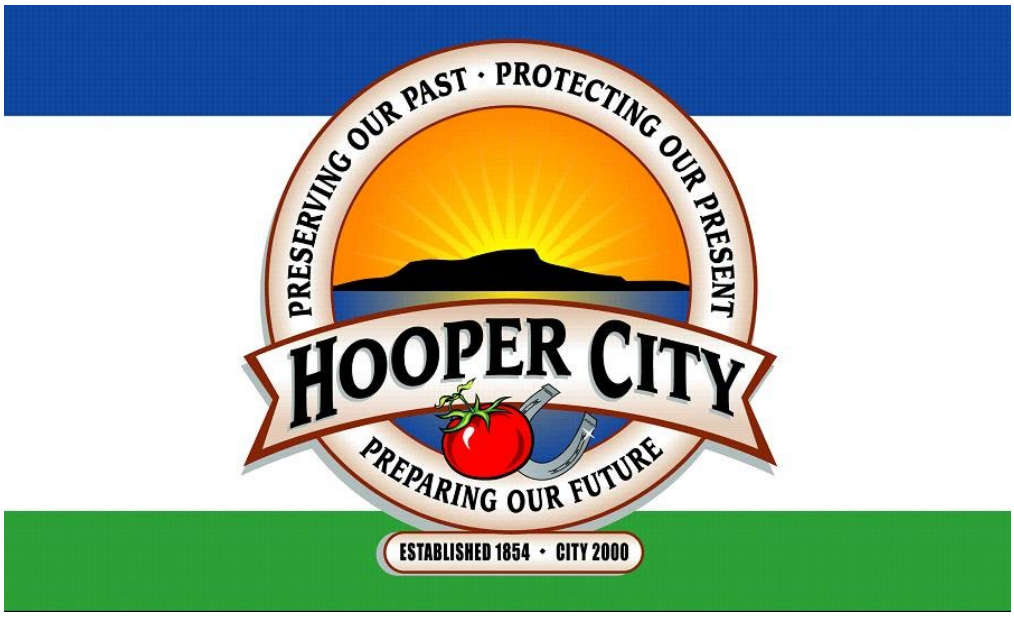

HOOPER CITY

STORM WATER

MANAGEMENT PROGRAM

Updated: December 2024

By

Permit Update: May 2021

Major Revisions by: J-U-B ENGINEERS, Inc.

Revision Log

Date	Comments	Approved
11/2010	Updated to address new permit requirements	
6/2016	Updated to address new permit requirements	
12/2021	Update to address new permit and LID requirements	
12/2024	Update to address new members of the City storm water advisory committee.	

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INTRODUCTION

Polluted storm water runoff is often transported to municipal separate storm sewer systems (MS4s) and ultimately discharged into local rivers and streams without treatment. EPA's Storm Water Phase II Rule establishes an MS4 storm water management program that is intended to improve the Nation's waterways by reducing the quantity of pollutants that are introduced into storm sewer systems during storm events. Common pollutants include oil and grease from roadways, roadway salts and deicing materials, pesticides and fertilizers from lawns, sediment from construction sites, and carelessly discarded trash, such as cigarette butts, paper wrappers, and plastic bottles. When deposited into nearby waterways through MS4 discharges, these pollutants can impair the waterways, thereby discouraging use of the resource, contaminating drinking water supplies, and interfering with the habitat for fish, other aquatic organisms, and wildlife.

In 1990, EPA promulgated rules establishing Phase I of the National Pollutant Discharge Elimination System (NPDES) storm water program. The Phase I program for MS4s requires operators of "medium" and "large" MS4s, that is, those that generally serve populations of 100,000 or greater, to implement a storm water management program as a means to control polluted discharges from these MS4s. The Storm Water Phase II Rule extends coverage of the NPDES storm water program to certain "small" MS4s but takes a slightly different approach to how the storm water management program is developed and implemented.

In the State of Utah, the EPA has granted primacy to the State of Utah to oversee and manage the storm water program. The State has adopted the Utah Pollutant Discharge Elimination System (UPDES) for that purpose. Hooper City has prepared this Storm Water Management Program (SWMP) to meet the requirements of the UPDES Storm Water Discharge Permit for Small MS4s.

Storm Water Management Program

A Storm Water Management Program should:

- Reduce the discharge of pollutants to the "maximum extent practicable" (MEP)
- Protect water quality
- Satisfy the appropriate water quality requirements of the Clean Water Act; and
- Adapt to changing conditions and needs

Storm water management programs must include:

- ✧ Best Management Practices (BMPs) for each of the six minimum control measures:

    1. Public Education and Outreach
    2. Public Participation/Involvement
    3. Illicit Discharge Detection and Elimination
    4. Construction Site Runoff Control
    5. Post-Construction Runoff Control
    6. Pollution Prevention/Good Housekeeping

- ✧ Measurable goals for each minimum control measure (i.e., narrative or numeric standards used to gauge program effectiveness)

- ✧ Estimated months and years in which actions to implement each measure will be undertaken, including interim milestones and frequency; and

- ✧ The person or persons responsible for implementing or coordinating the storm water program.

Permit Application and Notice of Intent

In 2003, Hooper City applied for and was granted a permit to discharge stormwater to waters of the United States. Hooper is permitted under UTR090046.

Permit Requirements

On May 12, 2021, the State of Utah issued a revised General Permit for Discharges from Small Municipal Separate Storm Sewer Systems. With the revisions came new requirements and more clarity on existing requirements. This SWMP update is intended to help the city meet the requirements of this new permit. Some of the updated requirements of the permit include:

- A current version of the SWMP must be posted on the city's website within 180 days of the effective date of the permit.
- All staff, contracted staff, or other responsible entities, that as part of their normal job responsibilities might come into contract with or otherwise observe an illicit discharge or illicit connection to the MS4 including office personnel who might

receive initial reports of illicit discharges must receive annual training in the IDDE program.

- An appeals process for construction site compliance issues is now required
- Projects requiring a SWPPP are now required to include a discussion/review of SWPPP requirements in a pre-construction meeting.
- Someone who prepares a SWPPP for a construction project is now prohibited from performing construction site inspections on behalf of the Permittee on that site.
- Electronic inspection tools may now be used by the Permittee in lieu of in person on-site inspection for up to half of the required inspections.
- Retention of the 80th percentile storm is now required on all new development, when feasible.
- If not feasible, a rationale must be provided for the use of alternative design criteria.
- MS4s must allow a minimum of five LID practices from the list in Appendix C of "A Guide to Low Impact Development Within Utah". If the City does not adopt specific LID guidelines, any LID approach described in the Guide may be used by developers.
- The MS4 is now required to review site plans to evaluate water quality impacts over the life of the project.
- The MS4 is now required to inspect all permanent structural BMPs prior to closing out a construction project, to ensure that it was built according to approved plans.
- Inspections of permanent structural BMPs after construction is completed must be conducted at least once every two years (this is a reduction in inspection requirements).
- MS4s are required to have a SWPPP for each "high priority" permittee owned or operated facility.
- Visual inspections of "high priority" facilities have been reduced from weekly to monthly.
- Comprehensive inspections of "high priority" facilities have been reduced from quarterly to semi-annually.
- Visual observation of storm water discharges for "high priority" facilities have been reduced from quarterly to annually.

The chosen measurable goals, submitted in the Notice of Intent as a permit application, become the required storm water management program; however, the NPDES permitting authority can require changes in the mix of chosen BMPs and measurable goals if all or some of them are found to be inconsistent with the provisions of the Phase II Final Rule. Likewise, the permittee can change its mix of BMPs if it determines that the program is not as effective as it could be.

Reports

The permit requires that the city review the SWMP annually, report on our activities and make any updates that might be required. The annual reports should use the form provided by the State. Generally, the annual report should include the following information:

- ✧ The status of compliance with permit conditions, including an assessment of the appropriateness of the selected BMPs and progress toward achieving the selected measurable goals for each minimum measure
- ✧ Results of any information collected and analyzed, including monitoring data if any
- ✧ A summary of the storm water activities planned for the next reporting cycle
- ✧ A change in any identified BMP or measurable goals for any minimum measure; and
- ✧ Notice of relying on another governmental entity to satisfy some of the permit obligations (if applicable).

Record Keeping

Records required by the State must be kept for at least 5 years and made accessible to the public at reasonable times during regular business hours. Records need not be submitted to the State unless the Permittee is requested to do so.

Deadlines

The following deadlines are recognized as part of the program:

Date	Description
November 8, 2021	Implement Low Impact Development Program

November 8, 2021	Update SWMP to meet new permit requirements

Penalties

The NPDES and UPDES permits that the operator of a regulated small MS4 is required to obtain is federally enforceable, thus subjecting the Permittee to potential enforcement actions and penalties by the NPDES permitting authority if the permittee does not fully comply with application or permit requirements. This federal enforceability also includes the right for interested parties to sue under citizen suit provision (section 405) of CWA.

This document contains a description of the community-specific Storm Water Management Program for Hooper City. The Program includes the following:

- ✧ An organizational chart depicting various departments/personnel within the city and their stormwater related responsibilities
- ✧ Best Management Practices (BMPs) for each of the six minimum control measures:
    1. Public Education and Outreach
    2. Public Participation/Involvement
    3. Illicit Discharge Detection and Elimination
    4. Construction Site Runoff Control
    5. Post-Construction Runoff Control
    6. Pollution Prevention/Good Housekeeping
- ✧ Measurable goals for each minimum control measure (i.e., narrative or numeric standards used to gauge program effectiveness)
- ✧ Estimated months and years in which actions to implement each measure will be undertaken, including interim milestones and frequency; and
- ✧ The person or persons responsible for implementing or coordinating the storm water program.

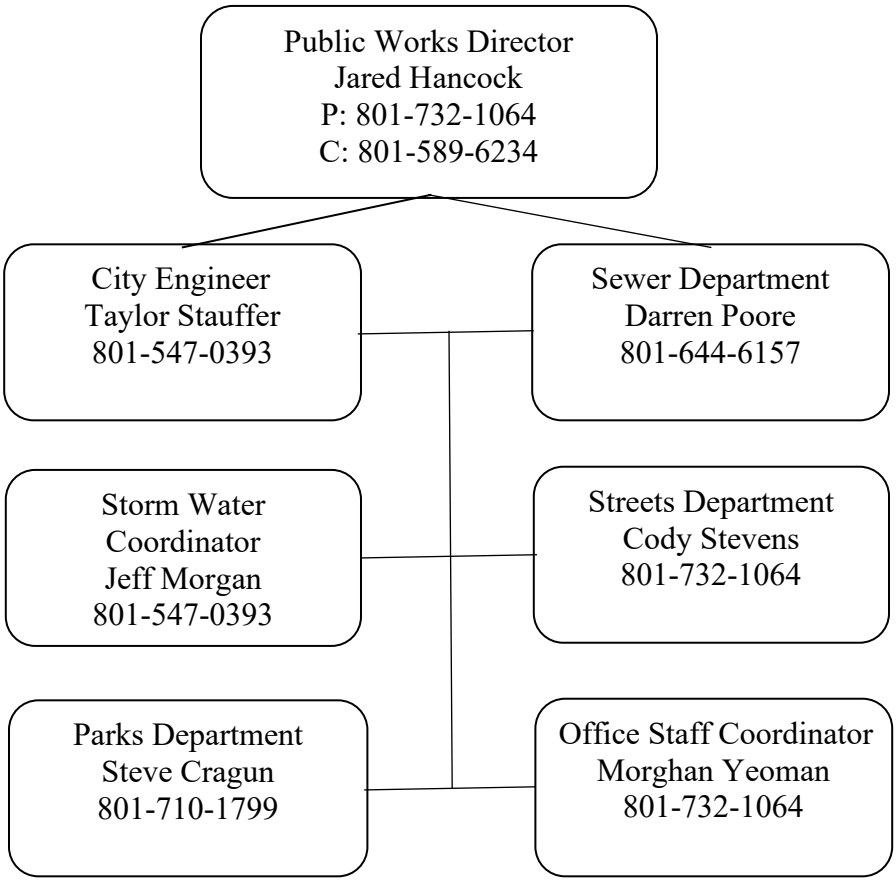
This document also contains the following information and documentation in its appendices:

- ✧ Appendix A – Supplemental Guide to Storm Water Management for Contractors and Developers
- ✧ Appendix B – Supplemental Guide to Storm Water Management for Public Works Departments
- ✧ Appendix C – Standard Operating Procedures, Documentation and Elements of the Illicit Discharge Detection and Elimination program
- ✧ Appendix D – General program documentation including inspection forms, enforcement logs, training logs, annual reports, maintenance records, observation reports, and other general documentation
- ✧ Appendix E – Copies of the most current city ordinances applicable to stormwater
- ✧ Appendix F – Copies of State permits and documents regulating the Hooper City stormwater program
- ✧ Appendix G – System maps and inventories

HOOPER CITY CHARACTERISTICS

General Information

Hooper City has a very limited public works staff. The Mayor is ultimately responsible for the storm drain system. The following organizational chart shows responsible individuals and provides their contact information.



Public Works Director

- Liaison with administration and City Council
- General coordination of the Storm Water Pollution Prevention (SWPP) program
- Responsible for the Pollution Prevention and Good Housekeeping Program
    - Keep SOPs up to date

Storm Water Coordinator

- Oversees Storm Water Program and works with Department Heads
- Responsible for Construction Program
    - Review SWPPPs
    - Coordinate permitting
    - Attend preconstruction conferences to review SWPPP requirements and expectations
    - Site inspections
- Responsible for IDDE Program
    - Dry weather screening
    - Respond to complaints or calls
    - Annual High Priority Area inspection
    - Coordinating with the Health Department
    - Track Illicit Discharge activities and reporting
    - Publicize hotline reporting
    - Educate on Household Hazardous Waste – provide information for City website
- Responsible for Public Education and Outreach Program
    - Attend Golden Spike Storm Water Coalition meetings
    - Assist with annual Water Fair
    - Provide educational information for target audiences
    - Conduct Employee Training
    - Educational information for Quarterly Newsletters
- Responsible for Long-term Runoff Control Program
    - Work with City Engineer to include long-term BMPs on new development
    - Maintain inventory of long-term BMPs in the city
    - Oversite inspections of privately owned Long-term BMP
    - Work with the City Engineer on maintenance agreements.
    - Annual inspection of City-Owned/Operated long-term BMPs
- Responsible for Public Involvement Program
    - Providing information for City Website postings
    - Keep a current version of the SWMP on the website
    - Review any public comments on the SWMP and respond appropriately
- Assist with the Pollution Prevention and Good Housekeeping Program
    - Tracking of Storm Water Program Activities
    - Conduct monthly inspections of High Priority City-Owned Facilities
    - Semi-Annual Comprehensive Inspections of High Priority City-Owned Facilities
    - Annual sampling of storm water discharges at High Priority City-Owned Facilities
    - Work with Public Works Director in keeping SOPs up to date
    - Maintain inventory of City-Owned Facilities

    - Review flood management/control facilities for water quality
- Review and Update SWMP Annually
- Annual Report
- Coordinate any Storm Water Program issues with office staff

City Engineer

- Design reviews to include long-term BMPs
- Keep storm water system mapping updated
- Help educate contractors and developers
- Provide engineering support

Parks Department Head

- Maintain parks department work activities and areas
- Pesticide, Herbicide, and Fertilizer (PHF) program
- Training parks dept. personnel
- Chemical and fertilizer storage in work area
- Parks department equipment operation
- Equipment maintenance for parks dept. equipment
- Mowing, grounds maintenance program

Streets Department Head

- Streets dept. maintenance work activities and areas
- Streets dept. equipment operation
- Equipment maintenance for street dept.
- Training streets dept. personnel
- Chemicals storage in work area
- Snow plowing program
- Street sweeping program
    - As needed
- Storm Drain box program
    - As needed
- Salt and materials storage stockpile areas
    - Stored indoors

Office Staff Coordinator

- Coordinates permitting efforts
- Responds to public input – phone calls, emails and people stopping by
- Reports complaints to Storm Water Coordinator

- Updates city website
- Assists in setting up training sessions

Some general information for Hooper City follows:

Population:	9,367 (2021 approximation)
Size:	86.6 sq. miles total 11.8 sq. miles east of the Great Salt Lake
Geographic Description:	8 miles southwest of Ogden. Located in the southwest corner of Weber County with elevations varying between 4215 to 4240 ft.
Receiving Waters:	Most of Hooper drains into either the Hooper Slough or the Howard Slough, both of which drain into the Great Salt Lake. There are small areas on the north side of town that drain into the extreme lower reaches of the Weber River. This section of the river is impaired. The defined impairments are for OE Bioassessment and Ammonia. This information was taken from the following link: http://mapserv.utah.gov/surfacewaterquality/
Annual Precipitation:	17.21 inches per year (as measured at the Ogden Sugar Factory, Antelope Island reports 15.48 inches per year)
Type of Community:	A small rural city with moderate rates of residential growth that are expected to continue for many years.
Latitude:	41°10' N
Longitude:	112°08' W
Census Bureau Place:	
Urbanized Area:	11.8 square miles excluding the Great Salt Lake and Fremont Island
Percentage of Drainage to be Permitted:	The intent is to permit the entire portion of Hooper that is east of the Great Salt Lake. The lake itself and Fremont Island are to be excluded from the permit.

The Hooper storm water system consists of a very few curbs and gutters, many miles of open ditch, culverts, a few typical piped sections, swales and canals. Most storm water facilities continue to drain into irrigation canals where they empty either into the Howard Slough or the Hooper Slough. The two sloughs wind their way westward where they each empty into the Great Salt Lake. Very few controls exist within the system. Most of

the streets use swales and ditches to collect storm water runoff with the remaining using curb and gutter. Approximately 30% of the city's sanitary sewer system consists of individual septic tanks and drain fields. Several alternative methods of individual treatment have been tried, most unsuccessfully. The city installed, owns and operates a vacuum sewer collection tank system in the city, but all new developments are required to connect to the public sanitary sewer system if they are within 300 feet times the number of lots of an existing sewer line.

History

Hooper is a relatively young city in the State of Utah. Hooper was incorporated on November 30, 2000 and has a population of approximately 8,646 people. Much of what is now the city has traditionally been devoted to agricultural land uses including the raising of animals and the cultivation of alfalfa, grain, corn and onions. The balance of the land area is largely developed with single-family dwellings on large lots (one acre or greater).

After incorporating, a decision was made to operate the City without a mill levy (property tax). Because of the rural nature of the community there is little existing infrastructure and correspondingly little revenue to work with. The current city staff consists of one Mayor who works part time for the City and two clerks who also work part time for the City, a Public Works Director, a Sewer System Director, a Streets Superintendent, and a few other full and part time Public Works Employees. The staff works closely together to handle issues as they arise.

The City currently contracts with Weber County to do maintenance on its streets. Culinary water is supplied by the Hooper Water Improvement District (HWID). In 2007 Hooper City began operating the first phases of its sanitary sewer collection system. There are still numerous septic tanks and associated drain fields. The storm drain system consists of many miles of open ditch with culverts at road crossings and driveways. A handful of the newer subdivisions have installed curb and gutter with catch basins and piping to drain to the nearest open ditch.

Local Water Quality Concerns

The surface water quality within the city of Hooper has historically been very poor. In January 2001, Parsons Engineering Science, Inc completed a study for the Weber-Morgan Board of Health, entitled *Shallow Groundwater Management Study for West Weber County*. The results of this study indicate that the shallow groundwater in this part of Weber County is high in nitrates. As a result of this study the Board of Health adopted a policy allowing no net increase in the number of septic systems within the county. It is thought that one of the main culprits leading to the high nitrates is the septic systems that have been installed in areas with a high-water table. With the limited budget available for Hooper City, the initial focus was on trying to minimize the influence of the sewage system on the water quality within the city. As the city has

slowly been progressing toward a city-wide sewer system more attention has been given to other aspects of the city's plan. Hooper is also at the bottom end of the watershed. The only thing downstream of Hooper is the Great Salt Lake. By the time water gets to Hooper through existing drainage channels, the water has been degraded.

Because of the rural agricultural nature of the city other secondary target pollutants include phosphorus and total suspended solids. Hooper's SWMP has been geared toward small city applications, targeting the pollutants mentioned.

The lower section of the Weber River is considered to be an impaired water. The listed impairments are OE bioassessment and ammonia. The northern portion of Hooper flows into the lower Weber River. Potential sources of ammonia that might be prevalent in Hooper are agricultural sources like fertilizers and animal waste, and residential sources like septic systems. The City has adopted aggressive policies to expand the sewer collection system and reduce the number of septic systems within the city.

Stormwater Advisory Committee

A steering committee was formed in the summer of 2002 for the purpose of developing the initial SWMP. Since the initial permitting an Advisory Committee reviews and oversees the stormwater program. The Advisory Committee includes:

Sheri Bingham, Mayor
Jared Hancock, Public Works Director
Taylor Stauffer, City Engineer (consultant)
Jeff Morgan, Storm Water Coordinator, Consultant

Input and recommendations from this committee were used to update this Storm Water Management Program (SWMP). Their countless hours devoted to this task are greatly appreciated and are reflected in this program.

Ongoing Documentation Process

Much of the documentation is or will be included in Appendix D. As part of this update, the existing BMPs and measurable goals have been reviewed and assessed for their effectiveness and contribution in helping us achieve our desired results. We have completed evaluation worksheets to document our review and our assessment of our current program. These evaluation sheets are found in Appendix D. This evaluation combined with new permit requirements provided the foundation for this update. We have tried to build off of the positive things that have been accomplished and renewed our commitment to improve in areas where our program has been lacking. We feel the revised program is more focused.

Our plan is to document our activities and to keep better track of what is happening within our community. We will continue to use the forms, logs, evaluation forms and backup information from the last major update. In the coming months we will focus attention on updating city standards to meet the new retention requirements.

PUBLIC EDUCATION AND OUTREACH (Section 4.2.1)

Permit Requirements

The permit requirements for Public Education and Outreach on Storm Water Impacts can be found in Section 4.2.1 of the permit. A copy of the permit is included in Appendix F for reference. The permit outlines in general the following requirements.

1. The MS4 shall promote behavior change by the public to reduce water quality impacts associated with pollutants in storm water runoff and illicit discharges. This is a multimedia approach targeted to specific audiences. The four audiences are: (1) residents (4.2.1.3), (2) institutions, industrial and commercial facilities (4.3.2.4), (3) developers and contractors (construction) (4.2.1.5), and (4) MS4 owned and operated facilities (4.2.1.6).

2. The MS4 shall identify target pollutants and pollutant sources and their potential impacts relating to storm water quality (4.3.1.1).

3. The MS4 shall provide, and document information given to the four focus audiences.

4. The MS4 must identify methods that will be used to evaluate the effectiveness of the educational messages and overall education program (4.2.1.7).

5. The MS4 shall provide documentation or rationale as to why particular BMPs were chosen for its public education and outreach program (4.2.1.8).

Summary of Existing Efforts

To-date, Hooper City has completed the following activities relative to our public education and outreach program:

- Prepared and distributed information on the proper methods for disconnecting septic tanks and drain fields for residents who have connected to the sanitary sewer system.
- Provided some general training for municipal staff.
- Encouraged and invited contractor and developer training provided by the Golden Spike Storm Water Coalition.
- Participate in the public outreach program for the Golden Spike Coalition Including:
    - Brochures and printed materials
    - A public information video
    - Annual Water Fair
    - Annual Contractor Training

Currently the city is looking at several items that, if implemented, could and will be utilized to help further the cause of public education and outreach.

Plan and Implementation Measures

To help meet the goals and objectives of this SWMP Hooper City has chosen to adopt the following BMPs. Each BMP is cross referenced alphabetically by code in Appendix B to a fact sheet that describes the BMP, its applicability, its limitations, and its effectiveness. The BMPs listed are the ones that the City has committed to utilize. Documentation of the selection/evaluation process for these BMPs can be found in Appendix D.

BMP	Code
Using Media	UM
Public Education/Participation	PEP
Classroom Education on Storm Water	CESW
Educational Materials	EM
Employee Training	ET

Goals

To more fully realize the benefits of the BMPs the city has set the following goals. The goals set along with the existing efforts fulfill the requirements of the Final Storm Water Phase II Rule for Education and Outreach.

The following table includes the goals for MCM 1.

MCM 1- Public Education and Outreach

MCM	Target		Desired Result	Measurable Goal	Milestone Date	Assoc BMPs	Measure of Success (Effectiveness)
	Pollutant(s)	Audience(s)					
1		General Public	4.2.1.2 Provide and document education outreach given to the general public.	Continue to support storm water fair through the County Coalition annually	Hold Water Fair in the Spring	PEP and UM	Water Fair is held annually
1		"	"	Create video on protecting our water ways and make available	Mar-24	PEP and UM	
1		Institutions and Commercial	4.2.1.3. Provide and document information given to institutions, industrial, and commercial facilities on an annual basis of the Permittee's prohibition against and the water quality impacts associated with illicit discharges and improper disposal of waste.	Include information on the website, through flyers, and in the newsletter	Ongoing		Track information being sent out
1	"	Engineers, Construction Contractors, Developers	4.2.1.4. & 4.2.1.6 Provide and document information given to engineers, construction contractors, developers, development review staff, and land use planners concerning the development of storm water pollution prevention plans (SWPPPs) and BMPs for reducing adverse impacts from storm water runoff from development sites.	Include information on the website, through flyers, and in the newsletter	Ongoing		Track information being sent out

MCM 1- Public Education and Outreach

1	"	"	"	Participate in Annual Contractor Training every February	Ongoing		Attend and Participate in Training
1	"	MS4 staff	4.2.1.5 Provide and document information and training given to employees of Permittee owned or operated facilities concerning the Permittee's prohibition against and the water quality impacts associated with illicit discharges and improper disposal of waste.	Annual Awareness Training	Ongoing		Document training with attendance/participation logs
1	All pollutants	All Audiences	4.2.1.7 Evaluate the effectiveness of the public education program by a defined method.	Conduct a survey by the end of the permit cycle to evaluate program effectiveness	Ongoing	PEP & UM	Conduct survey once every 5 years
1	All pollutants	All Audiences	4.2.1.8 Document why certain BMPs were chosen for public education program (over others)	Storm Water Coalition Meeting Minutes	Ongoing		Attend and Participate in Coalition

PUBLIC PARTICIPATION / INVOLVEMENT (4.2.2)

Permit Requirements

The permit requirements for Public Participation and Involvement on Storm Water Impacts can be found in Section 4.2.2 of the permit. A copy of the permit is included in Appendix F for reference. The permit outlines in general the following requirements.

1. Comply with applicable State, and local public notice requirements to involve interest groups and stakeholders for their input on the SWMP (4.2.2.1).

2. Make available to the public a current version of the SWMP document for review and input for the life of the permit. This should be posted on the City's website. A specific contact person and phone number or email address shall be identified for those wishing to comment (4.2.2.2 and 4.2.2.3).

Summary of Existing Efforts

Advisory Committee

The City has a Storm Water Advisory Committee. This committee is described on page 7 of this document.

Recycling Program

Hooper City has a Recycling Program.

Green Waste Collection

Hooper City residents are encouraged to take advantage of Weber County's Green Waste Recycling Program.

Service Groups

There are local youth and community volunteer groups that have participated in street cleanup and litter reduction.

Plan and Implementation Measures

To help meet the goals and objectives of this SWMP Hooper City has chosen to adopt the following BMPs for use within our city as applicable. Each BMP is cross referenced alphabetically by code to a fact sheet that describes the BMP, its applicability, its limitations, and its effectiveness in the indicated appendix.

BMP	Code	Appendix
Public Education/ Participation	PEP	B

Goals

To more fully realize the benefits of the BMPs the city has set the following goals. The goals set along with the existing efforts fulfill the requirements of the Final Storm Water Phase II Rule for Public Involvement and Participation.

The following table summarizes the goals for MCM 2.

MCM 2 - Public Involvement/Participation

MCM	Target		Desired Result	Measurable Goal	Milestone Date	Assoc BMPs	Measure of Success (Effectiveness)
	Pollutant(s)	Audience(s)					
2	All pollutants	General public	4.2.2.1 – Adoption of a program or policy to create opportunities for public input during the decision making process	Follow City standard notication requirements for all public meetings regarding the SWMP.	Ongoing	PEP	The program or policy is in place
2	All pollutants	General public	4.2.2.2 Have SWMP document available for public review before it's submitted to the state	Hold a public hearing when the SWMP update is completed. Make updated SWMP available prior to meeting	Week before city council meeting	PEP	SWMP document is available for public review a week before public hearing
2	All pollutants	General public	4.2.2.3 Have SWMP document available to the public at all times	Post the latest SWMP on the website	Ongoing	PEP	SWMP is updated and posted on the website
2	All pollutants	General public	4.2.2.3 Make updated SWMP document available to the public continuously	Post updated SWMP on City website	Ongoing	PEP	SWMP is updated and posted on the website annually
2	Garbage and debris	General Public	Give citizens the opportunity for hands on participation	Continue to support City recycling program	Ongoing	PEP	If program is active
2	Green Waste	General public	Give citizens the opportunity for hands on participation	Continue to support green waste programs	Ongoing	PEP	If program is active

ILLICIT DISCHARGE DETECTION AND ELIMINATION (IDDE) (4.2.3)

Permit Requirements

The permit requirements for Illicit Discharge Detection and Elimination on Storm Water Impacts can be found in Section 4.2.3 of the permit. A copy of the permit is included in Appendix F for reference. The permit outlines in general the following requirements.

1. Maintain a storm sewer system map of the MS4, showing the location of all outfalls and the names and location of all State waters that receive discharges from those outfalls (4.2.3.1).

2. Through an ordinance, or other regulatory mechanism, a prohibition (to the extent allowable under State, or local law) on non-storm water discharges into the MS4, and appropriate enforcement procedures and actions (4.2.3.2).

3. Develop and implement a plan to detect and address non-storm water discharges, including spills, illicit connections, sanitary sewer overflows, and illegal dumping to the MS4. The plan should include:

    a. Procedures for locating and listing priority areas likely to have illicit discharges (4.2.3.3.1)
    b. Annual field inspections of priority areas (4.2.3.3.2)
    c. Dry weather screening (4.2.3.3.3)
    d. Reporting of businesses that may require a separate industrial permit (4.2.3.3.4).

4. Develop and implement standard operating procedures (SOPs) for:

    a. Tracing the source of an illicit discharge (4.2.3.4).
    b. Characterizing the nature of, and the potential public or environmental threat posed by, any illicit discharges found or reported (4.2.3.5).
        i. Reporting/recording all illicit discharges (4.2.3.5.1)
    c. Ceasing the illicit discharge, including notification of appropriate authorities, property owners, and technical assistance for removing the source and follow-up inspections (4.2.3.6).

5. Inform public employees, businesses, and the general public about the hazards associated with illegal discharges and improper disposal of waste (4.2.3.7).

6. Promote or provide services for the collection of household hazardous waste (4.2.3.8).

7. Publicly list and publicize a hotline or other local number for public reporting of spills and other illicit discharges (4.2.3.9).

8. Develop a written spill/dumping response procedure, and a flowchart for internal use, including various responsible agencies and their contacts (4.2.3.9.1).

9. Adopt and implement procedures for program evaluation and assessment (4.2.3.10).

10. Train employees, at a minimum, annually on the IDDE program (4.2.3.11).

Summary of Existing Efforts

Ordinances

Hooper City has an ordinance designed to specifically prohibit illicit discharges to the storm sewer system.

Illicit Spills

Currently, reports of spills are handled by the Fire Department or County Health Department.

Converting from Septic Tanks to a Sewer Collection System

In 2007, the City implemented the initial phases of a community-wide sewage collection system. The system covers approximately 50% of the total land area within the city. The areas included in the service were high priority areas, determined by population density and potential for pollution. As part of the new sewer collection system, the City has adopted a policy requiring new development to expand the collection system if the development is within 300 feet times the number of lots of the existing sewer. A copy of this policy can be found at City Hall.

Mapping

The city has a comprehensive storm drain map showing the storm drain system and its points of discharge. A copy of this map is included in Appendix G.

Education

Hooper City participates in the Golden Spike Coalition education programs. Various efforts are applicable to different target audiences. Printed materials are also available to city staff to distribute as needed.

Plan and Implementation Measures

To help meet the goals and objectives of this SWMP Hooper City has chosen to adopt the following BMPs for use within our city as applicable. Each BMP is cross referenced alphabetically by code to a fact sheet that describes the BMP, its applicability, its limitations, and its effectiveness in the indicated appendix.

BMP	Code	Appendix
Community Hotline	CH	B,C
Employee Training	ET	B,C
Hazardous Waste Management	HWM	B,C
Illegal Dumping Control	IDC	B,C
Identify Illicit Connections	IIC	B,C
Illegal Solids Dumping Controls	ISDC	B,C
Leaking Sanitary Sewer Control	LSSC	B,C
Non-Storm Water Discharge to Drains	NSWD	B,C
Ordinance Development	OD	B,C
Public Education/ Participation	PEP	B,C
Used Oil Recycling	UOR	B,C

Goals

To more fully realize the benefits of the BMPs the city has set the following goals. The goals set along with the existing efforts fulfill the requirements of the Final Storm Water Phase II Rule for Illicit Discharge Detection and Elimination.

The following table includes the goals for MCM 3.

MCM 3 - Illicit Discharge Detection and Elimination

MCM	Target		Desired Result	Measurable Goal	Milestone Date	Assoc BMPs	Measure of Success (Effectiveness)
	Pollutant(s)	Audience(s)					
3	N/A	Public Works	4.2.3.1 – Maintain a current storm water map that includes: • Outfall locations with names and location of all State waters that receive discharge from these outfalls • Storm drain pipe and other structures	Implementing policy to have all map updates done within 12 months of final approval.	Ongoing	NSWD	Successful if 90% are input within 12 months
3	All Pollutants	All Audiences	4.2.3.2.1 – Effectively prohibit, through ordinance or other regulatory mechanism, non-SW discharges. The IDDE program must have adequate legal authority to detect, investigate, eliminate and enforce against non-SW discharges.	Review and update ordinance. Include escalating enforcement and right of access for inspections	Nov-21		If ordinance is updated
3	"	"	4.2.3.3.1 Written systematic procedures for locating and listing the following priority areas likely to have illicit discharges (if applicable to the jurisdiction)	Develop written procedure for determining priority areas.	Dec-21		Written policy in place
3	"	"	4.2.3.3.2 Field inspections of areas which are considered a priority shall be achieved by inspecting each priority area annually	Conduct field inspections of IDDE priority areas annually	Ongoing	Inspect	Successful if reports are completed and filed

MCM 3 - Illicit Discharge Detection and Elimination

MCM	Target		Desired Result	Measurable Goal	Milestone Date	Assoc BMPs	Measure of Success (Effectiveness)
	Pollutant(s)	Audience(s)					
3			4.2.3.3.3 Dry weather screening for the purpose of verifying outfall locations and detecting illicit discharges	Do Dry weather screening 20% of all outfalls each year as required in Part 4.2.3.3.3	1 July of each year	NSWD	Successful if all screens are done
3	"	"	4.2.3.3.4 Report suspected unpermitted discharges (dewatering or industrial) to the State	Develop policy to report suspected activities	Dec-21		If policy is written
3	All Pollutants	All Audiences	4.2.3.4 Develop and implement standard operating procedures for tracing the source of illicit discharge	Train on flow charts	Ongoing	IIC	Successful if training is completed and documented

MCM 3 - Illicit Discharge Detection and Elimination

MCM	Target		Desired Result	Measurable Goal	Milestone Date	Assoc BMPs	Measure of Success (Effectiveness)
	Pollutant(s)	Audience(s)					
3	All Pollutants	All Audiences	4.2.3.5 – Implement SOPs for characterizing the nature of any illicit discharges found or reported to the Permittee by the hotline developed in 4.2.3.9. The Permitee must record the following in an inspection report: • The date the Permittee became aware of the non-SW discharge • The date the Permittee initiated an investigation of the discharge • The date the discharge was observed • The location of the discharge • Description of the discharge • Method of discovery • Date of removal, repair or enforcement action • Date and method of removal verification	Train Personnel annually on the incident response flow chart	Annually	IIC, CH	Successful if employees are trained and are using the flow chart
3	All Pollutants	All Audiences	4.2.3.6 – Implement SOPs for ceasing the illicit discharge. All IDDE investigations must be thoroughly documented and may be requested at any time by the *Division* .	Annual training on the Incidence Response Flow Chart	Ongoing	IDC, ISDC	Successful if training is completed and documented

MCM 3 - Illicit Discharge Detection and Elimination

MCM	Target		Desired Result	Measurable Goal	Milestone Date	Assoc BMPs	Measure of Success (Effectiveness)
	Pollutant(s)	Audience(s)					
1	All Pollutants	Public Employees, Businesses and Residents	4.2.3.7 Inform public employees, businesses, and general public of hazards associated with illicit discharges and improper disposal of waste	See MCM 1		PEP, ET	See MCM 1
3	Household Hazardous Waste	Residents	4.2.3.8 Promote or provide services for the collection of household hazardous waste	Put the HHW Address and Phone number on City Web Site	Ongoing	UOR, HWM	If address and phone number are on website
3	Household Hazardous Waste	Residents	4.2.3.9 Publicly list and publicize a hotline or other telephone number for public reporting of spills and other illicit discharges	Put the Hotline phone number on City Web Site	Ongoing	CH	Successful if on the web site
3	All Pollutants	All Audiences	4.2.3.10 Adopt and implement procedures for program evaluation and assessment. Include a database for mapping, tracking of the spills or illicit discharges identified and inspections conducted	Track illicit discharges with a database or map	Ongoing	IIC, NSWD	Successful if complete by that date
3	All Pollutants	Staff, Contracted Staff or other responsible entities	4.2.3.11 – Receive minimum annual training in the IDDE program. Immediate training for new hires along with follow-up training as needed to address to changes. A summary of such training shall be included in the annual report.	Provide annual training of all city employees and contracted staff, including new hires	Ongoing	ET	Successful if training is completed

CONSTRUCTION SITE RUNOFF CONTROL (4.2.4)

Permit Requirements

The permit requirements for Construction Site Runoff Control on Storm Water Impacts can be found in Section 4.2.4 of the permit. A copy of the permit is included in Appendix F for reference. The permit outlines in general the following requirements

1. Have an ordinance or other regulatory mechanism requiring the implementation of proper erosion and sediment control practices on construction sites (4.2.4.1).
    a. This will include a requirement for a Storm Water Pollution Prevention Plan (SWPPP) and enforcement provisions.
    b. Ensure construction operators obtain and maintain UPDES Construction Permit coverage for the duration of the project.
    c. Require access for qualified personnel to inspect the construction site. *NEW RULES FOLLOWING HB 507 BEGINNING 1/1/25*

2. Develop a written enforcement strategy including:
    a. Standard Operating Procedures (SOPs) for enforcing processes and sanctions on construction sites with escalating enforcement.
    b. Document and track all enforcement actions.

3. Develop and implement SOPs for preconstruction SWPPP review. Include the following:
    a. A preconstruction conference to review plans and requirements.
    b. Identifying priority construction sites.

4. Develop and implement SOPs for construction site inspections and enforcement including:
    a. Inspecting sites monthly.
    b. Inspecting all phases of construction.
    c. Inspecting priority areas every two weeks.
    d. Follow up on inspection action items.

5. Train staff to implement the construction storm water program, including permitting, plan review, construction site inspections, and enforcement.

6. Establish procedures to maintain records of all projects disturbing greater than or equal to one acre, including projects less than one acre that are part of a larger common plan of development.

Summary of Existing Efforts

City Ordinances

The City currently has an ordinance that requires a storm water construction activity permit for construction activities. The application for this permit requires a completed Notice of Intent filed with the State Department of Environmental Quality and an approved Storm Water Pollution Prevention Plan (SWPPP).

Site Plan Review Process
The City currently has a procedure requiring the submittal of construction drawings prior to approving a new development. This process does not specifically require water quality impacts to be considered.

Inspectors
The City has qualified inspectors making monthly inspections at all construction sites.

Training
The City makes sure all staff associated with the construction of projects is trained annually.

Standard Drawings and Specifications
The city has a set of standard drawings and specifications for subdivision site development.

Plan and Implementation Measures

To help meet the goals and objectives of this SWMP Hooper City has chosen to adopt the following BMPs for use within our city as applicable. Unlike some of the other minimum control measures, this is one where the majority of the BMPs listed will be utilized by contractors. Because of this, two lists of BMPs have been prepared; ones to be implemented by the City, the other is simply a list of BMPs that the city will consider approving on construction sites. Specific BMPs will vary for each site depending on the individual circumstances at each site. Each BMP is cross referenced alphabetically by code to a fact sheet that describes the BMP, its applicability, its limitations, and its effectiveness in the indicated appendix.

City Implemented BMPs

BMP	Code	Appendix
Certification and Inspector Training	CCIT	A,B
Erosion Control Plan	ECP	A,B
Landscape and Irrigation Plan	LIP	A,B
Ordinance Development	OD	A,B
Zoning	ZO	A,B

Goals

To more fully realize the benefit of the BMP the city has set the following goals. The goals set along with the existing efforts fulfill the requirements of the Final Storm Water Phase II Rule for Construction Site Runoff Control.

The following table includes the goals for MCM 4.

MCM 4 - Construction Site Runoff Control

MCM	Target		Desired Result	Measurable Goal	Milestone Date	Assoc. BMP	Measure of Success (Effectiveness)
	Pollutant(s)	Audience(s)					
4	Sediment, Construction Site Debris, Hydrocarbons	Contractors and Developers	4.2.4.1.1 The ordinance or other regulatory mechanism shall, at a minimum, require construction operators to prepare a Storm Water Pollution Prevention Plan (SWPPP) and apply sediment and erosion control BMPs as necessary to protect water quality	Require a SWPPP for every construction site over one acre	Ongoing	OD	Successful if 95% of all active construction sites have a working SWPPP
4			4.2.4.1.3 The ordinace shall include a provision for access by qualified personnel to inspect construction storm water BMPs	Make sure the ordinance allows access for inspectors	Dec-21		
4	Sediment, Construction Site Debris, Hydrocarbons	Contractors and Developers	4.2.4.2 – Develop a written enforcement strategy and implement the enforcement provisions of the ordinance or other regulatory mechanism which shall include: • SOPs • Documentation and tracking of all enforcement actions	Enforce ordinance to include escalating enforcement provisions	Ongoing	OD	Successful if tracking enforcement actions
4			4.2.4.2.1 - Standard Operating Procedures that include specific processes and sanctions to minimize the occurrence of violations and obtain compliance from violators.	Review and update SOPs for inspections and enforcement actions	Dec-21		

MCM 4 - Construction Site Runoff Control

MCM	Target		Desired Result	Measurable Goal	Milestone Date	Assoc. BMP	Measure of Success (Effectiveness)
	Pollutant(s)	Audience(s)					
4	"	"	4.2.4.2.2 Documentation and tracking of all enforcement actions	Continue using a construction site enforcement action log/database	Ongoing	OD	Successful if we have a log and are using it
4	Sediment, Construction Site Debris, Hydrocarbons	Contractors and Developers	4.2.4.3. Development and implementation of a checklist for pre-construction SWPPP review that is consistent with the requirements of the current UPDES Storm Water General Permits for Construction Activities	Use checklist to do preconstruction reviews of SWPPP	Ongoing	ECP	Successful if we are conducting SWPPP reviews
4	"	"	4.2.4.3.1 – Conduct a pre-construction SWPPP meeting	Hold Pre-con meetings with water quality issues on the agenda on all sites greater than 1 acre or as part of common plan of development	Ongoing	ECP	Successful if we are conducting Pre-con meetings
4	"	"	4.2.4.3.2 – Identify priority construction sites	Review construction projects using SWPPP preconstruction review to determine if site is a priority.	Ongoing	ZO	Successful if we have post construction BMPs on 50% of projects

MCM 4 - Construction Site Runoff Control

MCM	Target		Desired Result	Measurable Goal	Milestone Date	Assoc. BMP	Measure of Success (Effectiveness)
	Pollutant(s)	Audience(s)					
4	Sediment, Construction Site Debris, Hydrocarbons	Contractors and Developers	4.2.4.4.1 Inspections of all new construction sites ... at least monthly by qualified personnel	Conduct monthly inspections of all construction sites - Emphasize self inspections - sensitive areas to be inspected twice monthly	Ongoing	CCIT	Successful if 90% of all active construction sites are inspected monthly and reports filed
4	"	Contractors, developers and MS4 staff	4.2.4.4.2 ...The Permittee must document in its SWMP the procedure for being notified by construction operators/owners of their completion of active construction so that verification of final stabilization and removal of all temporary control measures may be conducted.	Support State's on-line process	Ongoing	ECP	Successful if 95% of all active construction sites are terminated appropriately
4	"	Contractors, developers and MS4 staff	"	Train SWPPP inspectors, their supervisors, and any personnel who grant final occupancy permits on the NOT process	Ongoing	ECP	Successful if 95% of all active construction sites are terminated appropriately
4	"	"	4.2.4.4.3 Conduct Bi-weekly inspections on high priority construction sites	Inspect high priority sites	Ongoing	ECP	Successful if all high priority sites are inspected bi-weekly and reports filed

MCM 4 - Construction Site Runoff Control

MCM	Target		Desired Result	Measurable Goal	Milestone Date	Assoc. BMP	Measure of Success (Effectiveness)
	Pollutant(s)	Audience(s)					
4	"	"	4.2.4.4.5 Based on site inspection findings, the Permittee must take all necessary follow-up actions (i.e., re-inspection, enforcement) to ensure compliance in accordance with the Permittee's enforcement strategy. These follow-up and enforcement actions must be tracked and documented.	Track and document all follow-up and enforcement actions	Ongoing		Completed log of follow-up and enforcement actions
4	"	Contractors, developers and MS4 staff	4.2.4.5 Provide training to city staff and 3rd party designers	Enforce a city policy to require all SWPPP inspectors to be RSI inspectors within 6 months	Ongoing	CCIT	Successful if all SWPPP inspectors are RSI
4	"	"	4.2.4.6 Maintain a log of active construction sites	Maintain an active log	Ongoing	ECP	Successful if active construction sites are recorded in the log

LONG TERM STORM WATER MANAGEMENT (4.2.5)

Permit Requirements

The permit requirements for Long-Term Storm Water Management in New Development and Redevelopment can be found in Section 4.2.5 of the permit. A copy of the permit is included in Appendix F for reference. The permit outlines in general the following requirements:

1. Develop requirements or standards for new development and redevelopment projects to include storm water controls or management practices that will prevent or minimize impacts to water quality, including:

    a. Non-structural BMPs. (4.2.5.1.1)
    b. Requiring the prevention of off-site discharge of the 80th percentile storm for all new development sites. (4.2.5.1.2)
    c. Requiring no net gain in storm water runoff for redevelopment sites that result in an increase of more than 10% of impervious area. (4.2.5.1.2)
    d. Requiring structural BMPs that focus on Low Impact Development which encourage infiltration, evapotranspiration or harvesting. (4.2.5.1.3)
    e. Including details of at least five LID practices in the City's standard detail sheets. (4.2.5.1.3)
    f. If LID is not feasible, document why and provide the rationale for alternative controls to be used. (4.2.5.1.4)
    g. Recommend using a Storm Water Quality Report for documenting a given project. (4.2.5.1.4)

2. Have an ordinance or other regulatory mechanism requiring the implementation of long-term post-construction storm water controls at new and redevelopment sites, including:

    a. Developing an enforcement strategy and implementing enforcement provisions of the ordinance including escalating enforcement for recalcitrant violators. (4.2.5.2.1)
    b. Maintain documentation of how decisions were made for items required in the ordinance, i.e., what the expected results are from the requirements and how BMPs were selected. (4.2.5.2.2)
    c. Developing SOPs for site inspection of permanent water quality facilities both during construction to ensure they are constructed correctly and after construction to ensure they operate correctly and are being properly maintained. (4.2.5.2.2)
    d. Address maintenance concerns for all permanent facilities that are not owned or operated by the MS4. (4.2.5.2.3)

e. Through inspection during the construction process, ensure all long-term structural BMPs are constructed as designed. (4.2.5.2.4).
f. Through the yearly, dry weather screening process, ensure that long-term stormwater BMPs are being properly maintained and are functioning as intended. (4.2.5.2.5)

3. Adopt and implement procedures for site plan review which incorporate consideration of water quality impacts These procedures shall include:

    a. Reviewing plans to ensure that they include long-term storm water management measures that meet the City standards and requirements. (4.2.5.3.2)

4. Maintain an inventory of all public and private post-construction structural storm water control measures and facilities, including: (4.2.5.4)

    a. Basic facility information as part of the inventory. (4.2.5.4.1)
    b. Yearly updates to keep the list current. (4.2.5.4.2)

5. Provide yearly training of staff concerning post-construction storm water management, plan review, inspections and enforcement. (4.2.5.5)

Summary of Existing Efforts

Ordinances

The City is updating its ordinance to require onsite retention as per the UPDES permit requirements.

Low Impact Development Practices

Historically, Hooper City has been known as a rural farming community. There is a strong desire to maintain that identity. As such, the City has discouraged development on small lot sizes. There are State statutes that require “affordable housing”. These statutes have required that the City allow for a certain percentage of smaller lot sizes. Outside of these requirements the City has tried to limit a majority of individual building lot sizes to 0.5 acres or more. Larger lot sizes decrease the percentage of the lot that is impermeable, allowing for more infiltration and on-site retention of storm water.

The city has adopted LID practices that are compatible with the character of the city and may not be some of the more popular practices implemented in more urban areas.

The City has implemented a new LID Handbook to assist the development community in evaluating LID alternatives and selecting and sizing appropriate BMPs.

LID feasibility in Hooper is going to be limited. The average water table in Hooper is probably no more than 2 to 3 feet below the existing ground surface. Historically, conventional septic tank and drain fields have not been very successful. Detention basins typically are limited in depth because ground water fills them if they are too deep. The City's LID Handbook details standards that need to be met for infiltration to be feasible. This new manual will be the foundation of the new LID program.

Post Construction BMPs

When LID practices are not feasible, development will be required to install BMPs that will filter or otherwise help clean the storm water before discharging it. Each of these new facilities is inspected annually, with the City conducting oversite inspections at least once every five years.

Landscaping Plans

Developers are required to outline a landscaping plan of the proposed development to the City as part of the development review process.

Plan and Implementation Measures

To help meet the goals and objectives of this SWMP Hooper City has chosen to adopt the following BMPs for use within our city as applicable. Each BMP is cross referenced alphabetically by code to a fact sheet that describes the BMP, its applicability, its limitations, and its effectiveness in the indicated appendix.

BMP	Code	Appendix
BMP Inspection and Maintenance	BMPIM	A,B
Educational Materials	EM	A,B
Infrastructure Planning	IPL	A,B
Landscape and Irrigation Plan	LIP	A,B
Land Use Planning / Management	LUPM	A,B
Zoning	ZO	A,B
Grassed Swales	GS	A,B
Open Space Design	OSD	A,B
Ordinance Development	OD	A,B
Biofilters	BF	
Conservation Easements	CE	
Minimizing Directly Connected Impervious Areas	DCIA	
Filter Strips	FS	
Floatable Skimmers	FS	
Infiltration	IN	

BMP	Code	Appendix
Seeding and Planting	SP	

Development Site Possible Post Construction BMPs

Goals

To more fully realize the benefit of the BMP the City has set the following goals. The goals set along with the existing efforts fulfill the requirements of the Final Storm Water Phase II Rule for Post Construction Runoff Control.

The following table includes the goals for MCM 5.

MCM 5 - Post Construction Runoff Control

MCM	Target		Permit Reference/Desired Result	Measurable Goal	Milestone Date	Assoc. BMP	Measure of Success (Effectiveness)
	Pollutant(s)	Audience(s)					
5			4.2.5.2.3 Require private property owner/operators or qualified third parties to conduct maintenance and provide annual certification that adequate maintenance has bee performed on long term water quality facilities	Require maintenance agreements on all privately owner water quality facilities	Dec-21		
5	"	"	4.2.5.2.4 - Permanent structural BMPs shall be inspected at least once during installation by qualified personnel.	Inspect all permanent facilities at least once during construction	Ongoing		Include a column on the inventory of long term BMPs for construction inspections. Track inspections using the inventory
5	"	"	4.2.5.2.5 Inspections and any necessary maintenance must be conducted at least every other year or as necessary to maintain functionality of the control by the Permittee, or, if applicable, the property owner/operator.	Provide a column on the permanent BMP inventory to track the last inspection.	Ongoing		
5	"	"	"	Set up a schedule for inspections every other year	Ongoing		

MCM 5 - Post Construction Runoff Control

MCM	Target		Permit Reference/Desired Result	Measurable Goal	Milestone Date	Assoc. BMP	Measure of Success (Effectiveness)
	Pollutant(s)	Audience(s)					
5	"	MS4 Staff, Contractors and Developers	4.2.5.3.1 Adopt and implement procedures for site plan review which evaluate water quality impacts. The procedures shall apply through the life of the project from conceptual design to project closeout.	Discuss water quality requirements at all meetings with Developers. Add water quality requirements to all Developer handout materials	Ongoing		
5	"	MS4 Staff, Contractors and Developers	4.2.5.3.2 Review post-construction plans for, at a minimum, all new development and redevelopment sites to ensure that the plans include long-term storm water management measures that meet the requirements of this minimum control measure.	Add long-term storm water management measures to all review checklists	Dec-21		
5	"	MS4 Staff	4.2.5.4 The Permittee must maintain an inventory of all post-construction structural storm water control measures installed and implemented at new development and redevelopment sites. This inventory must include both public and private sector sites that were developed since the Permittee obtained coverage by this permit or the date that post construction requirements came into effect.	Inventory log updated annually	Ongoing		If log is updated

MCM 5 - Post Construction Runoff Control

MCM	Target		Permit Reference/Desired Result	Measurable Goal	Milestone Date	Assoc. BMP	Measure of Success (Effectiveness)
	Pollutant(s)	Audience(s)					
5	"	MS4 staff	4.2.5.5. Permittees shall provide adequate training for all staff involved in post-construction storm water management, planning and review, and inspections and enforcement.	Schedule and conduct training for appropriate personnel	Annually	BMPIM	If all appropriate personnel are trained

POLLUTION PREVENTION / GOOD HOUSEKEEPING (4.2.6)

Permit Requirements

The permit requirements for Pollution Prevention and Good Housekeeping on Storm Water Impacts can be found in Section 4.2.6 of the permit. A copy of the permit is included in Appendix F for reference. The permit outlines in general the following requirements:

1. Maintain an inventory of city-owned or operated facilities and storm water controls. Assess said list for their potential to discharge typical urban pollutants to the storm water system. (4.2.6.1)

2. Identify common pollutants that may originate from city owned facilities. (4.2.6.2)

3. Identify 'high-priority' facilities or operations that have a high potential to generate storm water pollutants. Provide water quality control measures at these 'high priority' facilities. (4.2.6.3)

4. Develop and implement a SWPPP for all "high priority" facilities (4.2.6.4)

5. Conduct the following inspections of "high priority" facilities:

    a. Monthly visual inspections. (4.2.6.5.1)
    b. Semi-annual comprehensive inspections. (4.2.6.5.2)
    c. Annual visual observation of storm water discharges. (4.2.6.5.3)

6. Include Standard Operating Procedures (SOPs) specific to municipal operations. These SOPs shall include appropriate pollution prevention and good housekeeping procedures for all of the following types of facilities and/or activities listed below:

    - Buildings and facilities
    - Material storage areas
    - Heavy equipment storage areas and maintenance areas
    - Parks and open spaces
    - Vehicle and equipment maintenance and storage areas
    - Roads, highways, and parking lots
    - Storm water collection and conveyance system

    a. SOPs should include maintenance schedules, regular inspections and cleaning activities. (4.2.6.6.2)
    b. SOPs should include solid waste disposal procedures. (4.2.6.6.3)
    c. SOPs should include liquid waste disposal procedures. (4.2.6.6.4)
    d. Development of a Spill Prevention Plan. (4.2.6.6.5)

e. Maintain a floor drain inventory for all MS4 owned facilities (4.2.6.6.6)

7. If a third-party is to conduct municipal maintenance or if private developments conduct their own maintenance, the contractor shall be held to the same standard as the City. This should be outlined and defined in contracts during the development process. (4.2.6.7)

8. Develop and implement a process to assess the water quality impacts in the design of all new flood management structural controls that are associated with the MS4. (4.2.6.8)

9. Develop and implement a retrofit plan for existing sites that the City owns and operates that are adversely impacting water quality. (4.2.6.9)

10. Include annual employee training on how to incorporate pollution prevention and good housekeeping techniques into municipal operations, including SOPs. (4.2.6.10)

Summary of Existing Efforts

Existing Maintenance Program
The City currently maintains inlet boxes, pipes, and other MS4 improvements on an as-needed basis.

