	Gabions
(GS)	EC-03	Gravel Surfacing
(HMLCH/HVEG)	EC-21	Hydraulic Mulching/Seeding
(LG)	EC-01	Land Grading - Well Pads and Pipelines
(LGR)	EC-02	Land Grading – Roads
(LS)	EC-18	Level Spreader
(LWC)	EC-10	Low Water Crossing
(MLCH)	EC-07	Mulching
(PD)	RC-12	Permanent Diversion (PD) - COMBINED WITH RC-10
(PEV)	EC-13	Preserve Existing Vegetation
(RP)	RC-04	Riprap
(RS)	RC-06	Road Slope - COMBINED WITH EC-2
(RSD)	RC-01	Roadside (RSD) & Turnout (TO) Ditches
(RW)	EC-19	Retaining Wall
(SBB)	SC-01	Straw Bale Barrier
(SD)	EC-15	Slope Drain
(SEDB)	SC-03	Sediment Basin
(SF)	SC-02	Silt Fence
(SR)	EC-04	Surface Roughening
(ST)	SC-06	Sediment Trap
(T)	EC-12	Terracing /Benching
(TB)	RC-08	Temporary Berm
(TD)	RC-11	Temporary Diversion (TD) - COMBINED WITH RC-10
(TP)	SC-04	Tracking Pad
(TT)	RC-14	Toe Trench
(VB)	EC-14	Vegetated Buffer
(VEGP)	EC-06	Permanent Vegetation
(VEGT)	EC-05	Temporary Vegetation
( )	EC-08	Wattles
(WB)	RC-13	Water Bar

Please note this list of BMP Types is for reference only.

Site ID: OE-00003
Site Name: Pipe Laydown Yard
Field: Tepee
Phase: Interim Stabilization
Map Date: 5/17/2015

01	EARTHEN BERM
02	DIVERSION DITCH
03	Sediment Trap
04	ROUGHENING
05	CHECK DAM
06	
07	
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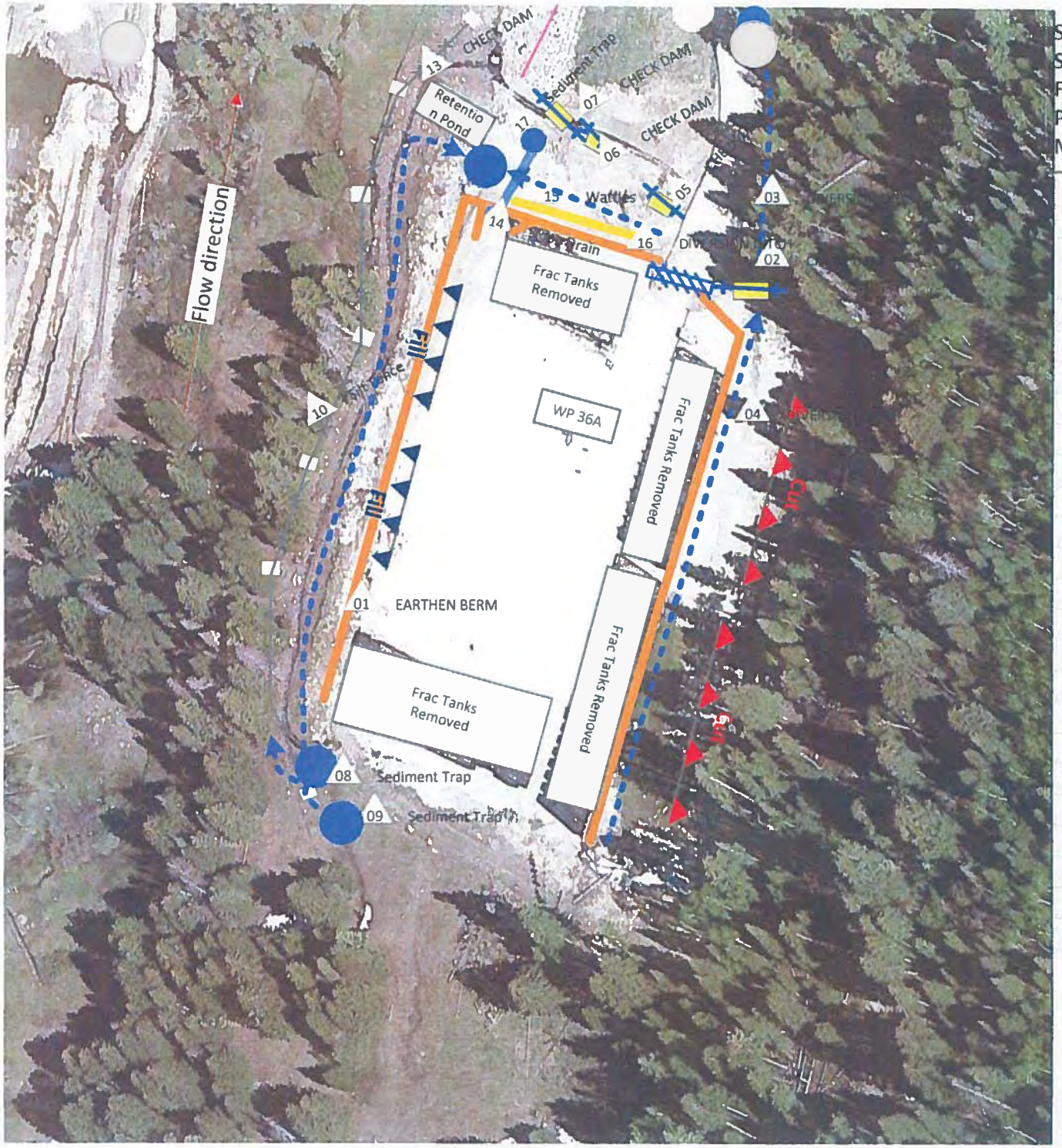
BMP Type Reference.