Inventory of City Owned Facilities
The City maintains a list of all city owned facilities and has identified 'high priority' facilities. The Public Works yard has no discharge to the storm drain collection system and has not been listed as 'high priority'.

High Priority City Owned Facilities
The City Cemetery is the highest priority city owned facility. No real maintenance activities occur at this facility. Soils from grave excavation are temporarily stored in a dump truck until the grave is backfilled. A SWPPP has been developed for this site.

SOPs
The City has developed SOPs for many routine activities. They can be found here: http://www.webercountyutah.gov/Engineering/swm/documents/swmp/appendix_b.pdf

Employee Training
The City conducts periodic training of staff concerning pollution prevention and good housekeeping SOPs.

Plan and Implementation Measures

To help meet the goals and objectives of this SWMP Hooper City has chosen to adopt the following BMPs for use within our city as applicable. Each BMP is cross referenced alphabetically by code to a fact sheet that describes the BMP, its applicability, its limitations, and its effectiveness in the indicated appendix.

BMP	Code	Appendix
Catch Basin Cleaning	CBC	A,B
Housekeeping Practices	HP	A,B
Infrastructure Planning	IPL	A,B
Septic System Controls	SSC	A,B
Storm Drain System Cleaning	SDF	A,B
Employee Training	ET	A,B

Goals

To more fully realize the benefit of the BMP the city has set the following goals. The goals set along with the existing efforts fulfill the requirements of the Final Storm Water Phase II Rule for Pollution Prevention/Good Housekeeping.

The following table includes the goals for MCM 6.

MCM 6 - Pollution Prevention
Good Housekeeping

MCM	Target		Desired Result	Measurable Goal	Milestone	Assoc.	Measure of Success
	Pollutant(s)	Audience(s)			Date	BMP	(Effectiveness)
6			4.2.6.1 The Permitee shall develop and keep current a written inventory of all potential "high priority" facilities that are owned or operated by the Permittee	Review the list annually and update as needed	Ongoing		
6	All Pollutants	MS4 Staff	4.2.6.2 All permittees shall assess the written inventory of Permittee-owned or operated facilities, operations and storm water controls for their potential to discharge to storm water typical urban pollutants	Reevaluate existing city-owned facilities	Nov-21	HP	If evaluation sheets are complete for each facility on the list
6	All Pollutants	MS4 Staff	4.2.6.4 The permittee shall update the SWMP to include a list of "high priority" facilities and prepare a SWPPP for each facility.	After re-evaluation create a "high priority" list	Nov-21	HP	If list is prepared
6	"	"	4.2.6.4 … prepare a Storm Water Pollution Prevention Plan (SWPPP) for each "high priority" facility	Prepare a SWPPP for each "high priority" facility	Dec-21		If SWPPPs are prepared
6	All Pollutants	MS4 staff	4.2.6.5.1 Monthly visual inspections: The Permittee must perform weekly visual inspections of “high priority” facilities in accordance with the developed SOPs to minimize the potential for pollutant discharge.	Conduct monthly inspections	Ongoing	HP	If at annual review all weekly inspections are logged and reports completed

MCM 6 - Pollution Prevention
Good Housekeeping

MCM	Target		Desired Result	Measurable Goal	Milestone Date	Assoc. BMP	Measure of Success (Effectiveness)
	Pollutant(s)	Audience(s)					
6	"	"	4.2.6.5.2 Semi-annual comprehensive inspections: At least once every six months, a comprehensive inspection of “high priority” facilities, including all storm water controls, must be performed	6.3 Conduct semi-annual comprehensive inspections	Ongoing	HP	If at annual review all quarterly inspections are logged and reports completed
6	"	"	4.2.6.5.3 Annual visual observation of storm water discharges: At least once a year, the Permittee must visually observe the quality of the storm water discharges from the “high priority” facilities	6.4 Conduct annual visual observations of storm water discharges at high priority facilities	Ongoing	HP	If at annual review all quarterly visual monitoring is completed and logged and reports completed
6	"	"	4.2.6.6. Permittees shall develop and implement SOPs to protect water quality at each of the facilities owned or operated by the Permittee and/or activities conducted by the permittee	Develop and/or update appropriate SOPs for facilities	Dec-21	HP	If SOPs are updated and current by milestone date
6	"	"	4.2.6.6.5 The Permittee shall dvelop a spill prevention plan in coordination with the local fire department	Prepare a spill prevention plan	Ongoing	HP	If spill prevention plan is in writing
6	"	"	4.2.6.6.6 All Permittees must maintain an inventory of all floor drains inside all Permittee-owned or operated buildings.	Inventory floor drains	Ongoing	HP	If there is a written inventory

MCM 6 - Pollution Prevention
Good Housekeeping

MCM	Target		Desired Result	Measurable Goal	Milestone Date	Assoc. BMP	Measure of Success (Effectiveness)
	Pollutant(s)	Audience(s)					
6			4.2.6.7 The Permittee shall be responsible for ensuring, through contractually-required documentation and/or periodic site visits that contractors perfomring Operation and Maintenance activities for the Permittee are using appropirate storm water controls	Review standard contractor/vendor contract language to include water quality concerns			
6	"	MS4 Staff, Contractors and Developers	4.2.6.8. The Permittee must develop and implement a process to assess the water quality impacts in the design of all new flood management structural controls that are associated with the Permittee or that discharge to the MS4.	Draft a policy/process to assess water quality impacts on all new flood control projects	Dec-21	IPL	To be included in LID Handbook
6	"	"	"	Enforce policy	Ongoing	IPL	If policy is approved and adopted by milestone date
6	"	MS4 staff	4.2.6.8.1 Existing flood management structural controls must be assessed to determine whether changes or additions should be made to improve water quality.	Identify places where existing infrastructure needs to be modified to improve water quality	Ongoing		If there is a written inventory

MCM 6 - Pollution Prevention
Good Housekeeping

MCM	Target		Desired Result	Measurable Goal	Milestone Date	Assoc. BMP	Measure of Success (Effectiveness)
	Pollutant(s)	Audience(s)					
6	"	"	4.2.6.9 The Permittee must develop a plan to retrofit existing developed sites that the Permittee owns or operates that are adversely impacting water quality.	Develop and implement a plan to retrofit those existing locations that need to be improved			Provide column on City-owned or operated facilities inventory to mark those adversley impacting water quality
6	"	"	4.2.6.10. Permittees shall provide training for all employees who have primary construction, operation, or maintenance job functions that are likely to impact storm water quality.	100% of topics covered annually with appropriate personnel	Ongoing	ET	If training is completed and documented according to schedule at annual evaluation

APPENDIX A

APPENDIX A

TABLE OF CONTENTS

Special Environmental Considerations

Discharges to Water Quality Impaired Waters

There are no known impaired waters in Hooper City.

The 303(d) list of impaired waterbodies is found at:
http://www.waterquality.utah.gov/TMDL/index.htm

Threatened or Endangered Species

A quick review of area threatened and endangered species indicates that the following species may have current and/or historic habitats that may overlap into the general Hooper area:

- Grizzly Bear – Historic
- Bald Eagle – Historic
- Peregrine Falcon – Current and Historic

Where applicable, compliance efforts to this law shall be reflected in the SWMP document. (Small MS4 General UPDES Permit 3.2) The following web sites are helpful in determining the status of any species of interest.

http://wildlife.utah.gov/habitat/pdf/endgspec.pdf.

http://www.fws.gov/endangered/

Historic Properties

Where applicable, compliance efforts to this law shall be reflected in the SWMP document. (Small MS4 General UPDES Permit 3.2) Web sites include the following, along with possible county and city listings:

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

HYDROLOGIC METHODS AND DESIGN STANDARDS

4.2.5.3. The Permittee's new development/redevelopment program must have requirements or standards to ensure that any storm water controls or management practices for new development and redevelopment will prevent or minimize impacts to water quality.

4.2.5.3.4 Each Permittee shall develop and define specific hydrologic method or methods for calculating runoff volumes and flow rates to ensure consistent sizing of structural BMPs in their jurisdiction and to facilitate plan review. Specific criteria which require that Best Management Practices (BMPs) are designed to treat the water from a specific design storm (e.g., the 2-year, 24-hour event) must be incorporated into the permittee's post-construction minimum control measure and documented in the SWMP. Permittees may allow other unique or complex methodologies.

DESIGN STANDARDS SHOULD INCLUDE:
In developing/revising standards you are encourage (not required) to work with neighboring communities to develop consistency with analytical methods within the same watershed. The following subjects should be addressed.

1. Hydrology
    a. Design storm (frequency and duration) for peak flows
    b. Design storm for piping (____yr- ____hr event)
    c. Design storm for storage (____yr- ____hr event)
    d. Design storm for construction site BMPs (____yr- ____hr event)
    e. Storm hydrograph (unit hydrograph, Farmer-Fletcher, etc…)
2. Hydrologic methods
    a. See handouts for options and applications
3. Storage
    a. Peak discharge allowances
        i. 0.2 cfs per acre?? (should not be a standard)
        ii. Match predevelopment runoff hydrograph
    b. Minimum storage requirements
    c. Freeboard requirements
    d. Maximum depths
    e. Dimensional requirements (length/width ratios)
    f. Water quality requirements
4. System policies
    a. No stormwater in irrigation ditches and canals
    b. On-site detention required
    c. Deal with storm water at the source
    d. Underground Injection Wells (UIW)
5. Permitting requirements
    a. Possible Storm Water Utility Credits
    b. Activity and Connection Permits
    c. Possible Permits from others: 404, Stream Alteration

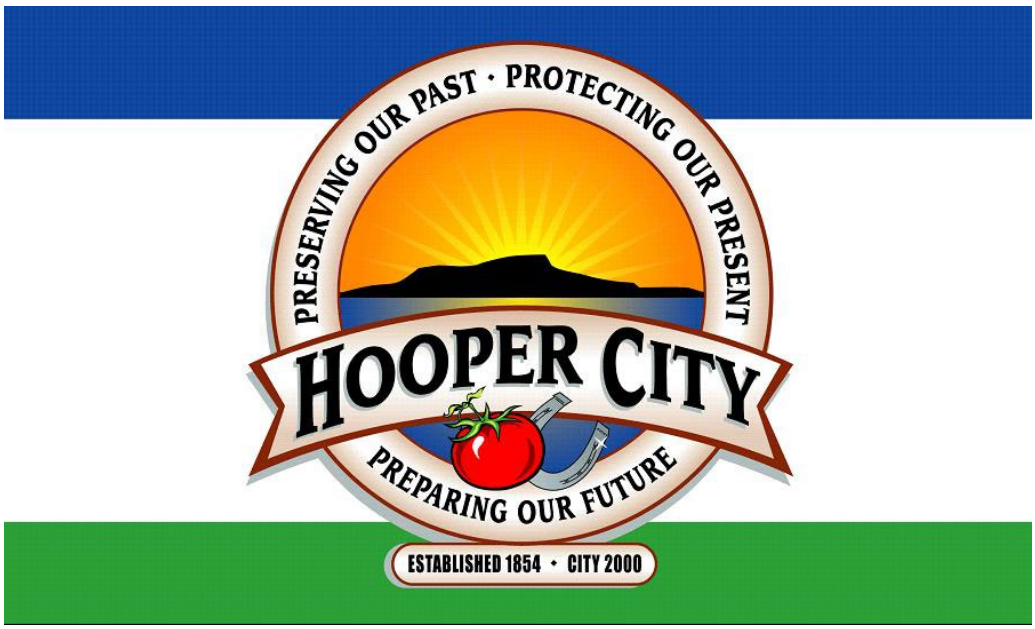
HOOPER CITY'S CURRENT DESIGN STANDARDS CAN BE FOUND IN OUR ZONING AND SUBDIVISION ORDINANCE – TITLE 10

4.2.6.7. The Permittee must develop and implement a process to assess the water quality impacts in the design of all new flood management structural controls that are associated with the Permittee or that discharge to the MS4. This process must include consideration of controls that can be used to minimize the impacts to site water quality and hydrology while still meeting project objectives. A description of this process must be included in the SWMP document

4.2.6.8. Construction Projects. Public construction projects shall comply with the requirements applied to private projects. All construction projects disturbing greater than or equal to one acre, including projects less than one acre that are part of a larger common plan of development or sale, owned or operated by the Permittee are required to be covered under the General UPDES Permit for Storm Water Discharges Associated with Construction Activities. All public projects approved after the effective date of this Permit shall include construction and post-construction controls selected and implemented pursuant to the requirements in Parts 4.2.4. and 4.2.5.

Ideas for including water quality on all projects

1. Review Storm Drain Master Plan for opportunities to include water quality projects or water quality aspects to Capital Improvement Projects.
2. Update Master Plan to include water quality issues.
3. During conceptual design review meetings – ask the questions –
    a. *Is there opportunity to include water quality aspects to this project?*
    b. *Are there any highly impacted areas?*
    c. *Are there low-impact development concepts and ideas that might work for this project?*
    d. *Can we limit directly connected impervious areas (DCIA) on this project?*
    e. *What could be done to minimize runoff?*
4. Train all employees, contractors and developers on SOP's and BMP's for all projects.
5. Include SWPPP discussion as part of the agenda for preconstruction meetings for all projects.
6. Look for "green money" funding options for water quality aspects of all projects.
7. Follow normal SWPPP review process/checklist review for all projects.



LOW IMPACT DEVELOPMENT HANDBOOK 2021

Prepared by:

J·U·B ENGINEERS, INC.

https://www.hoopercity.com/sites/default/files/fileattachments/community_development/page/5284/hooper_lid_handbook.pdf

COMMON PLAN
SWPPP Preconstruction Submittal and Review Checklist

The SWPPP has been reviewed,

☐ no exceptions have been taken _____Date:_____

☐ please make updates as noted and resubmit _____ Date:_____

Name of Development: Submittal Date:

Owner: Phone:

Operator: Phone:

Inspector: Phone:

Responsible Contact: Phone:

Reviewed by _____ City (date): (name):

The following items shall be included on the SWPPP. **Check the spaces below indicating that each item is included or is not applicable, and then submit this form to Hooper City with the SWPPP.** Heading numbers correspond to sections in the Utah Common Plan SWPPP Template. References are given from both the Small MS4 General UPDES Permit (sections 4.2 and 7) and the Construction General Permit (section 3.5).

Included	N/A	SWPPP Requirement
1 – Project Information		
☐	☐	Owner(s)
☐	☐	General Contractor
Yes	No	
☐	☐	In Indian Country?
☐	☐	Single lot residential, disturbing less than one acre
2 – Pollution Sources/Best Management Practices		
Yes	No	
☐	☐	2.1 SWPPP Sign on site? – (A SWPPP sign is required)
☐	☐	2.2 Will there be construction dewatering?
☐	☐	2.3 Will there be non-storm water discharges on site?
☐	☐	2.4 Will the project be phased?
☐	☐	2.5 Identified perimeter controls?
☐	☐	2.6 Surface waters within 30 feet of project disturbances?
☐	☐	2.7 Critical or sensitive areas on or near site?
☐	☐	2.8 Identified track out control?
☐	☐	2.9 SD Inlets on or down gradient of site?

Yes	No		
☐	☐	2.10	Will curb ramps be used at the site?
☐	☐	2.11	Stockpiles or spoil piles on site?
☐	☐	2.12	Will there be concrete, masonry, stucco or paint used?
☐	☐	2.13	Identified handling of solid waste?
☐	☐	2.14	Solvent, oil, fuel, etc. liquid waste disposal?
☐	☐	2.15	Identified sanitary waste handling?
☐	☐	2.16	Minimizing discharge from spills and leaks
☐	☐	2.17	Storing construction materials on site?
☐	☐	2.18	Slopes greater than 70%?
☐	☐	2.19	High velocity storm water flows?
☐	☐	2.20	Identified measures to minimize sediment transport, channel & stream bank erosion?
☐	☐	2.21	Site dust control?
☐	☐	2.22	Temporary stabilization of disturbed areas?
☐	☐	2.23	House to be sold without landscaping?

3 – Sequence of Construction Activity

☐	☐	Start and End of Project?
☐	☐	Excavation activities start and stop dates?
☐	☐	Foundation/Footings start and stop dates?
☐	☐	Backfill start and stop dates?
☐	☐	Building erection start and stop dates?
☐	☐	Utility work start and stop dates?
☐	☐	Landscaping start and stop dates?

4 – Site Map

Included	N/A	
☐	☐	Project/Property boundaries
☐	☐	Disturbance boundaries
☐	☐	Site slopes
☐	☐	Location of structures/facilities
☐	☐	Stockpile locations
☐	☐	Construction supplies
☐	☐	Portable toilets
☐	☐	Garbage/trash containers
☐	☐	Egress points/track out pads
☐	☐	Concrete washout pits or containers
☐	☐	Water bodies, wetlands, natural vegetative buffers
☐	☐	BMPs, perimeter, erosion control, sediment control, inlet protection
☐	☐	Storm water inlets and discharge points
☐	☐	Temporary and permanent stabilization
☐	☐	Phasing of disturbance

5 – Potential Sources of Pollutants

Included	N/A	
☐	☐	Pesticides
☐	☐	Fertilizer
☐	☐	Plaster

Included	N/A	
☐	☐	Cleaning solvents
☐	☐	Asphalt
☐	☐	Concrete
☐	☐	Glue, adhesives
☐	☐	Paints
☐	☐	Curing compounds
☐	☐	Wood preservatives
☐	☐	Hydraulic oil/fluids
☐	☐	Gasoline
☐	☐	Diesel Fuel
☐	☐	Kerosene
☐	☐	Antifreeze/Coolant
☐	☐	Sanitary toilets

6 – Spill Prevention and Response Plan

☐	☐	Spill Plan?
☐	☐	Fire Department Number?
☐	☐	Police Department Number?
☐	☐	City Hall Number?

7 – SWPPP, Inspections and Corrective Action Reports

☐	☐	General procedures for correcting problems

8 – Training of Sub-Contractors

☐	☐	Excavator
☐	☐	Gas Utilities
☐	☐	Plumber
☐	☐	Electrician
☐	☐	Concrete foundation
☐	☐	Concrete flat work
☐	☐	Landscaper
☐	☐	Others

11 – Delegation of Authority

Yes	No	
☐	☐	Has authority been delegated?

12 – Discharge Information

☐	☐	Does project/site discharge to a storm drain system?
☐	☐	Identified Receiving water body?
☐	☐	Are there impaired water bodies?

13 – Certification and Notification

☐	☐	Document signed?

SWPPP Preconstruction Submittal and Review Checklist

The SWPPP has been reviewed,

☐ no exceptions have been taken _____Date:_____

☐ please make updates as noted and resubmit _____ Date:_____

Name of Development: Submittal Date:

Developer: Phone:

Operator: Phone:

Inspector: Phone:

Responsible Contact: Phone:

Reviewed by _____ City (date): (name):

The following items shall be included on the SWPPP. **Check the spaces below indicating that each item is included or is not applicable, and then submit this form to _____ City with the SWPPP.** Heading numbers correspond to sections in the Utah SWPPP Template. References are given from both the Small MS4 General UPDES Permit (sections 4.2 and 7) and the Construction General Permit (section 3.5).

Included	N/A	SWPPP Requirement
1.1 – Owner(s) & Contractors		
☐	☐	Owner(s) – 1.5
☐	☐	Project Manager(s) – 1.5
☐	☐	Site Supervisor(s) – 1.5
☐	☐	SWPPP Contact(s) – 1.5
☐	☐	SWPPP Preparer(s) – 1.5
☐	☐	Subcontractor(s) – 1.5
☐	☐	Emergency 24-hour contact(s) – 1.5
1.2 – Storm Water Team		
☐	☐	Name – 7.2.1
☐	☐	Role – 7.2.1
☐	☐	Phone
☐	☐	Email
2.1 – Project/Site Information		
☐	☐	Name and location – 1.1.3
☐	☐	Indian Country – 1.1.3

Appendices

- ☐ ☐ A: Site Maps
- ☐ ☐ B: Common Plan Permit
- ☐ ☐ C: Notice of Intent (NOI)
- ☐ ☐ D: Daily Site Check Log
- ☐ ☐ E: Inspection Reports and Corrective Actions
- ☐ ☐ F: Additional Information
- ☐ ☐ G: BMP Specification and Details

- ☐ ☐ Federal Facility
- ☐ ☐ UPDES permit tracking number – 1.5

2.2 – Nature of Construction Activity

- ☐ ☐ General scope of project – 7.2.2
- ☐ ☐ Project Start and Stop Dates – 7.2.4
- ☐ ☐ Type of construction activity – 7.2.4

2.3 - Construction Site Estimates

- ☐ ☐ Total project area – 7.2.2
- ☐ ☐ Area to be disturbed – 7.2.2
- ☐ ☐ % Impervious before construction – 2.1.1.b.i
- ☐ ☐ Runoff Coefficient before construction – 2.1.1.b.i
- ☐ ☐ % Impervious after construction – 2.1.1.b.i
- ☐ ☐ Runoff Coefficient after construction – 2.1.1.b.i

2.4 – Soils, Slopes, Vegetation, and Current Drainage Patterns

- ☐ ☐ Soil types – 2.1.1.b.i
- ☐ ☐ Slopes (both current and proposed) – 2.1.1.b.i
- ☐ ☐ Drainage patterns – 2.1.1.b.i
- ☐ ☐ Vegetation – 7.2.5.d
- ☐ ☐ Other – 2.1

2.5 – Emergency Related Project

- ☐ ☐ Emergency related project – yes or no – justification if yes – 1.2.1

2.6 – Phase/Sequence of Construction Activity

- ☐ ☐ Phase I – 7.2.4
- ☐ ☐ Describe phase
- ☐ ☐ Start/stop dates
- ☐ ☐ BMPs associated with phase
- ☐ ☐ Stabilization methods used for this phase (including temporary)
- ☐ ☐ Phase II – 7.2.4
- ☐ ☐ Describe phase
- ☐ ☐ Start/stop dates
- ☐ ☐ BMPs associated with phase
- ☐ ☐ Stabilization methods used for this phase (including temporary)
- ☐ ☐ Phase III – 7.2.4
- ☐ ☐ Describe phase
- ☐ ☐ Start/stop dates
- ☐ ☐ BMPs associated with phase
- ☐ ☐ Stabilization methods used for this phase (including temporary)

2.7 – Site Features and Sensitive Areas

- ☐ ☐ List unique site features (streams, buffers, wetlands, natural vegetation, steep slopes, and erodible soils) – 2.1.2.a

- ☐ ☐ Methods to protect these features
- ☐ ☐ Show features on site map

2.8 - Maps

- ☐ ☐ Attach maps – 7.2.5
- ☐ ☐ General location map – 7.2.5.a
- ☐ ☐ SWPPP Site Maps – 7.2.5
- ☐ ☐ Direction of storm water flows – slopes before and after construction - 7.2.5.a.ii
- ☐ ☐ Areas and timing of soil disturbance – 7.2.5.a.i
- ☐ ☐ Areas to be left undisturbed – 2.1.1.a, 7.2.5.d
- ☐ ☐ Natural features to be preserved – 2.1.1.b.iii, 7.2.5.d
- ☐ ☐ Locations of structural and non-structural BMPs – 7.2.5.g
- ☐ ☐ Locations and timing of stabilization – 7.2.5
- ☐ ☐ Locations of off-site material, waste, borrow or equipment storage – 7.2.5.a.iii
- ☐ ☐ Locations of all waters of the US, including wetlands – 7.2.5.b
- ☐ ☐ Locations where storm water discharges to surface waters – 7.2.5.e.ii
- ☐ ☐ Locations of storm drain inlets – 7.2.5.e.i
- ☐ ☐ Areas where final stabilization has been accomplished – 7.2.5

3.1 – UIC Class 5 Injection Wells

- ☐ ☐ French Drain – 7.2.13.a.i
- ☐ ☐ Commercially manufactured pre-cast or pre-built subsurface infiltration system – 7.2.13.a.ii
- ☐ ☐ Drywell – 7.2.13.a.iii
- ☐ ☐ Description of Class V Injection Well:

3.2 – Discharge Information

- ☐ ☐ List of all surface waters receiving discharges from the site – 3.2.1, 7.2.14.a
- ☐ ☐ Identify any impairments or TMDLs downstream of the site – 3.2.1, 7.2.14.c
- ☐ ☐ Identify measures being taken to address impairments or meet TMDL requirements – 3.2.2
- ☐ ☐ Identify category of the first surface water to which you discharge – 3.3.1
- ☐ ☐ Indicate surface waters on site map – 7.2.5.a.iv
- ☐ ☐ Note any stream crossings – 7.2.5.a.iv
- ☐ ☐ Show/list the storm sewer system that you discharge to – 7.2.5.e.ii
- ☐ ☐ Identify any surface waters within 50 feet of your construction disturbance – 2.1.2.a
- ☐ ☐ Locations of pollutant discharges – 7.2.5.e.ii

3.3 – Receiving Waters

Included in 3.2 above

3.4 – Impaired Waters

Included in 3.2 above

3.5 – High Water Quality

- ☐ ☐ Is the surface water designated as high quality – 1.2.3

☐ ☐ If yes, which Category – 1.2.3

3.6 – Dewatering Practices

☐ ☐ Is dewatering an anticipated activity – 2.1.3.d
☐ ☐ If yes, will they be discharging off-site – 2.1.3.d
☐ ☐ If discharging off-site, do they have a dewatering permit – 2.1.3.d
☐ ☐ Identified BMPs to be used in dewatering – 2.1.3.d

3.7 – Control Storm Water Flowing onto and through the Project

☐ ☐ Identified BMPs for flow diversion around or through site – 7.2.5.d

3.8 – Protect Storm Drain Inlets

☐ ☐ Identified BMPs to be used – 2.1.2.h

4.1 – Potential Sources of Pollution

☐ ☐ Identified potential sources of sediment – 7.2.6
☐ ☐ Identified potential sources of pollution – 7.2.6

4.2 – Non-Storm Water Discharges

☐ ☐ Identified all allowable non-storm water discharges – 1.3.4

Allowable discharges include: vehicle washing without detergents, dust control water, uncontaminated potable water line flushing, building wash down water without detergents, pavement wash water without pollutants, air conditioning or condenser condensate, uncontaminated groundwater or spring water, uncontaminated foundation or footing drains, uncontaminated excavation dewatering, landscape irrigation

4.3 – Natural Buffers or Equivalent Sediment Controls

☐ ☐ Identify surface waters (including wetlands) within 50 feet of project's disturbance – 2.1.2.a
☐ ☐ Natural 50 foot buffer – 2.1.2.a
☐ ☐ Equivalent to natural 50 foot buffer – 2.1.2.a.i
☐ ☐ Buffer exception – 2.1.2.v

5 – Erosion and Sediment Controls

☐ ☐ Describe each control measure – 2.1.1, 7.2.9.a
☐ ☐ Timing of each control measure – 2.1.1.c, 7.2.9.a
☐ ☐ Maintenance and inspection requirements for each control measure – 2.1.1.d, 7.2.11.e
☐ ☐ Thresholds, protocols for cleaning, repairing and replacing each control measure – 2.1.1.d, 7.2.9.a
☐ ☐ Identified staff responsible for each control measure – 2.1.d.ii
☐ ☐ Show all control measures on the site map – 7.2.5.g

- ☐ ☐ Provide design and construction details for each structural control measure – 2.1.1.c.ii
- ☐ ☐ 5.1 Minimize disturbed areas – 7.2.2
- ☐ ☐ 5.2 Establish perimeter controls – 2.1.2.b
- ☐ ☐ 5.3 Retain sediment on site – 2.1.2.d.ii
- ☐ ☐ 5.4 Stabilized construction entrance – 2.1.2.c
- ☐ ☐ 5.5 Protect slopes – 2.1.2.e.i
- ☐ ☐ 5.6 Stockpile soil or other erodible material – 2.1.2.d
- ☐ ☐ 5.7 Minimize dust – 2.1.2.e
- ☐ ☐ 5.8 Topsoil – 2.1.2.f
- ☐ ☐ 5.9 Soil Compaction – 2.1.2.g
- ☐ ☐ 5.10 High Altitude/Heavy Snows – 2.1.2.i
- ☐ ☐ 5.11 Chemical Treatment – 2.1.3.c
- ☐ ☐ 5.12 Stabilize Soils – 2.1.2.d.iii
- ☐ ☐ 5.13 Final Stabilization – 2.1.2.f

6.1 – Spill Prevention and Response

- ☐ ☐ Include Spill Prevention and Control Plan – 2.3.4
- ☐ ☐ Include Emergency response call numbers for reporting spills – 2.3.4

6.2 – Construction and Domestic Waste

- ☐ ☐ Describe measures for trash disposal 2.3.3.c.v
- ☐ ☐ Describe measures for sanitary waste – 2.3.3.c.vi
- ☐ ☐ Describe measures for recycling and materials handling – 2.3.3.a.iv

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

- ☐ ☐ Identify and describe concrete washout facilities – 2.3.3.d
- ☐ ☐ Identify and describe paint and stucco washout facilities – 2.3.3.d

6.4 – Establish Proper Building Material Staging Areas

- ☐ ☐ Describe construction materials stored on site and procedures for storage of materials – 2.1.2.d, 2.3.3.c

6.5 – Establish Proper Equipment/Vehicle Fueling and Maintenance Practices

- ☐ ☐ Will equipment be fueled and maintained on site – 2.3.3.a
- ☐ ☐ If yes, describe practices to be implemented – 2.3.3.a

6.6 – Control Equipment/Vehicle Washing

- ☐ ☐ Describe equipment/vehicle washing practices and controls to be implemented – 2.3.3.b

6.7 – Pesticides, Herbicides, Insecticides, Fertilizers, and Landscape Materials

☐ ☐ Describe practices and controls to be implemented to control discharges of pesticides, herbicides, insecticides, fertilizers and landscape materials– 2.3.3.c.ii

6.8 – Other Pollution Prevention Practices

☐ ☐ Describe any additional BMPs not covered in other sections – 2.3

7.1 – Inspections

☐ ☐ Identify individuals responsible for doing inspections – 4.1.1, 7.2.11.a
☐ ☐ List qualifications (certifications) of inspector(s) – 4.1.1
☐ ☐ Include inspection form to be used – 4.1.7
☐ ☐ List inspection schedule – 4.1.2, 7.2.11.b

7.2 – Corrective Action Log

☐ ☐ Include a corrective action log for tracking items needing attention – 5.4

8.1 – Training

☐ ☐ Include a location to document employee training – 5.6, 7.2.12

8.2 – Recordkeeping

☐ ☐ Signed NOI – 7.2.16.a
☐ ☐ Place of Inspection Reports – 4.1.7.c

9 – Certification

☐ ☐ Signed and certified by Owner – 7.2.15
☐ ☐ Signed and certified by Operator/Contractor – 7.2.15

Appendices

☐ ☐ General Location Map – 7.2.5.a
☐ ☐ Site Maps – 7.2.5
☐ ☐ Construction General Permit or link – 7.2.16.b
☐ ☐ NOI, Local Permits – 7.2.16.a
☐ ☐ Inspection Reports – 4.1.7.c
☐ ☐ Corrective Action Log – 5.4.3
☐ ☐ SWPPP Amendment Log – 7.4.3
☐ ☐ Subcontractors – 6
☐ ☐ Grading and Stabilization Activities Log – 7.2.4.b&d

☐ ☐ Training Log – 7.2.12
☐ ☐ Construction Plans – 7.4.1.a
☐ ☐ Additional Information – 1.3.5.a
☐ ☐ BMP Instruction and Detail Specifications – 2.1.1.c, 5.4.1.a, 7.2.4.a

This document and attachments must be maintained by the MS4 for a period of five years or until construction is completed, whichever is longer. (4.2.4.3)

UPDES STORM WATER INSPECTION EVALUATION FORM FOR SWPPP COMPLIANCE

BACKGROUND INFORMATION

Site Name:	UPDES Permit #:
Site Address:	
Local Jurisdiction or County:	
Permit Effective Date:	Permit Expiration Date:
Total Project Area:	Total Disturbed Area:

Project Type: (circle) *Subdivision* *Commercial* *Industrial* *Linear (Road/Pipe/Power)* *Land Disturbance*

OPERATOR CONTACT INFORMATION

	NAMES	PHONE NUMBERS	E-MAIL
Operator:			
Onsite Facility Contact:			
Important Contacts:			
Important Contacts:			

SWPPP PRE-SITE REVIEW INFORMATION

	YES	NO
1. Has a pre-construction review of the SWPPP been conducted by the appropriate municipal agency?		
2. Are contact names and telephone numbers listed in the SWPPP?		
3. Does the SWPPP include a site map showing storm drains, slopes/surface drainage patterns, SW discharge points, construction boundaries, limits of disturbance, surface waters (name of receiving water), structural controls, and does it define/explain non-structural controls?		
4. Does the SWPPP have an estimate of the area to be disturbed, a sequence of construction activities, the SW runoff coefficient for after completion, a description of the soil types, controls for discharges from (asphalt/concrete) batch plants if any, show wetland areas, and have a desription of the nature of the construction activity?		
5. Does the SWPPP and site map show erosion and sediment controls placement & details (e.g. erosion blankets, mulch, slope drains, check dams, sediment basins, grass-lined channels, fiber rolls, sediment traps, silt fence, inlet protection, curb cut-back, dust control, etc?)		
6. Does the SWPPP and site map show and describe good housekepping controls (e.g. track out pad, street sweeping, material storage, construction waste containment and removal, sanitary waste, concrete washout pits, etc)		
7. Are post-construction elements included in the SWPPP? (i.e. grass swales, detention basins, vegetated filter strips, infiltration, depression storage, landscaping/xeriscaping, discontinuous concrete or hard surface SW conveyance, etc.)		
8. Does the SWPPP address endangered species and historic preservation?		
9. Is the SWPPP signed by a responsible corporate officer with the certification statement (see permit part 5.16.c.)?		
10. Are the NOI and a copy of the State permit in the SWPPP?		

NOTICE OF TERMINATION (NOT) INSPECTION

Site Name:	Date of Evaluation:
Site Address:	
Inspected By:	Title\Organization:

	YES	NO	COMMENTS:
1. Has the site been properly stabilized according to permit requirements?			
2. Have all temporary BMPs been removed?			
3. Have post-construction (permanent storm water system) elements been constructed and inspected in accordance with approved project drawings?			
4. Is the site acceptably clean?			

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.

Inspector:

(Print Name) (Title) (Signature) (Date)

Operator:

(Print Name) (Title) (Signature) (Date)

modified 8/12/10

(Attach additional sheets of narrative, pictures and checklists, as necessary)

ADDITIONAL COMMENTS AND CORRECTIVE ACTIONS FOR SWPPP COMPLIANCE

Site Name:	Date of Evaluation:	Page	of
Site Address:			

EPA Form 3560-3 SEV Codes and Descriptions

DOR11		Discharge without a permit	BR19B		Failure to properly operate and maintain BMP's
DOR18		Failure to apply for a Notice of Termination	BR19A		Failure to properly install/implement BMP's
BOR12		Failure to conduct inspections	EOR16		Failure to submit required report (non-DMR)
BOC17		Failure to develop any or adequate SWPPP/SWMP	AOR22		Narrative effluent violation
BOC18		Failure to implement SWPPP/SWMP	DOR12		Failure to submit required permit information
BOR41		Failure to maintain records	AOR12		Numeric effluent violation
COR11		Failure to monitor	BOR42		Violation of a milestone in an order

SWPPP COMPLIANCE INSPECTION FORM

Project Name:	Address:	Date:
Owner:	Contractor (Gen/Sub):	Start time:
Site Contact:	Phone:	Stop time:
UPDES Permit #: Expiration:	Weather: Sunny Cloudy Raining Snowing Other:	
Date of last rain event:	Duration:	Approx. Rainfall (in):
Inspected By (Print):	Local Jurisdiction or County:	
Reason for Inspection: Scheduled Complaint/Tip Random	Receiving Waters:	
Inspection Code (circle): SW sampling / SW non-sampling	Inspector Code (circle): (S) State / (L) Local	Type Code (circle): 1 - Municipal 2 - Industrial 3 - State

SWPPP, EROSION, SEDIMENT AND HOUSEKEEPING BMP's INFORMATION	YES	NO	N/A
1. Is the SWPPP on site and accessible, or is the SWPPP location posted in an obvious place and reasonably accessible (in a short time)?			
2. Are erosion control, sediment control, and good housekeeping BMP's installed on the site as shown in the SWPPP?			
3. Has the SWPPP been updated to reflect the current site conditions (modifications dated & initialed on site map, new BMPs on site map, discontinued BMPs crossed off site map, new BMP details & spec's in SWPPP, SWPPP amendment Log, etc.)?			
4. Are on-site inspections being performed and recorded by a qualified person on a weekly or biweekly basis, reporting items required by permit? (Inspector name &qualifications, weather, problems/repairs, corrective action, new BMPs, removed BMPs, discharges, etc.)			
5. Have all corrective action items from previous inspections been addressed and documented within the time frame allotted by the inspector?			
6. Are SW flows entering and leaving the construction site controlled, managed, or diverted around the site? (e.g. perimeter controls, berms, silt fence, upgradient boundary diversion, down gradient boundary sediment control, etc.)			
7. Is there evidence of sediment discharge such as mud flows or soil deposits from the construction site in downstream locations?			
8. Is there evidence of vehicles tracking soil off the construction site?			
9. Is there soil, construction material, landscaping items, or other debris piled on impervious surfaces (roads, drives) that could be washed with SW to a storm drain or water body?			
10. Is there a need to repair, maintain, or improve erosion control BMPs (temporary stabilization, erosion blankets, mulch, vegetated strips, rip rap, surface roughening, pipe slope drain, dust control, etc)?			
11. Is there a need to repair, maintain, or improve sediment control BMPs (silt fence, check dams, fiber rolls, sediment trap/basin, inlet protection, waddles, straw bails, curb cut-back, etc?			
12. Is there a need to repair, maintain, or improve good housekeeping controls (clean track out pad, sweeping, construction materials management, litter/trash control, port-o-potties staked down, fueling areas, concrete wash out area, proper curb ramps, spill prevention, etc)?			
13. Are there disturbed areas that have not had construction activities for 14 to 21 days without stabilization? (except snow or frozen ground)?			
14. Are there places where BMPs are needed and should be installed or not needed and should be removed?			

COMMENTS AND CORRECTIVE ACTIONS FOR SWPPP COMPLIANCE

Identify the problem and its location. If appropriate, describe (in general terms) what needs to be completed. However, only if qualified (e.g., you are a designer) should you be mandating specific BMPs to install. Include the date when corrections are made.

Inspector, please list all applicable SEV codes:

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.

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(Print Name) (Title) (Signature) (Date)

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COR11		Failure to monitor	BOR42		Violation of a milestone in an order

SWPPP Inspection Checklist

Pre-inspection Items

- ☐ Contact Site Superintendant or Project Manager
- ☐ Review previous inspections – are there reoccurring problems?
- ☐ Proper equipment
  - o Hard hat
  - o Vest
  - o Safety shoes
  - o Safety glasses
  - o Camera
  - o GPS unit?
  - o Inspector credentials

On-Site before inspecting

- ☐ Review SWPPP – updates and changes
- ☐ Review any specific concerns
- ☐ Check contractors inspection forms/issues

Inspection

- ☐ Use State Form – keep notes
- ☐ Check outfalls
- ☐ Check perimeter control
- ☐ Check entrances/exits
- ☐ Check erosion control BMPs
- ☐ Check sediment control BMPs
- ☐ Check for mud tracking
- ☐ Check stockpile/storage areas
- ☐ Check staging areas
- ☐ Take photos of good and bad
- ☐ Keep photo log
- ☐ Review findings with superintendant/project manager

Post Inspection

- ☐ Review form, complete and clarify as needed
- ☐ File inspection form and photos
- ☐ Send copy of form to State – can be done monthly

STANDARD OPERATING PROCEDURES

For Construction Development Activities

Created: February 2010
Updated: September 2023

TABLE OF CONTENTS

IDDE – Containing a Spill

1. Preparation

    a. Work with county fire department's and environmental contractor's stockpile of absorbent materials and spill kits.

    b. Train all public works staff annually on how to respond to a spill.

2. Process

    a. Priority is to dam and contain flowing spills.

    b. Use spill kit booms if available or use any material available; including but not limited to, nearby sand, dirt, landscaping materials, etc.

3. Clean-up

    a. Never wash spills to the storm drain systems.

    b. As per SDS requirements but generally most spills can be cleaned up according to the following:

        1. Absorb liquid spills with spill kit absorbent material, sand or dirt until liquid is sufficiently converted to solid material.
        2. Remove immediately using dry cleanup methods, e.g., broom and shovel, or vacuum operations.
        3. Clean up with water and detergents may also be necessary depending on the spilled material. However, the waste from this operation must be vacuumed or effectively picked up by dry methods.
        4. Repeat process when residue material remains.

4. Documentation

    a. Document all spills in accordance to spill report Spill Report Form found in the SWMP.

    b. Deliver completed form and any pictures to Stormwater Specialist.

    c. Stormwater staff will log reports in CompianceGo.

        1. Condition of Site: Description of spill.
        2. Work Description: How and where spill was managed and disposed.
        3. Identity affected stormwater systems.

PARKS – Planting Vegetation (Seeds)

1. Preparation

    a. Call the Blue Stakes Center of Utah at least 2 working days before any digging will be done, to reveal the location of any underground utilities.

    b. Dial 811 or 1-800-662-4111

    c. Decide on the application rate, method, water source, and ensure adequate materials are on hand.

    d. Grade and prepare the soil to receive the seed. Place any extra soil in a convenient location to collect.

2. Process

    a. Place the seed and any cover using the pre-determined application method (and rate).

    b. Lightly moisten the seed.

3. Clean-up

    a. Move any extra spoils into truck or trailer. Place the spoils on a tarp if there is a likelihood that some of the dirt would be lost through openings in the bed.

    b. Sweep dirt, seed, and any cover material from surrounding pavement(s) into the planter area

    c. Transport spoils to their designated fill or disposal area.

PARKS – Planting Vegetation (Starters)

1. Preparation

    a. Call the Blue Stakes Center of Utah at least 2 working days before any digging will be done, to reveal the location of any underground utilities.

    b. Dial 811 or 1-800-662-4111

    c. Decide where any spoils will be taken.

2. Process

    a. Dig holes; place spoils near the hole where they may easily be placed back around roots. Avoid placing spoils in the gutter.

    b. Bring each plant near the edge of the hole dug for it.

    c. Check the depth of the hole and adjust the depth if necessary. The depth of the hole for a tree should be as deep as the root ball, so that the top of the root ball is level with the top of the hole.

    d. Carefully remove pot or burlap.

    e. Place the plant in the hole.

    f. Backfill the hole with existing spoils, compost, and a litter fertilizer if desired. Do not use excessive amendments.

    g. Water the plant.

    h. Stake the plant, if necessary, to stabilize it.

3. Clean-up

    a. Move any extra spoils into truck or trailer. Place the spoils on a tarp if there is a likelihood that some of the dirt would be lost through openings in the bed.

    b. Sweep dirt from surrounding pavement(s) into the planter area

    c. Transport spoils to their designated fill or disposal area.

STREETS/STORM DRAIN – Catch Basin Cleaning

1. Preparation

    a. Clean sediment and trash off grate.

    b. Do visual inspection on outside of grate.

    c. Make sure nothing needs to be replaced.

    d. Do inside visual inspection to see what needs to be cleaned.

2. Process

    a. Clean using a high-powered vacuum truck to start sucking out standing water and sediment.

    b. Use a high-pressure washer to clean any remaining material out of catch basin, while capturing the slurry with the vacuum.

    c. After catch basin is clean, send the rodder of the vacuum truck downstream to clean pipe and pull back sediment that might have gotten down stream of pipe.

    d. Move truck downstream of pipe to next catch basin.

3. Clean-up

    a. When vacuum truck is full of sediment take it to the designated location to dump all the sediment out of truck into a drying bed.

    b. When it evaporates, clean it up with a backhoe, put it into a dump truck and take it to the landfill.

STREETS/STORM DRAIN – Concrete Work

1. Preparation

    a. Train employees and contractors in proper concrete waste management.

    b. Store dry and wet materials under cover, away from drainage areas.

    c. Remove any damaged concrete that may need to be replaced.

    d. Prepare and compact sub-base.

    e. Set forms and place any reinforcing steel that may be required.

    f. Determine how much new concrete will be needed.

    g. Locate or construct approved concrete washout facility.

2. Process

    a. Install inlet protection as needed.

    b. Avoid mixing excess amounts of fresh concrete on-site.

    c. Moisten subbase just prior to placing new concrete. This helps keep the soil from wicking moisture out of the concrete into the ground.

    d. Place new concrete in forms.

    e. Consolidate new concrete.

    f. Screed off surface.

    g. Let concrete obtain its initial set.

    h. Apply appropriate surface finish.

    i. Remove forms when concrete will not slump.

3. Clean-up

    a. Perform washout of concrete trucks and equipment in designated areas only.

    b. Do not washout concrete trucks or equipment into storm drains, open ditches, streets, or streams.

    c. Cement and concrete dust from grinding activities is swept up and removed from the site.

    d. Remove dirt or debris from street and gutter.

STREETS/STORM DRAIN – Construction - During and Post Construction Site Inspections

1. Preparation

    a. Incorporate a SWPPP in any construction project containing more than one acre in area (Construction General Permit) or less than one acre but part of a larger subdivision (Common Plan Permit).

1. Process

    a. Inspect construction site and surrounding area regularly for possible storm drain contamination.

    b. Follow SWPPP guidelines and checklists to verify that standards are met.

2. Clean-up

    a. Remove all BMPs.

    b. Stabilize property.

    c. Clean flow paths.

3. Documentation

    a. Keep any notes or comments of any problems.

STREETS/STORM DRAIN – Crack Seal

1. Preparation

    a. Cover Manholes and catch basins to prevent oil and materials from getting inside the structures or system.

    b. Remove weeds from the road.

    c. Air-blast the cracks to remove sediments from the crack to allow for proper adhesion.

    d. Ensure that surface is clean and dry.

2. Process

    a. Proper temperature of material should be maintained.

    b. Sufficient material is applied to form the specified configuration.

3. Clean-up

    a. Excessive sealant application or spills are removed.

    b. Sweep all loose debris from the pavement and dispose of it in the local landfill.

4. Documentation

    a. Record location and date on the maintenance database and map

STREETS/STORM DRAIN – Detention Basin Cleaning

1. Preparation

    a. Schedule the basin cleaning work for a time when dry weather is expected.

    b. Remove any sediment and trash from grates, placing it in a truck for disposal.

    c. Do a visual inspection to make sure any grates, structures, manholes, boxes, and pipes are in good working order. Remove manhole covers and grates as necessary for inspecting.

2. Process

    a. Provide outlet protection where feasible to minimize the amount of debris that might leave basin during cleaning process.

    b. Start cleaning basin by using backhoe to remove debris and sediment off the bottom.

    c. Continue cleaning structures and pond bottom as necessary by sweeping and shoveling.

    d. Put all material removed from the pond into a dump truck.

    e. Some structures may require use of a vactor truck. If so, use the same procedures described for cleaning catch basins.

3. Clean-up

    a. After cleaning basins, clean off the concrete pads using dry methods (sweeping and shoveling).

    b. Make sure they are swept up and clean.

    c. Take the material that was removed to the landfill for final disposal.

4. Documentation

    a. Keep a log of each detention basins/pond cleaned including date, individuals involved in cleaning, and a description of the type of debris removed.

    b. Keep any notes or comments of any problems.

STREETS/STORM DRAIN – Ditch Management

1. Preparation

    a. Monitor ditches on a regular basis.

    b. Maintain access to ditch channels wherever possible.

    c. Contact affected property owners and utility owners.

2. Process

    a. Identify areas requiring maintenance.

    b. Determine what manpower or equipment will be required.

    c. Identify access and easements to area requiring maintenance.

    d. Determine method of maintenance that will be least damaging to the channel and adjacent properties or utilities.

3. Clean-up

    a. Stabilize all disturbed soils.

    b. Remove all tracking from paved surfaces near maintenance site, if applicable.

    c. Haul all debris or sediment removed from area to approved dumping site.

STREETS/STORM DRAIN – Overlays and Patching

1. Preparation

    a. Measure and mark locations of manholes and valves on the curb.

    b. Manholes and catch basins are covered as needed to prevent oil and materials from getting inside the structures or system.

    c. Cracks should be properly sealed. Alligator cracks and potholes should be removed and patched. Rutting should be milled.

    d. Surface should be clean and dry.

    e. Uniform tack coat applied and cured prior to placement of overlay.

    f. If milling is required, install inlet protection as needed.

1. Process

    a. Check hot asphalt mix for proper temperature, percentage asphalt, gradation, air voids and any other agency requirements.

    b. Raise manhole lids and valves to elevation of new asphalt surface with riser rings.

    c. Surface texture should be uniform, no tearing or scuffing.

    d. Rolling should be done to achieve proper in-place air void specification.

2. Clean-up

    a. Covering should be removed as soon as the threat of imported materials entering the system is reduced and prior to a storm event.

    b. After pavement has cooled, sweep gutters to remove loose aggregate.

3. Documentation

    a. Record location and date on the maintenance database and map

STREETS/STORM DRAIN – Slough Management

1. Preparation

    a. Monitor slough on a monthly basis, minimum.

    b. Check culverts and crossings after every storm.

    c. Maintain access to stream channels wherever possible.

    d. Identify areas requiring maintenance.

    e. Determine what manpower or equipment will be required.

    f. Identify access and easements to area requiring maintenance.

    g. Determine method of maintenance that will be least damaging to the channel.

    h. Obtain Stream Alteration Permit.

2. Process

    a. Remove unwanted material (debris, branches, soil) from the slough channel and place it in a truck to be hauled away.

3. Clean-up

    a. Stabilize all disturbed soils.

    b. Remove all tracking from paved surfaces near maintenance site, if applicable.

    c. Haul all debris or sediment removed from area to approved dumping site.

4. Documentation

    a. Use "before" and "after" photographs to document activities as applicable.

STREETS/STORM DRAIN – Slurry Seal

1. Preparation

    a. Remove weeds from the roads. Sweep areas where materials are to be applied, and allow to dry, if necessary. Verify that existing pavement has been inspected for detrimental effects of poor drainage.

    b. Cover/protect catch basins and manholes.

2. Process

    a. Apply materials in a smooth and uniform manner. Slurry material should not run onto adjacent pavement surface, curb and gutter or waterways.

3. Clean-up

    a. If loose aggregate is remaining in street or curb, sweep it up.

    b. Ensure that excess emulsion materials are removed from the site and stored for later use in an area or container that is not exposed to the weather.

    c. Remove covers/protection from catch basins and manholes, and valves.

4. Documentation

    a. Record location and date on the maintenance database and map.

STREETS/STORM DRAIN – Street Sweeping

1. Preparation

    a. Prioritize cleaning routes to use at the highest frequency in areas with the highest pollutant loading.

    b. Streets are to be swept as needed or specified by the city. Street maps are used to ensure all streets are swept at a specified interval.

    c. Restrict street parking prior to and during sweeping using regulations as necessary.

    d. Increase sweeping frequency just before the rainy season, unless sweeping occurs continuously throughout the year.

    e. Perform preventative maintenance and services on sweepers to increase and maintain their efficiency.

2. Process

    a. Drive street sweeper safely and pick up debris.

    b. When full, take the sweeper to an approved street sweeper cleaning station.

3. Clean-up

    a. Street sweepers are to be cleaned out in an approved street sweeper cleaning station.

    b. Street sweeping cleaning stations shall separate the solids from the liquids.

    c. Once solids have dried out, haul them to the local landfill.

    d. Decant water is to be collected and routed to an approved wastewater collection system area only.

    e. Haul all dumped material to the landfill.

4. Documentation

    a. Keep accurate logs to track streets swept and streets still requiring sweeping.

    b. Log the amount of debris collected and hauled off.

STREETS/STORM DRAIN – Transporting Soil and Gravel

1. Preparation

    a. Spray down dusty materials to keep from blowing.

    b. Make sure you know and understand the SWPPP requirements for the site you will be working at.

    c. Determine the location that the truck and other equipment will be cleaned afterwards.

2. Process

    a. Use a stabilized construction entrance to access or leave the site where materials are being transported to/from.

    b. Cover truck bed with a secured tarp before transporting.

    c. Follow the SWPPP requirements for the specific site to/from which the materials are being hauled.

    d. Make sure not to overfill materials when loading trucks.

3. Clean up

    a. Use sweeper to clean up any materials tracked out on the roads from site.

    b. Wash out truck and other equipment when needed in properly designated areas.

VEHICLES – Fueling

1. Preparation

    a. Train employees on proper spill cleanup techniques..

2. Process

    a. Shut off the engine.

    b. Ensure that the fuel is the proper type of fuel for the vehicle.

    c. Nozzles used in vehicle and equipment fueling shall be equipped with an automatic shut off to prevent overfill.

    d. Fuel vehicle carefully to minimize drips to the ground.

    e. Fuel tanks shall not be 'topped off'.

    f. Mobile fueling shall be minimized. Whenever practical, vehicles and equipment shall be transported to the designated fueling area in the Facilities area.

    g. When fueling small equipment from portable containers, fuel in an area away from storm drains and water bodies.

3. Clean Up

    a. Immediately clean up spills using dry absorbent (e.g., kitty litter, sawdust, etc.) sweep up absorbent material and properly dispose of contaminated clean up materials.

    b. Large spills shall be contained as best as possible, and the HazMat team should be notified ASAP.

VEHICLES – Vehicle and Equipment Storage

1. Preparation

    a. Inspect parking areas for stains/leaks on a regular basis.

    b. Provide drip pans or adsorbents for leaking vehicles.

2. Process

    a. Whenever possible, store vehicles inside.

    b. When inside storage is not available, Vehicles and equipment will be parked in the approved designated areas.

    c. Maintain vehicles to prevent leaks as much as possible.

    d. Address any known leaks or drips as soon as possible. When a leak is detected a drip pan will be placed under the leaking vehicle to collect the drip.

    e. The shop will provide a designated location to empty and store drip pans.

    f. If any leaks are discovered, a drip pan will be used to collect the fluids and vehicle will be scheduled for repairs.

    g. Clean up all spills using dry methods.

    h. Never store leaking vehicles over a storm drain.

3. Clean Up

    a. Any leaks that are spilled on the asphalt will be cleaned up with dry absorbent. The dry absorbent will be swept up and disposed of in the garbage.

VEHICLES – Washing

1. Preparation

    a. Provide wash areas for all vehicles inside the maintenance building.

    b. No vehicle washing will be done where the drain system is connected to the storm sewer system.

2. Process

    a. Minimize water and soap use when washing vehicles inside the shop building.

    b. Soap should not be used when washing vehicles outside the shop building. Water Only.

    c. Use hoses with automatic shut off nozzles to minimize water usage.

    d. When washing outside the building, it is the operators' responsibility to make sure all wash water is contained on the wash pad and does not have access to the storm drain.

    e. Never wash vehicles over or a storm drain.

3. Clean Up

    a. Sweep wash areas after every washing to collect what solids can be collected to prevent them from washing down the drain system.

    b. Clean solids from the settling pits on an as needed basis.

WATER – Chemical Handling/Transporting and Spill Response

1. Preparation
    a. Understand MSDS sheets for handling of product.
    b. Determine proper place of handling.
    c. Have necessary containment and spill kits at handling place.
2. Process
    a. Begin transfer process.
    b. Discontinue operations if spill levels occur.
    c. Disconnect and store handling equipment.
3. Clean-up
    a. Clean up spills with proper material.
    b. Dispose of contaminated material at appropriate facility.
4. Documentation
    a. Report spills to Weber County Health

        5 gallons of hydro fluoride acid

        Work hours 801-399-7160

        After hours 801-395-8234 Weber County dispatch

WATER – Waterline Flushing after Construction/System Disinfection with Discharge to Storm Drain

1. Preparation

    a. Determine chlorine content of discharged water, and select de-chlorination equipment to be used.

    b. Determine flow path of discharge.

2. Process

    a. Protect inlets in flow path.

    b. Install de-chlorination equipment.

    c. Sweep and clean flow path.

3. Clean-up

    a. Pick up inlet protection.

    b. Clean flow paths.

    c. Remove equipment from flush point.

4. Documentation

    a. Residual test of discharged water.

WATER – Planned Waterline Excavation Repair/Replacement

1. Preparation
    a. Determine where discharge flow will go.
    b. Place inlet protection at nearest downstream storm drain inlet.
    c. Clean Gutters leading to inlet.
    d. Isolate waterline to be worked on.
    e. Neutralize any chlorine residual before discharging water.
2. Process
    a. Make efforts to keep water from pipeline from entering the excavation.
    b. Direct any discharge to pre-determined area.
    c. Backfill and compact excavation.
    d. Haul of excavated material or stockpile nearby
3. Clean up
    a. Clear gutter/waterway where water flowed.
    b. Clean up all areas around excavation.
    c. Clean up travel path of trucked material.
4. Documentation
    a. Complete paperwork

WATER – Transporting Dry Excavated Materials & Spoils

1. Preparation
    a. Utilize truck with proper containment of materials.
    b. Determine disposal site of excavated materials.
2. Process
    a. Load.
    b. Check truck after loading for possible spillage.
    c. Transport in manner to eliminate spillage & tracking.
    d. Utilize one route for transporting.
3. Clean-up
    a. Clean loading area.
    b. Clean transporting route.
    c. Wash off truck and other equipment in a designated equipment cleaning area.

WATER – Transporting Wet Excavated Materials & Spoils

1. Preparation
    a. Utilize truck with containment for material.
    b. Determine disposal site of excavated material.
2. Process
    a. Load and Transport in manner to minimize spillage & tracking of material.
    b. Check truck for spillage.
    c. Utilize one route of transport.
3. Clean-up
    a. Clean route of transport to provide cleaning of any spilled material.
    b. Wash out equipment truck and other equipment in designated wash area.

WATER – Unplanned Waterline Excavation Repair/Replacement

1. Preparation
    a. Make sure service trucks have wattles, gravel bags, or other materials for inlet protection.
2. Process
    a. Slow the discharge.
    b. Inspect flow path of discharged water.
    c. Protect water inlet areas.
    d. Follow planned repair procedures.
    e. Haul off spoils of excavation.
    f. Consider use of silt filter bags on pumps.
3. Clean-up
    a. Repair eroded areas as needed.
    b. Follow planned repair procedures.
    c. Clean up the travel path of trucked excavated material.

UPDES STORM WATER INSPECTION EVALUATION FORM
FOR
POST CONSTRUCTION COMPLIANCE

Site Name:	Date of Evaluation	UTR Permit #
Site Address:	Permit Effective Date:	Permit Expiration Date:

Facility Contact Information

	NAMES	PHONE #'S	E-MAIL
CONTACT:			
CONTACT:			

BUSINESS TYPE: SUBDIVISION ☐ COMMERCIAL ☐ INDUSTRIAL ☐

Snout Required for site YES ☐ NO ☐

Orifice Required for site YES ☐ NO ☐ Orifice Size:

Items Inspected	Checked		Maintenance		Review	Observations and Remarks
	Yes	No	Req'd	Not Req'd		
1. Class V Injection Wells						
2. Fuel Storage						
A. Containment						
B. Pumping area						
3. Chemical Storage						
A. Used Oil						
B. Used Antifreeze						
4. Parking Lot						
A. Clear of Trash/Debris						
B. Signs of Spills						
5. Garbage Bins						
6. Curb Inlets						
7. Man Holes						
8. Pipes						
9. Detention/Retention Ponds						
A. Vegetation						
B. Banks						

Any signs of debris, or pollutants coming into the city storm drain system:

Notes:

Inspector: Site Contact:

Signature Title Signature Date

BEST MANAGEMENT PRACTICES

For Construction Development Activities

Created: February 2010
Updated: September 2023

TABLE OF CONTENTS

BMP: BMP Inspection and Maintenance

BMPIM

APPLICATIONS

- ☐ Manufacturing
- ☒ Material Handling
- ☒ Vehicle Maintenance
- ☐ Construction
- ☐ Commercial Activities
- ☐ Roadways
- ☒ Waste Containment
- ☒ Housekeeping Practices

DESCRIPTION:

Inspect and maintain all structural BMP's (both existing and new) on a routine basis to remove pollutants from entering storm drain inlets. This includes the establishment of a schedule for inspections and maintenance.

APPROACH:

Regular maintenance of all structural BMP's is necessary to ensure their proper functionality.

- Annual inspections.
- Prioritize maintenance to clean, maintain, and repair or replace structures in areas beginning with the highest pollutant loading.
- Clean structural BMP's in high pollutant areas just before the wet season to remove sediments and debris accumulated during the summer and fall.
- Keep accurate logs of what structures were maintained and when they were maintained.
- Record the amount of waste collected.

LIMITATIONS:

- Cost
- Availability of trained staff

TARGETED POLLUTANTS

- ■ Sediment
- ■ Nutrients
- ☐ Heavy Metals
- ■ Toxic Materials
- ☐ Oxygen Demanding Substances
- ■ Oil & Grease
- ■ Floatable Materials
- ☐ Bacteria & Viruses

- ■ High Impact
- ☒ Medium Impact
- ☐ Low or Unknown Impact

IMPLEMENTATION REQUIREMENTS

- ■ Capital Costs
- ■ O&M Costs
- ☒ Maintenance
- ☒ Staffing
- ☐ Training
- ☐ Administrative

■ High ☒ Medium ☐ Low

BMP: Contractor Certification &Inspector Training

CCIT

Municipalities can establish training programs to educate contractors about erosion and sediment control practices

Construction reviewers periodically inspect construction sites to ensure that contractors have installed and maintained their erosion and sediment controls properly (Source: University of Connecticut Cooperative Extension System, 2000)

APPLICATIONS

- ☐ Manufacturing
- ☒ Material Handling
- ☐ Vehicle Maintenance
- ☒ Construction
- ☐ Commercial Activities
- ☐ Roadways
- ☒ Waste Containment
- ☐ Housekeeping Practices

DESCRIPTION:

One of the most important factors determining whether or not erosion and sediment controls will be properly installed and maintained on a construction site is the knowledge and experience of the contractor. Many communities require certification for key on-site employees who are responsible for implementing the ESC plan. Several states have contractor certification programs. The State of Delaware requires that at least one person on any construction project be formally certified. The Delaware program requires certification for any foreman or superintendent who is in charge of onsite clearing and land-disturbing activities for sediment and runoff control associated with a construction project.

APPROACH:

- Training and certification will help to ensure that the plans are properly implemented and that best management practices are properly installed and maintained.
- Inspector training programs are appropriate for municipalities with limited funding and resources for ESC program implementation.
- Contractor certification can be accomplished through municipally sponsored training courses, or more informally, municipalities can hold mandatory pre-construction or pre-wintering meetings and conduct regular and final inspection visits to transfer information to contractors (Brown and Caraco, 1997).
- To implement an inspector training program, the governing agency would need to establish a certification course with periodic recertification, review reports submitted by private inspectors, conduct spot checks for accuracy, and institute fines or other penalties for noncompliance.
- Curb systems should be maintained through curb repair (patching and replacement).
- To minimize the amount of spilled material tracked outside of the area by personnel, grade within the curbing to direct the spilled materials to a down-slope side of the curbing, thus keeping the spilled materials away from personnel and equipment. Grading will also facilitate clean-up.

LIMITATIONS:

- Contractor certification and inspector training programs require a substantial amount of effort on the part of the municipality or regulatory agency.
- They need to develop curricula for training courses, dedicate staff to teach courses, and maintain a report review and site inspection staff to ensure that both contractors and inspectors are fulfilling their obligations and complying with the ESC program.

TARGETED POLLUTANTS

- ■ Sediment
- ■ Nutrients
- ☐ Heavy Metals
- ■ Toxic Materials
- ☐ Oxygen Demanding Substances
- ■ Oil & Grease
- ■ Floatable Materials
- ☐ Bacteria & Viruses

- ■ High Impact
- ☒ Medium Impact
- ☐ Low or Unknown Impact

IMPLEMENTATION REQUIREMENTS

- ■ Capital Costs
- ■ O&M Costs
- ☒ Maintenance
- ☐ Training

■ High ☒ Medium ☐ Low

BMP: Educational Materials

EM

DESCRIPTION:

Educational Materials to present information to the public on storm water issues and water quality awareness is an integral part of any storm water education program. Providing storm water education by sending out information with bills, newsletters, or presented at city activities, in city offices, schools, and fair booths, exposes the message to a wide variety of people, if not city-wide. Topics can include Water conservation, proper lawn and garden care, and proper disposal of hazardous household wastes. Many educational materials can be used for city personnel, contractors as well as homeowners or businesses.

APPROACH:

- Building a strong relationship with citizens is the most important step in getting storm water education city-wide.
- Educational materials can be tailored to all different age groups and technical background.
- Should make people aware of the potential impacts of hazardous household materials on water quality and inform residents of ways to properly store, handle, and dispose of the chemicals
- Water usage in the home can easily be reduced by 15 to 20 percent—without major discomfort—by implementing a program to conserve water in the home.
- Lawn and garden activities can result in contamination of storm water through pesticide, soil, and fertilizer runoff. Proper landscape management, however, can effectively reduce water use and contaminant runoff and enhance the aesthetics of a property.

LIMITATIONS:

- Not everyone will actually read or incorporate the information into their lives.
- Budgets need to have sufficient funds to obtain educational materials and their distribution.

MAINTENANCE:

- Programs and educational materials can be re-used, but they must be presented on a continual basis.

APPLICATIONS

☒ Manufacturing
☒ Material Handling
☒ Vehicle Maintenance
☒ Construction
☒ Commercial Activities
☒ Roadways
☒ Waste Containment
☒ Housekeeping Practices

TARGETED POLLUTANTS

■ Sediment
■ Nutrients
■ Heavy Metals
■ Toxic Materials
■ Oxygen Demanding Substances
■ Oil & Grease
■ Floatable Materials
■ Bacteria & Viruses

■ High Impact
☒ Medium Impact
☐ Low or Unknown Impact

IMPLEMENTATION REQUIREMENTS

☒ Capital Costs
☐ O&M Costs
☐ Maintenance
☐ Training

■ High ☒ Medium ☐ Low

BMP: Employee Training

ET

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

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

OBJECTIVES:
Employee training should be based on four objectives:

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

APPROACH:

< Integrate training regarding stormwater quality management with existing training programs that may be required for other regulations.
< Employee training is a vital component of many of the individual source control BMPs included in this manual.

PROGRAM ELEMENTS

: New Development
: Residential
: Commercial Activities
: Industrial Activities
: Municipal Facilities
: Illegal Discharges

TARGETED POLLUTANTS

- Sediment
- Nutrients
- Heavy Metals
- Toxic Materials
- Oxygen Demanding Substances
- Oil & Grease
- Floatable Materials
- Bacteria & Viruses

■ High Impact
☒ Medium Impact
☐ Low or Unknown Impact

IMPLEMENTATION REQUIREMENTS

: Capital Costs
: O&M Costs
9 Regulatory
- Training
: Staffing
: Administrative

■ High ☒ Medium ☐ Low

BMP: Erosion Control Plan

ECP

Diversion dikes can be used to contain storm water onsite

DESCRIPTION:

Erosion and sediment control are generally two of the biggest problems on construction sites. Erosion control measures must be taken during a construction project. An Erosion Control Plan will be submitted and approved before work can begin on the project. An Erosion Control Plan describes what erosion control BMPs will be implemented, when and where, during the project. Erosion and sediment control measures should be installed before other construction activities begin.

APPROACH:

- Create a list of possible erosion control BMPs that could be implemented in any given project.
- Require submittal of erosion & sediment control plans for projects that are on 1 acre and larger sites.
- Develop a review checklist for plan review personnel.
- Provide the review checklist to contractors/developers so they know what is expected.
- Provide inspectors with a copy of the approved plans.
- Check to make sure erosion control measures are properly installed before beginning other construction activities.

LIMITATIONS:

- Must be enforced to be affective.
- Sometimes site conditions are different than planned on and the plans have to be modified.
- The erosion control measures have to be maintained.
- The BMPs have to be installed early on in the project.
- The BMPs have to be removed after the threat of erosion is no longer present.

APPLICATIONS

- ☐ Manufacturing
- ☐ Material Handling
- ☐ Vehicle Maintenance
- ■ Construction
- ☐ Commercial Activities
- ☒ Roadways
- ☐ Waste Containment
- ☐ Housekeeping Practices

TARGETED POLLUTANTS

- ■ Sediment
- ☒ Nutrients
- ☐ Heavy Metals
- ☐ Toxic Materials
- ☐ Oxygen Demanding Substances
- ☐ Oil & Grease
- ☐ Floatable Materials
- ☐ Bacteria & Viruses

- ■ High Impact
- ☒ Medium Impact
- ☐ Low or Unknown Impact

IMPLEMENTATION REQUIREMENTS

- ☒ Capital Costs
- ☒ O&M Costs
- ☐ Maintenance
- ☒ Training

BMP: Housekeeping Practices

HP

DESCRIPTION:

Promote efficient and safe housekeeping practices (storage, use, and cleanup) when handling potentially harmful materials such as fertilizers, pesticides, cleaning solutions, paint products, automotive products, and swimming pool chemicals.

APPROACH:

< Pattern a new program after the many established programs from municipalities around the country. Integrate this best management practice as much as possible with existing programs at your municipality.

< This BMP has two key audiences: municipal employees and the general public.

< For the general public, municipalities should establish a public education program that provides information on such items as storm water pollution and beneficial effects of proper disposal on water quality; reading product labels; safer alternative products; safe storage, handling, and disposal of hazardous products; list of local agencies; and emergency phone numbers. The programs listed below have provided this information through brochures or booklets that are available at a variety of locations including municipal offices, household hazardous waste collection events or facilities, and public information fairs.

Municipal facilities should develop controls on the application of pesticides, herbicides, and fertilizers in public right-of-ways and at municipal facilities. Controls may include:

< List of approved pesticides and selected uses.

< Product and application information for users.

< Equipment use and maintenance procedures.

< Record keeping and public notice procedures.

LIMITATIONS:

There are no major limitations to this best management practice.

PROGRAM ELEMENTS

☐ New Development
☒ Residential
☐ Commercial Activities
☐ Industrial Activities
☒ Municipal Facilities
☐ Illegal Discharges

TARGETED POLLUTANTS

- Sediment
- Nutrients
9 Heavy Metals
- Toxic Materials
- Oxygen Demanding Substances
- Oil & Grease
9 Floatable Materials
9 Bacteria & Viruses

■ High Impact
☒ Medium Impact
☐ Low or Unknown Impact

IMPLEMENTATION REQUIREMENTS

9 Capital Costs
: O&M Costs
9 Regulatory
- Training
: Staffing
9 Administrative

■ High ☒ Medium ☐ Low

BMP: Infrastructure Planning

IPL

Developers can design streets and pedestrian paths to maximize convenience and safety while at the same time minimizing impervious surface area (Source: The Rouse Company, no date)

APPLICATIONS

- ☐ Manufacturing
- ☐ Material Handling
- ☐ Vehicle Maintenance
- ☒ Construction
- ☒ Commercial Activities
- ☒ Roadways
- ☐ Waste Containment
- ☐ Housekeeping Practices

DESCRIPTION:

This practice requires changes in the regional growth planning process to contain sprawl development. Sprawl development is the expansion of low-density development into previously undeveloped land. The American Farmland Trust has estimated that the United States is losing about 50 acres an hour to suburban and exurban development (Longman, 1998). This sprawl development requires local governments to extend public services to new residential communities whose tax payments often do not cover the cost of providing those services. For example, in Prince William County, Virginia, officials have estimated that the costs of providing services to new residential homes exceeds what is brought in from taxes and other fees by $1,600 per home (Shear and Casey, 1996).

Infrastructure planning makes wise decisions to locate public services—water, sewer, roads, schools, and emergency services—in the suburban fringe and direct new growth into previously developed areas, discouraging

Low-density development. Generally, this is done by drawing a boundary or envelope around a community, beyond which major public infrastructure investments are discouraged or not subsidized. Meanwhile, economic and other incentives are provided within the boundary to encourage growth in existing neighborhoods.

APPROACH:

- Sprawl development negatively impacts water quality in several ways. The most significant impact comes from the increase in impervious cover that is associated with sprawl growth. In addition to rooftop impervious area from new development, extension of road systems and additions of paved surface from driveways create an overall increase in imperviousness.
- *Urban Growth Boundaries*. This planning tool establishes a dividing line that defines where a growth limit is to occur and where agricultural or rural land is to be preserved. Often, an urban services area is included in this boundary that creates a zone where public services will not be extended.
- *Infill/Community Redevelopment*. This practice encourages new development in unused or underutilized land in existing urban areas. Communities may offer tax breaks or other economic incentives to developers to promote the redevelopment of properties that are vacant or damaged.

LIMITATIONS:

- Intense development of existing areas can create a new set of challenges for storm water program managers. Storm water management solutions are often more difficult and complex in ultra-urban areas than in suburban areas
- Infrastructure planning is often done on a regional scale and requires a cooperative effort between all the communities within a given region in order to be successful.

TARGETED POLLUTANTS

- ☒ Sediment
- ☐ Nutrients
- ☐ Heavy Metals
- ☐ Toxic Materials
- ☐ Oxygen Demanding Substances
- ☐ Oil & Grease
- ☐ Floatable Materials
- ☐ Bacteria & Viruses

- ■ High Impact
- ☒ Medium Impact
- ☐ Low or Unknown Impact

IMPLEMENTATION REQUIREMENTS

- ☒ Capital Costs
- ☒ O&M Costs
- ☒ Maintenance
- ☐ Training

■ High ☒ Medium ☐ Low

BMP: Landscape & Irrigation Plan

LIP

DESCRIPTION:

All developers are required to submit a landscape and irrigation plan for their developments. Lawn and garden activities can result in contamination of storm water through pesticide, soil, and fertilizer runoff. Proper landscape management, however, can effectively reduce water use and contaminant runoff as well as enhance the aesthetics of a property.

APPROACH:

- Develop landscape and irrigation plan preparation guidelines.
- Require a landscape and irrigation plan for each new commercial development.
- Educate local developers on how to create effective landscape and irrigation plans for their new developments.
- Educate municipal staff to review property landscape and irrigation plans to minimize runoff.
- Check all new irrigation plans to ensure that there will be no overspray onto impervious surfaces and that the irrigation water will be contained on site.
- Uniform coverage for sprinkler systems should be checked to help minimize over watering.

LIMITATIONS:

- More time and effort will be required of the municipal staff to review new development plans.
- Some communities do note have the expertise to complete proper reviews in-house.

MAINTENANCE:

- Programs and educational materials can be repeatedly sent out or emphasized. Extension service continues to research and provide current data.

APPLICATIONS

☒ Manufacturing
☐ Material Handling
☐ Vehicle Maintenance
■ Construction
☒ Commercial Activities
☐ Roadways
☐ Waste Containment
☒ Housekeeping Practices

TARGETED POLLUTANTS

☐ Sediment
■ Nutrients
☐ Heavy Metals
☐ Toxic Materials
☐ Oxygen Demanding Substances
☒ Oil & Grease
☐ Floatable Materials
☐ Bacteria & Viruses

■ High Impact
☒ Medium Impact
☐ Low or Unknown Impact

IMPLEMENTATION REQUIREMENTS

☒ Capital Costs
☒ O&M Costs
☐ Maintenance
☒ Training

BMP: Ordinance Development

OD

APPLICATIONS

☒ Manufacturing
☒ Material Handling
☒ Vehicle Maintenance
☒ Construction
☒ Commercial Activities
☒ Roadways
☒ Waste Containment
☒ Housekeeping Practices

DESCRIPTION:

Existing ordinances relating to storm water are reviewed for compliance. New ordinances are written to prohibit non-storm water discharges into the Municipal Separate Storm Sewer System (MS4), require proper erosion and sediment controls on construction sites, require the implementation of post-construction runoff controls, and to ensure proper planning/zoning protections.

APPROACH:

- Review existing storm drain ordinances for consistency and compliance with state and federal regulations and make improvements, if necessary. Ensure that no conflicts will occur with new ordinances that will be written and adopted.
- Write and adopt an ordinance that prohibits (to the extent allowable under State, Tribal, or local law) the discharge of non-storm water discharges into the MS4 with appropriate enforcement procedures and actions.
- Write and adopt an ordinance, with sanctions to ensure compliance, requiring the implementation of proper erosion and sediment controls, and controls for other wastes, on applicable construction sites.
- Write and adopt an ordinance requiring the implementation of post-construction runoff controls to the extent allowable under State, Tribal, or local law.
- Educate the public about the new ordinances.
- Enforce the new ordinances.

LIMITATIONS:

- Wording of ordinances is often difficult. It should be specific to serve the intended purpose, but not too specific to cause potential conflicts with other ordinances or situations.
- Once an ordinance is adopted, it can be difficult to modify ordinances to meet changing needs.
- Ordinances have to be enforced to be beneficial.
- Ordinances take time to change.

TARGETED POLLUTANTS

☒ Sediment
☒ Nutrients
☒ Heavy Metals
☒ Toxic Materials
☒ Oxygen Demanding Substances
☒ Oil & Grease
☒ Floatable Materials
☒ Bacteria & Viruses

■ High Impact
☒ Medium Impact
☐ Low or Unknown Impact

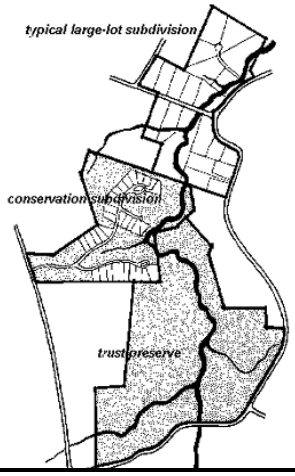
IMPLEMENTATION REQUIREMENTS

■ Capital Costs
☐ O&M Costs
☐ Maintenance
☐ Training

■ High ☒ Medium ☐ Low

BMP: Zoning

ZO



APPLICATIONS

- ☐ Manufacturing
- ☐ Material Handling
- ☐ Vehicle Maintenance
- ☒ Construction
- ☒ Commercial Activities
- ☐ Roadways
- ☐ Waste Containment
- ☐ Housekeeping Practices

DESCRIPTION:

Zoning is a classification scheme for land use planning. Zoning can serve numerous functions and can help mitigate storm water runoff problems by facilitating better site designs. By correctly applying the right zoning technique, development can be targeted into specific areas, limiting development in other areas and providing protection for the most important land conservation areas.

APPROACH:

- Impervious Overlay Zoning: This type of overlay zoning limits future impervious areas.
- Incentive Zoning: This planning technique relies on bonuses or incentives for developers to encourage the creation of certain amenities or land use designs. A developer is granted the right to build more intensively on a property or given some other bonus in exchange for an amenity or a design that the community considers beneficial.
- Performance Zoning: Performance zoning is a flexible approach that has been employed in a variety of fashions in several different communities across the country. Some performance factors include traffic or noise generation limits, lighting requirements, storm water runoff quality and quantity criteria, protection of wildlife and vegetation, and even architectural style criteria
- Urban Growth Boundaries: Urban growth boundaries are sometimes called development service districts and include areas where public services are already provided (e.g., sewer, water, roads, police, fire, and schools).

LIMITATIONS:

- Some zoning techniques may be limited by economic and political acceptance and should be evaluated on these criteria as well as storm water management goals.

TARGETED POLLUTANTS

- ☒ Sediment
- ☐ Nutrients
- ☐ Heavy Metals
- ☐ Toxic Materials
- ☐ Oxygen Demanding Substances
- ☐ Oil & Grease
- ☐ Floatable Materials
- ☐ Bacteria & Viruses

- ■ High Impact
- ☒ Medium Impact
- ☐ Low or Unknown Impact

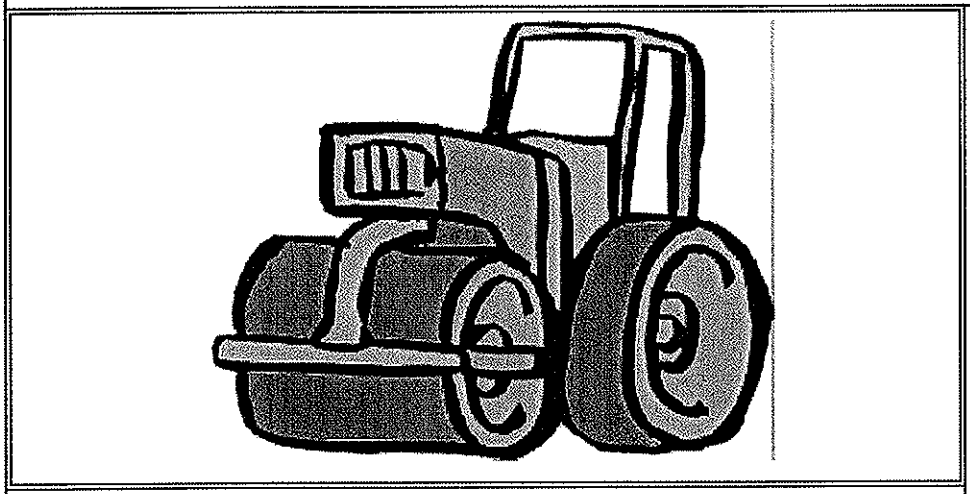
IMPLEMENTATION REQUIREMENTS

- ☒ Capital Costs
- ☒ O&M Costs
- ☒ Maintenance
- ☐ Training

■ High ☒ Medium ☐ Low

BMP: Compaction

CP



DESCRIPTION:
Use of rolling, tamping, or vibration to stablize fill materials and control erosion by increasing the soil density. Increasing the density of soil improves soil strength, reduces long-term soil settlement, and provides resistance to erosion.

APPLICATIONS:
- Stabilize fill material placed around various structures.
- Improve soil in place as foundation support for roads, parking lots, and buildings.

INSTALLATION/APPLICATION CRITERIA:
- Make sure soil moisture content is at optimum levels.
- Use proper compaction equipment.
- Install sediment control and storm water management devices below compacted areas and runon interceptor devices above these areas. Drainage from compacted areas must be carefully planned to protect adjacent uncompacted soils.
- The surface of compacted areas should be scarified and seeded or mulched and seeded to increase the effectiveness of compaction.

LIMITATIONS:
- Compaction tends to increase runoff.
- Over-compaction will hamper revegetation efforts.

MAINTENANCE:
No maintenance required.

OBJECTIVES

- ☐ Housekeeping Practices
- ☐ Contain Waste
- ☒ Minimize Disturbed Areas
- ☒ Stabilize Disturbed Areas
- ☐ Protect Slopes/Channels
- ☐ Control Site Perimeter
- ☐ Control Internal Erosion

TARGETED POLLUTANTS

- ■ Sediment
- ☐ Nutrients
- ☐ Toxic Materials
- ☐ Oil & Grease
- ☐ Floatable Materials
- ☐ Other Waste

- ■ High Impact
- ☒ Medium Impact
- ☐ Low or Unknown Impact

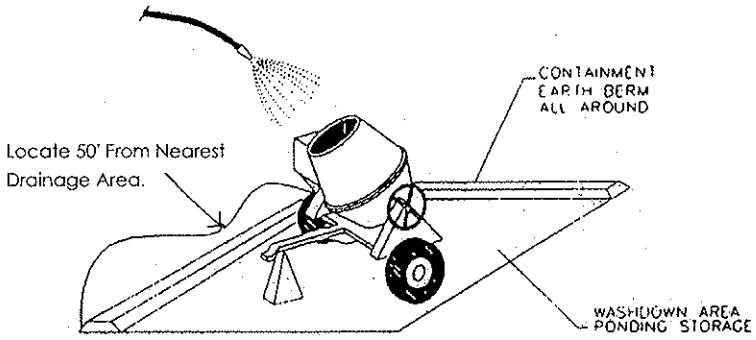
IMPLEMENTATION REQUIREMENTS

- ☒ Capital Costs
- ☒ O&M Costs
- ☐ Maintenance
- ☒ Training

■ High ☒ Medium ☐ Low

BMP: Concrete Waste Management

CWM



DESCRIPTION:
Prevent or reduce the discharge of pollutants to storm water from concrete waste by conducting washout off-site, performing on-site washout in a designated area, and training employees and subcontractors.

APPLICATIONS:
This technique is applicable to all types of sites.

INSTALLATION/APPLICATION CRITERIA:
- Store dry and wet materials under cover, away from drainage areas.
- Avoid mixing excess amounts of fresh concrete or cement on-site.
- Perform washout of concrete trucks off-site or in designated areas only.
- Do not wash out concrete trucks into storm drains, open ditches, streets, or streams.
- Do not allow excess concrete to be dumped on-site, except in designated areas.
- When washing concrete to remove fine particles and expose the aggregate, avoid creating runoff by draining the water within a bermed or level area. (See Earth Berm Barrier information sheet.)
- Train employees and subcontractors in proper concrete waste management.

LIMITATIONS:
- Off-site washout of concrete wastes may not always be possible.

MAINTENANCE:
- Inspect subcontractors to ensure that concrete wastes are being properly managed.
- If using a temporary pit, dispose hardened concrete on a regular basis.

OBJECTIVES

- ☐ Housekeeping Practices
- ☒ Contain Waste
- ☐ Minimize Disturbed Areas
- ☐ Stabilize Disturbed Areas
- ☐ Protect Slopes/Channels
- ☐ Control Site Perimeter
- ☐ Control Internal Erosion

TARGETED POLLUTANTS

- ☐ Sediment
- ☐ Nutrients
- ☐ Toxic Materials
- ☐ Oil & Grease
- ☐ Floatable Materials
- ☒ Other Waste

- ■ High Impact
- ☒ Medium Impact
- ☐ Low or Unknown Impact

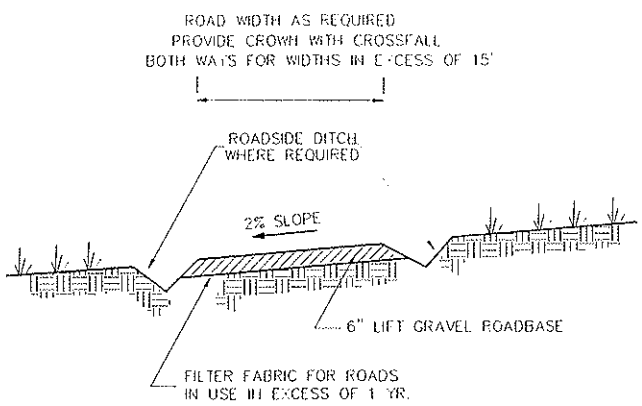
IMPLEMENTATION REQUIREMENTS

- ☐ Capital Costs
- ☐ O&M Costs
- ☒ Maintenance
- ☒ Training

■ High ☒ Medium ☐ Low

BMP: Construction Road Stabilization

CR



DESCRIPTION:
Temporary stabilization of on-site roadway by placement of gravel roadbase.

APPLICATION:
- On-site roadways used daily by construction traffic (may not apply to gravelly type soils)
- Parking or staging areas susceptible to erosion due to traffic use

INSTALLATION/APPLICATION CRITERIA:
- Grade temporary access road with 2% cross fall, for two-way width provide crown.
- Provide roadside ditch and outlet controls where required.
- Place 6 inches of 2-inch to 4-inch crushed rock on driving area

LIMITATIONS:
- May require removal of gravel roadbase at completion of activities if final cover is not impervious
- May require controls for surface storm water runoff

MAINTENANCE:
- Inspect after major rainfall events and at least monthly.
- Place additional gravel as needed and repair any damaged areas.
- Maintain any roadside drainage controls.

OBJECTIVES

- ☒ Housekeeping Practices
- ☐ Contain Waste
- ☒ Minimize Disturbed Areas
- ☒ Stabilize Disturbed Areas
- ☒ Protect Slopes/Channels
- ☐ Control Site Perimeter
- ☐ Control Internal Erosion

TARGETED POLLUTANTS

- ■ Sediment
- ☐ Nutrients
- ☐ Toxic Materials
- ☐ Oil & Grease
- ☐ Floatable Materials
- ☐ Other Waste

- ■ High Impact
- ☒ Medium Impact
- ☐ Low or Unknown Impact

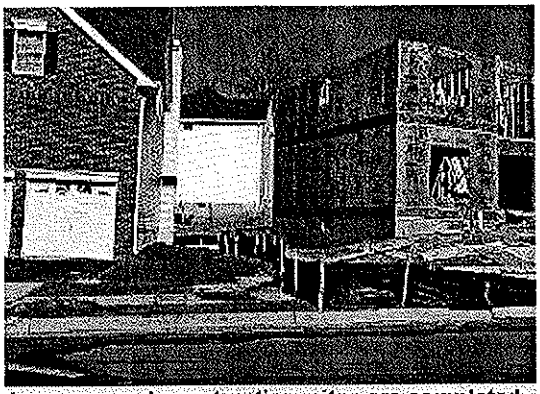
IMPLEMENTATION REQUIREMENTS

- ☒ Capital Costs
- ☒ O&M Costs
- ☒ Maintenance
- ☐ Training

■ High ☒ Medium ☐ Low

BMP: Construction Sequencing

CS



In sequenced construction, sites are completed in stages and completed portions are permanently stabilized before other areas are disturbed

APPLICATIONS

- ☐ Manufacturing
- ☒ Material Handling
- ☐ Vehicle Maintenance
- ☒ Construction
- ☐ Commercial Activities
- ☐ Roadways
- ☐ Waste Containment
- ☐ Housekeeping Practices

DESCRIPTION:

Construction sequencing requires creating and following a work schedule that balances the timing of land disturbance activities and the installation of measures to control erosion and sedimentation, in order to reduce on-site erosion and off-site sedimentation. Staging areas can be used to limit contamination and erosion.

APPROACH:

- Construction sequencing can be used to plan earthwork and erosion and sediment control (ESC) activities at sites where land disturbances might affect water quality in a receiving waterbody.
- Construction sequencing schedules should, at a minimum, include the following: the ESC practices that are to be installed, principal development activities, which measures should be installed before other activities are started, compatibility with the general contract construction schedule
- Construction access—entrance to site, construction routes, areas designated for equipment parking
- Sediment traps and barriers—basin traps, sediment fences, outlet protection
- Runoff conveyance system—stabilize stream banks, storm drains, channels, inlet and outlet protection, slope drains
- Land clearing and grading—site preparation (cutting, filling, and grading, sediment traps, barriers, diversions, drains, surface roughening)
- Landscaping and final stabilization—topsoiling, trees and shrubs, permanent seeding, mulching, sodding, riprap

LIMITATIONS:

- Weather and other unpredictable variables may affect construction sequence schedules.

MAINTENANCE:

- The construction sequence should be followed throughout the project and the written plan should be modified before any changes in construction activities are executed.

TARGETED POLLUTANTS

- ■ Sediment
- ☒ Nutrients
- ☐ Heavy Metals
- ☐ Toxic Materials
- ☐ Oxygen Demanding Substances
- ☐ Oil & Grease
- ☒ Floatable Materials
- ☐ Bacteria & Viruses

- ■ High Impact
- ☒ Medium Impact
- ☐ Low or Unknown Impact

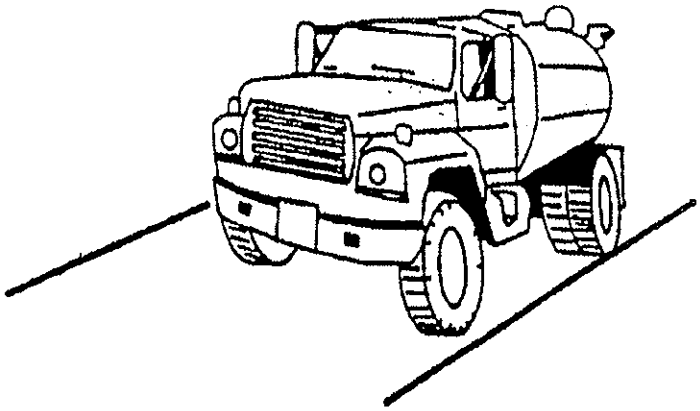
IMPLEMENTATION REQUIREMENTS

- ☒ Capital Costs
- ☐ O&M Costs
- ☒ Maintenance
- ☐ Training

■ High ☒ Medium ☐ Low

BMP: Dust Controls

DC



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

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

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

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

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

OBJECTIVES

- ☒ Housekeeping Practices
- ☐ Contain Waste
- ☒ Minimize Disturbed Areas
- ☒ Stabilize Disturbed Areas
- ☐ Protect Slopes/Channels
- ☐ Control Site Perimeter
- ☐ Control Internal Erosion

TARGETED POLLUTANTS

- ■ Sediment
- ☐ Nutrients
- ☐ Toxic Materials
- ☐ Oil & Grease
- ☐ Floatable Materials
- ☐ Other Waste

- ■ High Impact
- ☒ Medium Impact
- ☐ Low or Unknown Impact

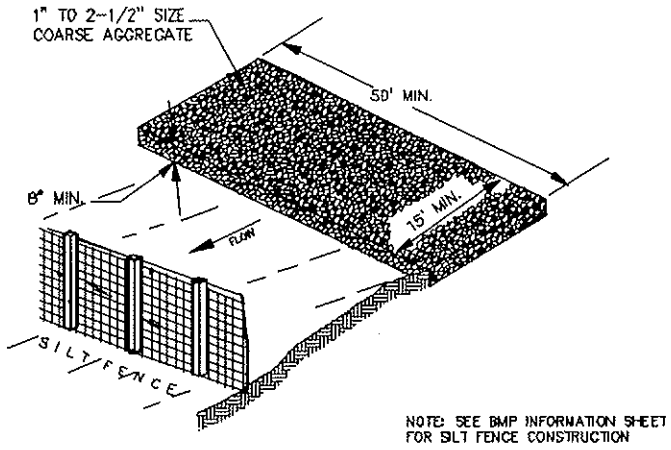
IMPLEMENTATION REQUIREMENTS

- ☒ Capital Costs
- ☐ O&M Costs
- ☒ Maintenance
- ☒ Training

■ High ☒ Medium ☐ Low

BMP: Equipment and Vehicle Wash Down Area

EVWA



OBJECTIVES

- ☒ Housekeeping Practices
- ☐ Contain Waste
- ☐ Minimize Disturbed Areas
- ☐ Stabilize Disturbed Areas
- ☐ Protect Slopes/Channels
- ☐ Control Site Perimeter
- ☒ Control Internal Erosion

DESCRIPTION:
A stabilized pad of crushed stone for general washing of equipment and construction vehicles.

APPLICATION:
At any site where regular washing of vehicles and equipment will occur. May also be used as a filling point for water trucks limiting erosion caused by overflow or spillage of water.

INSTALLATION/APPLICATION CRITERIA:

- Clear and grub area and grade to provide maximum slope of 1%
- Compact subgrade and place filter fabric if desired (recommended for wash areas to remain in use for more than 3 months).
- Place coarse aggregate, 1 to 2-1/2 inches in size, to a minimum depth of 8-inches.
- Install silt fence downgradient (see silt fence BMP information sheet).

LIMITATIONS:
Cannot be utilized for washing equipment or vehicles that may cause contamination of runoff such as fertilizer equipment or concrete equipment. Solely used to control sediment in wash water.

MAINTENANCE:

- Inspect daily for loss of gravel or sediment buildup.
- Inspect adjacent area for sediment deposit and install additional controls as necessary.
- Repair area and replace gravel as required to maintain control in good working condition.
- Expand stabilized area as required to accomodate activities.
- Maintain silt fence as outlined in specific silt fence BMP information sheet.

TARGETED POLLUTANTS

- ■ Sediment
- ☐ Nutrients
- ■ Toxic Materials
- ■ Oil & Grease
- ☐ Floatable Materials
- ☐ Other Waste

- ■ High Impact
- ☒ Medium Impact
- ☐ Low or Unknown Impact

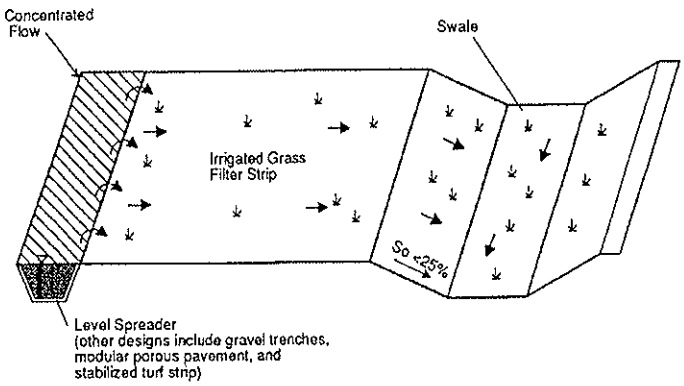
IMPLEMENTATION REQUIREMENTS

- ☒ Capital Costs
- ☐ O&M Costs
- ☒ Maintenance
- ☐ Training

■ High ☒ Medium ☐ Low

BMP: Filter Strips

FS



General Description:

Filter strips are 20-foot-wide strips of natural or planted vegetation around a construction site. They are designed to cause deposition of sediments within the vegetation layer.

Applications:

- Suited for areas where the soils are well drained or moderately well drained.
- Areas where the bedrock and the water table are well below the surface.

Installation/Application Criteria:

- Make sure the vegetative cover is dense enough to protect underlying soil while causing sediment to settle.
- Filter strip must be approximately 20 feet wide to function well.
- The length should be approximately 50 to 75 feet. Where slopes become steeper the length of the strip must be increased.

Limitations:

- Only applicable in areas where vegetation is previously established or where sod is added.
- Vegetated filter strips will not function well on steep slopes, in hilly areas, or in highly paved areas.
- Sites with slopes of 15 percent or more may not be suitable for filtering storm water flows.

Maintenance:

- Check for channels and repair.
- Provide rock aprons to aid in slowing flow if necessary.
- Maintain vegetation at optimal height and thickness.

Objectives

- ☐ Housekeeping Practices
- ☐ Contain Waste
- ☐ Minimize Disturbed Areas
- ☒ Stabilize Disturbed Areas
- ☒ Protect Slopes/Channels
- ☒ Control Site Perimeter
- ☐ Control Internal Erosion

Targeted Pollutants

- ■ Sediment
- ☒ Nutrients
- ☐ Toxic Materials
- ☐ Oil & Grease
- ☐ Floatable Materials
- ☐ Other Waste

- ■ High Impact
- ☒ Medium Impact
- ☐ Low or Unknown Impact

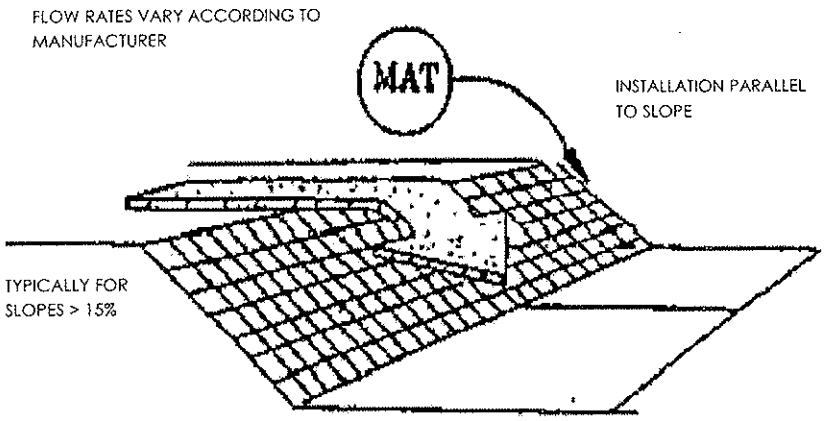
Implementation Requirements

- ■ Capital Costs
- ☒ O&M Costs
- ☒ Maintenance
- ☐ Training

■ High ☒ Medium ☐ Low

BMP:Geotextiles and Mats

GM



DESCRIPTION:
Mattings made of natural or synthetic material which are used to temporarily or permanently stabilize soil.

APPLICATION:
- Typically suited for post-construction site stabilization, but may be used for temporary stabilization of highly erosive soils.
- Channels and streams.
- Steep slopes.

INSTALLATION/APPLICATION CRITERIA:
- Mattings may be applied to disturbed soils and where existing vegetation has been removed.
- The following organic matting materials provide temporary protection until permanent vegetation is established, or when seasonal circumstances dictate the need for temporary stabilization until weather or construction delays are resolved: Jute mattings and straw mattings.
- The following synthetic mattings may be used for either temporary or post-construction stabilization, both with and without vegetation: excelsior matting, glass fiber matting, mulch matting.
- Staples are needed to anchor the matting.

LIMITATIONS:
- Mattings are more costly than other BMP practices, limiting their use to areas where other BMPs are ineffective (e.g., channels, steep slopes).
- May delay seed germination, due to reduction in soil temperature.
- Installation requires experienced contractor to ensure soil stabilization and erosion protection.

MAINTENANCE:
- Inspect monthly and after significant rainfall.
- Re-anchor loosened matting and replace missing matting and staples as required.

OBJECTIVES

- ☐ Housekeeping Practices
- ☐ Contain Waste
- ☐ Minimize Disturbed Areas
- ☒ Stabilize Disturbed Areas
- ☒ Protect Slopes/Channels
- ☐ Control Site Perimeter
- ☒ Control Internal Erosion

TARGETED POLLUTANTS

- ■ Sediment
- ☐ Nutrients
- ☐ Toxic Materials
- ☐ Oil & Grease
- ☐ Floatable Materials
- ☐ Other Waste

- ■ High Impact
- ☒ Medium Impact
- ☐ Low or Unknown Impact

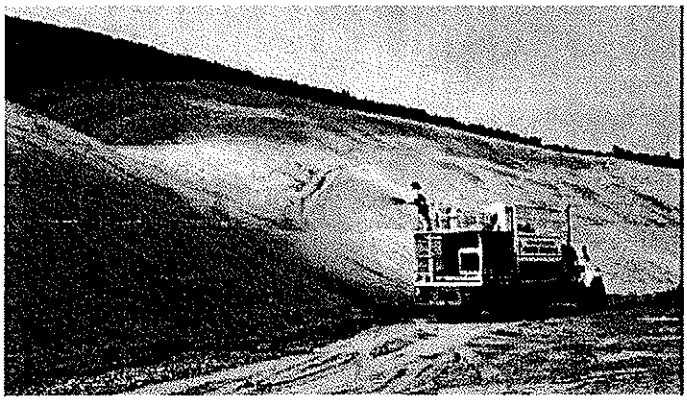
IMPLEMENTATION REQUIREMENTS

- ■ Capital Costs
- ☒ O&M Costs
- ☒ Maintenance
- ☐ Training

■ High ☒ Medium ☐ Low

BMP: Hydromulching

HM



DESCRIPTION:
A combination of wood fiber mulch, processed grass, or hay or straw mulch and a tacking agent. It is made into a slurry, then applied to bare slopes or other bare areas to provide temporary stabilization.

APPLICATIONS:
- Small roadside slopes.
- Large, relatively flat areas.

INSTALLATION/APPLICATION CRITERIA:
- Legume seeds should be pellet inoculated with the appropriate bacteria.
- The seed should not remain in the hydromulcher tank for more than 30 minutes.
- Wood fiber may be dyed to aid in uniform application.
- Slurry should be uniformly applied until an adequate coverage is achieved.
- The applicator should not be directed at one location for a long period of time; erosion will occur.

LIMITATIONS:
- Will lose effectiveness after 1 year.
- Can use only on physically stable slopes (at natural angle of repose, or less).

MAINTENANCE:
- Periodically inspect for damage caused by wind, water, or human disturbance.
- Promply repair damaged areas.

OBJECTIVES

- ☐ Housekeeping Practices
- ☐ Contain Waste
- ☐ Minimize Disturbed Areas
- ☒ Stabilize Disturbed Areas
- ☒ Protect Slopes/Channels
- ☐ Control Site Perimeter
- ☐ Control Internal Erosion

TARGETED POLLUTANTS

- ☒ Sediment
- ☐ Nutrients
- ☐ Toxic Materials
- ☐ Oil & Grease
- ■ Floatable Materials
- ☐ Other Waste

- ■ High Impact
- ☒ Medium Impact
- ☐ Low or Unknown Impact

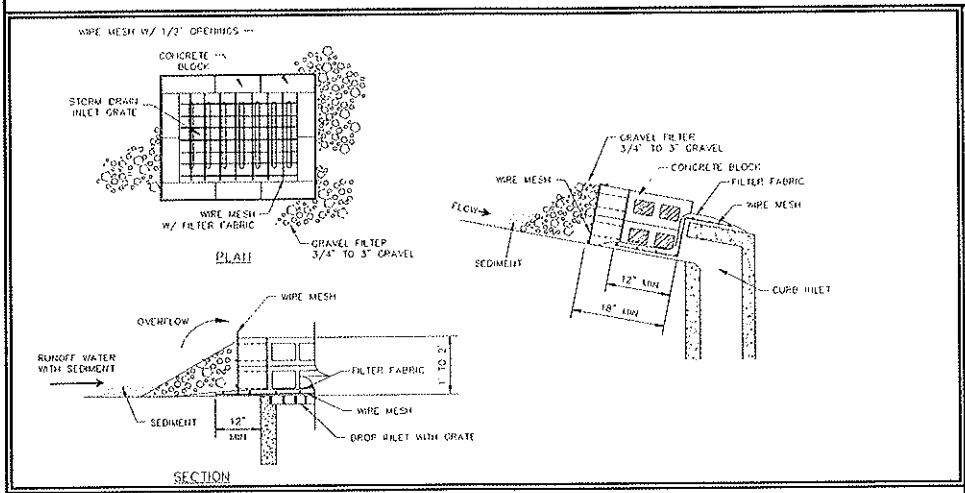
IMPLEMENTATION REQUIREMENTS

- ☒ Capital Costs
- ☐ O&M Costs
- ☐ Maintenance
- ☐ Training

■ High ☒ Medium ☐ Low

BMP:Inlet Protection - Concrete Block

IP



DESCRIPTION:
Concrete block and gravel filter placed over inlet to storm drain system.

APPLICATION:
Construct at inlets in paved or unpaved areas where upgradient area is to be disturbed by construction activities.

INSTALLATION/APPLICATION CRITERIA:
- Place wire mesh (with ½ inch openings) over the inlet grate extending one foot past the grate in all directions.
- Place concrete blocks around the inlet with openings facing outward. Stack blocks to minimum height of 12-inches and maximum height of 24-inches.
- Place wire mesh around outside of blocks.
- Place gravel (3/4" to 3") around blocks.

LIMITATIONS:
- Recommended for maximum drainage area of one acre.
- Excess flows may bypass the inlet requiring down gradient controls.
- Ponding will occur at inlet.

MAINTENANCE:
- Inspect inlet protection after every large storm event and at a minimum of once monthly.
- Remove sediment accumulated when it reaches 4-inches in depth.
- Replace filter fabric and clean or replace gravel if clogging is apparent.

OBJECTIVES

- ☐ Housekeeping Practices
- ☐ Contain Waste
- ☐ Minimize Disturbed Areas
- ☐ Stabilize Disturbed Areas
- ☐ Protect Slopes/Channels
- ☒ Control Site Perimeter
- ☒ Control Internal Erosion

TARGETED POLLUTANTS

- ■ Sediment
- ☐ Nutrients
- ☐ Toxic Materials
- ☐ Oil & Grease
- ■ Floatable Materials
- ☐ Other Waste

- ■ High Impact
- ☒ Medium Impact
- ☐ Low or Unknown Impact

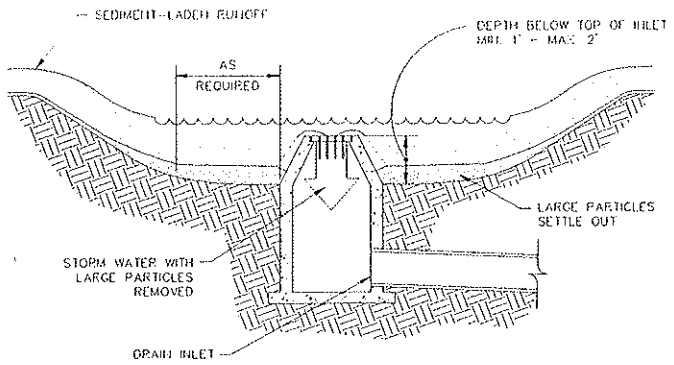
IMPLEMENTATION REQUIREMENTS

- ☒ Capital Costs
- ☐ O&M Costs
- ☒ Maintenance
- ☐ Training

■ High ☒ Medium ☐ Low

BMP: Inlet Protection - Excavated

IP



DESCRIPTION:
An area excavated around a storm drain inlet to impound water below the inlet.

APPLICATION:
Construct at storm drainage inlets located downgradient of areas to be disturbed by construction (for inlets in paved areas see other information sheets for inlet protection).