(BB)	SC-05	Brush Barrier
(CCD)	RC-02	Culvert Cross-Drain
(CD)	RC-05	Check Dam (in ditch) (outside ditch)
(CIP)	RC-09	Culvert Inlet Protection (CIP) - COMBINED WITH RC-2
(COP)	RC-03	Culvert Outlet Protection (COP) - COMBINED WITH RC-2
(DD)	RC-07	Drainage Dip
(DD)	RC-10	Diversion Ditch
(ECB)	EC-09	Erosion Control Blanket
(FB)	SC-07	Filter Berm
(G)	EC-17	Gabions
(GS)	EC-03	Gravel Surfacing
(HMLCH/HVEG)	EC-21	Hydraulic Mulching/Seeding
(LG)	EC-01	Land Grading - Well Pads and Pipelines
(LGR)	EC-02	Land Grading – Roads
(LS)	EC-18	Level Spreader
(LWC)	EC-10	Low Water Crossing
(MLCH)	EC-07	Mulching
(PD)	RC-12	Permanent Diversion (PD) - COMBINED WITH RC-10
(PEV)	EC-13	Preserve Existing Vegetation
(IP)	RC-04	Riprap
(RS)	RC-06	Road Slope - COMBINED WITH EC-2
(RSD)	RC-01	Roadside (RSD) & Turnout (TO) Ditches
(RW)	EC-19	Retaining Wall
(SBB)	SC-01	Straw Bale Barrier
(SD)	EC-15	Slope Drain
(SEDB)	SC-03	Sediment Basin
(SF)	SC-02	Silt Fence
(SR)	EC-04	Surface Roughening
(ST)	SC-06	Sediment Trap
(T)	EC-12	Terracing /Benching
(TB)	RC-08	Temporary Berm
(TD)	RC-11	Temporary Diversion (TD) - COMBINED WITH RC-10
(TP)	SC-04	Tracking Pad
(TT)	RC-14	Toe Trench
(VB)	EC-14	Vegetated Buffer
(VEGP)	EC-06	Permanent Vegetation
(VEGT)	EC-05	Temporary Vegetation
( )	EC-08	Wattles
(WB)	RC-13	Water Bar

Please note this list of BMP Types is for reference only.



Site ID: WP-00002
Site Name: 36A Pad
Field: Tepee
Phase: Interim Stabilization
Map Date: 5/17/2015

01	EARTHEN BERM
02	CHECK DAM
03	DIVERSION DITCH
04	DIVERSION DITCH
05	CHECK DAM
06	CHECK DAM
07	CHECK DAM
08	Sediment Trap
09	Sediment Trap
10	Silt Fence
11	Culvert
12	Retention pond
13	CHECK DAM
14	Slope Drain
15	Wattles
16	DIVERSION DITCH
17	Sediment Trap
18	
19	
20	
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25	