INSTALLATION/APPLICATION CRITERIA:
- Provide upgradient sediment controls, such as silt fence during construction of inlet.
- When construction of inlet is complete, excavate adjacent area 1 to 2 feet lower than the grate elevation. Size of excavated area should be based on soil type and contributing acreage.

LIMITATIONS:
- Recommended maximum contributing drainage area of one acre.
- Limited to inlets located in open unpaved areas.
- Requires flat area adjacent to inlet.

MAINTENANCE:
- Inspect inlet protection following storm event and at a minimum of once monthly.
- Remove accumulated sediment when it reaches one half of the excavated sump below the grate.
- Repair side slopes as required.

OBJECTIVES

- ☐ Housekeeping Practices
- ☐ Contain Waste
- ☐ Minimize Disturbed Areas
- ☐ Stabilize Disturbed Areas
- ☐ Protect Slopes/Channels
- ☒ Control Site Perimeter
- ☒ Control Internal Erosion

TARGETED POLLUTANTS

- ■ Sediment
- ☐ Nutrients
- ☒ Toxic Materials
- ☐ Oil & Grease
- ■ Floatable Materials
- ☐ Other Waste

- ■ High Impact
- ☒ Medium Impact
- ☐ Low or Unknown Impact

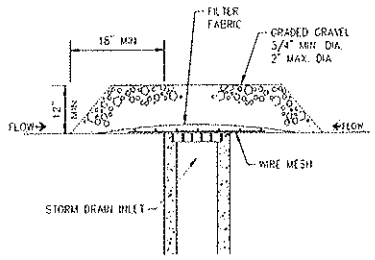
IMPLEMENTATION REQUIREMENTS

- ☐ Capital Costs
- ☐ O&M Costs
- ☒ Maintenance
- ☐ Training

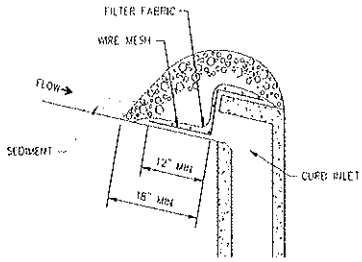
■ High ☒ Medium ☐ Low

BMP: Inlet Protection - Gravel

IP



DROP INLET PROTECTION-GRAVEL



CURB INLET PROTECTION-GRAVEL

DESCRIPTION:
Placement of gravel filter over inlet to storm drain to filter storm water runoff.

APPLICATION:
Construct at inlets in paved or unpaved areas where upgradient area is to be disturbed by construction activities.

INSTALLATION/APPLICATION CRITERIA:
- Place wire mesh (with ½ inch openings) over the inlet grate extending one foot past the grate in all directions.
- Place filter fabric over the mesh. Filter fabric should be selected based on soil type.
- Place graded gravel, to a minimum depth of 12-inches, over the filter fabric and extending 18-inches past the grate in all directions.

LIMITATIONS:
- Recommended for maximum drainage area of one acre.
- Excess flows may bypass the inlet requiring down gradient controls.
- Ponding will occur at inlet.

MAINTENANCE:
- Inspect inlet protection after every large storm event and at a minimum of once monthly.
- Remove sediment accumulated when it reaches 4-inches in depth.
- Replace filter fabric and clean or replace gravel if clogging is apparent.

OBJECTIVES

- ☐ Housekeeping Practices
- ☐ Contain Waste
- ☐ Minimize Disturbed Areas
- ☐ Stabilize Disturbed Areas
- ☐ Protect Slopes/Channels
- ☒ Control Site Perimeter
- ☒ Control Internal Erosion

TARGETED POLLUTANTS

- ■ Sediment
- ☐ Nutrients
- ☐ Toxic Materials
- ☐ Oil & Grease
- ■ Floatable Materials
- ☐ Other Waste

- ■ High Impact
- ☒ Medium Impact
- ☐ Low or Unknown Impact

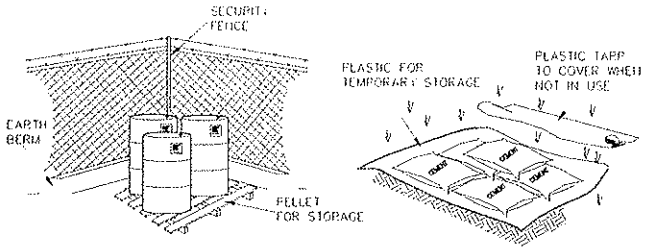
IMPLEMENTATION REQUIREMENTS

- ☒ Capital Costs
- ☐ O&M Costs
- ☒ Maintenance
- ☐ Training

■ High ☒ Medium ☐ Low

BMP: Materials Storage

MS



- CONTROLLED STORAGE LOCATION
- BERMED PERIMETER IMPOUNDMENT
- STORAGE OFF GROUND
- COVER WHEN NOT IN USE

DESCRIPTION:
Controlled storage of on-site materials.

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

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

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

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

OBJECTIVES

- ☒ Housekeeping Practices
- ☒ Contain Waste
- ☐ Minimize Disturbed Areas
- ☐ Stabilize Disturbed Areas
- ☐ Protect Slopes/Channels
- ☐ Control Site Perimeter
- ☐ Control Internal Erosion

TARGETED POLLUTANTS

- ☐ Sediment
- ☐ Nutrients
- ■ Toxic Materials
- ☐ Oil & Grease
- ☐ Floatable Materials
- ☒ Other Waste

- ■ High Impact
- ☒ Medium Impact
- ☐ Low or Unknown Impact

IMPLEMENTATION REQUIREMENTS

- ☒ Capital Costs
- ☒ O&M Costs
- ☒ Maintenance
- ■ Training

■ High ☒ Medium ☐ Low

BMP: Mulching

ML

DESCRIPTION:
Placement of material such as straw, grass, woodchips, woodfibers or fabricated matting over open area.

APPLICATION:
- Any exposed area to remain untouched longer than 14 days and that will be exposed less than 60 days (seed areas to be exposed in excess of 60 days).
- Areas that have been seeded.
- Stockpiled soil material.

Material	Application	Depth	Comments
Gravel: Washed 1/4" to 1-1/2"	9 cy/1000 sf	3 inches	Good for traffic areas Good for short slopes
Straw: Air-dried, free of seeds and coarse material	2-3 bales /1000 sf	2 inches min.	Subject to wind blowing Tack down or keep moist
Wood Fiber Cellulose: Free from growth inhibitors; dyed green	35 lb/1000 sf	1 inch	For critical areas, double application rate; Limit to slopes < 3% and < 150 feet

INSTALLATION/APPLICATION CRITERIA:
- Roughen area to receive mulch to create depressions that mulch material can settle into.
- Apply mulch to required thickness and anchor as necessary.
- Ensure material used is weed free and does not contain any constituents that will inhibit plant growth.

LIMITATIONS:
- Anchoring may be required to prevent migration of mulch material.
- Downgradient control may be required to prevent mulch material being transported to storm water system.

MAINTENANCE:
- Inspect mulched areas after every rainfall event and at a minimum of monthly.
- Replace mulch on any bare areas and reanchor as necessary.
- Clean and replace downgradient controls as necessary.

OBJECTIVES

- ■ Housekeeping Practices
- ☐ Contain Waste
- ☐ Minimize Disturbed Areas
- ☒ Stabilize Disturbed Areas
- ☒ Protect Slopes/Channels
- ☐ Control Site Perimeter
- ☐ Control Internal Erosion

TARGETED POLLUTANTS

- ■ Sediment
- ☒ Nutrients
- ☐ Toxic Materials
- ☐ Oil & Grease
- ☐ Floatable Materials
- ☐ Other Waste

- ■ High Impact
- ☒ Medium Impact
- ☐ Low or Unknown Impact

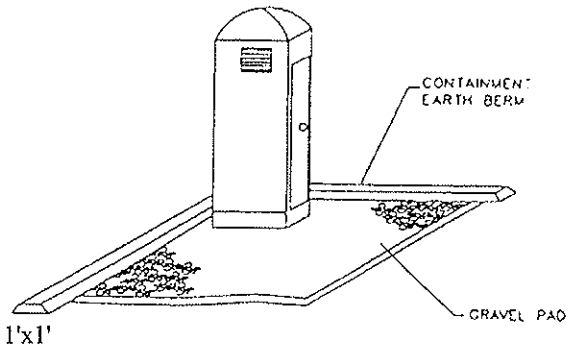
IMPLEMENTATION REQUIREMENTS

- ☒ Capital Costs
- ☒ O&M Costs
- ☒ Maintenance
- ☐ Training

■ High ☒ Medium ☐ Low

BMP: Portable Toilets

PT



OBJECTIVES

- ☒ Housekeeping Practices
- ☒ Contain Waste
- ☐ Minimize Disturbed Areas
- ☐ Stabilize Disturbed Areas
- ☐ Protect Slopes/Channels
- ☐ Control Site Perimeter
- ☐ Control Internal Erosion

DESCRIPTION:

Temporary on-site sanitary facilities for construction personnel.

APPLICATION:

All sites with no permanent sanitary facilities or where permanent facility is too far from activities.

INSTALLATION/APPLICATION CRITERIA:

- Locate portable toilets in convenient locations throughout the site.
- Prepare level, gravel surface and provide clear access to the toilets for servicing and for on-site personnel.
- Construct earth berm perimeter (See Earth Berm Barrier Information Sheet), control for spill/protection leak.

LIMITATIONS:

No limitations.

MAINTENANCE:

- Portable toilets should be maintained in good working order by licensed service with daily observation for leak detection.
- Regular waste collection should be arranged with licensed service.
- All waste should be deposited in sanitary sewer system for treatment with appropriate agency approval.

TARGETED POLLUTANTS

- ☐ Sediment
- ☐ Nutrients
- ☐ Toxic Materials
- ☐ Oil & Grease
- ☐ Floatable Materials
- ■ Other Waste

- ■ High Impact
- ☒ Medium Impact
- ☐ Low or Unknown Impact

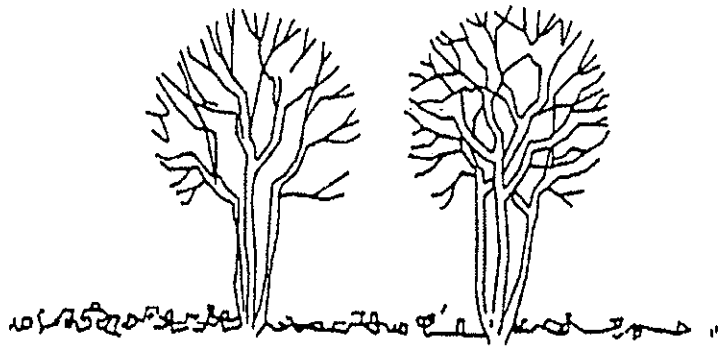
IMPLEMENTATION REQUIREMENTS

- ☒ Capital Costs
- ☒ O&M Costs
- ☒ Maintenance
- ☐ Training

■ High ☒ Medium ☐ Low

BMP: Preservation of Existing Vegetation

PEV



General Description:
Carefully planned preservation of existing vegetation minimizes the potential of removing or injuring existing trees, vines, shrubs and/or grasses that serve as erosion controls.

Applications:
This technique is applicable to all types of sites. Areas where preserving vegetation can be particularly beneficial are floodplains, wetlands, stream banks, steep slopes, and other areas where erosion controls would be difficult to establish, install, or maintain.

Installation/Application Criteria:
- Clearly mark, flag or fence vegetation or areas where vegetation should be preserved.
- Prepare landscaping plans which include as much existing vegetation as possible and state proper care during and after construction.
- Define and protect with berms, fencing, signs, etc. a setback area from vegetation to be preserved.
- Propose landscaping plans which do not include plant species that compete with the existing vegetation.
- Do not locate construction traffic routes, spoil piles, etc. where significant adverse impact on existing vegetation may occur.

Limitations:
- Requires forward planning by the owner/developer, contractor and design staff.
- For sites with diverse topography, it is often difficult and expensive to save existing trees while grading the site satisfactorily for the planned development.
- May not be cost effective with high land costs.

Maintenance:
- Inspection and maintenance requirements for protection of vegetation are low.
- Maintenance of native trees or vegetation should conform to landscape plan specifications.

Objectives

- ☐ Housekeeping Practices
- ☐ Contain Waste
- ☒ Minimize Disturbed Areas
- ☒ Stabilize Disturbed Areas
- ☒ Protect Slopes/Channels
- ☒ Control Site Perimeter
- ☐ Control Internal Erosion

Targeted Pollutants

- ■ Sediment
- ☐ Nutrients
- ☐ Toxic Materials
- ☐ Oil & Grease
- ☐ Floatable Materials
- ☐ Other Waste

- ■ High Impact
- ☒ Medium Impact
- ☐ Low or Unknown Impact

Implementation Requirements

- ☐ Capital Costs
- ☐ O&M Costs
- ☐ Maintenance
- ☐ Training

■ High ☒ Medium ☐ Low

BMP: Riprap

RR

DESCRIPTION:
Riprap is a permanent, erosion-resistant protective layer made of loose stones. It is intended to protect soil from erosion in areas of concentrated runoff. Riprap may also be used to stabilize slopes that are unstable because of seepage problems.

APPLICATION:
- Riprap is normally used at locations where erosive forces from water flow exceed the ability of the soil or vegetative cover to resist those forces.
- Riprap can be used for pipe outlet protection, channel lining, scour protection, etc.
- Riprap is commonly used for wave protection on lakes.

INSTALLATION/APPLICATION CRITERIA:
- For slopes steeper than 2:1, consider using materials other than riprap for erosion protection.
- If riprap is being planned for the bottom of a permanently flowing channel, the bottom can be modified to enhance fish habitat. This can be done by constructing riffles and pools which simulate natural conditions.
- When working within flowing streams, measures should be taken to prevent excessive turbidity and erosion during construction. Bypassing base flows or temporarily blocking base flows are two possible methods. Work should be done during a period of low flow.

In designing riprap consider the following:
- Use durable rock, such as granite, and a variety of rock sizes.
- The thickness of riprap layers should be at least 1.25 times the max. stone diameter.
- Filter material is usually required between riprap and the underlying soil surface.

LIMITATIONS:
- Riprap may be unstable on very steep slopes.
- The placement of a riprap in streams requires a state stream alteration permit.

MAINTENANCE:
- Riprap should be inspected annually and after major storms.
- If riprap has been damaged, repairs should be made promptly to prevent a progressive failure.
- If repairs are needed repeatedly at one location, the site should be evaluated to see if original design conditions have changed.

CONSIDERATIONS

- ☒ Soils
- ☒ Area Required
- ☒ Slope
- ☐ Water Availability
- ☒ Aesthetics
- ☐ Hydraulic Head
- ☒ Environmental Side Effects

TARGETED POLLUTANTS

- ☒ Sediment
- ☐ Nutrients
- ☐ Heavy Metals
- ☐ Toxic Materials
- ☐ Oxygen Demanding Substances
- ☐ Oil & Grease
- ☐ Floatable Materials
- ☐ Bacteria & Viruses

- ■ High Impact
- ☒ Medium Impact
- ☐ Low or Unknown Impact

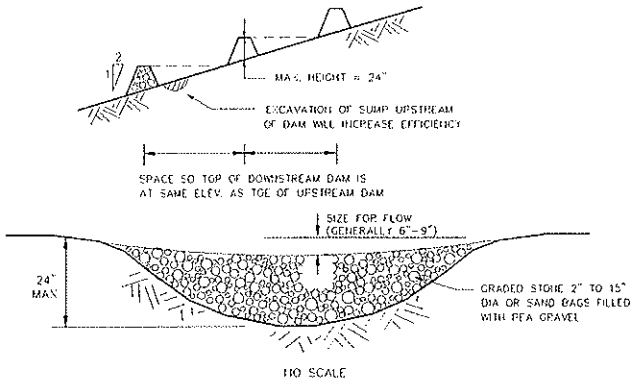
IMPLEMENTATION REQUIREMENTS

- ☒ Capital Costs
- ☒ O&M Costs
- ☒ Maintenance
- ☐ Training

■ High ☒ Medium ☐ Low

BMP: Rock Check Dams

CD



Description:

A small, temporary dam constructed across a drainage ditch to reduce velocity of concentrated storm water flows, thereby reducing the erosion of the ditch.

Application:

- Temporary drainage paths
- Permanent drainage ways not yet stabilized
- Existing drainage paths receiving increased flows due to construction

Installation/Application Criteria:

- Prepare location of dam by removing any debris and rough grading any irregularities in channel bottom
- Place rocks by hand or with appropriate machinery, do not dump
- Construct dam with center lower to pass design flow
- Construct 50% side slopes on dam

Limitations:

- Maximum recommended drainage area is 10 acres
- Maximum recommended height is 24"
- Do not use in running stream

Maintenance:

- Inspect dams daily during prolonged rainfall, after each major rain event and at a minimum of once monthly.
- Remove any large debris and repair any damage to dam, channel or sideslopes
- Remove accumulated sediment when it reaches one half the height of the dam

Objectives

- ☐ Housekeeping Practices
- ☐ Contain Waste
- ☐ Minimize Disturbed Areas
- ☒ Stabilize Disturbed Areas
- ☒ Protect Slopes/Channels
- ☐ Control Site Perimeter
- ☐ Control Internal Erosion

Targeted Pollutants

- ■ Sediment
- ☐ Nutrients
- ☐ Toxic Materials
- ☐ Oil & Grease
- ☐ Floatable Materials
- ☐ Other Waste

- ■ High Impact
- ☒ Medium Impact
- ☐ Low or Unknown Impact

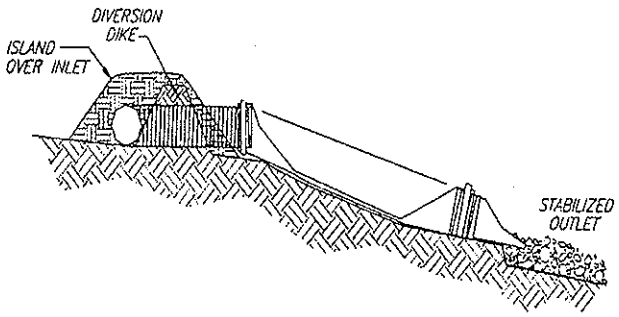
Implementation Requirements

- ☒ Capital Costs
- ☐ O&M Costs
- ☒ Maintenance
- ☐ Training

■ High ☒ Medium ☐ Low

BMP: Slope Drain

SD



DESCRIPTION:
A temporary pipe or lined channel that drains the top of a slope to a stable discharge point at the bottom of a slope without causing erosion.

APPLICATIONS:
- Where concentrated flow of surface runoff must be conveyed down a slope in order to prevent erosion.
- Drainage for top slope diversion dikes or swales.
- Emergency spillway for a sediment basin.
- Drainage for top of cut/fill slopes where water can accumulate.

INSTALLATION/APPLICATION CRITERIA:
- Secure inlet and surround with dikes to prevent gully erosion, and anchor pipe to slope.
- Size to convey at least the peak of a 10-year, storm event.
- Stabilize outlet. (See Outlet Protection BMP).

LIMITATIONS:
- Maximum drainage area per slope drain is 5 acres.
- Clogged slope drains will force water around the pipe and cause slope erosion.
- Dissipation of high flow velocities at the pipe outlet is required to avoid downstream erosion.
- Failure can result in flooding and severe erosion.

MAINTENANCE:
- Structure must be inspected weakly and after storms.
- Inlet must be free of undercutting and no water should circumvent the entry.
- Outlet should not produce erosion; velocity dissipators must be maintained.
- Pipe anchors must be checked to ensure that the pipe remains anchored to the slope.

OBJECTIVES

- ☐ Housekeeping Practices
- ☐ Contain Waste
- ☐ Minimize Disturbed Areas
- ☐ Stabilize Disturbed Areas
- ☒ Protect Slopes/Channels
- ☐ Control Site Perimeter
- ☒ Control Internal Erosion

TARGETED POLLUTANTS

- ■ Sediment
- ☐ Nutrients
- ☐ Toxic Materials
- ☐ Oil & Grease
- ☐ Floatable Materials
- ☐ Other Waste

- ■ High Impact
- ☒ Medium Impact
- ☐ Low or Unknown Impact

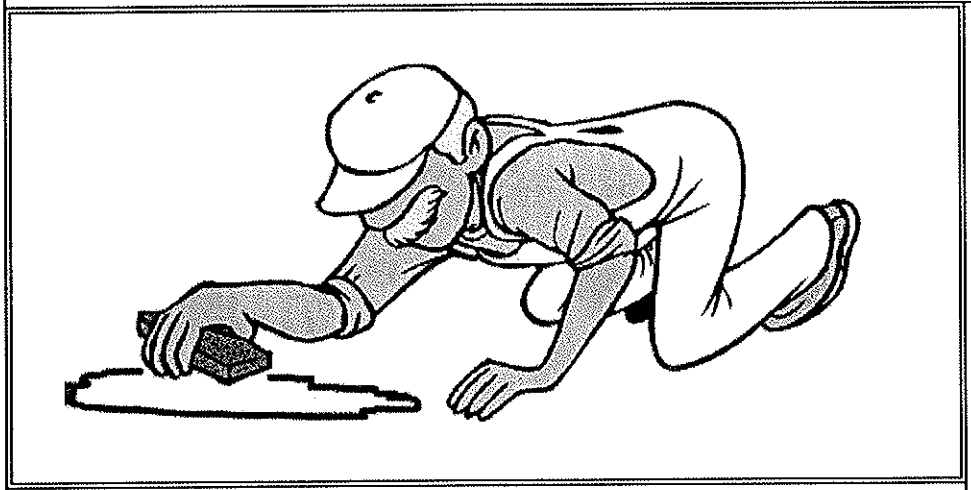
IMPLEMENTATION REQUIREMENTS

- ■ Capital Costs
- ☐ O&M Costs
- ☒ Maintenance
- ☐ Training

■ High ☒ Medium ☐ Low

BMP: Spill Clean-Up

SCU



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

APPLICATION:
All sites

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

METHODS:
- Clean-up spills/leaks immediately and remediate cause.
- Use as little water as possible. NEVER HOSE DOWN OR BURY SPILL CONTAMINATED MATERIAL.
- Use rags or absorbent material for clean-up. Excavate contaminated soils. Dispose of clean-up material and soil as hazardous waste.
- Document all spills with date, location, substance, volume, actions taken and other pertinent data.
- Contact local Fire Department and State Division of Environmental Response and Remediation (Phone #536-4100) for any spill of reportable quantity.

OBJECTIVES

- ☒ Housekeeping Practices
- ☒ Contain Waste
- ☐ Minimize Disturbed Areas
- ☐ Stabilize Disturbed Areas
- ☐ Protect Slopes/Channels
- ☐ Control Site Perimeter
- ☐ Control Internal Erosion

TARGETED POLLUTANTS

- ☐ Sediment
- ☐ Nutrients
- ■ Toxic Materials
- ☒ Oil & Grease
- ☐ Floatable Materials
- ☐ Other Waste

- ■ High Impact
- ☒ Medium Impact
- ☐ Low or Unknown Impact

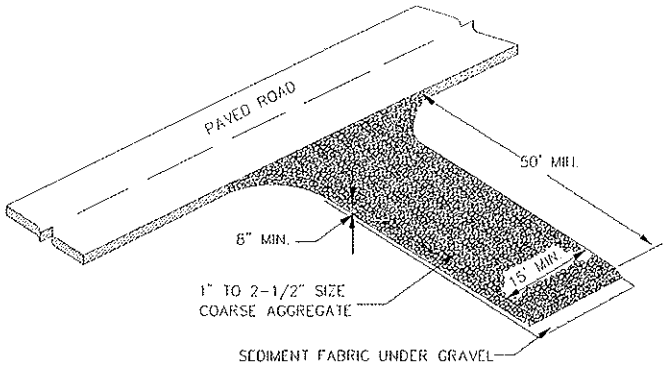
IMPLEMENTATION REQUIREMENTS

- ☒ Capital Costs
- ☐ O&M Costs
- ☐ Maintenance
- ■ Training

■ High ☒ Medium ☐ Low

BMP: Stabilized Construction Entrance

SCE



DESCRIPTION:
A stabilized pad of crushed stone located where construction traffic enters or leaves the site from or to paved surface.

APPLICATIONS:
At any point of ingress or egress at a construction site where adjacent traveled way is paved. Generally applies to sites over 2 acres unless special conditions exist.

INSTALLATION/APPLICATION CRITERIA:
- Clear and grub area and grade to provide maximum slope of 2%.
- Compact subgrade and place filter fabric if desired (recommended for entrances to remain for more than 3 months.
- Place coarse aggregate, 1 to 2-1/2 inches in size, to a minimum depth of 8 inches.

LIMITATIONS:
- Requires periodic top dressing with additional stones.
- Should be used in conjunction with street sweeping on adjacent public right-of-way.

MAINTENANCE:
- Inspect daily for loss of gravel or sediment buildup.
- Inspect adjacent roadway for sediment deposit and clean by sweeping or shoveling.
- Repair entrance and replace gravel as required to maintain control in good working condition.
- Expand stabilized area as required to accomodate traffic and prevent erosion at driveways.

OBJECTIVES

- ☒ Housekeeping Practices
- ☐ Contain Waste
- ☐ Minimize Disturbed Areas
- ☐ Stabilize Disturbed Areas
- ☐ Protect Slopes/Channels
- ☒ Control Site Perimeter
- ☐ Control Internal Erosion

TARGETED POLLUTANTS

- ■ Sediment
- ☐ Nutrients
- ☐ Toxic Materials
- ☐ Oil & Grease
- ☐ Floatable Materials
- ☐ Other Waste

- ■ High Impact
- ☒ Medium Impact
- ☐ Low or Unknown Impact

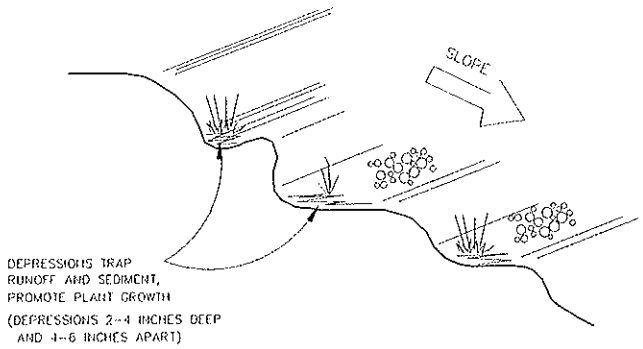
IMPLEMENTATION REQUIREMENTS

- ■ Capital Costs
- ☒ O&M Costs
- ☒ Maintenance
- ☐ Training

■ High ☒ Medium ☐ Low

BMP: Surface Roughening

SR



DESCRIPTION:
Rough preparation of working areas leaving depressions and uneven surface. Depressions should be done parrallel to contours.

APPLICATION:
Surface roughening is appropriate for all construction that will not be receiving impervious cover within 14 days and that will be exposed less than 60 days (seed areas to be open in excess of 60 days).

INSTALLATION/APPLICATION CRITERIA:
- Surface should be left in rough condition during initial earthwork activity.
- Surfaces that have become smoothed or compacted due to equipment traffic should be roughened by use of disks, spring harrows, teeth on front end loader, or similar, operating along the contours of the slope. Tracking (by crawler tractor driving up and down slope) may also be used to provide depressions parallel to contours.
- Avoid compaction of soils during roughening as this inhibits plant growth and promotes storm water runoff. Limit tracked machinery to sandy soil.
- Seed or mulch areas to be exposed in excess of 60 days.
- Employ dust controls. (See Dust Control Detail Sheet).

LIMITATIONS:
- Will not withstand heavy rainfall.
- Slopes steeper than 2:1 (50%) should be benched.(See Benching Detail Sheet).

MAINTENANCE:
- Inspect following any storm event and at a minimum of weekly.
- If erosion in the form of rills (small waterways formed by runoff) is evident, perform machine roughening of area.
- For vegetated slopes reseed areas that are bare or have been reworked.

OBJECTIVES

- ☐ Housekeeping Practices
- ☐ Contain Waste
- ☐ Minimize Disturbed Areas
- ☒ Stabilize Disturbed Areas
- ☒ Protect Slopes/Channels
- ☐ Control Site Perimeter
- ☒ Control Internal Erosion

TARGETED POLLUTANTS

- ■ Sediment
- ☐ Nutrients
- ☐ Toxic Materials
- ☐ Oil & Grease
- ☐ Floatable Materials
- ☐ Other Waste

- ■ High Impact
- ☒ Medium Impact
- ☐ Low or Unknown Impact

IMPLEMENTATION REQUIREMENTS

- ☒ Capital Costs
- ☒ O&M Costs
- ☒ Maintenance
- ☐ Training

■ High ☒ Medium ☐ Low

BMP: Temporary and Permanent Seeding TPS

OBJECTIVES

- ☐ Housekeeping Practices
- ☐ Contain Waste
- ☐ Minimize Disturbed Areas
- ☒ Stabilize Disturbed Areas
- ☒ Protect Slopes/Channels
- ☐ Control Site Perimeter
- ☐ Control Internal Erosion

DEFINITION:

Temporary seeding - establishment of short term cover by application of rapidly germinating seed mix (alternatively hydroseeding may be utilized).
Permanent seeding - establishment of final term cover by application of perennial seed mix (alternatively sod may be utilized).

APPLICATION:

Disturbed areas that are at final grade and which will not be disturbed by continuing activities on site. Also areas that are not at final grade but which will be left untouched in excess of one year.

RECOMMENDED SEED MIX:

The recommended seed mix will be dependent on site specific information such as elevation, exposure, soils, water available and topography. Check with the County Extension Service for recommended mixes for site specific conditions:

Utah State University Extension Service
2001 South State Street #S1200
Salt Lake City, Utah 84190
phone (801) 468-3170

LIMITATIONS:

- Limited to areas that will not be subject to traffic or high usage.
- May require irrigation and fertilizer which creates potential for impacting runoff quality.
- May only be applied during appropriate planting season, temporary cover required until that time.

INSTALLATION:

- Roughen soil to a depth of 2 inches. Add fertilizer, manure, topsoil as necessary.
- Evenly distribute seed using a commonly accepted method such as; breast seeding, drilling, hydroseeding.
- Use a seed mix appropriate for soil and location that will provide rapid germination and growth. Check with County for recommended mix and application rate.
- Cover area with mulch if required due to steep slopes or unsuitable weather conditions.

MAINTENANCE:

- Provide irrigation as required to establish growth and to maintain plant cover through duration of project.
- Reseed as necessary to provide 75% coverage
- Remediate any areas damaged by erosion or traffic.
- When 75% coverage is achieved inspect monthly for damage and remediate as necessary.

TARGETED POLLUTANTS

- ■ Sediment
- ■ Nutrients
- ☐ Toxic Materials
- ☐ Oil & Grease
- ☐ Floatable Materials
- ☐ Other Waste

- ■ High Impact
- ☒ Medium Impact
- ☐ Low or Unknown Impact

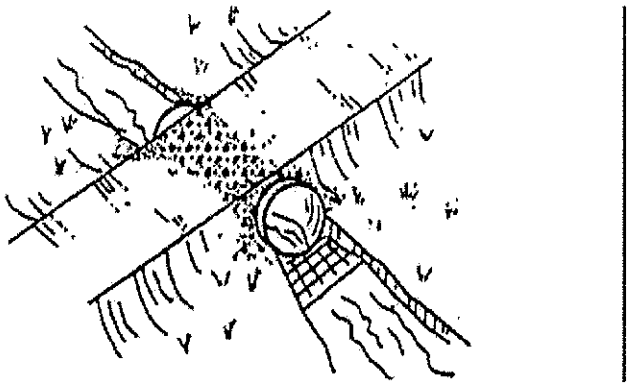
IMPLEMENTATION REQUIREMENTS

- ☒ Capital Costs
- ☐ O&M Costs
- ☒ Maintenance
- ☐ Training

■ High ☒ Medium ☐ Low

BMP: Temporary Stream Crossing

TSC



Objectives

- ☒ Housekeeping Practices
- ☐ Contain Waste
- ☒ Minimize Disturbed Areas
- ☒ Stabilize Disturbed Areas
- ☒ Protect Slopes/Channels
- ☐ Control Site Perimeter
- ☐ Control Internal Erosion

Description:

A temporary access stream crossing is a temporary culvert, ford or bridge placed across a waterway to provide access for construction purposes for a period of less than one year. Temporary access crossings are not intended to be used to maintain traffic for the general public.

Applications:

Temporary stream crossings should be installed at all designated crossings of perennial and intermittent streams on the sonctuction site, as well as for dry channels which may be significantly eroded by construction traffic.

Installation/Application:

Requires knowledge of stream flows and soil strength and should be designed under the direction of a Utah registered engineer with knowledge of both hydraulics and construction loading requirements for structures.

Limitations:

- May be an expensive for a temporary improvement.
- Requires other BMP's to minimize soil disturbance during installation and removal.
- Fords should only be used in dry weather.
- A Stream Alteration Permit may be required, contact the Utah Division of Water Rights before implemention.

Maintenance:

- Inspect weekly and after each significant rainfall, including assessment of foundations.
- Periodically remove silt from crossings.
- Replace lost aggregated from inlets and outlets of culverts.

Targeted Pollutants

- ■ Sediment
- ☐ Nutrients
- ☐ Toxic Materials
- ■ Oil & Grease
- ☐ Floatable Materials
- ☐ Other Waste

- ■ High Impact
- ☒ Medium Impact
- ☐ Low or Unknown Impact

Implementation Requirements

- ■ Capital Costs
- ☐ O&M Costs
- ■ Maintenance
- ☐ Training

■ High ☒ Medium ☐ Low

BMP: Vehicle And Equipment Cleaning

VEC

APPLICATIONS

- ☐ Manufacturing
- ☐ Material Handling
- ☒ Vehicle Maintenance
- ☒ Construction
- ☒ Commercial Activities
- ☐ Roadways
- ☐ Waste Containment
- ☒ Housekeeping Practices

DESCRIPTION:

Prevent or reduce the discharge of pollutants to stormwater from vehicle and equipment washing and steam cleaning by using off-site facilities, washing in designated, contained areas only, eliminating discharges to the storm drain by infiltrating or recycling the wash water, and training employees and subcontractors.

APPROACH:

- Use off-site commercial washing and steam cleaning businesses as much as possible. Washing vehicles and equipment outdoors or in areas where wash water flows onto paved surfaces or into drainage pathways can pollute stormwater. If you wash a large number of vehicles or pieces of equipment, consider conducting this work at an off-site commercial business. These businesses are better equipped to handle and dispose of the wash waters properly. Performing this work off-site can also be economical by eliminating the need for a separate washing operation at your site.
- If washing must occur on-site, use designated, bermed wash areas to prevent wash water contact with stormwater, creeks, rivers, and other water bodies. The wash area can be sloped for wash water collection and subsequent infiltration into the ground.
- Use as little water as possible to avoid having to install erosion and sediment controls for the wash area. Use phosphate-free biodegradable soaps. Educate employees and subcontractors on pollution prevention measures. Do not permit steam cleaning on-site. Steam cleaning can generate significant pollutant concentrations.

LIMITATIONS:

- Even phosphate-free, biodegradable soaps have been shown to be toxic to fish before the soap degrades.
- Sending vehicles/equipment off-site should be done in conjunction with Stabilized Construction Entrance.(See BMP in the Construction Section).
- The measures outlined in this fact sheet are insufficient to address all the environmental impacts and compliance issues related to steam cleaning.

MAINTENANCE:

- Minimal, some berm repair may be necessary.

TARGETED POLLUTANTS

- ■ Sediment
- ■ Nutrients
- ■ Heavy Metals
- ■ Toxic Materials
- ■ Oxygen Demanding Substances
- ■ Oil & Grease
- ☐ Floatable Materials
- ☐ Bacteria & Viruses

- ■ High Impact
- ☒ Medium Impact
- ☐ Low or Unknown Impact

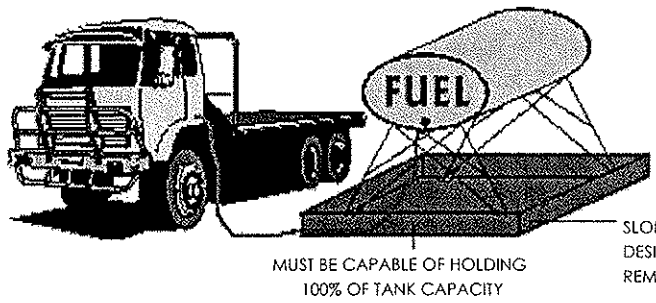
IMPLEMENTATION REQUIREMENTS

- ☒ Capital Costs
- ☐ O&M Costs
- ☐ Maintenance
- ☒ Training

■ High ☒ Medium ☐ Low

BMP: Vehicle And Equipment Fueling

VEF



DESCRIPTION:
Prevent fuel spills and leaks, and reduce their impacts to stormwater by using off-site facilities, fueling in designated areas only, enclosing or covering stored fuel, implementing spill controls, and training employees and subcontractors.

APPROACH:
- Use off-site fueling stations as much as possible. Fueling vehicles and equipment outdoors or in areas where fuel may spill/leak onto paved surfaces or into drainage pathways can pollute stormwater. If you fuel a large number of vehicles or pieces of equipment, consider using an off-site fueling station. These businesses are better equipped to handle fuel and spills properly. Performing this work off-site can also be economical by eliminating the need for a separate fueling area at your site.
- If fueling must occur on-site, use designated areas, located away from drainage courses, to prevent the runon of stormwater and the runoff of spills.
- Discourage"topping-off" of fuel tanks.
- Always use secondary containment, such as a drain pan or drop cloth, when fueling to catch spills/leaks. Place a stockpile of spill cleanup materials where it will be readily accessible. Use adsorbent materials on small spills rather than hosing down or burying the spill. Remove the adsorbent materials promptly and dispose of properly.
- Carry out all federal and state requirements regarding stationary above ground storage tanks. Avoid mobile fueling of mobile construction equipment around the site; rather, transport the equipment to designated fueling areas. With the exception of tracked equipment such as bulldozers and perhaps forklifts, most vehicles should be able to travel to a designated area with little lost time. Train employees and subcontractors in proper fueling and cleanup procedures.

LIMITATIONS:
Sending vehicles/equipment off-site should be done in conjunction with Stabilized Construction Entrance (See BMP sheet in Construction section).

MAINTENANCE:
- Keep ample supplies of spill cleanup materials on-site.
- Inspect fueling areas and storage tanks on a regular schedule.

APPLICATIONS

- ☐ Manufacturing
- ☒ Material Handling
- ☒ Vehicle Maintenance
- ☒ Construction
- ☒ Commercial Activities
- ☐ Roadways
- ☐ Waste Containment
- ☒ Housekeeping Practices

TARGETED POLLUTANTS

- ☐ Sediment
- ☐ Nutrients
- ■ Heavy Metals
- ■ Toxic Materials
- ☐ Oxygen Demanding Substances
- ■ Oil & Grease
- ☐ Floatable Materials
- ☐ Bacteria & Viruses

- ■ High Impact
- ☒ Medium Impact
- ☐ Low or Unknown Impact

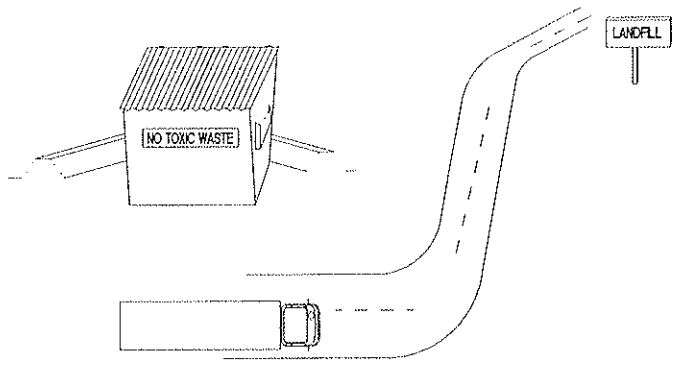
IMPLEMENTATION REQUIREMENTS

- ☒ Capital Costs
- ☐ O&M Costs
- ☒ Maintenance
- ☒ Training

■ High ☒ Medium ☐ Low

BMP: Waste Disposal

WD



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

APPLICATION:
All construction sites.

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

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

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

OBJECTIVES

- ☒ Housekeeping Practices
- ☒ Contain Waste
- ☐ Minimize Disturbed Areas
- ☐ Stabilize Disturbed Areas
- ☐ Protect Slopes/Channels
- ☐ Control Site Perimeter
- ☐ Control Internal Erosion

TARGETED POLLUTANTS

- ☐ Sediment
- ☐ Nutrients
- ■ Toxic Materials
- ☐ Oil & Grease
- ☐ Floatable Materials
- ■ Other Waste

- ■ High Impact
- ☒ Medium Impact
- ☐ Low or Unknown Impact

IMPLEMENTATION REQUIREMENTS

- ■ Capital Costs
- ■ O&M Costs
- ☒ Maintenance
- ■ Training

■ High ☒ Medium ☐ Low

BMP: Biofilters

BF

FOR SLOPES > 5%
FLOW
CHECK DAM
(OPTIONAL)
18" MIN WIDTH
25 FT. MIN
GRASS

DESCRIPTION:

Biofilters are of two general types: vegetated channel and vegetated filter strip. The vegetated channel is sloped like a standard storm drain channel; the stormwater is treated as it passes through the channel. With filter strips the flow is distributed broadly along the width of the vegetated area.

APPLICATION:

- Comparable performance to wet ponds and constructed wetlands.
- Limited to treating a few acres.

INSTALLATION/APPLICATION CRITERIA:

- Limited to treating a few acres and availability of water during dry season.
- The surface area must be defined.
- The minimum width for a swale is determined by Mannings Equation.
- Minimum length of a strip is 10 feet.
- The longitudinal slope must not exceed 5%.
- Use a flow spreader and energy dissipator at the entrance of a swale.
- Good soils are important to achieve good vegetation cover.

LIMITATIONS:

- Poor performance has occurred but this appears to be due to poor design.
- May be limited to areas where summer irrigation is feasible.
- Can be difficult to maintain sheet flow in strips.
- Can be difficult to avoid channelization in swales.
- Cannot be placed on steep slope.
- Area required may make infeasible on industrial sites.
- Proper maintenance required to maintain health and density of vegetation.
- Limited to treating a few acres and availability of water during dry season.

MAINTENANCE:

- Make sure soils are suitable for healthy vegetation.
- Level cross-section and even longitudinal slope for swales.
- Any damage to the channel such as rutting must be repaired with suitable soil, properly tamped and seeded.

CONSIDERATIONS

☒ Soils
☒ Area Required
☒ Slope
☒ Water Availability
☒ Aesthetics
☐ Hydraulic Head
☐ Environmental Side Effects

TARGETED POLLUTANTS

■ Sediment
☒ Nutrients
☒ Heavy Metals
☒ Toxic Materials
☒ Oxygen Demanding Substances
☒ Oil & Grease
☒ Floatable Materials
☐ Bacteria & Viruses

■ High Impact
☒ Medium Impact
☐ Low or Unknown Impact

IMPLEMENTATION REQUIREMENTS

☒ Capital Costs
☒ O&M Costs
☒ Maintenance
☐ Training

■ High ☒ Medium ☐ Low

BMP: Conservation Easement

CE

DESCRIPTION:

Conservation easements are voluntary agreements that allow an individual or group to set aside private property to limit the type or amount of development on their property. The conservation easement can cover all or a portion of a property and can either be permanent or last for a specified time. The easement is typically described in terms of the resource it is designed to protect (e.g., agricultural, forest, historic, or open space easements) and explains and mandates the restrictions on the uses of the particular property. Easements relieve property owners of the burden of managing these areas by shifting responsibility to a private organization (land trust) or government agency better equipped to handle maintenance and monitoring issues.

Conservation easements are thought to make a contribution to protecting water quality, mostly in an indirect way. Land set aside in a permanent conservation easement is land that will have a prescribed set of uses or activities, generally restricting future development.

The location of the land held in a conservation easement may also determine if it will provide water quality benefits. Property along stream corridors and shorelines can act as a vegetated buffer that may filter out pollutants from storm water runoff.

APPROACH:

- Conservation easements are typically done to preserve agricultural lands and natural areas that are facing development pressure on the suburban-rural fringe.
- By agreeing to give up or restrict the development rights for a parcel of land, a landowner can guarantee that their property will remain in a prescribed state for perpetuity while receiving tax benefits.
- For maximum efficiency, spilled materials should be removed immediately, to allow space for future spills.

States also use conservation easements and land purchase programs to protect significant environmental features and tracts of open space.

LIMITATIONS:

- No hard evidence that conservation easements actually do protect water quality.
- Another is that conservation easements are often not an option in more urbanized areas, where the size, quality, and cost of land can restrict the use of easements.

APPLICATIONS

- ☐ Manufacturing
- ☐ Material Handling
- ☐ Vehicle Maintenance
- ☒ Construction
- ☒ Commercial Activities
- ☐ Roadways
- ☐ Waste Containment
- ☐ Housekeeping Practices

TARGETED POLLUTANTS

- ☐ Sediment
- ☐ Nutrients
- ☐ Heavy Metals
- ☐ Toxic Materials
- ☐ Oxygen Demanding Substances
- ☐ Oil & Grease
- ☐ Floatable Materials
- ☐ Bacteria & Viruses

- ■ High Impact
- ☒ Medium Impact
- ☐ Low or Unknown Impact

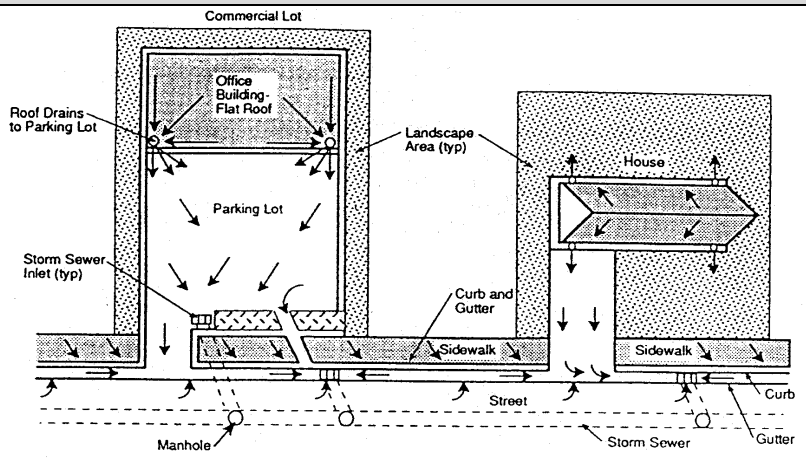
IMPLEMENTATION REQUIREMENTS

- ☒ Capital Costs
- ☒ O&M Costs
- ☒ Maintenance
- ☐ Training

■ High ☒ Medium ☐ Low

BMP: Minimizing DCIAs

DCIA



DESCRIPTION:

Minimizing directly connected impervious areas (DCIAs) is a structural BMP strategy that requires a basic change in drainage design philosophy. The basic principle is to direct stormwater runoff to landscaped areas, grass buffer strips, and vegetated swales to slow down the rate of runoff, reduce runoff volumes, attenuate peak flows, and encourage filtering and infiltration of stormwater.

APPLICATIONS:

It can be made an integral part of drainage planning for any development.

INSTALLATION/APPLICATION CRITERIA:

< Use on sites with general terrain slopes flatter than 3-4%.
< Design the site drainage flowpath to maximize flow over vegetated areas before leaving a site.
< Minimize ground slopes to limit erosion and slow down water flow.
< Select vegetation that will not only survive, but also enhance water quality.

LIMITATIONS:

< Potential increase in site open space requirements over the traditional development systems.
< Introduction of a nonconventional development design strategy.
< Infiltration of water near building foundations and parking lots is a concern.
< Will likely result in increased maintenance along the swales.

MAINTENANCE:

< Maintain grass and other vegetation.
< Pick up debris.
< Conduct ongoing inspections for potential erosion problems and changes in drainage patterns.
< Remove sediment buildup and replace damaged grass cover.

CONSIDERATIONS

☐ Soils
☐ Area Required
☒ Slope
☐ Water Availability
☒ Aesthetics
☐ Hydraulic Head
☐ Environmental Side Effects

TARGETED POLLUTANTS

■ Sediment
☐ Nutrients
☒ Heavy Metals
☐ Toxic Materials
☐ Oxygen Demanding Substances
☒ Oil & Grease
☒ Floatable Materials
☐ Bacteria & Viruses

■ High Impact
☒ Medium Impact
☐ Low or Unknown Impact

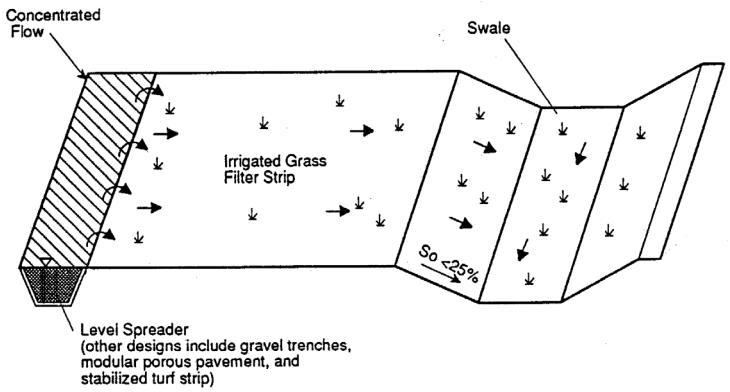
IMPLEMENTATION REQUIREMENTS

☒ Capital Costs
☒ O&M Costs
☒ Maintenance
☐ Training

■ High ☒ Medium ☐ Low

BMP: Filter Strips

FS



OBJECTIVES

- ☐ Housekeeping Practices
- ☐ Contain Waste
- ☐ Minimize Disturbed Areas
- ☒ Stabilize Disturbed Areas
- ☒ Protect Slopes/Channels
- ☒ Control Site Perimeter
- ☐ Control Internal Erosion

GENERAL DESCRIPTION:

Filter strips are 20-foot-wide strips of natural or planted vegetation around a construction site. They are designed to cause deposition of sediments within the vegetation layer.

APPLICATIONS:

- Suited for areas where the soils are well drained or moderately well drained.
- Areas where the bedrock and the water table are well below the surface.

INSTALLATION/APPLICATION CRITERIA:

- Make sure the vegetative cover is dense enough to protect underlying soil while causing sediment to settle.
- Filter strip must be approximately 20 feet wide to function well.
- The length should be approximately 50 to 75 feet. Where slopes become steeper the length of the strip must be increased.

LIMITATIONS:

- Only applicable in areas where vegetation is previously established or where sod is added.
- Vegetated filter strips will not function well on steep slopes, in hilly areas, or in highly paved areas.
- Sites with slopes of 15 percent or more may not be suitable for filtering storm water flows.

MAINTENANCE:

- Check for channels and repair.
- Provide rock aprons to aid in slowing flow if necessary.
- Maintain vegetation at optimal height and thickness.

TARGETED POLLUTANTS

- ■ Sediment
- ☒ Nutrients
- ☐ Toxic Materials
- ☐ Oil & Grease
- ☐ Floatable Materials
- ☐ Other Waste

- ■ High Impact
- ☒ Medium Impact
- ☐ Low or Unknown Impact

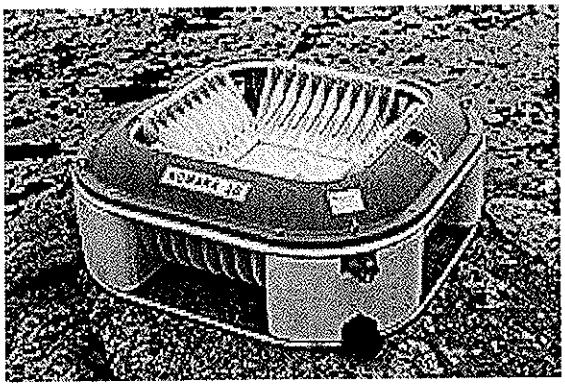
IMPLEMENTATION REQUIREMENTS

- ■ Capital Costs
- ☒ O&M Costs
- ☒ Maintenance
- ☐ Training

■ High ☒ Medium ☐ Low

BMP: Floatable Skimmers

FS



DESCRIPTION:
Floatable skimmers are devices used to retain floating debris and oil in detention areas. The floating debris and oil eventually sinks to the bottom of the detention area and becomes part of the sediments or is removed from the surface through regular maintenance.

The effect of floatable skimmers on water quality will depend upon the amount and type of floating material transported by runoff. Typically, a well designed floatable skimmer can trap virtually all floating debris that reaches it. In an area with large amounts of floating leaves, trash or oil, this can provide significant water quality benefits.

APPLICATION:
Applicable in areas where detention basins are used.

INSTALLATION/APPLICATION CRITERIA:
- For structures with a weir outlet, a baffle weir should be used. It should be located far enough upstream of the weir outlet to prevent high velocity flow through it.
- Generally, it is best to keep velocities at the skimmer less than 1 foot per second.

LIMITATIONS:
Tend to clog with debris.

MAINTENANCE:
Maintenance is very important for the proper function of a floatable skimmer. After runoff events that transport large amounts of floating debris and trash, the skimmer can become clogged with a mat of trapped material. This debris must be removed promptly to maintain the capacity of the structure for future storms.

CONSIDERATIONS

- ☐ Soils
- ☐ Area Required
- ☐ Slope
- ☒ Water Availability
- ☐ Aesthetics
- ☐ Hydraulic Head
- ☐ Environmental Side Effects

TARGETED POLLUTANTS

- ☐ Sediment
- ☒ Nutrients
- ☐ Heavy Metals
- ☐ Toxic Materials
- ■ Oxygen Demanding Substances
- ■ Oil & Grease
- ■ Floatable Materials
- ☐ Bacteria & Viruses

- ■ High Impact
- ☒ Medium Impact
- ☐ Low or Unknown Impact

IMPLEMENTATION REQUIREMENTS

- ☒ Capital Costs
- ☒ O&M Costs
- ☒ Maintenance
- ☐ Training

■ High ☒ Medium ☐ Low

BMP: Grassed Swales

GS

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

APPLICATIONS

- ☐ Manufacturing
- ☐ Material Handling
- ☐ Vehicle Maintenance
- ☒ Construction
- ☒ Commercial Activities
- ☐ Roadways
- ☐ Waste Containment
- ☐ Housekeeping Practices

DESCRIPTION:

A series of vegetated, open channel management practices designed specifically to treat and attenuate storm water runoff for a specified water quality volume. Storm water is treated through filtering by the vegetation in the channel, filtering through a subsoil matrix, and/or infiltration into the underlying soils.

APPROACH:

- Grassed swales can be applied in most situations with some restrictions. Swales are very well suited for treating highway or residential road runoff because they are linear practices.
- Grassed channels are a good treatment option within watersheds that drain to cold water streams. These practices do not pond water for a long period of time and often induce infiltration. As a result, standing water will not typically be subjected to warming by the sun in these practices.
- Grassed swales should be used on sites with relatively flat slopes of less than 4 percent slope; 1 to 2 percent slope is recommended.
- A small fore-bay should be used at the front of the swale to trap incoming sediments. A pea gravel diaphragm, a small trench filled with river run gravel, should be used as pretreatment for runoff entering the sides of the swale.
- Swales should also have the capacity to pass larger storms (typically a 10-year storm) safely.

LIMITATIONS:

- Grassed swales cannot treat a very large drainage area.
- Wet swales may become a nuisance due to mosquito breeding.

MAINTENANCE:

- Maintenance of grassed swales mostly involves maintenance of the grass or wetland plant cover.

TARGETED POLLUTANTS

- ■ Sediment
- ■ Nutrients
- ☐ Heavy Metals
- ■ Toxic Materials
- ■ Oxygen Demanding Substances
- ☐ Oil & Grease
- ☒ Floatable Materials
- ☐ Bacteria & Viruses

- ■ High Impact
- ☒ Medium Impact
- ☐ Low or Unknown Impact

IMPLEMENTATION REQUIREMENTS

- ☒ Capital Costs
- ☐ O&M Costs
- ☐ Maintenance
- ☐ Training

■ High ☒ Medium ☐ Low

BMP: Infiltration

IN

CONSIDERATIONS

☒ Soils
☒ Area Required
☒ Slope
☐ Water Availability
☐ Aesthetics
☐ Hydraulic Head
☒ Environmental Side Effects

DESCRIPTION:
A family of systems in which the majority of the runoff from small storms is infiltrated into the ground rather than discharged to a surface water body. Infiltration systems include: ponds, vaults, trenches, dry wells, porous pavement, and concrete grids.

APPLICATION:
Suitable site soils and geologic conditions; low potential for long-term erosion in the watershed.

INSTALLATION/APPLICATION CRITERIA:
- Volume sized to capture a particular fraction of annual runoff.
- Pretreatment is necessary in fine soils.
- Emergency overflow or bypass for larger storms is needed.
- Observation wells are required in trenches.
- Infiltration surface must be protected during construction.
- Pond sides need vegetation to prevent erosion.
- During construction frequent inspection for clogging is necessary.
- Line sides of trench with permeable filter fabric
- Trench should be filled with clean washed stone or gravel. (1.5-3.0 in.)
- A six inch sand filter layer; cloth lines the bottom of trench.

LIMITATIONS:
- Loss of infiltrative capacity and high maintenance cost in fine soils.
- Low removal of dissolved pollutants in very coarse soils.
- Not suitable on fill sites or steep slopes.
- Risk of ground water contamination in very coarse soils, may require monitoring.

MAINTENANCE:
- Remove sediment at a frequency appropriate to avoid excessive concentrations of pollutants and loss of infiltrative capacity.
- Frequent cleaning of porous pavements is required.
- Maintenance is difficult and costly for underground trenches.

TARGETED POLLUTANTS

■ Sediment
☒ Nutrients
■ Heavy Metals
■ Toxic Materials
■ Oxygen Demanding Substances
■ Oil & Grease
☒ Floatable Materials
■ Bacteria & Viruses

■ High Impact
☒ Medium Impact
☐ Low or Unknown Impact

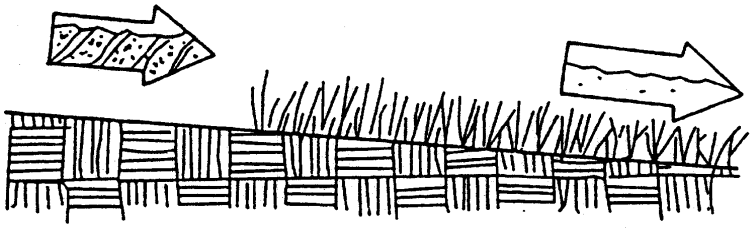
IMPLEMENTATION REQUIREMENTS

■ Capital Costs
☒ O&M Costs
☒ Maintenance
☐ Training

■ High ☒ Medium ☐ Low

BMP: Seeding and Planting

SP



OBJECTIVES

- ☐ Housekeeping Practices
- ☐ Contain Waste
- ☐ Minimize Disturbed Areas
- ☒ Stabilize Disturbed Areas
- ☒ Protect Slopes/Channels
- ☐ Control Site Perimeter
- ☐ Control Internal Erosion

DESCRIPTION:

Seeding of grass and plantings of trees, shrubs, vines and ground covers provide long-term stabilization of soil. In some areas, with suitable climates, grasses can be planted for temporary stabilization.

APPLICATION:

- Appropriate for site stabilization both during construction and post-construction.
- Any graded/cleared areas where construction activities have ceased.
- Open space cut and fill areas.
- Steep slopes, spoil piles, vegetated swales, landscape corridors, stream banks.

INSTALLATION/APPLICATION CRITERIA:

Type of vegetation, site and seedbed preparation, planting time, fertilization and water requirements should be considered for each application.

Grasses:

- Ground preparation: fertilize and mechanically stabilize the soil.
- Tolerant of short-term temperature extremes and waterlogged soil composition.
- Appropriate soil conditions: shallow soil base, good drainage, slope 2:1 or flatter.
- Mowing, irrigating, and fertilizing are vital for promoting vigorous grass growth.

Trees and Shrubs:

- Selection criteria: vigor, species, size, shape & wildlife food source.
- Soil conditions: select species appropriate for soil, drainage & acidity.
- Other factors: wind/exposure, temperature extremes, and irrigation needs.

Vines and Ground Covers:

- Ground preparation: lime and fertilizer preparation.
- Use proper seeding rates.
- Appropriate soil conditions: drainage, acidity and slopes.
- Generally avoid species requiring irrigation.

LIMITATIONS:

- Permanent and temporary vegetation may not be appropriate in dry periods without irrigation.
- Fertilizer requirements may have potential to create stormwater pollution.

MAINTENANCE:

- Shrubs and trees must be adequately watered and fertilized and if needed pruned.
- Grasses may need to be watered and mowed.

TARGETED POLLUTANTS

- ■ Sediment
- ☒ Nutrients
- ☒ Toxic Materials
- ☐ Oil & Grease
- ☐ Floatable Materials
- ☐ Other Waste

- ■ High Impact
- ☒ Medium Impact
- ☐ Low or Unknown Impact

IMPLEMENTATION REQUIREMENTS

- ☒ Capital Costs
- ☒ O&M Costs
- ☒ Maintenance
- ☐ Training

■ High ☒ Medium ☐ Low

APPENDIX B

APPENDIX B

TABLE OF CONTENTS

4.2.5.3.3 The Permittee must develop a plan to retrofit existing developed sites that are adversely impacting water quality. The retrofit plan must be developed to emphasize controls that infiltrate, evapotranspire or harvest and use storm water discharges. The plan must include a ranking of control measures to determine those best suited for retrofitting as well as those that could later be considered for retrofitting. The Permittee must include the following when developing the criteria for the retrofit plan:

- Proximity to waterbody
- Status of waterbody to improve impaired waterbodies and protect unimpaired waterbodies
- Hydrologic condition of the receiving waterbody
- Proximity to sensitive ecosystem or protected area
- Any upcoming sites that could be further enhanced by retrofitting storm water controls

4.2.6.7.1 Existing flood management structural controls must be assessed to determine whether changes or additions should be made to improve water quality. A description of this process and determinations should be included in the SWMP document.

Possible Steps to Retrofitting Existing Infrastructure

1. Start with a map of your existing storm water system
2. Evaluate existing Post Construction BMPs for retrofitting opportunities
3. Overlay existing and future land use mapping
4. Look at sub-catchments/drainage areas – prioritize based on land use, impaired waters, and sensitive areas
5. Start with High priority areas
    a. Start at downstream end and look for property or opportunities to retrofit existing system for water quality
    b. Review list of possible post construction BMPs
    c. Work upstream to the upper ends of the high priority areas
    d. Compile a list of potential projects
    e. Create budgetary level costs for each project
    f. Prioritize projects
    g. Document findings – including reasons for prioritization
    h. Integrate this list with existing Storm Water Capital Improvement Projects
6. Repeat for Medium priority areas
7. Repeat for Low priority areas
8. Budget for and implement projects
9. Consider retrofit options with all redevelopment projects

Questions to ask when considering retrofits

1. Are there any highly impacted areas?
2. Why are these areas highly impacted?
3. Where are they?
4. How does the existing system work in this area?
5. What BMPs might address the problems?
6. Is there room to retrofit at the end of the line?
7. Would projects upstream maximize water quality and minimize impacts?
8. What are the anticipated costs?
9. How soon can this be programmed?
10. Do we have retrofitting requirements when redeveloping?

DRY WEATHER SCREENING AND VISUAL STORM WATER DISCHARGE EXAMINATION REPORT

Date of Examination: _____ Permit No. UTR _____

Outfall location or ID number: _____

Nature of Discharge (i.e., runoff, land drain, irrigation or snowmelt) _____

Type of Monitoring:

☐ Dry Weather Screening Date of last Rainfall Event:_____	Wet Weather Screening (Quarterly Min.) ☐ Rainfall Event Date of Rainfall Event:_____ Time of Event:_____ Precipitation:_____ ☐ Unable to collect sample due to adverse conditions or inadequate runoff.

Visual Quality of Storm Water Discharge: (circle response)

At Time of Sampling:

Color: clear brown green rust other: _____

Odor: Yes / No

Clarity: ☐ ☐ ☐ ☐ ☐

Floating Solids: Yes / No

Foam: Yes / No

After One Hour of Settling:

Settled Solids: Yes / No

Suspended Solids: Yes / No

Oil Sheen: Yes / No

Other obvious indicators of storm water pollution: _____

_____

Probable sources of any observed storm water contamination: _____

_____

Name of Examiner_____ Title_____

Signature_____Date_____

Revised: 10-15-2010

Hooper City
Inventory of Long-term BMPs

No.	Location	BMP type	Description	Date reviewed during design	Date inspected during construction	Maintenance Inspection dates										Comments

Permittee-Owned Facilities Evaluation Form

MS4 Name:______________________ Date of Evaluation:________________________

Section 4.2.6.3 requires that the "Permittee must identify as "high-priority" those facilities or operations that have a high potential to generate storm water pollutants." Weekly inspections are required (4.2.6.6.1), and Storm Water dischargemust be evaluated quarterly at these high priority locations (4.2.6.6.3)

Facility #:_________ Location:______________________ Description:__________________________ Determination: _____________

	Sediments	Nutrients	Metals	Hydrocarbons	Pesticides	Chlorides	Trash	Bacteria	Other
Amount (#)									
Exterior Use (Y/N)									
Proximity to Water (ft)									
House keeping effectiveness(%)									
Discharge to impaired waters(Y/N)									

Facility #:_________ Location:______________________ Description:__________________________ Determination: _____________

	Sediments	Nutrients	Metals	Hydrocarbons	Pesticides	Chlorides	Trash	Bacteria	Other
Amount (#)									
Exterior Use (Y/N)									
Proximity to Water (ft)									
House keeping effectiveness(%)									
Discharge to impaired waters(Y/N)									

Facility #:_________ Location:______________________ Description:__________________________ Determination: _____________

	Sediments	Nutrients	Metals	Hydrocarbons	Pesticides	Chlorides	Trash	Bacteria	Other
Amount (#)									
Exterior Use (Y/N)									
Proximity to Water (ft)									
House keeping effectiveness(%)									
Discharge to impaired waters(Y/N)									

Facility #:_________ Location:______________________ Description:__________________________ Determination: _____________

	Sediments	Nutrients	Metals	Hydrocarbons	Pesticides	Chlorides	Trash	Bacteria	Other
Amount (#)									
Exterior Use (Y/N)									
Proximity to Water (ft)									
House keeping effectiveness(%)									
Discharge to impaired waters(Y/N)									

Post Construction BMP Inventory

Hooper City

Permit reference: 4.2.5.7

Facility Name	Owner	Location	BMP	Contact information	Private/ Public	Description (type, number, design)	Maintenance requirements

Post Construction BMP Maintenance Log

Post Construction BMP's types include, but are not limited to: Hydrodynamic Separators, Skimmers, Grassy Swales, Detention Basins, Snouts, etc. Inspections must be done annually and maintained in accordance with established S.O.P's.

Type	Location	Description	Date Inspected	Date Maintained	Responsible Party	Notes

Inventory of Active Construction Sites

Maintain Records of all Projects disturbing greater than or equal to one acre, including projects less than one acre that are part of a larger common plan of development or sale. These records are to be kept for five years or until construction is completed whichever is longer. Records to be filed Include: Site plan reviews, SWPPP, Inspection and enforcement actions, Stop work orders, warning letters, notices of violation, and other enforcement records.

Construction Site Name	Location	Description	Contact person and number	Begin Date	End Date 5 year mark	Documentation filed

HOOPER CITY

Construction Site Enforcement Log

Date	Location	Responsible Party	Offense	Escalating Enforcement History				Date Complete	Date Verified
				1st Level	2nd Level	3rd Level	4th Level		

Records shall be kept for five years or until Construction is complete.

4.2.6.7. The Permittee must develop and implement a process to assess the water quality impacts in the design of all new flood management structural controls that are associated with the Permittee or that discharge to the MS4. This process must include consideration of controls that can be used to minimize the impacts to site water quality and hydrology while still meeting project objectives. A description of this process must be included in the SWMP document

4.2.6.8. Construction Projects. Public construction projects shall comply with the requirements applied to private projects. All construction projects disturbing greater than or equal to one acre, including projects less than one acre that are part of a larger common plan of development or sale, owned or operated by the Permittee are required to be covered under the General UPDES Permit for Storm Water Discharges Associated with Construction Activities. All public projects approved after the effective date of this Permit shall include construction and post-construction controls selected and implemented pursuant to the requirements in Parts 4.2.4. and 4.2.5.

Ideas for including water quality on all projects

1. Review Storm Drain Master Plan for opportunities to include water quality projects or water quality aspects to Capital Improvement Projects.
2. Update Master Plan to include water quality issues.
3. During conceptual design review meetings – ask the questions –
    a. *Is there opportunity to include water quality aspects to this project?*
    b. *Are there any highly impacted areas?*
    c. *Are there low-impact development concepts and ideas that might work for this project?*
    d. *Can we limit directly connected impervious areas (DCIA) on this project?*
    e. *What could be done to minimize runoff?*
4. Train all employees, contractors and developers on SOP's and BMP's for all projects.
5. Include SWPPP discussion as part of the agenda for preconstruction meetings for all projects.
6. Look for "green money" funding options for water quality aspects of all projects.
7. Follow normal SWPPP review process/checklist review for all projects.

COMMON PLAN
SWPPP Preconstruction Submittal and Review Checklist

The SWPPP has been reviewed,

☐ no exceptions have been taken _____Date:_____

☐ please make updates as noted and resubmit _____ Date:_____

Name of Development: Submittal Date:

Owner: Phone:

Operator: Phone:

Inspector: Phone:

Responsible Contact: Phone:

Reviewed by _____ City (date): (name):

The following items shall be included on the SWPPP. **Check the spaces below indicating that each item is included or is not applicable, and then submit this form to Hooper City with the SWPPP.** Heading numbers correspond to sections in the Utah Common Plan SWPPP Template. References are given from both the Small MS4 General UPDES Permit (sections 4.2 and 7) and the Construction General Permit (section 3.5).

Included	N/A	SWPPP Requirement
1 – Project Information		
☐	☐	Owner(s)
☐	☐	General Contractor
Yes	No	
☐	☐	In Indian Country?
☐	☐	Single lot residential, disturbing less than one acre
2 – Pollution Sources/Best Management Practices		
Yes	No	
☐	☐	2.1 SWPPP Sign on site? – (A SWPPP sign is required)
☐	☐	2.2 Will there be construction dewatering?
☐	☐	2.3 Will there be non-storm water discharges on site?
☐	☐	2.4 Will the project be phased?
☐	☐	2.5 Identified perimeter controls?
☐	☐	2.6 Surface waters within 30 feet of project disturbances?
☐	☐	2.7 Critical or sensitive areas on or near site?
☐	☐	2.8 Identified track out control?
☐	☐	2.9 SD Inlets on or down gradient of site?

Yes	No		
☐	☐	2.10	Will curb ramps be used at the site?
☐	☐	2.11	Stockpiles or spoil piles on site?
☐	☐	2.12	Will there be concrete, masonry, stucco or paint used?
☐	☐	2.13	Identified handling of solid waste?
☐	☐	2.14	Solvent, oil, fuel, etc. liquid waste disposal?
☐	☐	2.15	Identified sanitary waste handling?
☐	☐	2.16	Minimizing discharge from spills and leaks
☐	☐	2.17	Storing construction materials on site?
☐	☐	2.18	Slopes greater than 70%?
☐	☐	2.19	High velocity storm water flows?
☐	☐	2.20	Identified measures to minimize sediment transport, channel & stream bank erosion?
☐	☐	2.21	Site dust control?
☐	☐	2.22	Temporary stabilization of disturbed areas?
☐	☐	2.23	House to be sold without landscaping?

3 – Sequence of Construction Activity

☐	☐	Start and End of Project?
☐	☐	Excavation activities start and stop dates?
☐	☐	Foundation/Footings start and stop dates?
☐	☐	Backfill start and stop dates?
☐	☐	Building erection start and stop dates?
☐	☐	Utility work start and stop dates?
☐	☐	Landscaping start and stop dates?

4 – Site Map

Included	N/A	
☐	☐	Project/Property boundaries
☐	☐	Disturbance boundaries
☐	☐	Site slopes
☐	☐	Location of structures/facilities
☐	☐	Stockpile locations
☐	☐	Construction supplies
☐	☐	Portable toilets
☐	☐	Garbage/trash containers
☐	☐	Egress points/track out pads
☐	☐	Concrete washout pits or containers
☐	☐	Water bodies, wetlands, natural vegetative buffers
☐	☐	BMPs, perimeter, erosion control, sediment control, inlet protection
☐	☐	Storm water inlets and discharge points
☐	☐	Temporary and permanent stabilization
☐	☐	Phasing of disturbance

5 – Potential Sources of Pollutants

Included	N/A	
☐	☐	Pesticides
☐	☐	Fertilizer
☐	☐	Plaster

Included	N/A	
☐	☐	Cleaning solvents
☐	☐	Asphalt
☐	☐	Concrete
☐	☐	Glue, adhesives
☐	☐	Paints
☐	☐	Curing compounds
☐	☐	Wood preservatives
☐	☐	Hydraulic oil/fluids
☐	☐	Gasoline
☐	☐	Diesel Fuel
☐	☐	Kerosene
☐	☐	Antifreeze/Coolant
☐	☐	Sanitary toilets

6 – Spill Prevention and Response Plan

☐	☐	Spill Plan?
☐	☐	Fire Department Number?
☐	☐	Police Department Number?
☐	☐	City Hall Number?

7 – SWPPP, Inspections and Corrective Action Reports

☐	☐	General procedures for correcting problems

8 – Training of Sub-Contractors

☐	☐	Excavator
☐	☐	Gas Utilities
☐	☐	Plumber
☐	☐	Electrician
☐	☐	Concrete foundation
☐	☐	Concrete flat work
☐	☐	Landscaper
☐	☐	Others

11 – Delegation of Authority

Yes	No	
☐	☐	Has authority been delegated?

12 – Discharge Information

☐	☐	Does project/site discharge to a storm drain system?
☐	☐	Identified Receiving water body?
☐	☐	Are there impaired water bodies?

13 – Certification and Notification

☐	☐	Document signed?

Appendices

- ☐ ☐ A: Site Maps
- ☐ ☐ B: Common Plan Permit
- ☐ ☐ C: Notice of Intent (NOI)
- ☐ ☐ D: Daily Site Check Log
- ☐ ☐ E: Inspection Reports and Corrective Actions
- ☐ ☐ F: Additional Information
- ☐ ☐ G: BMP Specification and Details

SWPPP Preconstruction Submittal and Review Checklist

The SWPPP has been reviewed,

☐ no exceptions have been taken _____Date:_____

☐ please make updates as noted and resubmit _____ Date:_____

Name of Development: Submittal Date:

Developer: Phone:

Operator: Phone:

Inspector: Phone:

Responsible Contact: Phone:

Reviewed by _____ City (date): (name):

The following items shall be included on the SWPPP. **Check the spaces below indicating that each item is included or is not applicable, and then submit this form to _____ City with the SWPPP.** Heading numbers correspond to sections in the Utah SWPPP Template. References are given from both the Small MS4 General UPDES Permit (sections 4.2 and 7) and the Construction General Permit (section 3.5).

Included	N/A	SWPPP Requirement
1.1 – Owner(s) & Contractors		
☐	☐	Owner(s) – 1.5
☐	☐	Project Manager(s) – 1.5
☐	☐	Site Supervisor(s) – 1.5
☐	☐	SWPPP Contact(s) – 1.5
☐	☐	SWPPP Preparer(s) – 1.5
☐	☐	Subcontractor(s) – 1.5
☐	☐	Emergency 24-hour contact(s) – 1.5
1.2 – Storm Water Team		
☐	☐	Name – 7.2.1
☐	☐	Role – 7.2.1
☐	☐	Phone
☐	☐	Email
2.1 – Project/Site Information		
☐	☐	Name and location – 1.1.3
☐	☐	Indian Country – 1.1.3

- ☐ ☐ Federal Facility
- ☐ ☐ UPDES permit tracking number – 1.5

2.2 – Nature of Construction Activity

- ☐ ☐ General scope of project – 7.2.2
- ☐ ☐ Project Start and Stop Dates – 7.2.4
- ☐ ☐ Type of construction activity – 7.2.4

2.3 - Construction Site Estimates

- ☐ ☐ Total project area – 7.2.2
- ☐ ☐ Area to be disturbed – 7.2.2
- ☐ ☐ % Impervious before construction – 2.1.1.b.i
- ☐ ☐ Runoff Coefficient before construction – 2.1.1.b.i
- ☐ ☐ % Impervious after construction – 2.1.1.b.i
- ☐ ☐ Runoff Coefficient after construction – 2.1.1.b.i

2.4 – Soils, Slopes, Vegetation, and Current Drainage Patterns

- ☐ ☐ Soil types – 2.1.1.b.i
- ☐ ☐ Slopes (both current and proposed) – 2.1.1.b.i
- ☐ ☐ Drainage patterns – 2.1.1.b.i
- ☐ ☐ Vegetation – 7.2.5.d
- ☐ ☐ Other – 2.1

2.5 – Emergency Related Project

- ☐ ☐ Emergency related project – yes or no – justification if yes – 1.2.1

2.6 – Phase/Sequence of Construction Activity

- ☐ ☐ Phase I – 7.2.4
- ☐ ☐ Describe phase
- ☐ ☐ Start/stop dates
- ☐ ☐ BMPs associated with phase
- ☐ ☐ Stabilization methods used for this phase (including temporary)
- ☐ ☐ Phase II – 7.2.4
- ☐ ☐ Describe phase
- ☐ ☐ Start/stop dates
- ☐ ☐ BMPs associated with phase
- ☐ ☐ Stabilization methods used for this phase (including temporary)
- ☐ ☐ Phase III – 7.2.4
- ☐ ☐ Describe phase
- ☐ ☐ Start/stop dates
- ☐ ☐ BMPs associated with phase
- ☐ ☐ Stabilization methods used for this phase (including temporary)

2.7 – Site Features and Sensitive Areas

- ☐ ☐ List unique site features (streams, buffers, wetlands, natural vegetation, steep slopes, and erodible soils) – 2.1.2.a

- ☐ ☐ Methods to protect these features
- ☐ ☐ Show features on site map

2.8 - Maps

- ☐ ☐ Attach maps – 7.2.5
- ☐ ☐ General location map – 7.2.5.a
- ☐ ☐ SWPPP Site Maps – 7.2.5
- ☐ ☐ Direction of storm water flows – slopes before and after construction - 7.2.5.a.ii
- ☐ ☐ Areas and timing of soil disturbance – 7.2.5.a.i
- ☐ ☐ Areas to be left undisturbed – 2.1.1.a, 7.2.5.d
- ☐ ☐ Natural features to be preserved – 2.1.1.b.iii, 7.2.5.d
- ☐ ☐ Locations of structural and non-structural BMPs – 7.2.5.g
- ☐ ☐ Locations and timing of stabilization – 7.2.5
- ☐ ☐ Locations of off-site material, waste, borrow or equipment storage – 7.2.5.a.iii
- ☐ ☐ Locations of all waters of the US, including wetlands – 7.2.5.b
- ☐ ☐ Locations where storm water discharges to surface waters – 7.2.5.e.ii
- ☐ ☐ Locations of storm drain inlets – 7.2.5.e.i
- ☐ ☐ Areas where final stabilization has been accomplished – 7.2.5

3.1 – UIC Class 5 Injection Wells

- ☐ ☐ French Drain – 7.2.13.a.i
- ☐ ☐ Commercially manufactured pre-cast or pre-built subsurface infiltration system – 7.2.13.a.ii
- ☐ ☐ Drywell – 7.2.13.a.iii
- ☐ ☐ Description of Class V Injection Well:

3.2 – Discharge Information

- ☐ ☐ List of all surface waters receiving discharges from the site – 3.2.1, 7.2.14.a
- ☐ ☐ Identify any impairments or TMDLs downstream of the site – 3.2.1, 7.2.14.c
- ☐ ☐ Identify measures being taken to address impairments or meet TMDL requirements – 3.2.2
- ☐ ☐ Identify category of the first surface water to which you discharge – 3.3.1
- ☐ ☐ Indicate surface waters on site map – 7.2.5.a.iv
- ☐ ☐ Note any stream crossings – 7.2.5.a.iv
- ☐ ☐ Show/list the storm sewer system that you discharge to – 7.2.5.e.ii
- ☐ ☐ Identify any surface waters within 50 feet of your construction disturbance – 2.1.2.a
- ☐ ☐ Locations of pollutant discharges – 7.2.5.e.ii

3.3 – Receiving Waters

Included in 3.2 above

3.4 – Impaired Waters

Included in 3.2 above

3.5 – High Water Quality

- ☐ ☐ Is the surface water designated as high quality – 1.2.3

☐ ☐ If yes, which Category – 1.2.3

3.6 – Dewatering Practices

☐ ☐ Is dewatering an anticipated activity – 2.1.3.d
☐ ☐ If yes, will they be discharging off-site – 2.1.3.d
☐ ☐ If discharging off-site, do they have a dewatering permit – 2.1.3.d
☐ ☐ Identified BMPs to be used in dewatering – 2.1.3.d

3.7 – Control Storm Water Flowing onto and through the Project

☐ ☐ Identified BMPs for flow diversion around or through site – 7.2.5.d

3.8 – Protect Storm Drain Inlets

☐ ☐ Identified BMPs to be used – 2.1.2.h

4.1 – Potential Sources of Pollution

☐ ☐ Identified potential sources of sediment – 7.2.6
☐ ☐ Identified potential sources of pollution – 7.2.6

4.2 – Non-Storm Water Discharges

☐ ☐ Identified all allowable non-storm water discharges – 1.3.4

Allowable discharges include: vehicle washing without detergents, dust control water, uncontaminated potable water line flushing, building wash down water without detergents, pavement wash water without pollutants, air conditioning or condenser condensate, uncontaminated groundwater or spring water, uncontaminated foundation or footing drains, uncontaminated excavation dewatering, landscape irrigation

4.3 – Natural Buffers or Equivalent Sediment Controls

☐ ☐ Identify surface waters (including wetlands) within 50 feet of project's disturbance – 2.1.2.a
☐ ☐ Natural 50 foot buffer – 2.1.2.a
☐ ☐ Equivalent to natural 50 foot buffer – 2.1.2.a.i
☐ ☐ Buffer exception – 2.1.2.v

5 – Erosion and Sediment Controls

☐ ☐ Describe each control measure – 2.1.1, 7.2.9.a
☐ ☐ Timing of each control measure – 2.1.1.c, 7.2.9.a
☐ ☐ Maintenance and inspection requirements for each control measure – 2.1.1.d, 7.2.11.e
☐ ☐ Thresholds, protocols for cleaning, repairing and replacing each control measure – 2.1.1.d, 7.2.9.a
☐ ☐ Identified staff responsible for each control measure – 2.1.d.ii
☐ ☐ Show all control measures on the site map – 7.2.5.g

- ☐ ☐ Provide design and construction details for each structural control measure – 2.1.1.c.ii
- ☐ ☐ 5.1 Minimize disturbed areas – 7.2.2
- ☐ ☐ 5.2 Establish perimeter controls – 2.1.2.b
- ☐ ☐ 5.3 Retain sediment on site – 2.1.2.d.ii
- ☐ ☐ 5.4 Stabilized construction entrance – 2.1.2.c
- ☐ ☐ 5.5 Protect slopes – 2.1.2.e.i
- ☐ ☐ 5.6 Stockpile soil or other erodible material – 2.1.2.d
- ☐ ☐ 5.7 Minimize dust – 2.1.2.e
- ☐ ☐ 5.8 Topsoil – 2.1.2.f
- ☐ ☐ 5.9 Soil Compaction – 2.1.2.g
- ☐ ☐ 5.10 High Altitude/Heavy Snows – 2.1.2.i
- ☐ ☐ 5.11 Chemical Treatment – 2.1.3.c
- ☐ ☐ 5.12 Stabilize Soils – 2.1.2.d.iii
- ☐ ☐ 5.13 Final Stabilization – 2.1.2.f

6.1 – Spill Prevention and Response

- ☐ ☐ Include Spill Prevention and Control Plan – 2.3.4
- ☐ ☐ Include Emergency response call numbers for reporting spills – 2.3.4

6.2 – Construction and Domestic Waste

- ☐ ☐ Describe measures for trash disposal 2.3.3.c.v
- ☐ ☐ Describe measures for sanitary waste – 2.3.3.c.vi
- ☐ ☐ Describe measures for recycling and materials handling – 2.3.3.a.iv

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

- ☐ ☐ Identify and describe concrete washout facilities – 2.3.3.d
- ☐ ☐ Identify and describe paint and stucco washout facilities – 2.3.3.d

6.4 – Establish Proper Building Material Staging Areas

- ☐ ☐ Describe construction materials stored on site and procedures for storage of materials – 2.1.2.d, 2.3.3.c

6.5 – Establish Proper Equipment/Vehicle Fueling and Maintenance Practices

- ☐ ☐ Will equipment be fueled and maintained on site – 2.3.3.a
- ☐ ☐ If yes, describe practices to be implemented – 2.3.3.a

6.6 – Control Equipment/Vehicle Washing

- ☐ ☐ Describe equipment/vehicle washing practices and controls to be implemented – 2.3.3.b

6.7 – Pesticides, Herbicides, Insecticides, Fertilizers, and Landscape Materials

☐ ☐ Describe practices and controls to be implemented to control discharges of pesticides, herbicides, insecticides, fertilizers and landscape materials– 2.3.3.c.ii

6.8 – Other Pollution Prevention Practices

☐ ☐ Describe any additional BMPs not covered in other sections – 2.3

7.1 – Inspections

☐ ☐ Identify individuals responsible for doing inspections – 4.1.1, 7.2.11.a
☐ ☐ List qualifications (certifications) of inspector(s) – 4.1.1
☐ ☐ Include inspection form to be used – 4.1.7
☐ ☐ List inspection schedule – 4.1.2, 7.2.11.b

7.2 – Corrective Action Log

☐ ☐ Include a corrective action log for tracking items needing attention – 5.4

8.1 – Training

☐ ☐ Include a location to document employee training – 5.6, 7.2.12

8.2 – Recordkeeping

☐ ☐ Signed NOI – 7.2.16.a
☐ ☐ Place of Inspection Reports – 4.1.7.c

9 – Certification

☐ ☐ Signed and certified by Owner – 7.2.15
☐ ☐ Signed and certified by Operator/Contractor – 7.2.15

Appendices

☐ ☐ General Location Map – 7.2.5.a
☐ ☐ Site Maps – 7.2.5
☐ ☐ Construction General Permit or link – 7.2.16.b
☐ ☐ NOI, Local Permits – 7.2.16.a
☐ ☐ Inspection Reports – 4.1.7.c
☐ ☐ Corrective Action Log – 5.4.3
☐ ☐ SWPPP Amendment Log – 7.4.3
☐ ☐ Subcontractors – 6
☐ ☐ Grading and Stabilization Activities Log – 7.2.4.b&d

☐ ☐ Training Log – 7.2.12
☐ ☐ Construction Plans – 7.4.1.a
☐ ☐ Additional Information – 1.3.5.a
☐ ☐ BMP Instruction and Detail Specifications – 2.1.1.c, 5.4.1.a, 7.2.4.a

This document and attachments must be maintained by the MS4 for a period of five years or until construction is completed, whichever is longer. (4.2.4.3)

UPDES STORM WATER INSPECTION EVALUATION FORM FOR SWPPP COMPLIANCE

BACKGROUND INFORMATION

Site Name:	UPDES Permit #:
Site Address:	
Local Jurisdiction or County:	
Permit Effective Date:	Permit Expiration Date:
Total Project Area:	Total Disturbed Area:

Project Type: (circle) *Subdivision* *Commercial* *Industrial* *Linear (Road/Pipe/Power)* *Land Disturbance*

OPERATOR CONTACT INFORMATION

	NAMES	PHONE NUMBERS	E-MAIL
Operator:			
Onsite Facility Contact:			
Important Contacts:			
Important Contacts:			

SWPPP PRE-SITE REVIEW INFORMATION

	YES	NO
1. Has a pre-construction review of the SWPPP been conducted by the appropriate municipal agency?		
2. Are contact names and telephone numbers listed in the SWPPP?		
3. Does the SWPPP include a site map showing storm drains, slopes/surface drainage patterns, SW discharge points, construction boundaries, limits of disturbance, surface waters (name of receiving water), structural controls, and does it define/explain non-structural controls?		
4. Does the SWPPP have an estimate of the area to be disturbed, a sequence of construction activities, the SW runoff coefficient for after completion, a description of the soil types, controls for discharges from (asphalt/concrete) batch plants if any, show wetland areas, and have a desription of the nature of the construction activity?		
5. Does the SWPPP and site map show erosion and sediment controls placement & details (e.g. erosion blankets, mulch, slope drains, check dams, sediment basins, grass-lined channels, fiber rolls, sediment traps, silt fence, inlet protection, curb cut-back, dust control, etc?)		
6. Does the SWPPP and site map show and describe good housekepping controls (e.g. track out pad, street sweeping, material storage, construction waste containment and removal, sanitary waste, concrete washout pits, etc)		
7. Are post-construction elements included in the SWPPP? (i.e. grass swales, detention basins, vegetated filter strips, infiltration, depression storage, landscaping/xeriscaping, discontinuous concrete or hard surface SW conveyance, etc.)		
8. Does the SWPPP address endangered species and historic preservation?		
9. Is the SWPPP signed by a responsible corporate officer with the certification statement (see permit part 5.16.c.)?		
10. Are the NOI and a copy of the State permit in the SWPPP?		

NOTICE OF TERMINATION (NOT) INSPECTION

Site Name:	Date of Evaluation:
Site Address:	
Inspected By:	Title\Organization:

	YES	NO	COMMENTS:
1. Has the site been properly stabilized according to permit requirements?			
2. Have all temporary BMPs been removed?			
3. Have post-construction (permanent storm water system) elements been constructed and inspected in accordance with approved project drawings?			
4. Is the site acceptably clean?			

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.

Inspector:

(Print Name) (Title) (Signature) (Date)

Operator:

(Print Name) (Title) (Signature) (Date)

modified 8/12/10

(Attach additional sheets of narrative, pictures and checklists, as necessary)

ADDITIONAL COMMENTS AND CORRECTIVE ACTIONS FOR SWPPP COMPLIANCE

Site Name:	Date of Evaluation:	Page	of
Site Address:			

EPA Form 3560-3 SEV Codes and Descriptions

DOR11		Discharge without a permit	BR19B		Failure to properly operate and maintain BMP's
DOR18		Failure to apply for a Notice of Termination	BR19A		Failure to properly install/implement BMP's
BOR12		Failure to conduct inspections	EOR16		Failure to submit required report (non-DMR)
BOC17		Failure to develop any or adequate SWPPP/SWMP	AOR22		Narrative effluent violation

BOC18		Failure to implement SWPPP/SWMP	DOR12		Failure to submit required permit information
BOR41		Failure to maintain records	AOR12		Numeric effluent violation
COR11		Failure to monitor	BOR42		Violation of a milestone in an order

SWPPP COMPLIANCE INSPECTION FORM

Project Name:	Address:	Date:
Owner:	Contractor (Gen/Sub):	Start time:
Site Contact:	Phone:	Stop time:
UPDES Permit #: Expiration:	Weather: Sunny Cloudy Raining Snowing Other:	
Date of last rain event:	Duration:	Approx. Rainfall (in):
Inspected By (Print):	Local Jurisdiction or County:	
Reason for Inspection: Scheduled Complaint/Tip Random	Receiving Waters:	
Inspection Code (circle): SW sampling / SW non-sampling	Inspector Code (circle): (S) State / (L) Local	Type Code (circle): 1 - Municipal 2 - Industrial 3 - State

SWPPP, EROSION, SEDIMENT AND HOUSEKEEPING BMP's INFORMATION	YES	NO	N/A
1. Is the SWPPP on site and accessible, or is the SWPPP location posted in an obvious place and reasonably accessible (in a short time)?			
2. Are erosion control, sediment control, and good housekeeping BMP's installed on the site as shown in the SWPPP?			
3. Has the SWPPP been updated to reflect the current site conditions (modifications dated & initialed on site map, new BMPs on site map, discontinued BMPs crossed off site map, new BMP details & spec's in SWPPP, SWPPP amendment Log, etc.)?			
4. Are on-site inspections being performed and recorded by a qualified person on a weekly or biweekly basis, reporting items required by permit? (Inspector name &qualifications, weather, problems/repairs, corrective action, new BMPs, removed BMPs, discharges, etc.)			
5. Have all corrective action items from previous inspections been addressed and documented within the time frame allotted by the inspector?			
6. Are SW flows entering and leaving the construction site controlled, managed, or diverted around the site? (e.g. perimeter controls, berms, silt fence, upgradient boundary diversion, down gradient boundary sediment control, etc.)			
7. Is there evidence of sediment discharge such as mud flows or soil deposits from the construction site in downstream locations?			
8. Is there evidence of vehicles tracking soil off the construction site?			
9. Is there soil, construction material, landscaping items, or other debris piled on impervious surfaces (roads, drives) that could be washed with SW to a storm drain or water body?			
10. Is there a need to repair, maintain, or improve erosion control BMPs (temporary stabilization, erosion blankets, mulch, vegetated strips, rip rap, surface roughening, pipe slope drain, dust control, etc)?			
11. Is there a need to repair, maintain, or improve sediment control BMPs (silt fence, check dams, fiber rolls, sediment trap/basin, inlet protection, waddles, straw bails, curb cut-back, etc?			
12. Is there a need to repair, maintain, or improve good housekeeping controls (clean track out pad, sweeping, construction materials management, litter/trash control, port-o-potties staked down, fueling areas, concrete wash out area, proper curb ramps, spill prevention, etc)?			
13. Are there disturbed areas that have not had construction activities for 14 to 21 days without stabilization? (except snow or frozen ground)?			
14. Are there places where BMPs are needed and should be installed or not needed and should be removed?			

COMMENTS AND CORRECTIVE ACTIONS FOR SWPPP COMPLIANCE

Identify the problem and its location. If appropriate, describe (in general terms) what needs to be completed. However, only if qualified (e.g., you are a designer) should you be mandating specific BMPs to install. Include the date when corrections are made.

Inspector, please list all applicable SEV codes:

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.

Inspector:

(Print Name) (Title) (Signature) (Date)

Operator:

modified 8/12/10 (Print Name) (Title) (Signature) (Date)

(Attach additional sheets of narrative, pictures and checklists, as necessary)

ADDITIONAL COMMENTS AND CORRECTIVE ACTIONS FOR SWPPP COMPLIANCE

Site Name:	Date of Evaluation:	Page of
Site Address:		

EPA Form 3560-3 SEV Codes and Descriptions

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BOR12		Failure to conduct inspections	EOR16		Failure to submit required report (non-DMR)
BOC17		Failure to develop any or adequate SWPPP/SWMP	AOR22		Narrative effluent violation
BOC18		Failure to implement SWPPP/SWMP	DOR12		Failure to submit required permit information
BOR41		Failure to maintain records	AOR12		Numeric effluent violation
COR11		Failure to monitor	BOR42		Violation of a milestone in an order

SWPPP Inspection Checklist

Pre-inspection Items

- ☐ Contact Site Superintendant or Project Manager
- ☐ Review previous inspections – are there reoccurring problems?
- ☐ Proper equipment
  - Hard hat
  - Vest
  - Safety shoes
  - Safety glasses
  - Camera
  - GPS unit?
  - Inspector credentials

On-Site before inspecting

- ☐ Review SWPPP – updates and changes
- ☐ Review any specific concerns
- ☐ Check contractors inspection forms/issues

Inspection

- ☐ Use State Form – keep notes
- ☐ Check outfalls
- ☐ Check perimeter control
- ☐ Check entrances/exits
- ☐ Check erosion control BMPs
- ☐ Check sediment control BMPs
- ☐ Check for mud tracking
- ☐ Check stockpile/storage areas
- ☐ Check staging areas
- ☐ Take photos of good and bad
- ☐ Keep photo log
- ☐ Review findings with superintendant/project manager

Post Inspection

- ☐ Review form, complete and clarify as needed
- ☐ File inspection form and photos
- ☐ Send copy of form to State – can be done monthly

UPDES STORM WATER INSPECTION EVALUATION FORM
FOR
POST CONSTRUCTION COMPLIANCE

Site Name:	Date of Evaluation	UTR Permit #
Site Address:	Permit Effective Date:	Permit Expiration Date:

Facility Contact Information

	NAMES	PHONE #'S	E-MAIL
CONTACT:			
CONTACT:			

BUSINESS TYPE: SUBDIVISION ☐ COMMERCIAL ☐ INDUSTRIAL ☐

Snout Required for site YES ☐ NO ☐

Orifice Required for site YES ☐ NO ☐ Orifice Size:

Items Inspected	Checked		Maintenance		Review	Observations and Remarks
	Yes	No	Req'd	Not Req'd		
1. Class V Injection Wells						
2. Fuel Storage						
A. Containment						
B. Pumping area						
3. Chemical Storage						
A. Used Oil						
B. Used Antifreeze						
4. Parking Lot						
A. Clear of Trash/Debris						
B. Signs of Spills						
5. Garbage Bins						
6. Curb Inlets						
7. Man Holes						
8. Pipes						
9. Detention/Retention Ponds						
A. Vegetation						
B. Banks						

Any signs of debris, or pollutants coming into the city storm drain system:

Notes:

Inspector: Site Contact:

Signature Title Signature Date

STANDARD OPERATING PROCEDURES

Hooper City

Created: February 2010
Updated: September 2023

TABLE OF CONTENTS

BUILDINGS – Dumpsters/Garbage Storage

1. Preparation

    a. Train employees on proper trash disposal.

    b. Locate dumpsters and trash cans in convenient, easily observable areas.

    c. Provide properly labeled recycling bins to reduce the amount of garbage disposed.

    d. Install berms, curbing, or vegetation strips around storage areas to control water entering/ leaving storage areas.

    e. Whenever possible store garbage containers beneath a covered structure or inside to prevent contact with storm water.

2. Process

    a. Inspect garbage bins for leaks quarterly, and have repairs made immediately by responsible party.

    b. Request/use dumpsters, and trash cans with lids and without drain holes.

    c. Locate dumpsters on a flat, hard surface that does not slope or drain directly into the storm drain system.

3. Clean-up

    a. Keep areas around dumpsters clean of all garbage.

    b. Have garbage bins emptied weekly to keep from overfilling.

    c. Wash out bins or dumpsters as needed to keep odors from becoming a problem.

4. Documentation

    a. Document training of employees.

BUILDINGS – Parking Lot Maintenance

1. Preparation

    a. Conduct regular employee training to reinforce proper housekeeping.

    b. Restrict parking in areas to be swept prior to and during sweeping using regulations, as necessary.

2. Process

    a. Sweep parking areas, as needed, or as directed by the city's responsible official.

    b. Hand sweep sections of gutter if soil and debris accumulate.

    c. Pick-up litter as required to keep parking areas clean and orderly.

3. Clean-up

    a. Dispose of sweepings properly (appropriate solid waste facility).

    b. Hand-swept materials will not be stored in locations where storm water could transport fines into the storm drain system.

4. Documentation

    a. Document training of employees.

IDDE - Call-in Inspections

1. Preparation

    a. Have a system in place to receive phone calls and collect information regarding suspected illicit discharges.

2. Process

    a. Use the Incident Tracking Sheet to collect the appropriate information from the caller. Then, transfer the Incident Tracking Sheet to the proper authority (i.e., department head, stormwater specialist, construction inspector, code enforcement officer, or other assigned personnel).

    b. Promptly investigate reported incidents.

    c. If an illicit discharge of unknown source is confirmed, follow the procedure of SOP IDDE - Tracing Illicit Discharges.

    d. If an illicit discharge known source is confirmed, follow the procedure of SOP IDDE - Removing Illicit Discharges.

3. Clean up

    a. Clean catch basin, clean storm drain, or initiate spill response, as applicable. Follow relevant SOPs.

4. Documentation

    a. File all completed forms (i.e., incident tracking, catch basins cleaning, storm drain cleaning.

    b. Document any further action taken.

    c. Review incidents reported by citizens on an annual basis to look for patterns of illicit discharges and to evaluate the call-in inspection program.

IDDE – Containing a Spill

1. Preparation

    a. Work with county fire department's and environmental contractor's stockpile of absorbent materials and spill kits.

    b. Train all public works staff annually on how to respond to a spill.

2. Process

    a. Priority is to dam and contain flowing spills.

    b. Use spill kit booms if available or use any material available; including but not limited to, nearby sand, dirt, landscaping materials, etc.

3. Clean-up

    a. Never wash spills to the storm drain systems.

    b. As per SDS requirements but generally most spills can be cleaned up according to the following:

        1. Absorb liquid spills with spill kit absorbent material, sand or dirt until liquid is sufficiently converted to solid material.
        2. Remove immediately using dry cleanup methods, e.g., broom and shovel, or vacuum operations.
        3. Clean up with water and detergents may also be necessary depending on the spilled material. However, the waste from this operation must be vacuumed or effectively picked up by dry methods.
        4. Repeat process when residue material remains.

4. Documentation

    a. Document all spills in accordance to spill report Spill Report Form found in the SWMP.

    b. Deliver completed form and any pictures to Stormwater Specialist.

    c. Stormwater staff will log reports in CompianceGo.

        1. Condition of Site: Description of spill.
        2. Work Description: How and where spill was managed and disposed.
        3. Identity affected stormwater systems.

IDDE - Opportunistic Illicit Discharge Observation

1. Preparation

    a. Be alert for potential illicit discharges to the municipal storm water system while going about normal work activities.

2. Process

    a. Call the appropriate authority (i.e., department head, stormwater specialist, construction inspector, code enforcement officer or a supervisor) if you see evidence of an illicit discharge.

    b. Assess the general area of the illicit discharge to see if you can identify its source.

    c. Whenever possible, take photographs of the suspected illicit discharge.

    d. Responding stormwater department personnel or code enforcement officer will complete the following:

        1. Use the IDDE Incident Tracking Sheet to document observations.
        2. Obtain sample for visual observation and complete an Outfall Inspection Form, if applicable.
        3. Follow the procedure of SOP IDDE - Tracing Illicit Discharges.

3. Clean-up

    a. Clean catch basin, clean storm drain, or initiate spill response, as needed. Follow relevant SOPs.

4. Documentation

    a. File all completed forms (i.e., Incident Tracking Form, Outfall Inspection Form, Catch Basin Cleaning Form, and Storm Drain Cleaning Log).

    b. Document any further action taken.

IDDE - Outfall Inspections

1. Preparation

    a. Know the past and present weather conditions. Conduct inspections during dry weather periods.

    b. Gather all necessary equipment including tape measure, clear container, clipboard with necessary forms, flashlight, and camera (optional).

    c. Obtain maps showing outfall locations and identifiers.

    d. Obtain outfall description and observations from previous inspections, so the outfall can be accurately identified, and observations compared.

2. Process

    a. Perform an inspection of each outfall at least once per year. Whenever, possible use the same personnel for consistency in observations.

    b. Identify each outfall with a consistent and unique identifier. For example, "Howard Slough-#13". Use maps and previous inspection reports to confirm the outfall identity and location.

    c. If dry weather flow is present at the outfall, then document and evaluate the discharge by completing the following steps:

        1. Collect field samples for visual observations in a clean, clear container and in a manner that avoids stirring up sediment that might distort the observation.
        2. Characterize and record observations on basic sensory and physical indicators (e.g., outfall condition, flow, odor, color, oil sheen) on the Outfall Inspection Form.
        3. Compare observations to previous inspections.
        4. If the flow does not appear to be an obvious illicit discharge (e.g., flow is clear, odorless, etc.), attempt to identify the source of the flow (groundwater, intermittent stream, etc.)

    d. If an illicit discharge (such as raw sewage, petroleum products, paint, etc.) is encountered or suspected, follow the procedure of SOP IDDE - Tracing Illicit Discharges.

3. Cleanup - as necessary

4. Documentation

    a. File completed outfall inspection forms.

    b. Update maps if new outfalls are observed and inspected.

IDDE - Removing Illicit Discharges

1. Preparation

    a. Obtain available property ownership information for the source of the illicit discharge.

2. Process

    a. Determine who is financially responsible; and follow associated procedures as given below.

    For Private Property Owner:
    Contact Owner,
    Issue Notice of Violation for violations of the municipal ordinance, and
    Determine schedule for removal.

    For Municipal Facility:
    Notify appropriate municipal authority or department head,
    Schedule removal, and
    Remove illicit connection.

    b. Suspend access to storm drain if threats of serious physical harm to humans or the environment are possible.

    c. Direct responsible party to initiate repairs/corrections/cleanup. Coordinate with enforcement official for escalating penalties in accordance with the municipal ordinance.

    d. Repair/correct cause of discharge if municipality is responsible. Schedule the work, through the appropriate municipal authority or department head.

    e. Seek technical assistance from the Weber-Morgan Health Department or Utah Department of Water Quality, if needed.

3. Clean up

    a. Confirm illicit discharge is removed or eliminated by follow-up inspection.

4. Documentation

    a. Maintain records of notice of violation and penalties.

    b. Document repairs, corrections, and any other actions required.

IDDE - Tracing Illicit Discharges

1. Preparation

    a. Review / consider information collected when illicit discharge was initially identified and document using Incident Tracking Form or Outfall Inspection Form.

    b. Obtain storm drain mapping for the area of the reported illicit discharge.

    c. Gather all necessary equipment including tape measure, clear container, clipboard with necessary forms, flashlight, and camera (optional).

2. Process

    a. Survey the general area / surrounding properties to identify potential sources of the illicit discharge as a first step.

    b. Trace illicit discharges using visual inspections of upstream points as a second step. Use available mapping to identify tributary pipes, catch basins, etc.

    c. If the source of the illicit discharge cannot be determined by a survey of the area or observation of the storm drain system, then consider the following additional steps:

        1. Use weirs, sandbags, dams, or optical brightener monitoring traps to collect or pool intermittent discharges during dry weather.
        2. Smoke test or televise the storm drain system to trace high priority, difficult to detect illicit discharges.
        3. Dye test individual discharge points within suspected buildings.
        4. Consider collecting bacterial samples of flowing discharges to confirm/refute illicit discharge.

    d. If the source is located, follow SOP IDDE - Removing Illicit Discharges.

    e. If the source cannot be found, add the location to a future inspection program.

3. Clean up

    a. Clean catch basin, clean storm drain, or initiate spill response, as applicable. Follow relevant SOPs.

4. Documentation

    a. Document tracing results for future reference.

PARKS – Chemical Application Pesticides, Herbicides, Fertilizers

1. Preparation

    a. Calibrate fertilizer and pesticide application equipment to avoid excessive application.

    b. Use pesticides only if there is an actual pest problem and periodically test soils for determining proper fertilizer use.

    c. Time and apply the application of fertilizers, herbicides, or pesticides to coincide with the manufacturer's recommendation for best results ("Read the Label").

    d. Know the weather conditions. Do not use pesticides if rain is expected. Apply pesticides only when wind speeds are low (less than 5 mph).

2. Process

    a. Always follow the manufacturer's recommendations for mixing, application, and disposal. ("Read the Label").

    b. Do not mix or prepare pesticides for application near storm drains, preferably mix inside a protected area with impervious secondary containment (preferably indoors) so that spills or leaks will not contact soils.

    c. Employ techniques to minimize off-target application (e.g., spray drift, over broadcasting.) of pesticides and fertilizers.

3. Clean-up

    a. Sweep pavements or sidewalks where fertilizers or other solid chemicals have fallen, back onto grassy areas before applying irrigation water if necessary.

    b. Triple rinse containers and use rinse water as product. Dispose of unused pesticide as hazardous waste as needed.

    c. Always follow all federal and state regulations governing use, storage and disposal of fertilizers, herbicides or pesticides and their containers. ("Read the Label")

4. Documentation

    a. Keep copies of MSDS for all pesticides, fertilizers and other hazardous products used.

PARKS – Cleaning Equipment

1. Preparation
    a. Review process with all Parks employees.
2. Process
    a. Wipe off dirt, dust, and fluids with disposable towel.
    b. Wash equipment in approved wash station.
3. Clean-up
    a. Dispose of towels in proper trash receptacle.
    b. Sweep floor and dispose of debris.

PARKS – Mowing and Trimming

1. Preparation
    a. Process overview with all employees.
    b. Check the oil and fuel levels of the mowers and other equipment; fill if needed.
2. Process
    a. Put on eye and hearing protection.
    b. Mow and trim the lawn.
    c. Sweep or blow clippings to grass areas.
3. Clean-up
    a. Mowers are to be scraped and brushed at shop – dry spoils are disposed of.
    b. Wash equipment in approved wash station, as needed.

PARKS – Open Space Management

1. Preparation

    a. Provide a regular observation and maintenance of parks and other public open spaces.

    b. Identify public open spaces that are used for stormwater detention and verify that detention areas are included on the storm drain system mapping, inspection schedules, and maintenance schedules.

2. Process

    a. Ensure that any storm drain or drainage system components on the property are properly maintained.

    b. Avoid placing bark mulch (or other floatable landscaping materials) in stormwater detention areas or other areas where stormwater runoff can carry the mulch into the storm drainage system.

    c. Follow all SOPs related to irrigation, mowing, landscaping, and pet waste management.

3. Clean Up

    a. Keep all outdoor work areas neat and tidy. Clean by sweeping instead of washing whenever possible. If areas must be washed, ensure that wash water will enter a landscaped area rather than the storm drain. Do not use soap for outdoor washing.

    b. Pick up trash on a regular basis.

PARKS – Planting Vegetation (Seeds)

1. Preparation

    a. Call the Blue Stakes Center of Utah at least 2 working days before any digging will be done, to reveal the location of any underground utilities.

    b. Dial 811 or 1-800-662-4111

    c. Decide on the application rate, method, water source, and ensure adequate materials are on hand.

    d. Grade and prepare the soil to receive the seed. Place any extra soil in a convenient location to collect.

2. Process

    a. Place the seed and any cover using the pre-determined application method (and rate).

    b. Lightly moisten the seed.

3. Clean-up

    a. Move any extra spoils into truck or trailer. Place the spoils on a tarp if there is a likelihood that some of the dirt would be lost through openings in the bed.

    b. Sweep dirt, seed, and any cover material from surrounding pavement(s) into the planter area

    c. Transport spoils to their designated fill or disposal area.

PARKS – Planting Vegetation (Starters)

1. Preparation

    a. Call the Blue Stakes Center of Utah at least 2 working days before any digging will be done, to reveal the location of any underground utilities.

    b. Dial 811 or 1-800-662-4111

    c. Decide where any spoils will be taken.

2. Process

    a. Dig holes; place spoils near the hole where they may easily be placed back around roots. Avoid placing spoils in the gutter.

    b. Bring each plant near the edge of the hole dug for it.

    c. Check the depth of the hole and adjust the depth if necessary. The depth of the hole for a tree should be as deep as the root ball, so that the top of the root ball is level with the top of the hole.

    d. Carefully remove pot or burlap.

    e. Place the plant in the hole.

    f. Backfill the hole with existing spoils, compost, and a litter fertilizer if desired. Do not use excessive amendments.

    g. Water the plant.

    h. Stake the plant, if necessary, to stabilize it.

3. Clean-up

    a. Move any extra spoils into truck or trailer. Place the spoils on a tarp if there is a likelihood that some of the dirt would be lost through openings in the bed.

    b. Sweep dirt from surrounding pavement(s) into the planter area

    c. Transport spoils to their designated fill or disposal area.

PARKS – Transporting Equipment

1. Preparation

    a. Determine equipment needed for transport and method (trailer, truck bed) needed to transport equipment.

    b. Conduct pre-trip inspection of equipment.

2. Process

    a. Load and secure equipment on trailer or truck.

    b. Load and secure fuel containers for equipment usage.

3. Clean-up

    a. Off load equipment.

    b. Store equipment and trailer in proper location.

    c. Conduct post-trip inspection of equipment.

    d. Wash equipment, if needed, according to the SOP for Cleaning Equipment.

STREETS/STORM DRAIN – Catch Basin Cleaning

1. Preparation

    a. Clean sediment and trash off grate.

    b. Do visual inspection on outside of grate.

    c. Make sure nothing needs to be replaced.

    d. Do inside visual inspection to see what needs to be cleaned.

2. Process

    a. Clean using a high-powered vacuum truck to start sucking out standing water and sediment.

    b. Use a high-pressure washer to clean any remaining material out of catch basin, while capturing the slurry with the vacuum.

    c. After catch basin is clean, send the rodder of the vacuum truck downstream to clean pipe and pull back sediment that might have gotten down stream of pipe.

    d. Move truck downstream of pipe to next catch basin.

3. Clean-up

    a. When vacuum truck is full of sediment take it to the designated location to dump all the sediment out of truck into a drying bed.

    b. When it evaporates, clean it up with a backhoe, put it into a dump truck and take it to the landfill.

STREETS/STORM DRAIN – Chip Seal

1. Preparation

    a. Clean and dry areas where materials are to be applied.

    b. Apply temporary covers to manholes and catch basins to prevent oil and materials from getting inside of them.

2. Process

    a. Apply emulsion at recommended rate.

    b. Spread chips closely behind emulsion distributor, slowly such that the chips do not roll when they hit the surface.

    c. Roll chips. Rollers follow closely behind the chip spreader. Roll entire surface twice.

    d. Maximum speed 5 mph.

3. Clean-up

    a. All loose aggregate is removed from the roadway by sweeping it up (see SOP for Street Sweeping).

    b. Excessive asphalt applications and spills are removed with shovels and scraping tools.

    c. Remove the temporary covers from manholes and catch basins. If it appears that any chip seal materials have gotten into the inlet boxes, remove the material according to the SOP for inlet boxes.

    d. Dispose of the waste material that has been swept and scraped up by taking it to the landfill.

4. Documentation

    a. Record location and date on the maintenance database and map.

STREETS/STORM DRAIN – Concrete Work

1. Preparation

    a. Train employees and contractors in proper concrete waste management.

    b. Store dry and wet materials under cover, away from drainage areas.

    c. Remove any damaged concrete that may need to be replaced.

    d. Prepare and compact sub-base.

    e. Set forms and place any reinforcing steel that may be required.

    f. Determine how much new concrete will be needed.

    g. Locate or construct approved concrete washout facility.

2. Process

    a. Install inlet protection as needed.

    b. Avoid mixing excess amounts of fresh concrete on-site.

    c. Moisten subbase just prior to placing new concrete. This helps keep the soil from wicking moisture out of the concrete into the ground.

    d. Place new concrete in forms.

    e. Consolidate new concrete.

    f. Screed off surface.

    g. Let concrete obtain its initial set.

    h. Apply appropriate surface finish.

    i. Remove forms when concrete will not slump.

3. Clean-up

    a. Perform washout of concrete trucks and equipment in designated areas only.

    b. Do not washout concrete trucks or equipment into storm drains, open ditches, streets, or streams.

    c. Cement and concrete dust from grinding activities is swept up and removed from the site.

    d. Remove dirt or debris from street and gutter.

STREETS/STORM DRAIN – Construction - During and Post Construction Site Inspections

1. Preparation

    a. Incorporate a SWPPP in any construction project containing more than one acre in area (Construction General Permit) or less than one acre but part of a larger subdivision (Common Plan Permit).

2. Process

    a. Inspect construction site and surrounding area regularly for possible storm drain contamination.

    b. Follow SWPPP guidelines and checklists to verify that standards are met.

3. Clean-up

    a. Remove all BMPs.

    b. Stabilize property.

    c. Clean flow paths.

4. Documentation

    a. Keep any notes or comments of any problems.

STREETS/STORM DRAIN – Construction – Post Construction BMP Inspections

1. Preparation

    a. Maintain an inventory or all post construction BMPs – public or private.

    b. Maintain a list of maintenance agreements for these BMPs.

    c. Conduct inspections as required by the maintenance agreements.

2. Applicability

    a. Inspections are for any commercial, industrial, and institution properties.

    b. Inspections are not typically for single family residential properties unless the property use includes regional implications.

    c. Inspections can also be performed on city properties.

3. Inspection Procedure

    a. Site evaluation document the status of the following:

        1. Evidence of dumping: Evaluate inlets, manholes, gutters, etc. for the presence of stains.
        2. Evidence of spills: Evaluate pavements for spills, particularly for evidence of neglected spills.
        3. General Site Exposure: Evaluate materials, devices, operations that are exposed and whether there are BMPs in place or practiced that will contain or minimize pollutants and pollutant sources. Look for oil, antifreeze, cleansers, and other chemicals.
        4. Other Pollution Sources: Evaluate any activity, or operations that are or may pollute the environment.
        5. General Maintenance
            - i Inlet: Inspect for proper maintenance and function.
            - ii Conveyance System: Inspect for proper maintenance and function or pipes and swales, etc.
            - iii Manholes: Inspect for proper maintenance and function.
            - iv Structural Devices: Inspect for proper maintenance and function of devices. The SMP should have specific instruction of this process.
            - v Stormwater Storage: Inspect for proper maintenance and function of ponds, tanks, Class V Injection Wells, infiltration systems, etc.
            - vi Parking: Inspect for proper maintenance. Pavement areas should indicate regular sweeping activity.
            - vii Waste Collection: Inspect for proper maintenance and function. Inspect for stains, leaks and are lids closed?
            - viii Landscaping: Inspect for proper maintenance and function. Is there evidence of fertilizer and other landscaping debris?
        6. SOP Items: Review inspections and compliance with site SOPs.

4. Documentation

   a. File UPDES Stormwater Evaluation Form for Post Construction Compliance.

STREETS/STORM DRAIN – Crack Seal

1. Preparation

    a. Cover Manholes and catch basins to prevent oil and materials from getting inside the structures or system.

    b. Remove weeds from the road.

    c. Air-blast the cracks to remove sediments from the crack to allow for proper adhesion.

    d. Ensure that surface is clean and dry.

2. Process

    a. Proper temperature of material should be maintained.

    b. Sufficient material is applied to form the specified configuration.

3. Clean-up

    a. Excessive sealant application or spills are removed.

    b. Sweep all loose debris from the pavement and dispose of it in the local landfill.

4. Documentation

    a. Record location and date on the maintenance database and map

STREETS/STORM DRAIN – Detention Basin Cleaning

1. Preparation

    a. Schedule the basin cleaning work for a time when dry weather is expected.

    b. Remove any sediment and trash from grates, placing it in a truck for disposal.

    c. Do a visual inspection to make sure any grates, structures, manholes, boxes, and pipes are in good working order. Remove manhole covers and grates as necessary for inspecting.

2. Process

    a. Provide outlet protection where feasible to minimize the amount of debris that might leave basin during cleaning process.

    b. Start cleaning basin by using backhoe to remove debris and sediment off the bottom.

    c. Continue cleaning structures and pond bottom as necessary by sweeping and shoveling.

    d. Put all material removed from the pond into a dump truck.

    e. Some structures may require use of a vactor truck. If so, use the same procedures described for cleaning catch basins.

3. Clean-up

    a. After cleaning basins, clean off the concrete pads using dry methods (sweeping and shoveling).

    b. Make sure they are swept up and clean.

    c. Take the material that was removed to the landfill for final disposal.

4. Documentation

    a. Keep a log of each detention basins/pond cleaned including date, individuals involved in cleaning, and a description of the type of debris removed.

    b. Keep any notes or comments of any problems.

STREETS/STORM DRAIN – Ditch Management

1. Preparation

    a. Monitor ditches on a regular basis.

    b. Maintain access to ditch channels wherever possible.

    c. Contact affected property owners and utility owners.

2. Process

    a. Identify areas requiring maintenance.

    b. Determine what manpower or equipment will be required.

    c. Identify access and easements to area requiring maintenance.

    d. Determine method of maintenance that will be least damaging to the channel and adjacent properties or utilities.

3. Clean-up

    a. Stabilize all disturbed soils.

    b. Remove all tracking from paved surfaces near maintenance site, if applicable.

    c. Haul all debris or sediment removed from area to approved dumping site.

STREETS/STORM DRAIN – Garbage Storage

1. Preparation

    a. Locate dumpsters and trash cans with lids in convenient, easily observable areas.

    b. Provide training to employees to prevent improper disposal of general trash.

2. Process

    a. Inspect garbage bins for leaks regularly, and have repairs made immediately by responsible party.

    b. Locate dumpsters on a flat, impervious surface that does not slope or drain directly into the storm drain system.

    c. Keep lids closed when not actively filling dumpster.

3. Clean-up

    a. Keep areas around dumpsters clean of all garbage.

    b. Have garbage bins emptied weekly to keep from overfilling.

STREETS/STORM DRAIN – High Priority Annual Inspection

1. Preparation

    a. Identify "High Priority" facilities.

    b. Map of location.

    c. Become familiar with potential pollutants at the site.

    d. Obtain enough clear glass jars from storage to sample all locations. Volume of the jars should be at least 16 oz (a pint) with lid.

2. Process

    a. At the beginning of a storm event monitor the time and rainfall amount, sample within the first 30 minutes or as soon as practical, but not to exceed 1 hour. There needs to be at least 1/10 of an inch of rainfall and at least 72 hours after the last storm.

    b. Collect at least 12 oz. of water at the system discharge point (pipe end, weir, or other structure that is at the end of your system).

    c. Label the jar with the place, time, and date of collection.

    d. Repeat at other collection sites.

    e. Return to shop/office and place sample containers in an area where they will not be disturbed.

3. Documentation

    a. Fill out the "at time of sampling" portion of the Visual Storm Water Discharge Examination Report on-site.

    b. Wait at least on hour and finish the Visual Storm Water Discharge Examination Report.

    c. Fill report in Appendix B of The Public Facilities Storm Water Pollution Prevention Plan.

    d. Take photograph of sample and attach to Visual Storm Water Discharge Examination Report.

STREETS/STORM DRAIN – High Priority Monthly Visual Inspection

1. Preparation

    a. Identify "High Priority" facilities.

    b. Map of location.

    c. Become familiar with potential pollutants at the site.

2. Process

    a. Look for evidence of spills at the site.

    b. If a spill is found assess the general area to identify its source.

    c. Whenever possible take photographs of the suspected illicit discharge.

3. Clean-up

    a. Clean up spill immediately to prevent contact with precipitation or runoff.

    b. Initiate spill response.

4. Documentation

    a. Fill out Monthly High Priority Inspection Log for facility and mark that the monthly inspection has been completed.

    b. If a deficiency was found, make note on the Monthly High Priority Inspection Log and fill out the Note Log for that particular facility.

STREETS/STORM DRAIN – High Priority Semi-Annual Comprehensive Inspection

1. Preparation
    a. Identify "High Priority" facilities.
    b. Map of location.
    c. Become familiar with potential pollutants at the site.
2. Process
    a. Look for evidence of spills at the site.
    b. If a spill is found assess the general area to identify its source.
    c. Whenever possible take photographs of the suspected illicit discharge.
    d. Inspect all waste storage areas and dumpsters.
    e. Inspect for leaks.
    f. Have repairs made immediately by responsible party.
    g. Inspect vehicle maintenance and fueling areas.
    h. Look for pollutant generating areas and inspect.
    i. Material handling areas.
    j. Pollutant generating areas.
3. Clean-Up
    a. Clean up spill immediately to prevent contact with precipitation or runoff.
    b. Initiate spill response.
4. Documentation
    a. Fill out a Quarterly Comprehensive Inspection sheet for each facility.
    b. Document the inspection was complete on the Quarterly Comprehensive Log sheet along with the date it was completed.

STREETS/STORM DRAIN – Overlays and Patching

1. Preparation

    a. Measure and mark locations of manholes and valves on the curb.

    b. Manholes and catch basins are covered as needed to prevent oil and materials from getting inside the structures or system.

    c. Cracks should be properly sealed. Alligator cracks and potholes should be removed and patched. Rutting should be milled.

    d. Surface should be clean and dry.

    e. Uniform tack coat applied and cured prior to placement of overlay.

    f. If milling is required, install inlet protection as needed.

2. Process

    a. Check hot asphalt mix for proper temperature, percentage asphalt, gradation, air voids and any other agency requirements.

    b. Raise manhole lids and valves to elevation of new asphalt surface with riser rings.

    c. Surface texture should be uniform, no tearing or scuffing.

    d. Rolling should be done to achieve proper in-place air void specification.

3. Clean-up

    a. Covering should be removed as soon as the threat of imported materials entering the system is reduced and prior to a storm event.

    b. After pavement has cooled, sweep gutters to remove loose aggregate.

4. Documentation

    a. Record location and date on the maintenance database and map

STREETS/STORM DRAIN – Shouldering and Mowing

1. Preparation

    a. Set up temporary traffic control devices according to part VI of the MUTCD.

1. Process

    a. Place import material as needed and perform grading to achieve proper drainage.

    b. Mulch clippings to help reduce the amount of supplemental fertilizer required.

2. Clean-up

    a. Clean any loose material off asphalt or gutter.

STREETS/STORM DRAIN – Slough Management

3. Preparation

    a. Monitor slough on a monthly basis, minimum.

    b. Check culverts and crossings after every storm.

    c. Maintain access to stream channels wherever possible.

    d. Identify areas requiring maintenance.

    e. Determine what manpower or equipment will be required.

    f. Identify access and easements to area requiring maintenance.

    g. Determine method of maintenance that will be least damaging to the channel.

    h. Obtain Stream Alteration Permit.

4. Process

    a. Remove unwanted material (debris, branches, soil) from the slough channel and place it in a truck to be hauled away.

5. Clean-up

    a. Stabilize all disturbed soils.

    b. Remove all tracking from paved surfaces near maintenance site, if applicable.

    c. Haul all debris or sediment removed from area to approved dumping site.

6. Documentation

    a. Use "before" and "after" photographs to document activities as applicable.

STREETS/STORM DRAIN – Slurry Seal

1. Preparation

    a. Remove weeds from the roads. Sweep areas where materials are to be applied, and allow to dry, if necessary. Verify that existing pavement has been inspected for detrimental effects of poor drainage.

    b. Cover/protect catch basins and manholes.

2. Process

    a. Apply materials in a smooth and uniform manner. Slurry material should not run onto adjacent pavement surface, curb and gutter or waterways.

3. Clean-up

    a. If loose aggregate is remaining in street or curb, sweep it up.

    b. Ensure that excess emulsion materials are removed from the site and stored for later use in an area or container that is not exposed to the weather.

    c. Remove covers/protection from catch basins and manholes, and valves.

4. Documentation

    a. Record location and date on the maintenance database and map.

STREETS/STORM DRAIN – Snow Removal and De-icing

1. Preparation

    a. Store de-icing material under a covered storage area.

    b. Slope loading area away from storm drain inlets.

    c. Design drainage from loading area to collect runoff before entering storm water system.

    d. Wash out vehicles (if necessary) in approved washout area before preparing them for snow removal.

    e. Calibrate spreaders to minimize amount of de-icing material used and still be effective.

    f. Train employees in proper handling and storage of de-icing materials.

2. Process

    a. Load material into trucks carefully to minimize spillage.

    b. Periodically dry sweep loading area to reduce the amount of de-icing materials exposed to runoff.

    c. Distribute the minimum amount of de-icing material to be effective on roads.

    d. Do not allow spreaders to idle while distributing de-icing materials.

    e. Park trucks loaded with de-icing material inside when possible.

3. Cleanup

    a. Sweep up all spilled de-icing material around loading area.

    b. Clean out trucks after snow removal duty in approved washout area.

    c. Provide maintenance for vehicles in covered area.

STREETS/STORM DRAIN – Street Sweeping

1. Preparation

    a. Prioritize cleaning routes to use at the highest frequency in areas with the highest pollutant loading.

    b. Streets are to be swept as needed or specified by the city. Street maps are used to ensure all streets are swept at a specified interval.

    c. Restrict street parking prior to and during sweeping using regulations as necessary.

    d. Increase sweeping frequency just before the rainy season, unless sweeping occurs continuously throughout the year.

    e. Perform preventative maintenance and services on sweepers to increase and maintain their efficiency.

2. Process

    a. Drive street sweeper safely and pick up debris.

    b. When full, take the sweeper to an approved street sweeper cleaning station.

3. Clean-up

    a. Street sweepers are to be cleaned out in an approved street sweeper cleaning station.

    b. Street sweeping cleaning stations shall separate the solids from the liquids.

    c. Once solids have dried out, haul them to the local landfill.

    d. Decant water is to be collected and routed to an approved wastewater collection system area only.

    e. Haul all dumped material to the landfill.

4. Documentation

    a. Keep accurate logs to track streets swept and streets still requiring sweeping.

    b. Log the amount of debris collected and hauled off.

STREETS/STORM DRAIN – Transporting Soil and Gravel

1. Preparation

    a. Spray down dusty materials to keep from blowing.

    b. Make sure you know and understand the SWPPP requirements for the site you will be working at.

    c. Determine the location that the truck and other equipment will be cleaned afterwards.

2. Process

    a. Use a stabilized construction entrance to access or leave the site where materials are being transported to/from.

    b. Cover truck bed with a secured tarp before transporting.

    c. Follow the SWPPP requirements for the specific site to/from which the materials are being hauled.

    d. Make sure not to overfill materials when loading trucks.

3. Clean up

    a. Use sweeper to clean up any materials tracked out on the roads from site.

    b. Wash out truck and other equipment when needed in properly designated areas.

VEHICLES – Fueling

1. Preparation

    a. Train employees on proper spill cleanup techniques..

2. Process

    a. Shut off the engine.

    b. Ensure that the fuel is the proper type of fuel for the vehicle.

    c. Nozzles used in vehicle and equipment fueling shall be equipped with an automatic shut off to prevent overfill.

    d. Fuel vehicle carefully to minimize drips to the ground.

    e. Fuel tanks shall not be 'topped off'.

    f. Mobile fueling shall be minimized. Whenever practical, vehicles and equipment shall be transported to the designated fueling area in the Facilities area.

    g. When fueling small equipment from portable containers, fuel in an area away from storm drains and water bodies.

3. Clean Up

    a. Immediately clean up spills using dry absorbent (e.g., kitty litter, sawdust, etc.) sweep up absorbent material and properly dispose of contaminated clean up materials.

    b. Large spills shall be contained as best as possible, and the HazMat team should be notified ASAP.

VEHICLES – Vehicle and Equipment Storage

1. Preparation

    a. Inspect parking areas for stains/leaks on a regular basis.

    b. Provide drip pans or adsorbents for leaking vehicles.

2. Process

    a. Whenever possible, store vehicles inside.

    b. When inside storage is not available, Vehicles and equipment will be parked in the approved designated areas.

    c. Maintain vehicles to prevent leaks as much as possible.

    d. Address any known leaks or drips as soon as possible. When a leak is detected a drip pan will be placed under the leaking vehicle to collect the drip.

    e. The shop will provide a designated location to empty and store drip pans.

    f. If any leaks are discovered, a drip pan will be used to collect the fluids and vehicle will be scheduled for repairs.

    g. Clean up all spills using dry methods.

    h. Never store leaking vehicles over a storm drain.

3. Clean Up

    a. Any leaks that are spilled on the asphalt will be cleaned up with dry absorbent. The dry absorbent will be swept up and disposed of in the garbage.

VEHICLES – Washing

1. Preparation

    a. Provide wash areas for all vehicles inside the maintenance building.

    b. No vehicle washing will be done where the drain system is connected to the storm sewer system.

2. Process

    a. Minimize water and soap use when washing vehicles inside the shop building.

    b. Soap should not be used when washing vehicles outside the shop building. Water Only.

    c. Use hoses with automatic shut off nozzles to minimize water usage.

    d. When washing outside the building, it is the operators' responsibility to make sure all wash water is contained on the wash pad and does not have access to the storm drain.

    e. Never wash vehicles over or a storm drain.

3. Clean Up

    a. Sweep wash areas after every washing to collect what solids can be collected to prevent them from washing down the drain system.

    b. Clean solids from the settling pits on an as needed basis.

WATER – Chemical Handling/Transporting and Spill Response

1. Preparation
    a. Understand MSDS sheets for handling of product.
    b. Determine proper place of handling.
    c. Have necessary containment and spill kits at handling place.
2. Process
    a. Begin transfer process.
    b. Discontinue operations if spill levels occur.
    c. Disconnect and store handling equipment.
3. Clean-up
    a. Clean up spills with proper material.
    b. Dispose of contaminated material at appropriate facility.
4. Documentation
    a. Report spills to Weber County Health

        5 gallons of hydro fluoride acid

        Work hours 801-399-7160

        After hours 801-395-8234 Weber County dispatch

WATER – Waterline Flushing after Construction/System Disinfection with Discharge to Storm Drain

1. Preparation

    a. Determine chlorine content of discharged water, and select de-chlorination equipment to be used.

    b. Determine flow path of discharge.

2. Process

    a. Protect inlets in flow path.

    b. Install de-chlorination equipment.

    c. Sweep and clean flow path.

3. Clean-up

    a. Pick up inlet protection.

    b. Clean flow paths.

    c. Remove equipment from flush point.

4. Documentation

    a. Residual test of discharged water.

WATER – Waterline Flushing for Routine Maintenance

1. Preparation
    a. Determine flow path of discharge to inlet of waterway.
    b. Determine chlorine residual.
    c. Neutralize chlorine residual.
2. Process
    a. Clean flow path.
    b. Protect inlet structures.
    c. Use diffuser to dissipate pressure to reduce erosion possibilities.
3. Clean-up
    a. Clean flow path.
    b. Remove inlet protection.
4. Documentation
    a. Residual tests of discharge water.

WATER – Planned Waterline Excavation Repair/Replacement

1. Preparation
    a. Determine where discharge flow will go.
    b. Place inlet protection at nearest downstream storm drain inlet.
    c. Clean Gutters leading to inlet.
    d. Isolate waterline to be worked on.
    e. Neutralize any chlorine residual before discharging water.
2. Process
    a. Make efforts to keep water from pipeline from entering the excavation.
    b. Direct any discharge to pre-determined area.
    c. Backfill and compact excavation.
    d. Haul of excavated material or stockpile nearby
3. Clean up
    a. Clear gutter/waterway where water flowed.
    b. Clean up all areas around excavation.
    c. Clean up travel path of trucked material.
4. Documentation
    a. Complete paperwork

WATER – Transporting Dry Excavated Materials & Spoils

1. Preparation
    a. Utilize truck with proper containment of materials.
    b. Determine disposal site of excavated materials.
2. Process
    a. Load.
    b. Check truck after loading for possible spillage.
    c. Transport in manner to eliminate spillage & tracking.
    d. Utilize one route for transporting.
3. Clean-up
    a. Clean loading area.
    b. Clean transporting route.
    c. Wash off truck and other equipment in a designated equipment cleaning area.

WATER – Transporting Wet Excavated Materials & Spoils

1. Preparation
    a. Utilize truck with containment for material.
    b. Determine disposal site of excavated material.
2. Process
    a. Load and Transport in manner to minimize spillage & tracking of material.
    b. Check truck for spillage.
    c. Utilize one route of transport.
3. Clean-up
    a. Clean route of transport to provide cleaning of any spilled material.
    b. Wash out equipment truck and other equipment in designated wash area.

WATER – Unplanned Waterline Excavation Repair/Replacement

1. Preparation
    a. Make sure service trucks have wattles, gravel bags, or other materials for inlet protection.
2. Process
    a. Slow the discharge.
    b. Inspect flow path of discharged water.
    c. Protect water inlet areas.
    d. Follow planned repair procedures.
    e. Haul off spoils of excavation.
    f. Consider use of silt filter bags on pumps.
3. Clean-up
    a. Repair eroded areas as needed.
    b. Follow planned repair procedures.
    c. Clean up the travel path of trucked excavated material.

JUSTIFICATION FOR CHANGES

Updating Storm Water Management Program: Updates to the Storm Water Management Program must be done in accordance with Section 4.4 of the MS4 Permit with the following information submitted to the State.

BMP Name:_____

BMP Description:_____

_____

Explanation of ineffectiveness or infeasibility _____

Affected Goal_____

_____

Replacement BMP Name:_____

Replacement BMP Description:_____

_____

Anticipated Effectiveness/feasiblitiy_____

_____

Analysis of Replacement BMP:_____

_____

See attachments:

- Old BMP Fact Sheets
- Effectiveness Data
- Replacement Fact Sheet
- Anticipated Effectiveness Data
- Analysis Information

Certification and Signature. (6.8.3) (by Principal Executive Officer or Ranking Elected Official)
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.

_____
MS4 Name

_____
Print name

_____ _____
Signature Date

BMP: BMP Inspection and Maintenance

BMPIM

APPLICATIONS

- ☐ Manufacturing
- ☒ Material Handling
- ☒ Vehicle Maintenance
- ☐ Construction
- ☐ Commercial Activities
- ☐ Roadways
- ☒ Waste Containment
- ☒ Housekeeping Practices

DESCRIPTION:

Inspect and maintain all structural BMP's (both existing and new) on a routine basis to remove pollutants from entering storm drain inlets. This includes the establishment of a schedule for inspections and maintenance.

APPROACH:

Regular maintenance of all structural BMP's is necessary to ensure their proper functionality.

- Annual inspections.
- Prioritize maintenance to clean, maintain, and repair or replace structures in areas beginning with the highest pollutant loading.
- Clean structural BMP's in high pollutant areas just before the wet season to remove sediments and debris accumulated during the summer and fall.
- Keep accurate logs of what structures were maintained and when they were maintained.
- Record the amount of waste collected.

LIMITATIONS:

- Cost
- Availability of trained staff

TARGETED POLLUTANTS

- ■ Sediment
- ■ Nutrients
- ☐ Heavy Metals
- ■ Toxic Materials
- ☐ Oxygen Demanding Substances
- ■ Oil & Grease
- ■ Floatable Materials
- ☐ Bacteria & Viruses

- ■ High Impact
- ☒ Medium Impact
- ☐ Low or Unknown Impact

IMPLEMENTATION REQUIREMENTS

- ■ Capital Costs
- ■ O&M Costs
- ☒ Maintenance
- ☒ Staffing
- ☐ Training
- ☐ Administrative

■ High ☒ Medium ☐ Low

BMP: Classroom Education on Storm Water

CESW

APPLICATIONS

☐ Manufacturing
☒ Material Handling
☐ Vehicle Maintenance
☐ Construction
☐ Commercial Activities
☐ Roadways
☒ Waste Containment
☒ Housekeeping Practices

DESCRIPTION:

Classroom education is an integral part of any storm water pollution outreach program. Providing storm water education through schools exposes the message not only to students but to their parents as well. Topics can include Water conservation, proper lawn and garden care, and proper disposal of hazardous household wastes.

APPROACH:

- Building a strong relationship with the school district is the most important step in getting storm water education into the schools.
- When developing an outreach message for children, choose the age ranges to target.
- Many additional classroom materials are available for use free of cost. Educational materials available for downloading from the Internet at www.csu.org/water/watereducation/watereducation.html.
- Should make students aware of the potential impacts of hazardous household materials on water quality and inform residents of ways to properly store, handle, and dispose of the chemicals
- Water usage in the home can easily be reduced by 15 to 20 percent—without major discomfort—by implementing a program to conserve water in the home.
- Lawn and garden activities can result in contamination of storm water through pesticide, soil, and fertilizer runoff. Proper landscape management, however, can effectively reduce water use and contaminant runoff and enhance the aesthetics of a property.

LIMITATIONS:

- One of the limitations of classroom education is being able to incorporate storm water issues into the school curricula. With so many subjects to teach, environmental issues might be viewed as less important.

MAINTENANCE:

- Programs and educational materials can be re-used, but they must be presented on a continual basis.

TARGETED POLLUTANTS

■ Sediment
■ Nutrients
■ Heavy Metals
■ Toxic Materials
■ Oxygen Demanding Substances
■ Oil & Grease
■ Floatable Materials
■ Bacteria & Viruses

■ High Impact
☒ Medium Impact
☐ Low or Unknown Impact

IMPLEMENTATION REQUIREMENTS

☒ Capital Costs
☐ O&M Costs
☐ Maintenance
☐ Training

■ High ☒ Medium ☐ Low

BMP: Community Hotlines

CH

DESCRIPTION:

Because regulators and authorities cannot monitor all water bodies at once, they sometimes rely on the public to keep them informed of water polluters. Community hotlines provide a means for concerned citizens and agencies to contact the appropriate authority when they see water quality problems.

APPROACH:

- Once a city has determined that they need a hotline, they should choose between a telephone or an e-mail hotline.
- A party or agency responsible for maintaining the hotline and responding to incoming complaints must first be identified. The responsible party could be a division of local government, a water quality board, a public utility, or an environmental agency.
- All distributed materials should include pollution hotline numbers and information.
- Curbs should have pumping systems, instead of drainage systems, for collecting spilled materials.
- Generally, an investigation team promptly responds to a hotline call and, in most cases, visits the problem site.
- If a responsible party can be identified, the team informs the party of the problem, offers alternatives for future disposal, and instructs the party to resolve the problem.

LIMITATIONS:

- The community's ability to pay for it.
- The ability of the community to keep the hotline staffed.

MAINTENANCE:

- The most important part is the responsiveness of the hotline. If a citizen reports an illegal dumping but no action is taken by the appropriate authority, that citizen could lose faith in the hotline and might not call back with future information.

APPLICATIONS

- ■ Manufacturing
- ■ Material Handling
- ■ Vehicle Maintenance
- ■ Construction
- ■ Commercial Activities
- ☒ Roadways
- ☒ Waste Containment
- ■ Housekeeping Practices

TARGETED POLLUTANTS

- ☒ Sediment
- ☒ Nutrients
- ■ Heavy Metals
- ■ Toxic Materials
- ☒ Oxygen Demanding Substances
- ■ Oil & Grease
- ■ Floatable Materials
- ☒ Bacteria & Viruses

- ■ High Impact
- ☒ Medium Impact
- ☐ Low or Unknown Impact

IMPLEMENTATION REQUIREMENTS

- ☒ Capital Costs
- ☒ O&M Costs
- ☒ Maintenance
- ☐ Training

■ High ☒ Medium ☐ Low

BMP: Contractor Certification &Inspector Training

CCIT

Municipalities can establish training programs to educate contractors about erosion and sediment control practices

Construction reviewers periodically inspect construction sites to ensure that contractors have installed and maintained their erosion and sediment controls properly (Source: University of Connecticut Cooperative Extension System, 2000)

APPLICATIONS

- ☐ Manufacturing
- ☒ Material Handling
- ☐ Vehicle Maintenance
- ☒ Construction
- ☐ Commercial Activities
- ☐ Roadways
- ☒ Waste Containment
- ☐ Housekeeping Practices

DESCRIPTION:

One of the most important factors determining whether or not erosion and sediment controls will be properly installed and maintained on a construction site is the knowledge and experience of the contractor. Many communities require certification for key on-site employees who are responsible for implementing the ESC plan. Several states have contractor certification programs. The State of Delaware requires that at least one person on any construction project be formally certified. The Delaware program requires certification for any foreman or superintendent who is in charge of onsite clearing and land-disturbing activities for sediment and runoff control associated with a construction project.

APPROACH:

- Training and certification will help to ensure that the plans are properly implemented and that best management practices are properly installed and maintained.
- Inspector training programs are appropriate for municipalities with limited funding and resources for ESC program implementation.
- Contractor certification can be accomplished through municipally sponsored training courses, or more informally, municipalities can hold mandatory pre-construction or pre-wintering meetings and conduct regular and final inspection visits to transfer information to contractors (Brown and Caraco, 1997).
- To implement an inspector training program, the governing agency would need to establish a certification course with periodic recertification, review reports submitted by private inspectors, conduct spot checks for accuracy, and institute fines or other penalties for noncompliance.
- Curb systems should be maintained through curb repair (patching and replacement).
- To minimize the amount of spilled material tracked outside of the area by personnel, grade within the curbing to direct the spilled materials to a down-slope side of the curbing, thus keeping the spilled materials away from personnel and equipment. Grading will also facilitate clean-up.

LIMITATIONS:

- Contractor certification and inspector training programs require a substantial amount of effort on the part of the municipality or regulatory agency.
- They need to develop curricula for training courses, dedicate staff to teach courses, and maintain a report review and site inspection staff to ensure that both contractors and inspectors are fulfilling their obligations and complying with the ESC program.

TARGETED POLLUTANTS

- ■ Sediment
- ■ Nutrients
- ☐ Heavy Metals
- ■ Toxic Materials
- ☐ Oxygen Demanding Substances
- ■ Oil & Grease
- ■ Floatable Materials
- ☐ Bacteria & Viruses

- ■ High Impact
- ☒ Medium Impact
- ☐ Low or Unknown Impact

IMPLEMENTATION REQUIREMENTS

- ■ Capital Costs
- ■ O&M Costs
- ☒ Maintenance
- ☐ Training

■ High ☒ Medium ☐ Low

BMP: Educational Materials

EM

DESCRIPTION:

Educational Materials to present information to the public on storm water issues and water quality awareness is an integral part of any storm water education program. Providing storm water education by sending out information with bills, newsletters, or presented at city activities, in city offices, schools, and fair booths, exposes the message to a wide variety of people, if not city-wide. Topics can include Water conservation, proper lawn and garden care, and proper disposal of hazardous household wastes. Many educational materials can be used for city personnel, contractors as well as homeowners or businesses.

APPROACH:

- Building a strong relationship with citizens is the most important step in getting storm water education city-wide.
- Educational materials can be tailored to all different age groups and technical background.
- Should make people aware of the potential impacts of hazardous household materials on water quality and inform residents of ways to properly store, handle, and dispose of the chemicals
- Water usage in the home can easily be reduced by 15 to 20 percent—without major discomfort—by implementing a program to conserve water in the home.
- Lawn and garden activities can result in contamination of storm water through pesticide, soil, and fertilizer runoff. Proper landscape management, however, can effectively reduce water use and contaminant runoff and enhance the aesthetics of a property.

LIMITATIONS:

- Not everyone will actually read or incorporate the information into their lives.
- Budgets need to have sufficient funds to obtain educational materials and their distribution.

MAINTENANCE:

- Programs and educational materials can be re-used, but they must be presented on a continual basis.

APPLICATIONS

☒ Manufacturing
☒ Material Handling
☒ Vehicle Maintenance
☒ Construction
☒ Commercial Activities
☒ Roadways
☒ Waste Containment
☒ Housekeeping Practices

TARGETED POLLUTANTS

■ Sediment
■ Nutrients
■ Heavy Metals
■ Toxic Materials
■ Oxygen Demanding Substances
■ Oil & Grease
■ Floatable Materials
■ Bacteria & Viruses

■ High Impact
☒ Medium Impact
☐ Low or Unknown Impact

IMPLEMENTATION REQUIREMENTS

☒ Capital Costs
☐ O&M Costs
☐ Maintenance
☐ Training

■ High ☒ Medium ☐ Low

BMP: Employee Training

ET

PROGRAM ELEMENTS

: New Development
: Residential
: Commercial Activities
: Industrial Activities
: Municipal Facilities
: Illegal Discharges

DESCRIPTION:

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

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

OBJECTIVES:

Employee training should be based on four objectives:

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

APPROACH:

< Integrate training regarding stormwater quality management with existing training programs that may be required for other regulations.
< Employee training is a vital component of many of the individual source control BMPs included in this manual.

TARGETED POLLUTANTS

Sediment
Nutrients
Heavy Metals
Toxic Materials
Oxygen Demanding Substances
Oil & Grease
Floatable Materials
Bacteria & Viruses

■ High Impact
☒ Medium Impact
☐ Low or Unknown Impact

IMPLEMENTATION REQUIREMENTS

: Capital Costs
: O&M Costs
9 Regulatory
Training
: Staffing
: Administrative

■ High ☒ Medium ☐ Low

BMP: Erosion Control Plan

ECP

Diversion dikes can be used to contain storm water onsite

DESCRIPTION:

Erosion and sediment control are generally two of the biggest problems on construction sites. Erosion control measures must be taken during a construction project. An Erosion Control Plan will be submitted and approved before work can begin on the project. An Erosion Control Plan describes what erosion control BMPs will be implemented, when and where, during the project. Erosion and sediment control measures should be installed before other construction activities begin.

APPROACH:

- Create a list of possible erosion control BMPs that could be implemented in any given project.
- Require submittal of erosion & sediment control plans for projects that are on 1 acre and larger sites.
- Develop a review checklist for plan review personnel.
- Provide the review checklist to contractors/developers so they know what is expected.
- Provide inspectors with a copy of the approved plans.
- Check to make sure erosion control measures are properly installed before beginning other construction activities.

LIMITATIONS:

- Must be enforced to be affective.
- Sometimes site conditions are different than planned on and the plans have to be modified.
- The erosion control measures have to be maintained.
- The BMPs have to be installed early on in the project.
- The BMPs have to be removed after the threat of erosion is no longer present.

APPLICATIONS

- ☐ Manufacturing
- ☐ Material Handling
- ☐ Vehicle Maintenance
- ■ Construction
- ☐ Commercial Activities
- ☒ Roadways
- ☐ Waste Containment
- ☐ Housekeeping Practices

TARGETED POLLUTANTS

- ■ Sediment
- ☒ Nutrients
- ☐ Heavy Metals
- ☐ Toxic Materials
- ☐ Oxygen Demanding Substances
- ☐ Oil & Grease
- ☐ Floatable Materials
- ☐ Bacteria & Viruses

- ■ High Impact
- ☒ Medium Impact
- ☐ Low or Unknown Impact

IMPLEMENTATION REQUIREMENTS

- ☒ Capital Costs
- ☒ O&M Costs
- ☐ Maintenance
- ☒ Training

BMP: Hazardous Waste Management

HWM

DESCRIPTION:
Prevent or reduce the discharge of pollutants to stormwater from hazardous waste through proper material use, waste disposal, and training of employees and subcontractors.

APPLICATION:
Many of the chemicals used on-site can be hazardous materials which become hazardous waste upon disposal. These wastes may include:

- Paints and solvents, petroleum products such as oils, fuels and greases, herbicides and pesticides, acids for cleaning masonry, and concrete curing compounds.

In addition, sites with existing structures may contain wastes which must be disposed of in accordance with federal, state and local regulations, including:

- Sandblasting grit mixed with lead, cadmium or chromium based paints, asbestos, and PCBs.

INSTALLATION/APPLICATION CRITERIA:
The following steps will help reduce stormwater pollution from hazardous wastes:

- Use all of the product before disposing of the container.
- Do not remove the original product label, it contains important safety and disposal information.
- Do not over-apply herbicides and pesticides. Prepare only the amount needed. Follow the recommended usage instructions. Over-application is expensive and environmentally harmful. Apply surface dressings in several smaller applications, as opposed to one large application, to allow time for infiltration and to avoid excess material being carried off-site by runoff. Do not apply these chemicals just before it rains. People applying pesticides must be certified in accordance with Federal and State regulations.

LIMITATIONS:
Hazardous waste that cannot be reused or recycled must be disposed of by a licensed hazardous waste hauler.

MAINTENANCE:

- Inspect hazardous waste receptacles and areas regularly.
- Arrange for regular hazardous waste collection.

APPLICATIONS

☒ Manufacturing
☒ Material Handling
☒ Vehicle Maintenance
☒ Construction
☐ Commercial Activities
☐ Roadways
☒ Waste Containment
☒ Housekeeping Practices

TARGETED POLLUTANTS

☐ Sediment
☐ Nutrients
☐ Heavy Metals
■ Toxic Materials
☐ Oxygen Demanding Substances
☒ Oil & Grease
☐ Floatable Materials
☐ Bacteria & Viruses

■ High Impact
☒ Medium Impact
☐ Low or Unknown Impact

IMPLEMENTATION REQUIREMENTS

☐ Capital Costs
☒ O&M Costs
☒ Maintenance
☒ Training

■ High ☒ Medium ☐ Low

BMP: Housekeeping Practices

HP

DESCRIPTION:

Promote efficient and safe housekeeping practices (storage, use, and cleanup) when handling potentially harmful materials such as fertilizers, pesticides, cleaning solutions, paint products, automotive products, and swimming pool chemicals.

APPROACH:

< Pattern a new program after the many established programs from municipalities around the country. Integrate this best management practice as much as possible with existing programs at your municipality.

< This BMP has two key audiences: municipal employees and the general public.

< For the general public, municipalities should establish a public education program that provides information on such items as storm water pollution and beneficial effects of proper disposal on water quality; reading product labels; safer alternative products; safe storage, handling, and disposal of hazardous products; list of local agencies; and emergency phone numbers. The programs listed below have provided this information through brochures or booklets that are available at a variety of locations including municipal offices, household hazardous waste collection events or facilities, and public information fairs.

Municipal facilities should develop controls on the application of pesticides, herbicides, and fertilizers in public right-of-ways and at municipal facilities. Controls may include:

< List of approved pesticides and selected uses.

< Product and application information for users.

< Equipment use and maintenance procedures.

< Record keeping and public notice procedures.

LIMITATIONS:

There are no major limitations to this best management practice.

PROGRAM ELEMENTS

☐ New Development
☒ Residential
☐ Commercial Activities
☐ Industrial Activities
☒ Municipal Facilities
☐ Illegal Discharges

TARGETED POLLUTANTS

■ Sediment
■ Nutrients
☐ Heavy Metals
■ Toxic Materials
■ Oxygen Demanding Substances
■ Oil & Grease
☐ Floatable Materials
☐ Bacteria & Viruses

■ High Impact
☒ Medium Impact
☐ Low or Unknown Impact

IMPLEMENTATION REQUIREMENTS

☐ Capital Costs
☒ O&M Costs
☐ Regulatory
■ Training
☒ Staffing
☐ Administrative

■ High ☒ Medium ☐ Low

BMP: Identifying Illicit Connections

IIC

DESCRIPTION:

Involves the identification and elimination of illegal or inappropriate connections of industrial and business wastewater sources to the storm drain system. It attempts to prevent contamination of ground and surface water supplies by regulation, inspection, and removal of these connections. The large amount of storm and sanitary sewer pipes in a community creates a complex and often confusing system of utilities, so it is not unusual for improper connections to occur.

APPROACH:

- Discharges from industry and business may come from a variety of sources including process wastewater, wash waters, and sanitary wastewater. The following methods are often used for identifying improper industrial discharges to the storm drain system
- *Visual Inspection*. A physical examination of piping connections or analysis by closed circuit camera is used to identify possible illicit connection sites.
- *Piping Schematic Review*. Architectural plans and plumbing details are examined for potential sites where improper connections have occurred.
- *Smoke Testing*. Smoke testing is used to locate connections by injecting a non-toxic vapor (smoke) into the system and following its path of travel.
- *Dye Testing*. Colored dye is added to the drain water in suspect piping. Dyed water appearing in the storm drain system indicates an illegal connection, possibly between the sanitary sewer system and the storm drain.
- Instituting building and plumbing codes to prevent connections of potentially hazardous pollutants to storm drains.
- *Flow Monitoring.* Monitoring increases in storm sewer flows during dry periods can also lead investigators to sources of infiltration due to improper connections.
- *Inspection using video equipment*
- Instituting building and plumbing codes to prevent connections of potentially hazardous pollutants to storm drains.

LIMITATIONS:

- A local ordinance is necessary to provide investigators with access to private property in order to perform field tests (Ferguson et al. 1997).
- Rain fall can hamper efforts to monitor flows and visual inspections.

MAINTENANCE:

- Identifying illicit discharges requires teams of at least two people (volunteers can be used), plus administrative personnel, depending on the complexity of the storm sewer system.

APPLICATIONS

☒ Manufacturing
☒ Material Handling
☐ Vehicle Maintenance
☒ Construction
☒ Commercial Activities
☐ Roadways
☒ Waste Containment
☐ Housekeeping Practices

TARGETED POLLUTANTS

☐ Sediment
■ Nutrients
■ Heavy Metals
■ Toxic Materials
■ Oxygen Demanding Substances
■ Oil & Grease
■ Floatable Materials
■ Bacteria & Viruses

■ High Impact
☒ Medium Impact
☐ Low or Unknown Impact

IMPLEMENTATION REQUIREMENTS

■ Capital Costs
☒ O&M Costs
☒ Maintenance
☐ Training

■ High ☒ Medium ☐ Low

BMP: Illegal Solids Dumping Control

ISDC

DESCRIPTION:

By locating and correcting illegal dumping practices through education and enforcement measures, the many risks to public safety and water quality associated with illegal disposal actions can be prevented. Illegal dumping control is important to preventing contaminated runoff from entering wells and surface water, as well as averting flooding due to blockages of drainage channels for runoff.

APPROACH:

- Illegal dumping can occur in both urban and rural settings and can happen in all geographic regions.
- Illegal dumping control programs focus on community involvement and targeted enforcement to eliminate or reduce illegal dumping practices.
- Control programs use a combination of public education, citizen participation, site maintenance, and authorized enforcement measures to address illegal waste disposal.
- Issues that need to be examined when creating a program include the following: The locations of persistent illegal dumping activity
  Types of waste dumped and the profile of dumpers
- Possible driving forces behind illegal dumping such as excessive user fees, restrictive curbside trash pickup, or ineffective recycling programs, Previous education and cleanup efforts, Current control programs and local laws or ordinances addressing the problem, Sources of funding and additional resources that may be required.

LIMITATIONS:

- Illegal dumping is often spurred by cost and convenience considerations, and a number of factors encourage this practice
- A lack of understanding regarding applicable laws or the inadequacy of existing laws may also contribute to the problem.

MAINTENANCE:

- Efforts need to be continual.

APPLICATIONS

☒ Manufacturing
☒ Material Handling
☐ Vehicle Maintenance
☒ Construction
☒ Commercial Activities
☒ Roadways
☒ Waste Containment
☒ Housekeeping Practices

TARGETED POLLUTANTS

☐ Sediment
☒ Nutrients
■ Heavy Metals
■ Toxic Materials
☒ Oxygen Demanding Substances
■ Oil & Grease
■ Floatable Materials
■ Bacteria & Viruses

■ High Impact
☒ Medium Impact
☐ Low or Unknown Impact

IMPLEMENTATION REQUIREMENTS

☒ Capital Costs
☒ O&M Costs
☒ Maintenance
☐ Training

■ High ☒ Medium ☐ Low

BMP: Infrastructure Planning

IPL

Developers can design streets and pedestrian paths to maximize convenience and safety while at the same time minimizing impervious surface area (Source: The Rouse Company, no date)

APPLICATIONS

- ☐ Manufacturing
- ☐ Material Handling
- ☐ Vehicle Maintenance
- ☒ Construction
- ☒ Commercial Activities
- ☒ Roadways
- ☐ Waste Containment
- ☐ Housekeeping Practices

DESCRIPTION:

This practice requires changes in the regional growth planning process to contain sprawl development. Sprawl development is the expansion of low-density development into previously undeveloped land. The American Farmland Trust has estimated that the United States is losing about 50 acres an hour to suburban and exurban development (Longman, 1998). This sprawl development requires local governments to extend public services to new residential communities whose tax payments often do not cover the cost of providing those services. For example, in Prince William County, Virginia, officials have estimated that the costs of providing services to new residential homes exceeds what is brought in from taxes and other fees by $1,600 per home (Shear and Casey, 1996).

Infrastructure planning makes wise decisions to locate public services—water, sewer, roads, schools, and emergency services—in the suburban fringe and direct new growth into previously developed areas, discouraging

Low-density development. Generally, this is done by drawing a boundary or envelope around a community, beyond which major public infrastructure investments are discouraged or not subsidized. Meanwhile, economic and other incentives are provided within the boundary to encourage growth in existing neighborhoods.

APPROACH:

- Sprawl development negatively impacts water quality in several ways. The most significant impact comes from the increase in impervious cover that is associated with sprawl growth. In addition to rooftop impervious area from new development, extension of road systems and additions of paved surface from driveways create an overall increase in imperviousness.
- *Urban Growth Boundaries*. This planning tool establishes a dividing line that defines where a growth limit is to occur and where agricultural or rural land is to be preserved. Often, an urban services area is included in this boundary that creates a zone where public services will not be extended.
- *Infill/Community Redevelopment*. This practice encourages new development in unused or underutilized land in existing urban areas. Communities may offer tax breaks or other economic incentives to developers to promote the redevelopment of properties that are vacant or damaged.

LIMITATIONS:

- Intense development of existing areas can create a new set of challenges for storm water program managers. Storm water management solutions are often more difficult and complex in ultra-urban areas than in suburban areas
- Infrastructure planning is often done on a regional scale and requires a cooperative effort between all the communities within a given region in order to be successful.

TARGETED POLLUTANTS

- ☒ Sediment
- ☐ Nutrients
- ☐ Heavy Metals
- ☐ Toxic Materials
- ☐ Oxygen Demanding Substances
- ☐ Oil & Grease
- ☐ Floatable Materials
- ☐ Bacteria & Viruses

- ■ High Impact
- ☒ Medium Impact
- ☐ Low or Unknown Impact

IMPLEMENTATION REQUIREMENTS

- ☒ Capital Costs
- ☒ O&M Costs
- ☒ Maintenance
- ☐ Training

■ High ☒ Medium ☐ Low

BMP: Landscape & Irrigation Plan

LIP

DESCRIPTION:

All developers are required to submit a landscape and irrigation plan for their developments. Lawn and garden activities can result in contamination of storm water through pesticide, soil, and fertilizer runoff. Proper landscape management, however, can effectively reduce water use and contaminant runoff as well as enhance the aesthetics of a property.

APPROACH:

- Develop landscape and irrigation plan preparation guidelines.
- Require a landscape and irrigation plan for each new commercial development.
- Educate local developers on how to create effective landscape and irrigation plans for their new developments.
- Educate municipal staff to review property landscape and irrigation plans to minimize runoff.
- Check all new irrigation plans to ensure that there will be no overspray onto impervious surfaces and that the irrigation water will be contained on site.
- Uniform coverage for sprinkler systems should be checked to help minimize over watering.

LIMITATIONS:

- More time and effort will be required of the municipal staff to review new development plans.
- Some communities do note have the expertise to complete proper reviews in-house.

MAINTENANCE:

- Programs and educational materials can be repeatedly sent out or emphasized. Extension service continues to research and provide current data.

APPLICATIONS

☒ Manufacturing
☐ Material Handling
☐ Vehicle Maintenance
■ Construction
☒ Commercial Activities
☐ Roadways
☐ Waste Containment
☒ Housekeeping Practices

TARGETED POLLUTANTS

☐ Sediment
■ Nutrients
☐ Heavy Metals
☐ Toxic Materials
☐ Oxygen Demanding Substances
☒ Oil & Grease
☐ Floatable Materials
☐ Bacteria & Viruses

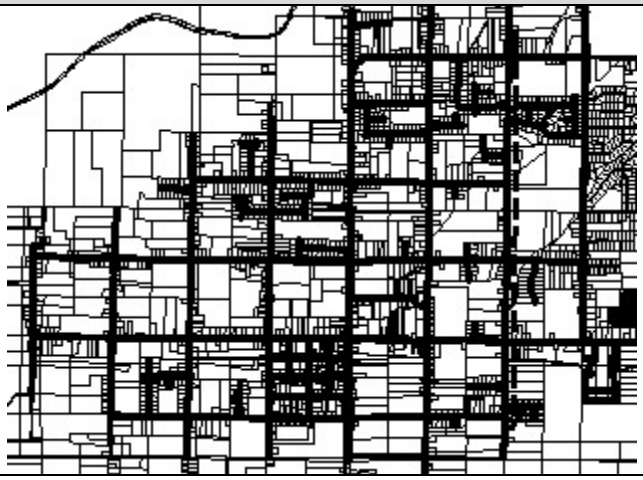
■ High Impact
☒ Medium Impact
☐ Low or Unknown Impact

IMPLEMENTATION REQUIREMENTS

☒ Capital Costs
☒ O&M Costs
☐ Maintenance
☒ Training

BMP: Map Storm Water Drains

MSWD



APPLICATIONS

☒Manufacturing
☐ Material Handling
☐ Vehicle Maintenance
☒ Construction
☒ Commercial Activities
☐ Roadways
☒ Waste Containment
☐ Housekeeping Practices

DESCRIPTION:

Develop an integrated storm water sewer system map that identifies existing piping, open cannels, storm drain outfalls, receiving water bodies and retention/detention basins.

APPROACH:

- Determine if effort will be out-sourced or completed in-house
- Compile existing drawings
- Gather drawings of new developments
- Convert drawings of new developments
- Identify any possible illegal discharges
- Use in determining possible causes of a pollution
- Require new developments to supply city with updated drainage maps to be integrated into the system.

LIMITATIONS:

- Some additional surveying may need to be done on existing structures
- Training may be required to familiarize with software

MAINTENANCE:

- Map will need to be updated constantly as new developments arise
- Checks and changes may be necessary as as-builds and differences are discovered
- Inspection

TARGETED POLLUTANTS

☒ Sediment
☒ Nutrients
☒ Heavy Metals
☒ Toxic Materials
☒ Oxygen Demanding Substances
☒ Oil & Grease
☒ Floatable Materials
☒ Bacteria & Viruses

■ High Impact
☒ Medium Impact
☐ Low or Unknown Impact

IMPLEMENTATION REQUIREMENTS

☒ Capital Costs
☐ O&M Costs
☐ Maintenance
☐ Training

BMP: Non-Stormwater Discharges To Drains

NSWD

APPLICATIONS

☒ Manufacturing
☐ Material Handling
☒ Vehicle Maintenance
☐ Construction
☒ Commercial Activities
☐ Roadways
☒ Waste Containment
☒ Housekeeping Practices

DESCRIPTION:
Eliminate non-stormwater discharges to the stormwater collection system.
Non-stormwater discharges may include: process wastewaters, cooling waters, wash waters, and sanitary wastewater.

APPROACH:
The following approaches may be used to identify non-stormwater discharges:

- Visual inspection: the easiest method is to inspect each discharge point during dry weather. Keep in mind that drainage from a storm event can continue for three days or more and groundwater may infiltrate the underground stormwater collection system.
- Piping Schematic Review: The piping schematic is a map of pipes and drainage systems used to carry wastewater, cooling water, sanitary wastes, etc... A review of the "as-built" piping schematic is a way to determine if there are any connections to the stormwater collection system. Inspect the path of floor drains in older buildings.
- Smoke Testing: Smoke testing of wastewater and stormwater collection systems is used to detect connections between the two systems. During dry weather the stormwater collection system is filled with smoke and then traced to sources. The appearance of smoke at the base of a toilet indicates that there may be a connection between the sanitary and the stormwater system.
- Dye Testing: A dye test can be performed by simply releasing a dye into either the sanitary or process wastewater system and examining the discharge points from the stormwater collection system for discoloration.

LIMITATIONS:

- Many facilities do not have accurate, up-to-date schematic drawings.
- Video and visual inspections can identify illicit connections to the storm sewer, but further testing is sometimes required (e.g. dye, smoke) to identify sources.

TARGETED POLLUTANTS

☐ Sediment
■ Nutrients
■ Heavy Metals
■ Toxic Materials
■ Oxygen Demanding Substances
■ Oil & Grease
☒ Floatable Materials
■ Bacteria & Viruses

■ High Impact
☒ Medium Impact
☐ Low or Unknown Impact

IMPLEMENTATION REQUIREMENTS

☒ Capital Costs
☐ O&M Costs
☐ Maintenance
☒ Training

■ High ☒ Medium ☐ Low

BMP: Ordinance Development

OD

APPLICATIONS

☒ Manufacturing
☒ Material Handling
☒ Vehicle Maintenance
☒ Construction
☒ Commercial Activities
☒ Roadways
☒ Waste Containment
☒ Housekeeping Practices

DESCRIPTION:

Existing ordinances relating to storm water are reviewed for compliance. New ordinances are written to prohibit non-storm water discharges into the Municipal Separate Storm Sewer System (MS4), require proper erosion and sediment controls on construction sites, require the implementation of post-construction runoff controls, and to ensure proper planning/zoning protections.

APPROACH:

- Review existing storm drain ordinances for consistency and compliance with state and federal regulations and make improvements, if necessary. Ensure that no conflicts will occur with new ordinances that will be written and adopted.
- Write and adopt an ordinance that prohibits (to the extent allowable under State, Tribal, or local law) the discharge of non-storm water discharges into the MS4 with appropriate enforcement procedures and actions.
- Write and adopt an ordinance, with sanctions to ensure compliance, requiring the implementation of proper erosion and sediment controls, and controls for other wastes, on applicable construction sites.
- Write and adopt an ordinance requiring the implementation of post-construction runoff controls to the extent allowable under State, Tribal, or local law.
- Educate the public about the new ordinances.
- Enforce the new ordinances.

LIMITATIONS:

- Wording of ordinances is often difficult. It should be specific to serve the intended purpose, but not too specific to cause potential conflicts with other ordinances or situations.
- Once an ordinance is adopted, it can be difficult to modify ordinances to meet changing needs.
- Ordinances have to be enforced to be beneficial.
- Ordinances take time to change.

TARGETED POLLUTANTS

☒ Sediment
☒ Nutrients
☒ Heavy Metals
☒ Toxic Materials
☒ Oxygen Demanding Substances
☒ Oil & Grease
☒ Floatable Materials
☒ Bacteria & Viruses

■ High Impact
☒ Medium Impact
☐ Low or Unknown Impact

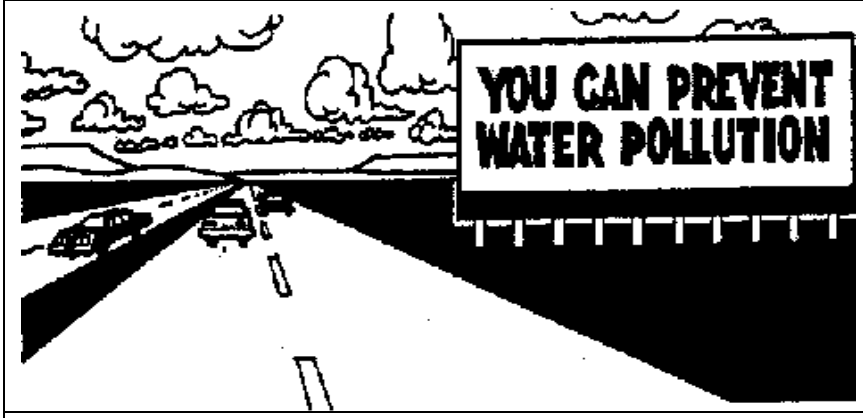
IMPLEMENTATION REQUIREMENTS

■ Capital Costs
☐ O&M Costs
☐ Maintenance
☐ Training

■ High ☒ Medium ☐ Low

BMP: Public Education/Participation

PEP



PROGRAM ELEMENTS

☐ New Development
☒ Residential
☒ Commercial Activities
☐ Industrial Activities
☒ Municipal Facilities
☒ Illegal Discharges

DESCRIPTION:

Public education/participation, like an ordinance or a piece of equipment, is not so much a best management practice as it is a method by which to implement BMPs. This information sheet highlights the importance of integrating elements of public education and participation into a municipality=s overall plan for stormwater quality management.

A public education and participation plan provides the municipality with a strategy for educating its employees, the public, and businesses about the importance of protecting stormwater from improperly used, stored, and disposed of pollutants. Municipal employees must be trained, especially those that work in departments not directly related to stormwater but whose actions affect stormwater. Residents must become aware that a variety of hazardous products are used in the home and that their improper use and disposal can pollute stormwater. Increased public awareness also facilitates public scrutiny of industrial and municipal activities and will likely increase public reporting of incidents.

APPROACH:

< Pattern a new program after the many established programs around the country.
< Implement public education/participation as a coordinated campaign in which each message is related to the last.
< Present a clear and consistent message and image to the public regarding how they contribute to stormwater pollution and what they can do to reduce it.
< Utilize multi-media to reach the full range of audiences.
< Translate messages into the foreign languages of the community to reach the full spectrum of your populace and to avoid misinterpretation of messages.
< Create an awareness and identification with the local watershed.
< Use everyday language in all public pieces. Use outside reviewers to highlight and reduce the use of technical terminology, acronyms, and jargon.
< Make sure all statements have a sound, up-to-date technical basis. Do not contribute to the spread of misinformation.
< Break complicated subjects into smaller more simple concepts. Present these concepts to the public in a metered and organized way to avoid Aoverloading@ and confusing the audience.

LIMITATIONS:

None

TARGETED POLLUTANTS

■ Sediment
■ Nutrients
■ Heavy Metals
■ Toxic Materials
■ Oxygen Demanding Substances
■ Oil & Grease
■ Floatable Materials
■ Bacteria & Viruses

■ High Impact
☒ Medium Impact
☐ Low or Unknown Impact

IMPLEMENTATION REQUIREMENTS

■ Capital Costs
☒ O&M Costs
☐ Regulatory
☒ Training
☒ Staffing
☒ Administrative

■ High ☒ Medium ☐ Low

BMP: Used Oil Recycling

UOR

Used oil can be disposed of at a waste collection facility, where it will be collected and later sent to a recycling facility

DESCRIPTION:

Used motor oil is a hazardous waste because it contains heavy metals picked up from the engine during use. Since it is toxic to humans, wildlife, and plants, it should be disposed of at a local recycling or disposal facility.

APPROACH:

- When establishing oil recycling programs, municipalities should provide the public with the proper informational resources.
- The public can also call 1-800-RECYCLE or contact Earth's 911 at www.1800cleanup.org/ for more information.
- Municipalities also need to address oil filter recycling in their recycling programs.
- To make recycling motor oil more convenient for the do-it-yourselfers, oil recycling programs should be located throughout all communities.
- Two types of programs currently in use are drop-off locations and curbside collection. Drop-off locations include service stations, recycling centers, auto parts retail stores, quick lubes, and landfills.

LIMITATIONS:

- If oil is mixed with other substances or if storage containers have residues of other substances, this can contaminate oil and make it a hazardous waste.➢

MAINTENANCE:

- Costs for used motor oil recycling programs vary depending on whether a community has already established similar types of recycling programs.
- Major costs associated with oil recycling programs include advertisement costs and oil collection costs.

APPLICATIONS

☒ Manufacturing
☒ Material Handling
☐ Vehicle Maintenance
☒ Construction
☒ Commercial Activities
☐ Roadways
☒ Waste Containment
☒ Housekeeping Practices

TARGETED POLLUTANTS

☒ Sediment
☐ Nutrients
☒ Heavy Metals
■ Toxic Materials
☐ Oxygen Demanding Substances
☒ Oil & Grease
☒ Floatable Materials
☐ Bacteria & Viruses

■ High Impact
☒ Medium Impact
☐ Low or Unknown Impact

IMPLEMENTATION REQUIREMENTS

☒ Capital Costs
☒ O&M Costs
☒ Maintenance
☐ Training

■ High ☒ Medium ☐ Low

BMP: Using the Media

UM

DESCRIPTION:

The media can be strong allies to a storm water pollution prevention campaign in educating the public about storm water issues. Through the media, a program can educate targeted or mass audiences about problems and solutions, build support for remediation and retrofit projects, or generate awareness and interest in storm water management. Best of all, packaging a storm water message as a news story is virtually free!

APPROACH:

- *Newspapers and Magazines*. Newspapers are powerful vehicles for delivering educational information, policy analyses, public notices, and other messages. Many displays at watershed seminars proudly post newspaper articles on the projects being presented in recognition of the importance and impact of newspaper coverage.
- Newspapers can be accessed in several ways. Depending on the message or event, the appropriate format might be a news release, news advisory, query letter, letter to the editor, or (for urgent, timely information) a news conference
- *Magazines.* Magazines, like newspapers, allow for greater length and analysis than television and provide the additional benefit of targeting specific audiences (e.g., landscapers, automobile mechanics, farmers, or recreationists).
- *Radio*. In spite of the popularity of video, radio remains a strong media contender due to its affordable production costs and creative possibilities. Further, commuters who drive to work spend much time in their vehicles.
- *Television*. Television is the primary source of news for the majority of the population, and local reporters are generally interested in covering environmental stories that pertain to their area.
- Issues will attract television coverage if they Involve local people or issues, Focus on unique or unusual attributes, Affect many people throughout a region, Involve controversy or strong emotions
- *Internet Message*. Increasingly, the Internet is becoming a powerful means of communication. It provides worldwide access to hundreds of sites containing millions of documents, chat rooms for special interest groups, and incredible database/mapping features.

LIMITATIONS:

- Working with the media is essentially free, but not always.

APPLICATIONS

☒ Manufacturing
☒ Material Handling
☒ Vehicle Maintenance
☒ Construction
☒ Commercial Activities
☒ Roadways
☒ Waste Containment
☒ Housekeeping Practices

TARGETED POLLUTANTS

■ Sediment
■ Nutrients
■ Heavy Metals
■ Toxic Materials
■ Oxygen Demanding Substances
■ Oil & Grease
■ Floatable Materials
■ Bacteria & Viruses

■ High Impact
☒ Medium Impact
☐ Low or Unknown Impact

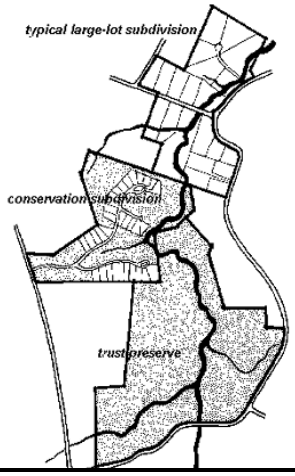
IMPLEMENTATION REQUIREMENTS

☐ Capital Costs
☐ O&M Costs
☐ Maintenance
☐ Training

■ High ☒ Medium ☐ Low

BMP: Zoning

ZO



APPLICATIONS

- ☐ Manufacturing
- ☐ Material Handling
- ☐ Vehicle Maintenance
- ☒ Construction
- ☒ Commercial Activities
- ☐ Roadways
- ☐ Waste Containment
- ☐ Housekeeping Practices

DESCRIPTION:

Zoning is a classification scheme for land use planning. Zoning can serve numerous functions and can help mitigate storm water runoff problems by facilitating better site designs. By correctly applying the right zoning technique, development can be targeted into specific areas, limiting development in other areas and providing protection for the most important land conservation areas.

APPROACH:

- Impervious Overlay Zoning: This type of overlay zoning limits future impervious areas.
- Incentive Zoning: This planning technique relies on bonuses or incentives for developers to encourage the creation of certain amenities or land use designs. A developer is granted the right to build more intensively on a property or given some other bonus in exchange for an amenity or a design that the community considers beneficial.
- Performance Zoning: Performance zoning is a flexible approach that has been employed in a variety of fashions in several different communities across the country. Some performance factors include traffic or noise generation limits, lighting requirements, storm water runoff quality and quantity criteria, protection of wildlife and vegetation, and even architectural style criteria
- Urban Growth Boundaries: Urban growth boundaries are sometimes called development service districts and include areas where public services are already provided (e.g., sewer, water, roads, police, fire, and schools).

LIMITATIONS:

- Some zoning techniques may be limited by economic and political acceptance and should be evaluated on these criteria as well as storm water management goals.

TARGETED POLLUTANTS

- ☒ Sediment
- ☐ Nutrients
- ☐ Heavy Metals
- ☐ Toxic Materials
- ☐ Oxygen Demanding Substances
- ☐ Oil & Grease
- ☐ Floatable Materials
- ☐ Bacteria & Viruses

- ■ High Impact
- ☒ Medium Impact
- ☐ Low or Unknown Impact

IMPLEMENTATION REQUIREMENTS

- ☒ Capital Costs
- ☒ O&M Costs
- ☒ Maintenance
- ☐ Training

■ High ☒ Medium ☐ Low

Maps

Refer to Appendix G for the following maps:

- Floor Drain Inventory
- Facility Strom Drain Maps

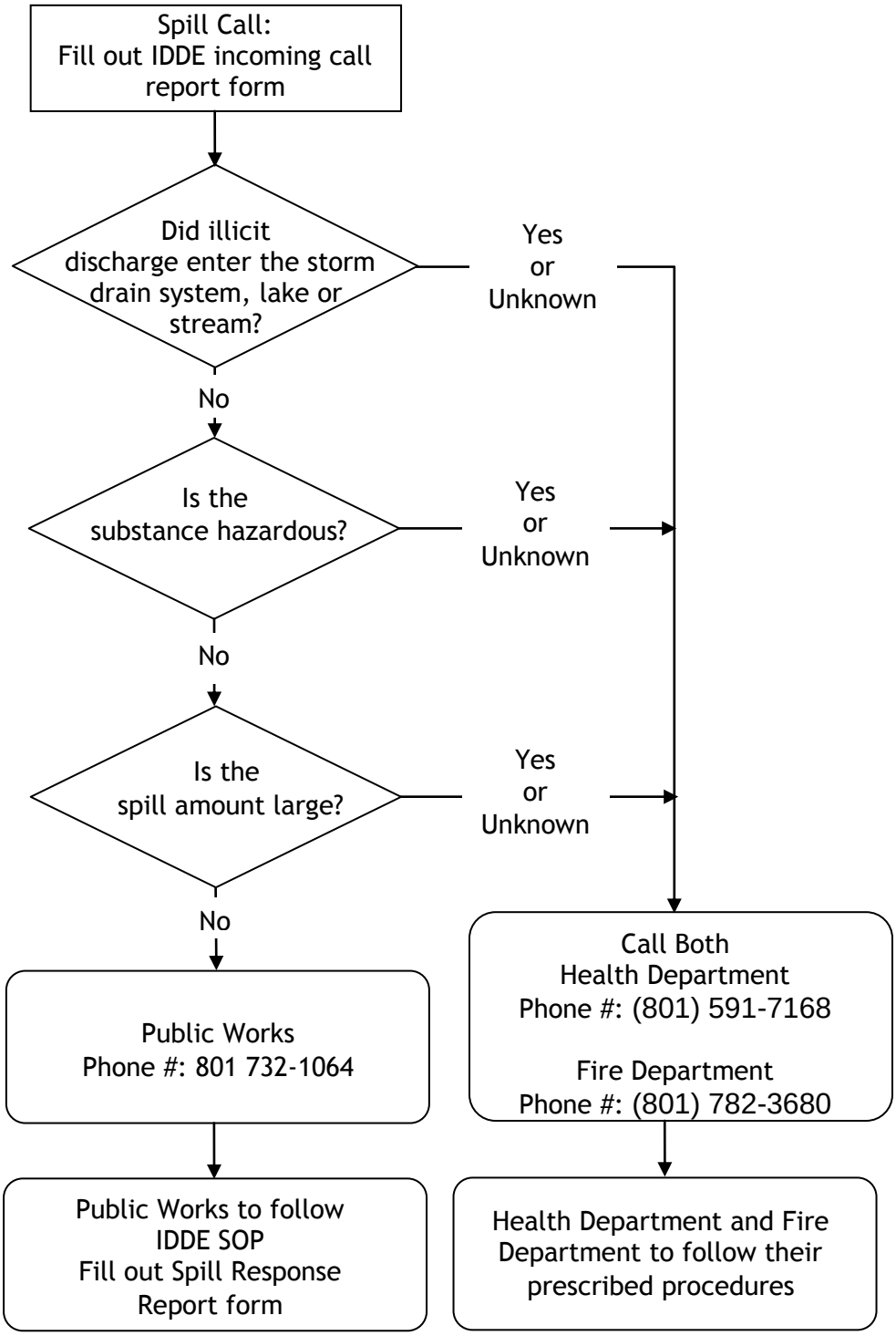
APPENDIX C

APPENDIX C

TABLE OF CONTENTS

INCIDENT RESPONSE FLOW CHART

HOOPER CITY



IDDE INCOMING CALL REPORT FORM

(For Phone Operator)

Date of Illicit Discharge_____ Time _____ Duration_____

Address of Discharge _____

Name of person discharging (If applicable) _____

Name & phone number of person making the call _____

Chemical name or identity of any substance involved in the release _____

_____

Is substance hazardous? _____

Estimate of Quantity Spilled? _____

Did the illicit discharge enter a waterbody? (Lake or Stream)

_____

_____

Did the illicit discharge enter the storm drain system? (Manhole or storm drain pipe) Yes

No Any known or anticipated acute or chronic health risks for exposed individuals associated

with the emergency spill:

_____

_____

See Incident Response Flow Chart

SPILL RESPONSE REPORT FORM

(For Public Works Crew)

Date of Spill_____ Time _____ Duration_____

Chemical name or identity of any substance involved in the release _____

_____

Is it a hazardous substance? _____

Estimate of Quantity Spilled_____

Who Responded? _____

Cleaning Method Used_____

_____

Any Discharge to Storm Drain? _____

_____

Any known or anticipated acute or chronic health risks for exposed individuals associated with the emergency spill:

_____

_____

_____

Where proper precautions taken, including evacuation, if necessary? _____

_____

Was Spill Reported to the State? Yes No

Illicit Discharge Inspection Report

CITY:_____

Source Description	Date became aware of illicit discharge	Date Investigation initiated	Date the discharge was observed	Location of the discharge	Description of discharge (substance)	Method of discovery	Date of removal, repair, or enforcement	Date and method of removal verification

Illicit Discharge Enforcement Action Log

Enforcement Actions may be Documented Separately beyond this Summary Log. Escalation of enforcement is governed by ordinance and may include verbal warnings, cease work order, letters, fines, and etc.

Date	Responsible Party	Location (See Map)	Offense	Escalation History			Date Completed	Notes
				1st Action	2nd Action	3rd Action		

Dry Weather Screening Checklist/SOP

Pre-inspection Items

- ☐ Map Outfalls
- ☐ Develop outfall inspection priority schedule
- ☐ Proper equipment
  - Clear sampling jar
  - Map showing location
  - Visual monitoring report form
  - Camera
  - GPS unit?

Inspection

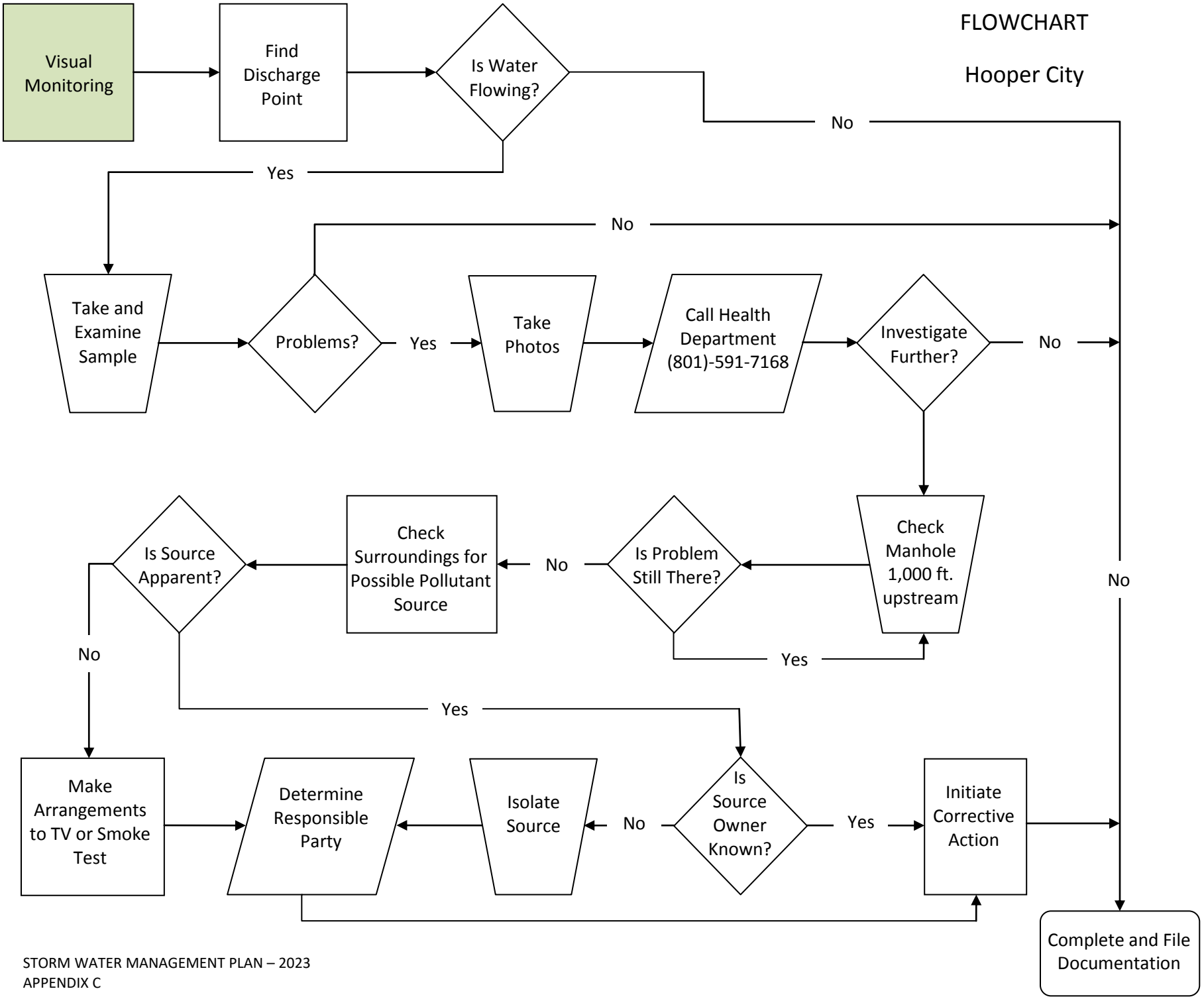
- ☐ Check for dry weather discharge
- ☐ If discharge is present – pull sample
- ☐ Follow procedures on visual monitoring form
- ☐ Photo document findings
- ☐ If there is cause for concern move to inspection follow up procedures

Inspection Follow-Up Procedures

- ☐ File any Photos
- ☐ Call health department and report findings 801-
- ☐ Trace discharge upstream by checking manholes – 1,000 foot intervals
- ☐ Find last manhole with any evidence of illicit discharge
- ☐ Look at surface improvements in the area to determine possible suspects
- ☐ If determination cannot be made from the surface investigations, then TV or smoke test line for unknown connections.

DRY WEATHER SCREENING FLOWCHART

Hooper City



DRY WEATHER SCREENING AND VISUAL STORM WATER DISCHARGE EXAMINATION REPORT

Date of Examination: _____ Permit No. UTR _____

Outfall location or ID number: _____

Nature of Discharge (i.e., runoff, land drain, irrigation or snowmelt) _____

Type of Monitoring:

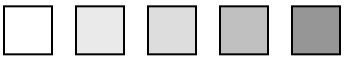
☐ Dry Weather Screening Date of last Rainfall Event:_____	Wet Weather Screening (Quarterly Min.) ☐ Rainfall Event Date of Rainfall Event:_____ Time of Event:_____ Precipitation:_____ ☐ Unable to collect sample due to adverse conditions or inadequate runoff.

Visual Quality of Storm Water Discharge: (circle response)

At Time of Sampling:

Color: clear brown green rust other: _____

Odor: Yes / No

Clarity: 

Floating Solids: Yes / No

Foam: Yes / No

After One Hour of Settling:

Settled Solids: Yes / No

Suspended Solids: Yes / No

Oil Sheen: Yes / No

Other obvious indicators of storm water pollution: _____

_____

Probable sources of any observed storm water contamination: _____

_____

Name of Examiner_____ Title_____

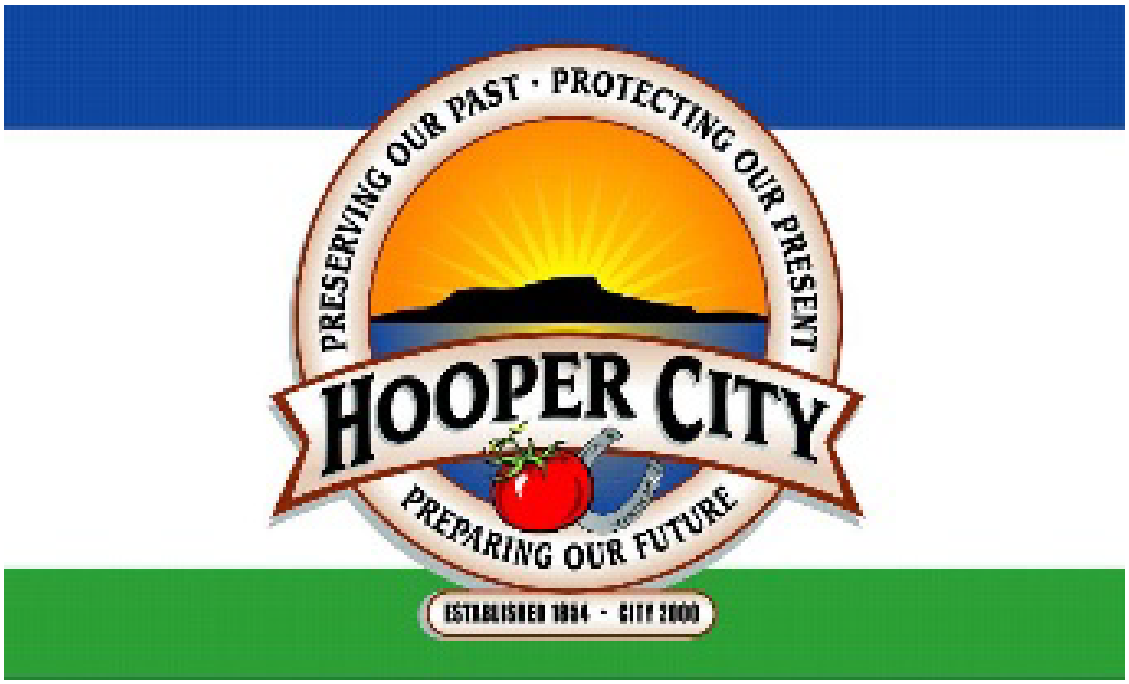
Signature_____Date_____

Revised: 10-15-2010

Standard Operating Procedures

IDDE

Hooper City



Created: February 2010
Updated: September 2023

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IDDE - Call-in Inspections

1. Preparation

    a. Have a system in place to receive phone calls and collect information regarding suspected illicit discharges.

2. Process

    a. Use the Incident Tracking Sheet to collect the appropriate information from the caller. Then, transfer the Incident Tracking Sheet to the proper authority (i.e., department head, stormwater specialist, construction inspector, code enforcement officer, or other assigned personnel).

    b. Promptly investigate reported incidents.

    c. If an illicit discharge of unknown source is confirmed, follow the procedure of SOP IDDE - Tracing Illicit Discharges.

    d. If an illicit discharge known source is confirmed, follow the procedure of SOP IDDE - Removing Illicit Discharges.

3. Clean up

    a. Clean catch basin, clean storm drain, or initiate spill response, as applicable. Follow relevant SOPs.

4. Documentation

    a. File all completed forms (i.e., incident tracking, catch basins cleaning, storm drain cleaning.

    b. Document any further action taken.

    c. Review incidents reported by citizens on an annual basis to look for patterns of illicit discharges and to evaluate the call-in inspection program.

IDDE – Containing a Spill

1. Preparation

    a. Work with county fire department's and environmental contractor's stockpile of absorbent materials and spill kits.

    b. Train all public works staff annually on how to respond to a spill.

2. Process

    a. Priority is to dam and contain flowing spills.

    b. Use spill kit booms if available or use any material available; including but not limited to, nearby sand, dirt, landscaping materials, etc.

3. Clean-up

    a. Never wash spills to the storm drain systems.

    b. As per SDS requirements but generally most spills can be cleaned up according to the following:

        1. Absorb liquid spills with spill kit absorbent material, sand or dirt until liquid is sufficiently converted to solid material.
        2. Remove immediately using dry cleanup methods, e.g., broom and shovel, or vacuum operations.
        3. Clean up with water and detergents may also be necessary depending on the spilled material. However, the waste from this operation must be vacuumed or effectively picked up by dry methods.
        4. Repeat process when residue material remains.

4. Documentation

    a. Document all spills in accordance to spill report Spill Report Form found in the SWMP.

    b. Deliver completed form and any pictures to Stormwater Specialist.

    c. Stormwater staff will log reports in CompianceGo.

        1. Condition of Site: Description of spill.
        2. Work Description: How and where spill was managed and disposed.
        3. Identity affected stormwater systems.

IDDE - Opportunistic Illicit Discharge Observation

1. Preparation

    a. Be alert for potential illicit discharges to the municipal storm water system while going about normal work activities.

2. Process

    a. Call the appropriate authority (i.e., department head, stormwater specialist, construction inspector, code enforcement officer or a supervisor) if you see evidence of an illicit discharge.

    b. Assess the general area of the illicit discharge to see if you can identify its source.

    c. Whenever possible, take photographs of the suspected illicit discharge.

    d. Responding stormwater department personnel or code enforcement officer will complete the following:

        1. Use the IDDE Incident Tracking Sheet to document observations.
        2. Obtain sample for visual observation and complete an Outfall Inspection Form, if applicable.
        3. Follow the procedure of SOP IDDE - Tracing Illicit Discharges.

3. Clean-up

    a. Clean catch basin, clean storm drain, or initiate spill response, as needed. Follow relevant SOPs.

4. Documentation

    a. File all completed forms (i.e., Incident Tracking Form, Outfall Inspection Form, Catch Basin Cleaning Form, and Storm Drain Cleaning Log).

    b. Document any further action taken.

IDDE - Outfall Inspections

1. Preparation

    a. Know the past and present weather conditions. Conduct inspections during dry weather periods.

    b. Gather all necessary equipment including tape measure, clear container, clipboard with necessary forms, flashlight, and camera (optional).

    c. Obtain maps showing outfall locations and identifiers.

    d. Obtain outfall description and observations from previous inspections, so the outfall can be accurately identified, and observations compared.

2. Process

    a. Perform an inspection of each outfall at least once per year. Whenever, possible use the same personnel for consistency in observations.

    b. Identify each outfall with a consistent and unique identifier. For example, "Howard Slough-#13". Use maps and previous inspection reports to confirm the outfall identity and location.

    c. If dry weather flow is present at the outfall, then document and evaluate the discharge by completing the following steps:

        1. Collect field samples for visual observations in a clean, clear container and in a manner that avoids stirring up sediment that might distort the observation.
        2. Characterize and record observations on basic sensory and physical indicators (e.g., outfall condition, flow, odor, color, oil sheen) on the Outfall Inspection Form.
        3. Compare observations to previous inspections.
        4. If the flow does not appear to be an obvious illicit discharge (e.g., flow is clear, odorless, etc.), attempt to identify the source of the flow (groundwater, intermittent stream, etc.)

    d. If an illicit discharge (such as raw sewage, petroleum products, paint, etc.) is encountered or suspected, follow the procedure of SOP IDDE - Tracing Illicit Discharges.

3. Cleanup - as necessary

4. Documentation

    a. File completed outfall inspection forms.

    b. Update maps if new outfalls are observed and inspected.

IDDE - Removing Illicit Discharges

1. Preparation

    a. Obtain available property ownership information for the source of the illicit discharge.

2. Process

    a. Determine who is financially responsible; and follow associated procedures as given below.

    For Private Property Owner:
    Contact Owner,
    Issue Notice of Violation for violations of the municipal ordinance, and
    Determine schedule for removal.

    For Municipal Facility:
    Notify appropriate municipal authority or department head,
    Schedule removal, and
    Remove illicit connection.

    b. Suspend access to storm drain if threats of serious physical harm to humans or the environment are possible.

    c. Direct responsible party to initiate repairs/corrections/cleanup. Coordinate with enforcement official for escalating penalties in accordance with the municipal ordinance.

    d. Repair/correct cause of discharge if municipality is responsible. Schedule the work, through the appropriate municipal authority or department head.

    e. Seek technical assistance from the Weber-Morgan Health Department or Utah Department of Water Quality, if needed.

3. Clean up

    a. Confirm illicit discharge is removed or eliminated by follow-up inspection.

4. Documentation

    a. Maintain records of notice of violation and penalties.

    b. Document repairs, corrections, and any other actions required.

IDDE - Tracing Illicit Discharges

1. Preparation

    a. Review / consider information collected when illicit discharge was initially identified and document using Incident Tracking Form or Outfall Inspection Form.

    b. Obtain storm drain mapping for the area of the reported illicit discharge.

    c. Gather all necessary equipment including tape measure, clear container, clipboard with necessary forms, flashlight, and camera (optional).

2. Process

    a. Survey the general area / surrounding properties to identify potential sources of the illicit discharge as a first step.

    b. Trace illicit discharges using visual inspections of upstream points as a second step. Use available mapping to identify tributary pipes, catch basins, etc.

    c. If the source of the illicit discharge cannot be determined by a survey of the area or observation of the storm drain system, then consider the following additional steps:

        1. Use weirs, sandbags, dams, or optical brightener monitoring traps to collect or pool intermittent discharges during dry weather.
        2. Smoke test or televise the storm drain system to trace high priority, difficult to detect illicit discharges.
        3. Dye test individual discharge points within suspected buildings.
        4. Consider collecting bacterial samples of flowing discharges to confirm/refute illicit discharge.

    d. If the source is located, follow SOP IDDE - Removing Illicit Discharges.

    e. If the source cannot be found, add the location to a future inspection program.

3. Clean up

    a. Clean catch basin, clean storm drain, or initiate spill response, as applicable. Follow relevant SOPs.

4. Documentation

    a. Document tracing results for future reference.

BMP: Community Hotlines

CH

DESCRIPTION:

Because regulators and authorities cannot monitor all water bodies at once, they sometimes rely on the public to keep them informed of water polluters. Community hotlines provide a means for concerned citizens and agencies to contact the appropriate authority when they see water quality problems.

APPROACH:

- Once a city has determined that they need a hotline, they should choose between a telephone or an e-mail hotline.
- A party or agency responsible for maintaining the hotline and responding to incoming complaints must first be identified. The responsible party could be a division of local government, a water quality board, a public utility, or an environmental agency.
- All distributed materials should include pollution hotline numbers and information.
- Curbs should have pumping systems, instead of drainage systems, for collecting spilled materials.
- Generally, an investigation team promptly responds to a hotline call and, in most cases, visits the problem site.
- If a responsible party can be identified, the team informs the party of the problem, offers alternatives for future disposal, and instructs the party to resolve the problem.

LIMITATIONS:

- The community's ability to pay for it.
- The ability of the community to keep the hotline staffed.

MAINTENANCE:

- The most important part is the responsiveness of the hotline. If a citizen reports an illegal dumping but no action is taken by the appropriate authority, that citizen could lose faith in the hotline and might not call back with future information.

APPLICATIONS

- ■ Manufacturing
- ■ Material Handling
- ■ Vehicle Maintenance
- ■ Construction
- ■ Commercial Activities
- ☒ Roadways
- ☒ Waste Containment
- ■ Housekeeping Practices

TARGETED POLLUTANTS

- ☒ Sediment
- ☒ Nutrients
- ■ Heavy Metals
- ■ Toxic Materials
- ☒ Oxygen Demanding Substances
- ■ Oil & Grease
- ■ Floatable Materials
- ☒ Bacteria & Viruses

- ■ High Impact
- ☒ Medium Impact
- ☐ Low or Unknown Impact

IMPLEMENTATION REQUIREMENTS

- ☒ Capital Costs
- ☒ O&M Costs
- ☒ Maintenance
- ☐ Training

■ High ☒ Medium ☐ Low

BMP: Employee Training

ET

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

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

OBJECTIVES:
Employee training should be based on four objectives:

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

APPROACH:

< Integrate training regarding stormwater quality management with existing training programs that may be required for other regulations.
< Employee training is a vital component of many of the individual source control BMPs included in this manual.

PROGRAM ELEMENTS

: New Development
: Residential
: Commercial Activities
: Industrial Activities
: Municipal Facilities
: Illegal Discharges

TARGETED POLLUTANTS

- Sediment
- Nutrients
- Heavy Metals
- Toxic Materials
- Oxygen Demanding Substances
- Oil & Grease
- Floatable Materials
- Bacteria & Viruses

■ High Impact
☒ Medium Impact
☐ Low or Unknown Impact

IMPLEMENTATION REQUIREMENTS

: Capital Costs
: O&M Costs
9 Regulatory
- Training
: Staffing
: Administrative

■ High ☒ Medium ☐ Low

BMP: Hazardous Waste Management

HWM

DESCRIPTION:
Prevent or reduce the discharge of pollutants to stormwater from hazardous waste through proper material use, waste disposal, and training of employees and subcontractors.

APPLICATION:
Many of the chemicals used on-site can be hazardous materials which become hazardous waste upon disposal. These wastes may include:

- Paints and solvents, petroleum products such as oils, fuels and greases, herbicides and pesticides, acids for cleaning masonry, and concrete curing compounds.

In addition, sites with existing structures may contain wastes which must be disposed of in accordance with federal, state and local regulations, including:

- Sandblasting grit mixed with lead, cadmium or chromium based paints, asbestos, and PCBs.

INSTALLATION/APPLICATION CRITERIA:
The following steps will help reduce stormwater pollution from hazardous wastes:

- Use all of the product before disposing of the container.
- Do not remove the original product label, it contains important safety and disposal information.
- Do not over-apply herbicides and pesticides. Prepare only the amount needed. Follow the recommended usage instructions. Over-application is expensive and environmentally harmful. Apply surface dressings in several smaller applications, as opposed to one large application, to allow time for infiltration and to avoid excess material being carried off-site by runoff. Do not apply these chemicals just before it rains. People applying pesticides must be certified in accordance with Federal and State regulations.

LIMITATIONS:
Hazardous waste that cannot be reused or recycled must be disposed of by a licensed hazardous waste hauler.

MAINTENANCE:

- Inspect hazardous waste receptacles and areas regularly.
- Arrange for regular hazardous waste collection.

APPLICATIONS

☒ Manufacturing
☒ Material Handling
☒ Vehicle Maintenance
☒ Construction
☐ Commercial Activities
☐ Roadways
☒ Waste Containment
☒ Housekeeping Practices

TARGETED POLLUTANTS

☐ Sediment
☐ Nutrients
☐ Heavy Metals
■ Toxic Materials
☐ Oxygen Demanding Substances
☒ Oil & Grease
☐ Floatable Materials
☐ Bacteria & Viruses

■ High Impact
☒ Medium Impact
☐ Low or Unknown Impact

IMPLEMENTATION REQUIREMENTS

☐ Capital Costs
☒ O&M Costs
☒ Maintenance
☒ Training

■ High ☒ Medium ☐ Low

BMP: Identifying Illicit Connections

IIC

DESCRIPTION:

Involves the identification and elimination of illegal or inappropriate connections of industrial and business wastewater sources to the storm drain system. It attempts to prevent contamination of ground and surface water supplies by regulation, inspection, and removal of these connections. The large amount of storm and sanitary sewer pipes in a community creates a complex and often confusing system of utilities, so it is not unusual for improper connections to occur.

APPROACH:

- Discharges from industry and business may come from a variety of sources including process wastewater, wash waters, and sanitary wastewater. The following methods are often used for identifying improper industrial discharges to the storm drain system
- *Visual Inspection*. A physical examination of piping connections or analysis by closed circuit camera is used to identify possible illicit connection sites.
- *Piping Schematic Review*. Architectural plans and plumbing details are examined for potential sites where improper connections have occurred.
- *Smoke Testing*. Smoke testing is used to locate connections by injecting a non-toxic vapor (smoke) into the system and following its path of travel.
- *Dye Testing*. Colored dye is added to the drain water in suspect piping. Dyed water appearing in the storm drain system indicates an illegal connection, possibly between the sanitary sewer system and the storm drain.
- Instituting building and plumbing codes to prevent connections of potentially hazardous pollutants to storm drains.
- *Flow Monitoring.* Monitoring increases in storm sewer flows during dry periods can also lead investigators to sources of infiltration due to improper connections.
- *Inspection using video equipment*
- Instituting building and plumbing codes to prevent connections of potentially hazardous pollutants to storm drains.

LIMITATIONS:

- A local ordinance is necessary to provide investigators with access to private property in order to perform field tests (Ferguson et al. 1997).
- Rain fall can hamper efforts to monitor flows and visual inspections.

MAINTENANCE:

- Identifying illicit discharges requires teams of at least two people (volunteers can be used), plus administrative personnel, depending on the complexity of the storm sewer system.

APPLICATIONS

☒ Manufacturing
☒ Material Handling
☐ Vehicle Maintenance
☒ Construction
☒ Commercial Activities
☐ Roadways
☒ Waste Containment
☐ Housekeeping Practices

TARGETED POLLUTANTS

☐ Sediment
■ Nutrients
■ Heavy Metals
■ Toxic Materials
■ Oxygen Demanding Substances
■ Oil & Grease
■ Floatable Materials
■ Bacteria & Viruses

■ High Impact
☒ Medium Impact
☐ Low or Unknown Impact

IMPLEMENTATION REQUIREMENTS

■ Capital Costs
☒ O&M Costs
☒ Maintenance
☐ Training

■ High ☒ Medium ☐ Low

BMP: Illegal Solids Dumping Control

ISDC

DESCRIPTION:

By locating and correcting illegal dumping practices through education and enforcement measures, the many risks to public safety and water quality associated with illegal disposal actions can be prevented. Illegal dumping control is important to preventing contaminated runoff from entering wells and surface water, as well as averting flooding due to blockages of drainage channels for runoff.

APPROACH:

- Illegal dumping can occur in both urban and rural settings and can happen in all geographic regions.
- Illegal dumping control programs focus on community involvement and targeted enforcement to eliminate or reduce illegal dumping practices.
- Control programs use a combination of public education, citizen participation, site maintenance, and authorized enforcement measures to address illegal waste disposal.
- Issues that need to be examined when creating a program include the following: The locations of persistent illegal dumping activity
  Types of waste dumped and the profile of dumpers
- Possible driving forces behind illegal dumping such as excessive user fees, restrictive curbside trash pickup, or ineffective recycling programs, Previous education and cleanup efforts, Current control programs and local laws or ordinances addressing the problem, Sources of funding and additional resources that may be required.

LIMITATIONS:

- Illegal dumping is often spurred by cost and convenience considerations, and a number of factors encourage this practice
- A lack of understanding regarding applicable laws or the inadequacy of existing laws may also contribute to the problem.

MAINTENANCE:

- Efforts need to be continual.

APPLICATIONS

☒ Manufacturing
☒ Material Handling
☐ Vehicle Maintenance
☒ Construction
☒ Commercial Activities
☒ Roadways
☒ Waste Containment
☒ Housekeeping Practices

TARGETED POLLUTANTS

☐ Sediment
☒ Nutrients
■ Heavy Metals
■ Toxic Materials
☒ Oxygen Demanding Substances
■ Oil & Grease
■ Floatable Materials
■ Bacteria & Viruses

■ High Impact
☒ Medium Impact
☐ Low or Unknown Impact

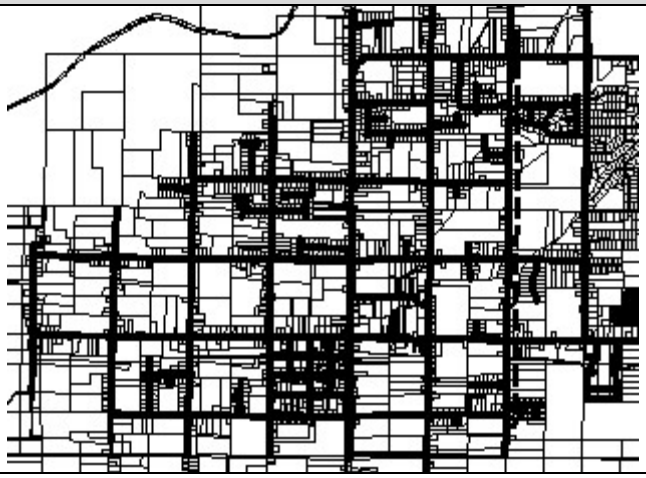
IMPLEMENTATION REQUIREMENTS

☒ Capital Costs
☒ O&M Costs
☒ Maintenance
☐ Training

■ High ☒ Medium ☐ Low

BMP: Map Storm Water Drains

MSWD



APPLICATIONS

☒Manufacturing
☐ Material Handling
☐ Vehicle Maintenance
☒ Construction
☒ Commercial Activities
☐ Roadways
☒ Waste Containment
☐ Housekeeping Practices

DESCRIPTION:

Develop an integrated storm water sewer system map that identifies existing piping, open cannels, storm drain outfalls, receiving water bodies and retention/detention basins.

APPROACH:

- Determine if effort will be out-sourced or completed in-house
- Compile existing drawings
- Gather drawings of new developments
- Convert drawings of new developments
- Identify any possible illegal discharges
- Use in determining possible causes of a pollution
- Require new developments to supply city with updated drainage maps to be integrated into the system.

LIMITATIONS:

- Some additional surveying may need to be done on existing structures
- Training may be required to familiarize with software

MAINTENANCE:

- Map will need to be updated constantly as new developments arise
- Checks and changes may be necessary as as-builds and differences are discovered
- Inspection

TARGETED POLLUTANTS

☒ Sediment
☒ Nutrients
☒ Heavy Metals
☒ Toxic Materials
☒ Oxygen Demanding Substances
☒ Oil & Grease
☒ Floatable Materials
☒ Bacteria & Viruses

■ High Impact
☒ Medium Impact
☐ Low or Unknown Impact

IMPLEMENTATION REQUIREMENTS

☒ Capital Costs
☐ O&M Costs
☐ Maintenance
☐ Training

BMP: Non-Stormwater Discharges To Drains

NSWD

APPLICATIONS

☒ Manufacturing
☐ Material Handling
☒ Vehicle Maintenance
☐ Construction
☒ Commercial Activities
☐ Roadways
☒ Waste Containment
☒ Housekeeping Practices

DESCRIPTION:
Eliminate non-stormwater discharges to the stormwater collection system.
Non-stormwater discharges may include: process wastewaters, cooling waters, wash waters, and sanitary wastewater.

APPROACH:
The following approaches may be used to identify non-stormwater discharges:

- Visual inspection: the easiest method is to inspect each discharge point during dry weather. Keep in mind that drainage from a storm event can continue for three days or more and groundwater may infiltrate the underground stormwater collection system.
- Piping Schematic Review: The piping schematic is a map of pipes and drainage systems used to carry wastewater, cooling water, sanitary wastes, etc... A review of the "as-built" piping schematic is a way to determine if there are any connections to the stormwater collection system. Inspect the path of floor drains in older buildings.
- Smoke Testing: Smoke testing of wastewater and stormwater collection systems is used to detect connections between the two systems. During dry weather the stormwater collection system is filled with smoke and then traced to sources. The appearance of smoke at the base of a toilet indicates that there may be a connection between the sanitary and the stormwater system.
- Dye Testing: A dye test can be performed by simply releasing a dye into either the sanitary or process wastewater system and examining the discharge points from the stormwater collection system for discoloration.

LIMITATIONS:

- Many facilities do not have accurate, up-to-date schematic drawings.
- Video and visual inspections can identify illicit connections to the storm sewer, but further testing is sometimes required (e.g. dye, smoke) to identify sources.

TARGETED POLLUTANTS

☐ Sediment
■ Nutrients
■ Heavy Metals
■ Toxic Materials
■ Oxygen Demanding Substances
■ Oil & Grease
☒ Floatable Materials
■ Bacteria & Viruses

■ High Impact
☒ Medium Impact
☐ Low or Unknown Impact

IMPLEMENTATION REQUIREMENTS

☒ Capital Costs
☐ O&M Costs
☐ Maintenance
☒ Training

■ High ☒ Medium ☐ Low

BMP: Ordinance Development

OD

APPLICATIONS

☒ Manufacturing
☒ Material Handling
☒ Vehicle Maintenance
☒ Construction
☒ Commercial Activities
☒ Roadways
☒ Waste Containment
☒ Housekeeping Practices

DESCRIPTION:

Existing ordinances relating to storm water are reviewed for compliance. New ordinances are written to prohibit non-storm water discharges into the Municipal Separate Storm Sewer System (MS4), require proper erosion and sediment controls on construction sites, require the implementation of post-construction runoff controls, and to ensure proper planning/zoning protections.

APPROACH:

- Review existing storm drain ordinances for consistency and compliance with state and federal regulations and make improvements, if necessary. Ensure that no conflicts will occur with new ordinances that will be written and adopted.
- Write and adopt an ordinance that prohibits (to the extent allowable under State, Tribal, or local law) the discharge of non-storm water discharges into the MS4 with appropriate enforcement procedures and actions.
- Write and adopt an ordinance, with sanctions to ensure compliance, requiring the implementation of proper erosion and sediment controls, and controls for other wastes, on applicable construction sites.
- Write and adopt an ordinance requiring the implementation of post-construction runoff controls to the extent allowable under State, Tribal, or local law.
- Educate the public about the new ordinances.
- Enforce the new ordinances.

LIMITATIONS:

- Wording of ordinances is often difficult. It should be specific to serve the intended purpose, but not too specific to cause potential conflicts with other ordinances or situations.
- Once an ordinance is adopted, it can be difficult to modify ordinances to meet changing needs.
- Ordinances have to be enforced to be beneficial.
- Ordinances take time to change.

TARGETED POLLUTANTS

☒ Sediment
☒ Nutrients
☒ Heavy Metals
☒ Toxic Materials
☒ Oxygen Demanding Substances
☒ Oil & Grease
☒ Floatable Materials
☒ Bacteria & Viruses

■ High Impact
☒ Medium Impact
☐ Low or Unknown Impact

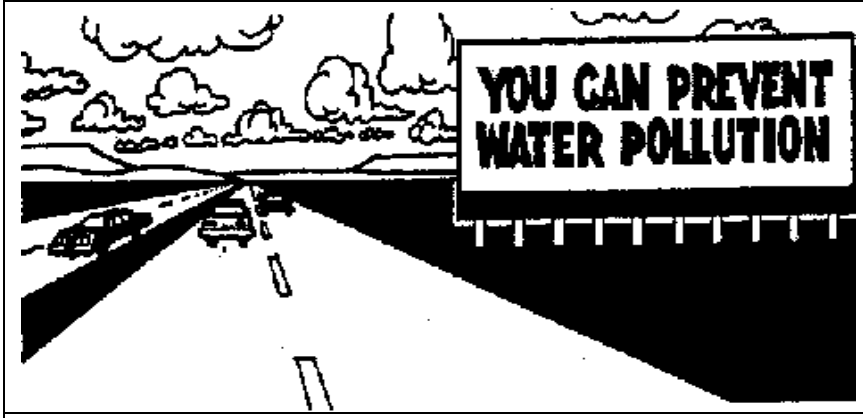
IMPLEMENTATION REQUIREMENTS

■ Capital Costs
☐ O&M Costs
☐ Maintenance
☐ Training

■ High ☒ Medium ☐ Low

BMP: Public Education/Participation

PEP



DESCRIPTION:

Public education/participation, like an ordinance or a piece of equipment, is not so much a best management practice as it is a method by which to implement BMPs. This information sheet highlights the importance of integrating elements of public education and participation into a municipality=s overall plan for stormwater quality management.

A public education and participation plan provides the municipality with a strategy for educating its employees, the public, and businesses about the importance of protecting stormwater from improperly used, stored, and disposed of pollutants. Municipal employees must be trained, especially those that work in departments not directly related to stormwater but whose actions affect stormwater. Residents must become aware that a variety of hazardous products are used in the home and that their improper use and disposal can pollute stormwater. Increased public awareness also facilitates public scrutiny of industrial and municipal activities and will likely increase public reporting of incidents.

APPROACH:

< Pattern a new program after the many established programs around the country.
< Implement public education/participation as a coordinated campaign in which each message is related to the last.
< Present a clear and consistent message and image to the public regarding how they contribute to stormwater pollution and what they can do to reduce it.
< Utilize multi-media to reach the full range of audiences.
< Translate messages into the foreign languages of the community to reach the full spectrum of your populace and to avoid misinterpretation of messages.
< Create an awareness and identification with the local watershed.
< Use everyday language in all public pieces. Use outside reviewers to highlight and reduce the use of technical terminology, acronyms, and jargon.
< Make sure all statements have a sound, up-to-date technical basis. Do not contribute to the spread of misinformation.
< Break complicated subjects into smaller more simple concepts. Present these concepts to the public in a metered and organized way to avoid Aoverloading@ and confusing the audience.

LIMITATIONS:

None

PROGRAM ELEMENTS

☐ New Development
☒ Residential
☒ Commercial Activities
☐ Industrial Activities
☒ Municipal Facilities
☒ Illegal Discharges

TARGETED POLLUTANTS

■ Sediment
■ Nutrients
■ Heavy Metals
■ Toxic Materials
■ Oxygen Demanding Substances
■ Oil & Grease
■ Floatable Materials
■ Bacteria & Viruses

■ High Impact
☒ Medium Impact
☐ Low or Unknown Impact

IMPLEMENTATION REQUIREMENTS

■ Capital Costs
☒ O&M Costs
☐ Regulatory
☒ Training
☒ Staffing
☒ Administrative

■ High ☒ Medium ☐ Low

BMP: Used Oil Recycling

UOR

Used oil can be disposed of at a waste collection facility, where it will be collected and later sent to a recycling facility

DESCRIPTION:

Used motor oil is a hazardous waste because it contains heavy metals picked up from the engine during use. Since it is toxic to humans, wildlife, and plants, it should be disposed of at a local recycling or disposal facility.

APPROACH:

- When establishing oil recycling programs, municipalities should provide the public with the proper informational resources.
- The public can also call 1-800-RECYCLE or contact Earth's 911 at www.1800cleanup.org/ for more information.
- Municipalities also need to address oil filter recycling in their recycling programs.
- To make recycling motor oil more convenient for the do-it-yourselfers, oil recycling programs should be located throughout all communities.
- Two types of programs currently in use are drop-off locations and curbside collection. Drop-off locations include service stations, recycling centers, auto parts retail stores, quick lubes, and landfills.

LIMITATIONS:

- If oil is mixed with other substances or if storage containers have residues of other substances, this can contaminate oil and make it a hazardous waste.➢

MAINTENANCE:

- Costs for used motor oil recycling programs vary depending on whether a community has already established similar types of recycling programs.
- Major costs associated with oil recycling programs include advertisement costs and oil collection costs.

APPLICATIONS

☒ Manufacturing
☒ Material Handling
☐ Vehicle Maintenance
☒ Construction
☒ Commercial Activities
☐ Roadways
☒ Waste Containment
☒ Housekeeping Practices

TARGETED POLLUTANTS

☒ Sediment
☐ Nutrients
☒ Heavy Metals
■ Toxic Materials
☐ Oxygen Demanding Substances
☒ Oil & Grease
☒ Floatable Materials
☐ Bacteria & Viruses

■ High Impact
☒ Medium Impact
☐ Low or Unknown Impact

IMPLEMENTATION REQUIREMENTS

☒ Capital Costs
☒ O&M Costs
☒ Maintenance
☐ Training

■ High ☒ Medium ☐ Low

APPENDIX D

APPENDIX D

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JUSTIFICATION FOR CHANGES

Updating Storm Water Management Program: Updates to the Storm Water Management Program must be done in accordance with Section 4.4 of the MS4 Permit with the following information submitted to the State.

BMP Name:_____

BMP Description:_____

_____

Explanation of ineffectiveness or infeasibility _____

Affected Goal_____

_____

Replacement BMP Name:_____

Replacement BMP Description:_____

_____

Anticipated Effectiveness/feasiblitiy_____

_____

Analysis of Replacement BMP:_____

_____

See attachments:

- Old BMP Fact Sheets
- Effectiveness Data
- Replacement Fact Sheet
- Anticipated Effectiveness Data
- Analysis Information

Certification and Signature. (6.8.3) (by Principal Executive Officer or Ranking Elected Official)
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.

_____
MS4 Name

_____
Print name

_____ _____
Signature Date

ONGOING DOCUMENTATION PROCESS
CITY NAME: HOOPER CITY
MCM1 Public Education Summary Table

BMP	6a	6b	6c	6d	6e	6f	6g	7

This process should take place continually, or as a minimum, annually. See BMP Fact Sheets for names and details.

Documentation question 6. Assess each BMP for Public Involvement / Participation separately to determine the following:

a. Has the BMP been implemented?
b. Has the objective of the BMP been achieved?
c. Has the objective of the BMP contributed toward attainment of Public Involvement / Participation?
d. Could the BMP implementation be better achieved?
e. Should the BMP remain for Public Involvement / Participation or be eliminated?
f. Should the BMP be modified to attain better compliance/implementation of Public Involvement / Participation?
g. Should other BMPs be identified to better attain compliance/implementation of Public Involvement / Participation?

Documentation question 7. Prepare documentation (empirical or research) to summarize each BMP to include why it has been chosen, results and recommendations. (include the data)

ONGOING DOCUMENTATION PROCESS
City Name: HOOPER CITY
MCM2 Public Participation and Involvement Summary Table

BMP	6a	6b	6c	6d	6e	6f	6g	7

This process should take place continually, or as a minimum, annually. See BMP Fact Sheets for names and details.

Documentation question 6. Assess each BMP for Public Involvement / Participation separately to determine the following:

a. Has the BMP been implemented?
b. Has the objective of the BMP been achieved?
c. Has the objective of the BMP contributed toward attainment of Public Involvement / Participation?
d. Could the BMP implementation be better achieved?
e. Should the BMP remain for Public Involvement / Participation or be eliminated?
f. Should the BMP be modified to attain better compliance/implementation of Public Involvement / Participation?
g. Should other BMPs be identified to better attain compliance/implementation of Public Involvement / Participation?

Documentation question 7. Prepare documentation (empirical or research) to summarize each BMP to include why it has been chosen, results and recommendations. (include the data)

ONGOING DOCUMENTATION PROCESS
City Name: Hooper City
MCM3 Illicit Discharge Detention and Elimination – BMP Summary Table

BMP	6a	6b	6c	6d	6e	6f	6g	7

This process should take place continually, or as a minimum, annually. See BMP Fact Sheets for names and details.

Documentation Question 6. Assess each BMP for IDDE separately to determine the following:

a. Has the BMP been implemented?
b. Has the objective of the BMP been achieved?
c. Has the objective of the BMP contributed toward attainment of IDDE?
d. Could the BMP implementation be better achieved?
e. Should the BMP remain for IDDE or be eliminated?
f. Should the BMP be modified to attain better compliance/implementation of IDDE?
g. Should other BMPs be identified to better attain compliance/implementation of IDDE?

Documentation Question 7. Prepare documentation to summarize each BMP to include why it has been chosen, results and recommendations. (include any data)

ONGOING DOCUMENTATION PROCESS
City Name: Hooper City
MCM4 Construction Site Runoff Control – BMP Summary Table

BMP	5a	5b	5c	5d	5e	5f	5g	6

This process should take place continually, or as a minimum, annually. See BMP Fact Sheets for names and details.

Documentation Question 5.Assess each BMP for Construction Site Storm Water Runoff Control separately to determine the following:

a. Has the BMP been implemented?
b. Has the objective of the BMP been achieved?
c. Has the objective of the BMP contributed toward attainment of Construction Site Storm Water Runoff Control?
d. Could the BMP implementation be better achieved?
e. Should the BMP remain for Construction Site Storm Water Runoff Control or be eliminated?
f. Should the BMP be modified to attain better compliance/implementation of Construction Site Storm Water Runoff Control?
g. Should other BMPs be identified to better attain compliance/implementation of the Construction Site Storm Water Runoff Control?

Documentation Question 6. Prepare documentation to summarize each BMP to include why it has been chosen, results and recommendations. (include any data)

ONGOING DOCUMENTATION PROCESS
City Name: HOOPER CITY
MCM5 Post Construction Runoff Control – BMP Summary Table

BMP	5a	5b	5c	5d	5e	5f	5g	6

This process should take place continually, or as a minimum, annually. See BMP Fact Sheets for names and details.

Documentation Question 5. Assess each BMP for Long-Term Storm Water Management separately to determine:

a. Has the BMP been implemented?
b. Has the objective of the BMP been achieved?
c. Has the objective of the BMP contributed toward attainment of Long-Term Storm Water Management?
d. Could the BMP implementation be better achieved?
e. Should the BMP remain for Long-Term Storm Water Management or be eliminated?
f. Should the BMP be modified to attain better compliance/implementation of Long-Term Storm Water Management?
g. Should other BMPs be identified to better attain compliance/implementation of Long-Term Storm Water Management?

Documentation Question 6. Prepare documentation to summarize each BMP to include why it has been chosen, results and recommendations. (include any data)

ONGOING DOCUMENTATION PROCESS
City Name: HOOPER CITY
MCM6 Pollution Prevention/ Good Housekeeping – BMP Summary Table

BMP	5a	5b	5c	5d	5e	5f	5g	6

This process should take place continually, or as a minimum, annually. See BMP Fact Sheets for names and details.

Documentation Question 5. Assess each BMP for Pollution Prevention and Good Housekeeping separately to determine:

a. Has the BMP been implemented?
b. Has the objective of the BMP been achieved?
c. Has the objective of the BMP contributed toward attainment of Pollution Prevention and Good Housekeeping?
d. Could the BMP implementation be better achieved?
e. Should the BMP remain for Pollution Prevention and Good Housekeeping or be eliminated?
f. Should the BMP be modified to attain better compliance/implementation of Pollution Prevention and Good Housekeeping?
g. Should other BMPs be identified to better attain compliance/implementation of the Pollution Prevent. and Good Housekeeping?

Documentation Question 6. Prepare documentation to summarize each BMP to include why it has been chosen, results and recommendations. (include any data)

ONGOING DOCUMENTATION PROCESS
CITY NAME: HOOPER CITY
MCM1 Public Education – Measurable Goal Summary Table

Measurable Goal	Implementation Date	4a. Has the goal been achieved?	4b. If not, why?	4c. Revisions to further implement control measure.	4d. Action items for obtaining goals.

This process should take place continually, or as a minimum, annually. See SWMP Goals for further details.

ONGOING DOCUMENTATION PROCESS
CITY NAME: HOOPER CITY
MCM 2 Public Participation and Involvement – Measurable Goal Summary Table

Measurable Goal	Implementation Date	4a. Has the goal been achieved?	4b. If not, why?	4c. Revisions to further implement control measure.	4d. Action items for obtaining goals.

This process should take place continually, or as a minimum, annually. See SWMP Goals for further details.

ONGOING DOCUMENTATION PROCESS
CITY NAME: HOOPER CITY
MCM 3 Illicit Discharge Detection and Elimination – Measurable Goal Summary Table

Measurable Goal	Implementation Date	4a. Has the goal been achieved?	4b. If not, why?	4c. Revisions to further implement control measure.	4d. Action items for obtaining goals.

This process should take place continually, or as a minimum, annually. See SWMP Goals for further details.

ONGOING DOCUMENTATION PROCESS
CITY NAME: HOOPER CITY
MCM 4 Construction Site Runoff Control – Measurable Goal Summary Table

Measurable Goal	Implementation Date	3a. Has the goal been achieved?	3b. If not, why?	3c. Revisions to further implement control measure.	3d. Action items for obtaining goals.

This process should take place continually, or as a minimum, annually. See SWMP Goals for further details.

ONGOING DOCUMENTATION PROCESS
CITY NAME: HOOPER CITY
MCM 5 Post-Construction Runoff Control – Measurable Goal Summary Table

Measurable Goal	Implement Date	3a. Has the goal been achieved?	3b. If not, why?	3c. Revisions to further implement control measure.	3d. Action items for obtaining goals.

This process should take place continually, or as a minimum, annually. See SWMP Goals for further details.

ONGOING DOCUMENTATION PROCESS
CITY NAME: HOOPER CITY
MCM 6 Pollution Prevention/Good Housekeeping – Measurable Goal Summary Table

Measurable Goal	Implement Date	3a. Has the goal been achieved?	3b. If not, why?	3c. Revisions to further implement control measure.	3d. Action items for obtaining goals.
Have a written policy and schedule for reference.					
Have 50% compliance with written schedule					
Have 75% compliance with written schedule					
Have 90% compliance with written schedule					
Obtain information and develop schedule on in-house training					
Instigate quarterly employee training meeting. Have a different topic each quarter					
Indentify possible locations of proper disposal of antifreeze					
Contact Business and offer incentive program					
Distribute information on disposal locations through mailer, web site and bulletin boards.					
Have 75% of identified businesses responding to request.					

This process should take place continually, or as a minimum, annually. See SWMP Goals for further details.

Permittee-Owned Facilities Evaluation Form

MS4 Name:______________________ Date of Evaluation:________________________

Section 4.2.6.3 requires that the "Permittee must identify as "high-priority" those facilities or operations that have a high potential to generate storm water pollutants." Weekly inspections are required (4.2.6.6.1), and Storm Water dischargemust be evaluated quarterly at these high priority locations (4.2.6.6.3)

Facility #:_________ Location:______________________ Description:__________________________ Determination: _____________

	Sediments	Nutrients	Metals	Hydrocarbons	Pesticides	Chlorides	Trash	Bacteria	Other
Amount (#)									
Exterior Use (Y/N)									
Proximity to Water (ft)									
House keeping effectiveness(%)									
Discharge to impaired waters(Y/N)									

Facility #:_________ Location:______________________ Description:__________________________ Determination: _____________

	Sediments	Nutrients	Metals	Hydrocarbons	Pesticides	Chlorides	Trash	Bacteria	Other
Amount (#)									
Exterior Use (Y/N)									
Proximity to Water (ft)									
House keeping effectiveness(%)									
Discharge to impaired waters(Y/N)									

Facility #:_________ Location:______________________ Description:__________________________ Determination: _____________

	Sediments	Nutrients	Metals	Hydrocarbons	Pesticides	Chlorides	Trash	Bacteria	Other
Amount (#)									
Exterior Use (Y/N)									
Proximity to Water (ft)									
House keeping effectiveness(%)									
Discharge to impaired waters(Y/N)									

Facility #:_________ Location:______________________ Description:__________________________ Determination: _____________

	Sediments	Nutrients	Metals	Hydrocarbons	Pesticides	Chlorides	Trash	Bacteria	Other
Amount (#)									
Exterior Use (Y/N)									
Proximity to Water (ft)									
House keeping effectiveness(%)									
Discharge to impaired waters(Y/N)									

High Priority Facilities Monthly Inspection Report Form

Facility Name	Inspection Date	Inspector Name	Deficiency Identified	Corrective Actions Taken

Monthly High Priority Inspection Log

City Name: Hooper City

Facility Name	Date: Jan.	Deficiencies found	Date: Feb.	Deficiencies found	Date: Mar.	Deficiencies found	Date: Apr.	Deficiencies found	Date: May	Deficiencies found	Date: June	Deficiencies found	Date: July	Deficiencies found	Date: Aug.	Deficiencies found	Date: Sept.	Deficiencies found	Date: Oct.	Deficiencies found	Date: Nov.	Deficiencies found	Date: Dec.	Deficiencies found
Public Works																								
Cemetery																								
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Note: 1) Enter Y or N for deficiencies found. If "Y" type of deficiency and corrective action taken must be documented on the Inspection note log

STREETS/STORM DRAIN – High Priority Monthly Visual Inspection

1. Preparation

    a. Identify "High Priority" facilities.

    b. Map of location.

    c. Become familiar with potential pollutants at the site.

2. Process

    a. Look for evidence of spills at the site.

    b. If a spill is found assess the general area to identify its source.

    c. Whenever possible take photographs of the suspected illicit discharge.

3. Clean-up

    a. Clean up spill immediately to prevent contact with precipitation or runoff.

    b. Initiate spill response.

4. Documentation

    a. Fill out Monthly High Priority Inspection Log for facility and mark that the monthly inspection has been completed.

    b. If a deficiency was found, make note on the Monthly High Priority Inspection Log and fill out the Note Log for that particular facility.

SEMI-ANNUAL COMPREHENSIVE INSPECTIONS
"High Priority" Facilities

Qualified personnel shall conduct site compliance evaluations at appropriate intervals specified in the plan.

Inspection Frequency: □ Semi-annually

Date of Evaluation_____

Area Evaluated	Y/N	Mainten. Required Y/N	Comments
High Priority Facility	-	-	
Evidence of Spills?			List Pollutants:
If spill was it cleaned up?			
Any identified deficiencies?			
Waste Storage Areas			
Dumpsters			
Vehicle & Equipment maintenance areas			
Vehicle & Equipment fueling areas			
Material handling areas			
Pollutant generating areas			

This report shall be made and retained as part of the Storm Water Pollution Prevention Plan

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

Name of Examiner_____ Title_____

Signature_____Date_____

Semi-Annual Comprehensive Inspection Log

City Name: Hooper City

Facility Name	1st Half	Date complete	2nd Half	Date complete
Public Works				
Cemetery				
Public Works				
Cemetery				
Public Works				
Cemetery				
Public Works				
Cemetery				
Public Works				
Cemetery				

STREETS/STORM DRAIN – High Priority Semi-Annual Comprehensive Inspection

1. Preparation
    a. Identify "High Priority" facilities.
    b. Map of location.
    c. Become familiar with potential pollutants at the site.
2. Process
    a. Look for evidence of spills at the site.
    b. If a spill is found assess the general area to identify its source.
    c. Whenever possible take photographs of the suspected illicit discharge.
    d. Inspect all waste storage areas and dumpsters.
    e. Inspect for leaks.
    f. Have repairs made immediately by responsible party.
    g. Inspect vehicle maintenance and fueling areas.
    h. Look for pollutant generating areas and inspect.
    i. Material handling areas.
    j. Pollutant generating areas.
3. Clean-Up
    a. Clean up spill immediately to prevent contact with precipitation or runoff.
    b. Initiate spill response.
4. Documentation
    a. Fill out a Quarterly Comprehensive Inspection sheet for each facility.
    b. Document the inspection was complete on the Quarterly Comprehensive Log sheet along with the date it was completed.

Storm Water Collection Procedures

- Collection preformed by _____
- Examinations shall be conducted one time per year.
- At the beginning of a storm event monitor the time and rainfall amount, sample with in the first 30 minutes or as soon as practical, but not to exceed 1 hour. There needs to be at least 1/10 of an inch of rainfall and at least 72 hours after the last storm
- Obtain enough clear glass jars from storage to sample all locations. Volume of the jars should be at least 16 oz (a pint) with lid.
- Also obtain materials to label jar.
- Collect water at the system discharge point (pipe end, weir, or other structure that is at the end of your system), *do not* sample water in the stream that your system discharges
- Collect at least 12 oz.
- Place lid.
- Label the jar with the place, time, and date of collection.
- Complete the *At time of sampling* portion of the *Visual Storm Water Discharge Examination Report* for this site.
- Repeat at other collection sites.
- Return to shop/office and place sample containers in a area where they will not be disturbed.
- Wait at least on hour and finish the *Visual Storm Water Discharge Examination Report.*
- Fill report in Appendix B of *The Public Facilities Storm Water Pollution Prevention Plan.*.
- Take photograph of sample and attach to *Visual Storm Water Discharge Examination Report.*

VISUAL STORM WATER DISCHARGE EXAMINATION REPORT

Name of Examiner _____ Permit No. UTR 090046

Date of Examination: _____

Total Storm Water Discharge Points: _____ Number assigned to this Discharge Point: _____

Unable to collect samples due to adverse conditions ☐

Reason for not performing visual examination _____

Adverse conditions include: dangerous weather conditions (flooding, high winds, hurricane, tornadoes, electrical storms, etc.) Other conditions that may make collection impracticable include drought, extended frozen conditions, etc.

Nature of Discharge (i.e., runoff or snowmelt) _____

Rainfall Event: _____ inches

Visual Quality of Storm Water Discharge (circle one)

At Time of Sampling:

Color: clear brown green rust other: _____

Odor: Yes / No

Clarity: ☐ ☐ ☐ ☐ ☐

Floating Solids: Yes / No

Foam: Yes / No

After One Hour of Settling:

Settled Solids: Yes / No

Suspended Solids: Yes / No

Oil Sheen: Yes / No

Other obvious indicators of storm water pollution: _____

_____

Probable sources of any observed storm water contamination: _____

_____

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

Name of Examiner_____ Title_____

Signature_____Date_____

STREETS/STORM DRAIN – High Priority Annual Inspection

1. Preparation

    a. Identify "High Priority" facilities.

    b. Map of location.

    c. Become familiar with potential pollutants at the site.

    d. Obtain enough clear glass jars from storage to sample all locations. Volume of the jars should be at least 16 oz (a pint) with lid.

2. Process

    a. At the beginning of a storm event monitor the time and rainfall amount, sample within the first 30 minutes or as soon as practical, but not to exceed 1 hour. There needs to be at least 1/10 of an inch of rainfall and at least 72 hours after the last storm.

    b. Collect at least 12 oz. of water at the system discharge point (pipe end, weir, or other structure that is at the end of your system).

    c. Label the jar with the place, time, and date of collection.

    d. Repeat at other collection sites.

    e. Return to shop/office and place sample containers in an area where they will not be disturbed.

3. Documentation

    a. Fill out the "at time of sampling" portion of the Visual Storm Water Discharge Examination Report on-site.

    b. Wait at least on hour and finish the Visual Storm Water Discharge Examination Report.

    c. Fill report in Appendix B of The Public Facilities Storm Water Pollution Prevention Plan.

    d. Take photograph of sample and attach to Visual Storm Water Discharge Examination Report.

Construction Site Enforcement Log

				Escalating Enforcement History					
Date	Location	Responsible Party	Offense	1st Level	2nd Level	3rd Level	4th Level	Date Complete	Date Verified

Records shall be kept for five years or until Construction is complete.

UPDES STORM WATER INSPECTION EVALUATION FORM FOR SWPPP COMPLIANCE

BACKGROUND INFORMATION

Site Name:	UPDES Permit #:
Site Address:	
Local Jurisdiction or County:	
Permit Effective Date:	Permit Expiration Date:
Total Project Area:	Total Disturbed Area:

Project Type: (circle) *Subdivision* *Commercial* *Industrial* *Linear (Road/Pipe/Power)* *Land Disturbance*

OPERATOR CONTACT INFORMATION

	NAMES	PHONE NUMBERS	E-MAIL
Operator:			
Onsite Facility Contact:			
Important Contacts:			
Important Contacts:			

SWPPP PRE-SITE REVIEW INFORMATION

	YES	NO
1. Has a pre-construction review of the SWPPP been conducted by the appropriate municipal agency?		
2. Are contact names and telephone numbers listed in the SWPPP?		
3. Does the SWPPP include a site map showing storm drains, slopes/surface drainage patterns, SW discharge points, construction boundaries, limits of disturbance, surface waters (name of receiving water), structural controls, and does it define/explain non-structural controls?		
4. Does the SWPPP have an estimate of the area to be disturbed, a sequence of construction activities, the SW runoff coefficient for after completion, a description of the soil types, controls for discharges from (asphalt/concrete) batch plants if any, show wetland areas, and have a desription of the nature of the construction activity?		
5. Does the SWPPP and site map show erosion and sediment controls placement & details (e.g. erosion blankets, mulch, slope drains, check dams, sediment basins, grass-lined channels, fiber rolls, sediment traps, silt fence, inlet protection, curb cut-back, dust control, etc?)		
6. Does the SWPPP and site map show and describe good housekepping controls (e.g. track out pad, street sweeping, material storage, construction waste containment and removal, sanitary waste, concrete washout pits, etc)		
7. Are post-construction elements included in the SWPPP? (i.e. grass swales, detention basins, vegetated filter strips, infiltration, depression storage, landscaping/xeriscaping, discontinuous concrete or hard surface SW conveyance, etc.)		
8. Does the SWPPP address endangered species and historic preservation?		
9. Is the SWPPP signed by a responsible corporate officer with the certification statement (see permit part 5.16.c.)?		
10. Are the NOI and a copy of the State permit in the SWPPP?		

NOTICE OF TERMINATION (NOT) INSPECTION

Site Name:	Date of Evaluation:
Site Address:	
Inspected By:	Title\Organization:

	YES	NO	COMMENTS:
1. Has the site been properly stabilized according to permit requirements?			
2. Have all temporary BMPs been removed?			
3. Have post-construction (permanent storm water system) elements been constructed and inspected in accordance with approved project drawings?			
4. Is the site acceptably clean?			

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.

Inspector:

(Print Name) (Title) (Signature) (Date)

Operator:

(Print Name) (Title) (Signature) (Date)

modified 8/12/10

(Attach additional sheets of narrative, pictures and checklists, as necessary)

ADDITIONAL COMMENTS AND CORRECTIVE ACTIONS FOR SWPPP COMPLIANCE

Site Name:	Date of Evaluation:	Page	of
Site Address:			

EPA Form 3560-3 SEV Codes and Descriptions

DOR11		Discharge without a permit	BR19B		Failure to properly operate and maintain BMP's
DOR18		Failure to apply for a Notice of Termination	BR19A		Failure to properly install/implement BMP's
BOR12		Failure to conduct inspections	EOR16		Failure to submit required report (non-DMR)
BOC17		Failure to develop any or adequate SWPPP/SWMP	AOR22		Narrative effluent violation

BOC18		Failure to implement SWPPP/SWMP	DOR12		Failure to submit required permit information
BOR41		Failure to maintain records	AOR12		Numeric effluent violation
COR11		Failure to monitor	BOR42		Violation of a milestone in an order

SWPPP COMPLIANCE INSPECTION FORM

Project Name:	Address:	Date:
Owner:	Contractor (Gen/Sub):	Start time:
Site Contact:	Phone:	Stop time:
UPDES Permit #: Expiration:	Weather: Sunny Cloudy Raining Snowing Other:	
Date of last rain event:	Duration:	Approx. Rainfall (in):
Inspected By (Print):	Local Jurisdiction or County:	
Reason for Inspection: Scheduled Complaint/Tip Random	Receiving Waters:	
Inspection Code (circle): SW sampling / SW non-sampling	Inspector Code (circle): (S) State / (L) Local	Type Code (circle): 1 - Municipal 2 - Industrial 3 - State

SWPPP, EROSION, SEDIMENT AND HOUSEKEEPING BMP's INFORMATION	YES	NO	N/A
1. Is the SWPPP on site and accessible, or is the SWPPP location posted in an obvious place and reasonably accessible (in a short time)?			
2. Are erosion control, sediment control, and good housekeeping BMP's installed on the site as shown in the SWPPP?			
3. Has the SWPPP been updated to reflect the current site conditions (modifications dated & initialed on site map, new BMPs on site map, discontinued BMPs crossed off site map, new BMP details & spec's in SWPPP, SWPPP amendment Log, etc.)?			
4. Are on-site inspections being performed and recorded by a qualified person on a weekly or biweekly basis, reporting items required by permit? (Inspector name &qualifications, weather, problems/repairs, corrective action, new BMPs, removed BMPs, discharges, etc.)			
5. Have all corrective action items from previous inspections been addressed and documented within the time frame allotted by the inspector?			
6. Are SW flows entering and leaving the construction site controlled, managed, or diverted around the site? (e.g. perimeter controls, berms, silt fence, upgradient boundary diversion, down gradient boundary sediment control, etc.)			
7. Is there evidence of sediment discharge such as mud flows or soil deposits from the construction site in downstream locations?			
8. Is there evidence of vehicles tracking soil off the construction site?			
9. Is there soil, construction material, landscaping items, or other debris piled on impervious surfaces (roads, drives) that could be washed with SW to a storm drain or water body?			
10. Is there a need to repair, maintain, or improve erosion control BMPs (temporary stabilization, erosion blankets, mulch, vegetated strips, rip rap, surface roughening, pipe slope drain, dust control, etc)?			
11. Is there a need to repair, maintain, or improve sediment control BMPs (silt fence, check dams, fiber rolls, sediment trap/basin, inlet protection, waddles, straw bails, curb cut-back, etc?			
12. Is there a need to repair, maintain, or improve good housekeeping controls (clean track out pad, sweeping, construction materials management, litter/trash control, port-o-potties staked down, fueling areas, concrete wash out area, proper curb ramps, spill prevention, etc)?			
13. Are there disturbed areas that have not had construction activities for 14 to 21 days without stabilization? (except snow or frozen ground)?			
14. Are there places where BMPs are needed and should be installed or not needed and should be removed?			

COMMENTS AND CORRECTIVE ACTIONS FOR SWPPP COMPLIANCE

Identify the problem and its location. If appropriate, describe (in general terms) what needs to be completed. However, only if qualified (e.g., you are a designer) should you be mandating specific BMPs to install. Include the date when corrections are made.

Inspector, please list all applicable SEV codes:

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.

Inspector:

(Print Name) (Title) (Signature) (Date)

Operator:

modified 8/12/10 (Print Name) (Title) (Signature) (Date)

(Attach additional sheets of narrative, pictures and checklists, as necessary)

ADDITIONAL COMMENTS AND CORRECTIVE ACTIONS FOR SWPPP COMPLIANCE

Site Name:	Date of Evaluation:	Page of
Site Address:		

EPA Form 3560-3 SEV Codes and Descriptions

DOR11		Discharge without a permit	BR19B		Failure to properly operate and maintain BMP's
DOR18		Failure to apply for a Notice of Termination	BR19A		Failure to properly install/implement BMP's
BOR12		Failure to conduct inspections	EOR16		Failure to submit required report (non-DMR)
BOC17		Failure to develop any or adequate SWPPP/SWMP	AOR22		Narrative effluent violation
BOC18		Failure to implement SWPPP/SWMP	DOR12		Failure to submit required permit information
BOR41		Failure to maintain records	AOR12		Numeric effluent violation
COR11		Failure to monitor	BOR42		Violation of a milestone in an order

TRAINING SCHEDULE

Training Topic	Who	How Often	Paragraph
-Low impact development -Green infrastructure -Post construction practices -BMP's chose in the swmp	-MS4 Engineers -Development and plan review staff, -Land use planners -Others	Not specified	4.2.1.6
IDDE Program -Identification -Investigation -Termination -Cleanup -Reporting -How to identify a spill -Improper disposal	-All field staff -Office personnel	Annually	4.2.3.11
-Implementing a construction storm water program -Permitting -Plan review -Construction site inspections -Enforcement	Staff with following responsibilities: -Implementing the construction storm water program -Permitting -Plan review -Construction site inspections -Enforcement -Third party inspectors	Not specified	4.2.4.5
Fundamentals of long-term storm water management through the use of structure and non-structural BMPs.	All staff involve -In post-construction storm water management -Planning and review -Inspections and enforcement	Not specified	4.2.5.6
Preventing or reducing pollutant runoff from all Permittee owned or operated facilities	-All staff	Not specified	4.2.6
Use, storage, and disposal of chemicals	-Those responsible for handling chemicals	Not specified	4.2.6.4.1
-Importance of protecting water quality -Requirements of SWMP permit -Operation and maintenance requirements -inspection procedures, -Ways to perform their job activities to prevent or minimize impacts to water quality -SOP's for the various Permittee-owned facilities -Procedures for reporting water quality concerns; including potential illicit discharges -Changes in procedures	All employees who have primary construction, operation, or maintenance job functions that are likely to impact storm water quality	Not specified	4.2.6.9
Illicit Discharge/Waste Disposal - Equipment inspection - Storage of industrial materials - Disposal of waste - Management of dumpsters - Minimizing Salt/De-icing - On-site infiltration - Maintenance of parking lots	Employees of owned or operated facilities	Not specified	4.2.1.5

Training Log

Date of Training	Description of Training	Signature

APPENDIX E

10-4A-14 Drainage

The Planning Commission shall not recommend approval of any Final Plat which does not make adequate provision for storm water for both flood water runoff control and water quality control including, but not limited to channels, catch basins, drywells detention ponds, retention facilities, low impact development and surface water treatment. Plans shall be reviewed for compliance with the Hooper City Development Standards and Specifications, or other standards as may be adopted. The storm water drainage system shall be separate and independent of the sanitary sewer system, the land drain system, and any other system. Storm drains, where required, shall be designed in accordance with the criteria provided below and a copy of design computations and water quality report in accordance with the City's Low Impact Development Handbook shall be submitted along with Construction Drawings. Inlets shall be provided so that surface water is not carried across or around any intersection, nor for a distance of more than four hundred (400) feet in gutters, regardless of the calculated gutter capacity. When calculations indicate that gutter capability is exceeded, catch basins shall be used to intercept flow. Catch basin shall be used to collect and convey storm water at intersections. Surface water drainage patterns of the project site shall be shown on a Grading and Drainage Plan defined later in this chapter.

In conjunction with the preparation of the Grading and Drainage Plan, the City Staff may require the applicant to meet with the Hooper City Public Works Director and others as needed in order to gain an understanding of existing upstream and downstream storm drainage, field drainage, and irrigation run-off issues so that these important considerations can be incorporated into the Plan. If the meeting is required, the Planning Commission shall not recommend Final Plat approval if this meeting has not occurred.

The applicant may be required by the Planning Commission, upon the recommendation of the City Staff, to carry away by pipe or open channel (Hooper or Howard Sloughs) any spring or surface water that may exist either previously to, or as a result of the development. Such drainage facilities shall be located in the road right-of-way where feasible, or in approved perpetual unobstructed easements of appropriate width and length, and shall be constructed in accordance with the development standards and specifications. Hooper City will not maintain storm drain facilities located on private property or beyond the City's right-of-way, including rear-lot drainage facilities, even those located within public utility easements.

Underground storm drain systems shall be constructed throughout the development and be connected to an approved out-fall. No outfall will be approved which does not allow for gravity flow to a discharge point that is high enough in elevation to prevent surcharging into the development's drainage system. In addition, the City reserves the right to dictate flowline elevations in the storm drain system that allow for an appropriate level of "freeboard" in the storm drain system or to pass "nuisance" water at a control structure.

Inspection of facilities within the City's right-of-way shall be conducted by the City. If a future connection to a public storm drain will be provided, as determined by the City Staff, the developer shall make arrangements for future storm water at the time the plat receives final approval. Provision for such connection shall be incorporated into the development plans.

No development shall be approved unless adequate drainage will be provided to an approved drainage watercourse or facility as determined by the City Staff based upon approved pipeline slopes and flowline elevations

A. Accommodation of Upstream Drainage Areas

Culverts or other drainage facilities shall be large enough to accommodate potential runoff from the entire upstream drainage area, whether inside or outside the development. The proposed drainage facilities shall be designed so that there is no negative impact on the upstream drainage through pipe size restrictions, abrupt grade changes, reverse grade, and so forth. The developer shall hire a qualified engineer to determine the necessary size of the facility, based on the provisions of the development standards and specifications assuming conditions of a ten-year year storm event for pipeline design and a one-hundred year storm event for detention basin design. The pipeline design shall also include capacity for other water from other sources besides storm events. The City Staff shall review and approve the design. Offsite drainage improvements, completed at the developer's expense, may be required in order to preserve the integrity of the existing drainage system.

B. Effect on Downstream Drainage Areas

To determine the effect the development will have on existing downstream drainage facilities outside the project area, the developer shall submit a storm water drainage study prepared by a qualified engineer. City and County storm drainage studies, together with the City's Storm Drain Master Plan, may serve as a guide to determine needed improvements. Where it is anticipated that the additional runoff will overload an existing downstream drainage facility, the Planning Commission may require the applicant to improve the facility in order to serve the development or provide additional on-site drainage facilities.

C. Flood Plain and Low Elevation Areas

The Planning Commission may, upon recommendation of the City Staff when determined necessary for the health, safety, or welfare of the present and future population of the area and for the conservation of water, drainage, and sanitary facilities, prohibit the development of any portion of the property which lies within the flood plain of any stream, lake or drainage course, or areas low in elevation having evidence of standing water or high groundwater. These flood plain and low-lying areas should be preserved from any and all disturbance or damage resulting from clearing, grading, or dumping of earth, waste material, or vegetative debris.

D. Dedication of Drainage Easements

Where a development is traversed by a watercourse, drainage way, or channel, , there shall be provided a storm water easement or drainage right-of-way conforming substantially to the historic high water lines of such watercourse, as determined by the City Staff. Watercourses, drainageways, and channels shall be piped, with the exception of the Hooper and Howard Sloughs, it is desirable that these sloughs be maintained by an open channel with landscaped banks.

Where topography or other conditions make the inclusion of drainage facilities within road rights-of-way impractical, perpetual unobstructed easements at least twenty (20) feet in width for such drainage facilities shall be provided across property outside the road right-of-way lines. This requirement applies to piped drainage channels as well, with the final width, length, access surface, and location of the easement to be approved on a case-by-case basis. Such easements shall include satisfactory access to the road. Easements shall be indicated on the Final Plat and be dedicated to Hooper City, or other applicable entity.

Drainage shall be carried from the road to a natural watercourse or to other approved City drainage facilities. When a proposed drainage system will carry water across private land outside the development or to a private drainage facility, appropriate drainage easements and agreements must be secured during the Preliminary Plat phase of development and indicated on the plat.

The applicant shall dedicate to the City or other appropriate agency, by drainage or conservation easement of land on both sides of existing watercourses, to a distance to be determined by the Planning Commission and City Staff.

E. Drainage Ways and Irrigation Ditches

All existing drainage ditches within, abutting or adjacent to subdivisions or development, or impacted by new development, shall be piped in accordance with development standards and specifications. Notification and approval from irrigation companies for development may be required in certain circumstances as determined by the City if the development impacts irrigation works uses or access.

F. Drainage Facilities

All drainage facilities as herein required shall include considerations for both flood control and water quality control.

1. Flood control facilities shall be based upon estimates of peak and total discharges. Flood control facilities shall be designed by the Rational Method, or other methods as approved by the City Engineer. Flood control plans are to facilitate a 10-year, 1-hour storm event for pipeline design and a 100-year storm event for detention basin design. An off-site discharge rate to an approved storm drain outfall of 0.15 cfs per acre is the maximum allowed.
2. Detention basins are flood control facilities, and the design shall incorporate “bypass” or “short circuit” control boxes in lieu of “pass through” detention basin which shall not be approved. The control box will allow design storm flows and “nuisance” water to pass and will only fill the detention basin if the design storm is exceeded. An overflow shall also be included in the control box to prevent overtopping of the detention basin. Detention basin shall be landscaped in accordance with City landscaping standards and specifications.
3. Water quality control facilities shall be designed and constructed in accordance with the Hooper City Low Impact Development Handbook (handbook) and will consider both retention and water quality treatment methods as prescribed in the handbook.
4. Retention facilities are water quality facilities, and the design shall include measures targeted at mimicking predevelopment hydrologic discharge conditions.

G. Grading and Drainage Plan

1. The applicant shall submit a drainage plan to the City Staff prior to preliminary plat approval.
    a. Upon review and acceptance of the drainage plan, the City may approve the final plat.
    b. No grading, filling, clearing, or excavation of any kind shall be initiated until the City approves the drainage plan and an excavation permit, if required, is obtained from the Hooper City Public Works Director.
2. The drainage plan shall be drawn to scale and shall include, but not be limited to, the following:
    a. Topography at 2-foot intervals. The proposed grading shall be indicated by solid-line contours superimposed on dashed-line contours of existing topography. In case of predominantly level topography throughout a development, one-foot (1’) contour intervals may be required.
    b. North arrow, road and lot layout, and development name.

c. Location of all existing water courses, canals, ditches, land drains, springs, wells, culverts and storm drains.

d. The flood hazard zone(s) if the development is in an area of special flood hazard.

e. Wetlands delineation, if applicable.

f. Essential elements, alignments, and functions of the proposed drainage system including, but not limited to, inlets, outlets, catch basins, manholes, , culverts, detention basins orifice plates, pumps, water quality features, retention and infiltration facilities necessary, outlets to off-site facilities, and off-site facilities planned to accommodate the project drainage.

g. The drainage plan shall indicate by flow arrows, contours, spot elevations, or some other acceptable manner, where storm water will be routed for the property. It must show the location and size of any flows onto the site from outside the property boundaries as well as any discharges leaving the site. The drainage plan must be prepared in a way that prevents run-off onto adjacent properties. Rear-lot drainage facilities may be approved as an option but is rarely an acceptable alternative to grading with imported fill and/or retaining structures. The City does not maintain private rear-lot drainage facilities.

h. When drainage courses and irrigation facilities exist on-site, the owner and/or applicant shall provide documentary evidence of consent to re-routings by all interested landowners and drainage and irrigation entities affected and having rights to, and in, such facilities; and

i. Other supplemental data as may be required by the City Staff.

HISTORY
Amended by Ord. O-2014-3 on 11/6/2014

ORDINANCE #0-2007-4

STORM WATER AND DRAINAGE

AN ORDINANCE OF HOOPER CITY ADOPTING CHAPTER 3 OF TITLE VI STORM WATER AND DRAINAGE. TO ENACT REGULATIONS TO COMPLY WITH PHASE II OF THE FEDERAL CLEAN WATER ACT; AND TO OTHERWISE REGULATE STORM WATER AND DRAINAGE.

WHEREAS, HOOPER City (hereafter "City") is a municipal corporation, duly organized and existing under the laws of the state of Utah; and

WHEREAS, Utah Code Annotated 10-8-13 allows municipalities to regulate conduits, drains, and the like; and

WHEREAS, Utah Code Annotated 10-8-38 empowers municipalities to contract, reconstruct, maintain, operate, control, and charge for the use of culverts, drains, catch basins, and all systems and facilities necessary for proper drainage; and

WHEREAS, the City desires to comply with Phase II of the Federal Clean Water Act; NOW, THEREFORE, be it ordained by the City Council of HOOPER as follows:

Section 1: Enactment. The following Chapter is enacted as part of Title VI Health and Sanitation and such shall read as follows:

Chapter 3. Storm Water and Drainage

Part 1

Storm Drainage

6-3-1. Findings.

The City Council makes the following findings regarding storm water runoff and the City's storm water system:

1. The City's existing storm water system consists of a network of man-made and natural facilities' structures and conduits, including groundwater and aquifers, that collect and route storm water runoff.
2. Uncontrolled or inadequately controlled storm water runoff endangers the City's groundwater supply.
3. Uncontrolled or inadequately controlled storm water runoff causes erosion and property damage.
4. Uncontrolled or inadequately controlled storm water runoff hinders the City's ability to provide emergency services to its residents.
5. Uncontrolled or inadequately controlled storm water runoff impedes the regular flow of traffic in the City.
6. Uncontrolled or inadequately controlled storm water runoff poses health hazards to the citizens of the community and the risk of flooding private property and houses.
7. Storm water runoff carries concentrations of oil, grease, nutrients, chemicals, heavy metals, toxic materials, and other undesirable materials that may jeopardize the integrity of ground waters and receiving waters.
8. Absent effective maintenance, operation, regulation and control, existing storm water drainage conditions in the City constitute a potential hazard to the health, safety and general welfare of the City, its residents, and its businesses.

6-3-2. Purpose

The purpose of this ordinance is to protect and promote the public health, safety and general welfare, and to safeguard the natural and man-made resources of the City by regulating natural and man-made drainage systems and facilities. This purpose is accomplished by imposing conditions and requirements upon existing and proposed development and/or construction activities, and by establishing procedures by which these requirements and conditions are to be administered and enforced.

6-3-3. Policies

A. The City has a role in the management of drainage through authorization, planning and maintenance of facilities within City rights-of-way to reduce the adverse effects of storm water runoff and to satisfy state and federal statutes, regulations and requirements.

B. It shall be the responsibility of individual property owners of land within the incorporated areas of the City, whether developed or undeveloped, to maintain storm water conveyance facilities, such as waterways, streams, creeks, ditches, swales, channels, canals, conduits and culverts, and storm water control facilities, such as ponds and lakes within their property. Where existing storm water facilities are determined to be deficient and a public nuisance, the City may notify the property owner of the deficiencies, and the property owner shall be responsible to correct the deficiencies either through maintenance or new construction. If the property owner fails to correct the deficiencies after being notified by the City, the City may arrange for the deficiencies to be corrected and recover all costs thereto from the property owner. However, the recovery of costs from property owners is subject to appeal as described in Section 6-3-30.
C. Individual property owners may be permitted to construct drainage facilities within the City's existing right-of-way along their property frontage to replace existing ditches and swales in accordance with standards described herein and with proper authorization (permits) from the City. The City shall have the right to dictate the size and type of drainage facilities to be constructed within City streets and rights-of-way. Costs to construct said facilities shall be the responsibility of the individual property owners. Maintenance of said facilities (within the City's streets or existing right-of-way) will be the responsibility of Hooper City.
D. All land within the incorporated areas of the City to be developed, shall have sufficient storm drainage systems in place to provide adequate protection of life, property and natural resources. To ensure this protection, the minimum design requirements for drainage facilities have been adopted in Title 10 of the Hooper City Code.
E. This ordinance does not imply that properties within the City shall always be free from flooding or flood damage, surface water stagnation or non-point source pollution or that all flood control and water treatment projects to control the quantity and quality of runoff can be constructed cost-effectively. Nothing whatsoever in this ordinance should be construed as or be deemed to create additional duties on the part of Hooper City or hold the City liable for any damages incurred in a flood or from adverse water quality due to storm water runoff. Nothing in this ordinance shall be deemed to waive the City's immunity or defenses under state or federal law or reduce the need or necessity for flood insurance.

6-3-4. Definitions.

The following bolded words and phrases shall be defined as follows for the purpose of this Chapter.

1. **Adding or Connecting to:** Any ditch, pipe, channel, swale or other device for the diversion or transmission of storm drainage which will in any way affect the operation or maintenance of the receiving storm water conveyance.
2. **Applicant:** The owner of a site who executes the forms required for requesting the authorization to construct a project pursuant to this ordinance.

3. **Application:** Application form to be submitted by applicant requesting the authorization of the City to construct a project pursuant to this ordinance.
4. **Best Management Practices BMP's:** A wide range of management procedures, schedules of activities, prohibitions or practices, maintenance procedures, and other management practices which have been demonstrated to effectively control the quality and/or quantity of storm water runoff and which are compatible with the planned land use. BMPs also include treatment requirements, operating procedures, and practices to control site runoff, spillage or leaks, sludge or waste disposal or drainage from raw material storage. A list of sample BMP's and their effectiveness ratings can be found in the most recent copy of the Hooper City Storm Water Management Plan (available at the Hooper City Hall and on the City's website.
5. **Catch Basin;** A drain inlet designed to keep out large or obstructive matter.
6. **Debris:** Any dirt, rock, sand, vegetation, rubbish or litter.
7. **Design Professional:** Storm water system must be designed by an individual who meets the Utah occupational licensing requirements for the type of engineering proposed.
8. **Detention Basin:** An area designed to detain peak flows from storm water runoff and to regulate release rates of that water into the City's storm drainage system. Detention basin outlets are connected directly to downstream storm drains. All flows entering detention basins are released via outlet piping.
9. **Developer:** A person engaged in land, site, or building development.
10. **Development:** Any man-made change to improved or unimproved real estate, including but not limited to site preparation, filling, grading, paving, excavation, and construction of building or other structures.
11. **Director:** The Public Works Director of Hooper City or his duly appointed deputy, agent, or representative.
12. **Disturb:** To alter the physical condition, natural terrain or vegetation of land by clearing, grubbing, grading, excavating, filling, building or other construction activity.
13. **Drain Inlet:** A point of entry into a sump, detention basin, or storm drain system.
14. **Drainage Nuisance:** Unapproved obstructions of swales, ditches, culverts, pipes, or other storm water conveyances shall constitute a drainage nuisance.
15. **Facility:** Shall mean a storm water management facility, and shall include all land materials, and appurtenances used in construction and operation or said facility. Facilities include, but are not necessarily limited to constructed wetlands, infiltration systems, retention ponds, detention ponds, grassed swales, ditches, etc.
16. **Fill:** Any act, or the conditions resulting there from, by which soil, earth, sand, gravel, rock or any similar material is deposited, placed, pushed, pulled or transported.
17. **Garbage:** Animal and vegetable refuse resulting from the handling, preparation, cooking and consumption of food, including a minimum amount of liquid necessarily incident thereto; pieces of concrete masonry, lumber, metal, paper, glass and other refuse.
18. **Grading:** Any act causing disturbance of the earth. This shall include but not be limited to any excavating, filling, stockpiling or earth materials, grubbing, root mat or topsoil disturbance, or any combination of such.

19. **Hazardous Material:** Any material, including any substance, waste, or combination thereof, which because of its quantity, concentration, or physical, chemical, or infectious characteristics may cause or significantly contribute to, a substantial presence or potential hazard to human health, safety, property, or the environment when improperly treated, stored, transported, disposed of, or otherwise managed. Hazardous material includes, but is not limited to, any hazardous substance designated under 40 CFR part 116 pursuant to section 311 of the Clean Water Act.
20. **Illicit Connection:** Illicit connection means either of the following:
    a. Any drain or conveyance, whether on the surface or subsurface, which allows an illicit discharge to enter the storm drain system. Examples include, but are not limited to, any conveyances which allow non-storm water discharge such as sewage, process wastewater, or wash water to enter the storm drain system, and any connections to the storm drain system from indoor drains or sinks; or
    b. Any drain or conveyance connected to or discharging to the storm drain system, which has not been (1) documented in plans, maps, or equivalent records submitted to the City, and (2) approved in writing by the City.
21. **Illicit Discharge:** Any non-storm water discharge to the storm water system. Illicit discharges include both direct connections (e.g. wastewater piping either mistakenly or deliberately connected to the storm water system) and indirect connections (e.g. infiltration into the storm water system or spills collected by drain inlets.)
22. **Land Development:** Any development of a parcel, lot, subdivision plat or site plan. If there is more than one lot in the subdivision plat or site plan, all lots in the subdivision plat or site plan shall jointly be considered to be part of the land development.
23. **Land Disturbing Activity:** Any earth movement and land use changes which may result in soil erosion or the movement of sediments into water or onto other lands, including, but not limited to, tilling, clearing, grading, excavating, stripping, filling and related activities, and the covering of land surfaces with any structure or impermeable material. Except, mowing and bush hogging operations, which do not disturb the root mat shall not be considered land disturbing activity.
24. **Owner:** The owner or owners of a site on which land disturbing activity is, will, or has been done.
25. **Permit:** Any and all permits required by federal, state and local ordinances, and regulations.
26. **Person:** Any individual, corporation, partnership, association, company or body politic, including any agency of the State of Utah and the United States government.
27. **Pollutant:** Dredged spoil, solid waste, incinerator residue, filter backwash, sewage garbage sewage sludge, munitions, chemical wastes, biological materials, radioactive materials, heat, wrecked or discarded equipment, rock, sand, cellar dirt, industrial, municipal and agricultural waste, pints, varnishes, and solvents, oil and other automotive fluids; non-hazardous liquid and solid wastes and yard wastes; refuse, rubbish, garbage, litter, or other discarded or abandoned objects, articles, and accumulations, that may cause or contribute to pollution; floatables, pesticides, herbicides, and fertilizers; hazardous substance, and wastes; sewage, fecal coliform and pathogens; dissolved and

particulate metals; animal wastes; wastes and residues that result from constructing a building or structure (including but not limited to sediments, slurries, and concrete resonates); and noxious or offensive matter of any kind.

28. **Private Facility:** Any storm water management facility not owned and operated by the City or other government agency.
29. **Public Facility:** Any storm water management facility owned and operated by Hooper City, Weber County, or State of Utah.
30. **Public Nuisance:** The following enumerated and described conditions are found, deemed and declared to constitute a detriment, danger and hazard to the health, safety, morals and general welfare of the inhabitants of the City relating to storm drainage and are found, deemed and declared to be public nuisances wherever the same may exist and the creation, maintenance, or failure to abate any nuisances is hereby declared unlawful; any condition which constitutes a breeding ground or harbor for rats mosquitoes, harmful insects, or other pests and any condition which blocks, hinders, or obstructs in any way the natural or designed flows of branches, streams, creeks, surface water, drains, to the extent that the premises is not free from standing water.
31. **Redevelopment:** Alterations of a property that change the footprint of a site or building in such a way that disturbs one acre of land or more.
32. **Retention Basin:** An area designed to retain flow volumes from storm water runoff and to only release water through infiltration, evaporation, or transpiration. Retention basins may or may not be connected directly to downstream storm drains. No water flowing into a retention basin is released downstream.
33. **Storm Water Conveyance:** Any feature of the landscape or earth, manmade or natural, which carries water in a concentrated flow.
34. **Storm Drain.** A closed conduit for conducting collected storm water.
35. **Storm Water System.** The system of conveyances (including sidewalks, roads with drainage systems, municipal streets, catch basins, detention basins, curbs, gutter, ditches, man-made channels, sumps, storm drains, and ground water) owned and operated by the City, which is designed and used for collecting or conveying storm water. The storm water system is also referred to as a “municipal separate storm sewer system” or “MS4”.
36. **Storm Water:** Any flow that occurs during or following any form of natural precipitation. Storm water includes only the portion of such flow that is composed of precipitation.
37. **Storm Water Runoff:** Water that is generated by storm water flows over land.
38. **Water Course or Drainage Way:** Any natural or artificial water course, including, but not limited to: streams, rivers, creeks, ponds, lakes, ditches, channels, canals, conduits, culverts, drains, waterways, gullies, ravines, or washes in which waters flow in a definite direction or course, either continuously or intermittently; and including any area adjacent thereto which is subject to inundation by reason of overflow of flood water.

6-**3-5. Prohibited Obstructions.**

1. It is unlawful for any person to:
    a. Obstruct the flow of water in the storm water system.
    b. Contribute to the obstruction of the flow of water in the storm water system.
    c. Cover or obstruct any drain inlet.
2. The following obstructions are exempt from the prohibitions of this section:
    a. Street and/or storm water improvement projects authorized by the City.
    b. Flood control and prevention activities performed by the City.
    c. Obstructions approved by the City as part of a s site's storm water pollution prevention plan.
    d. Obstructions occurring during clean-up periods established by the City, provided that the materials are placed according to the City directions and do not obstruct drain inlets.

7-**3-6. Prohibited Activities.**

1. It is unlawful for any person to:
    a. Track mud or sediment onto public streets by construction or vehicles. Provisions shall be made at all construction sites to either clean the streets or clean the vehicles before the vehicles leave the site, or both.
    b. Wash out concrete trucks at sites other than pre-approved designated areas. Dumping of excess concrete shall not be allowed.
    c. Stockpile construction or yard improvement materials or debris in the street or in the gutter unless being stored on a pallet or in a self-contained storage unit that has been pre-approved by the Public Works Director. This includes, but is not limited to, ramps being constructed for temporary access across the existing curb and gutter (temporary ramps are allowed if removed at the end of the day or when obstructing the flow of storm water); stockpiling of topsoil or other fill material; stockpiling or sand, gravel, landscape rock, bark, mulch or any other material that may be considered a source of pollution in the storm water system.

8-**3-7. Prohibited Discharges.**

1. It is unlawful for any person to cause or allow an illicit discharge into the storm water system.
2. The following discharges to the storm water system are exempt from the prohibitions of this section:
    a. Discharges regulated under a valid National Pollutant Discharge Elimination System (NPDES) storm discharge permit, provided that the discharge complies with the terms of the permit.
    b. Discharges from water line flushing performed and approved by the City.
    c. Discharges from sprinkled landscape irrigation or sprinkled lawn watering.
    d. Discharges from individual residential car washing,
    e. Discharges from natural riparian habitat or wetland flows.

f. Discharges from natural groundwater flows.
g. Discharges from air conditioning condensation.
h. Discharges from emergency fire-fighting or emergency management activities.
i. Dechlorinated discharges from swimming pools.
j. Discharges from foundation drains, footing drains, or crawl space or basement pumps.
k. Discharges allowed by a HOOPER City Storm Water Connection Permit.

6-3-8. Prohibited Storage

It is unlawful for any person to maintain, store, keep, deposit or leave any pollutant or hazardous material, or any item containing a pollutant or hazardous material, in a manner that is likely to result in the discharge of the pollutant or hazardous material into the storm water system.

6-3-9. Litter or Refuse Control

It shall be unlawful for any person to throw any garbage, refuse, grass, shrubbery, tree clippings, bottles, cans or containers of any kind upon the street right-of-ways or any storm water conveyance.

6-3-10 Organic Waste

1. It shall be unlawful to place grass clippings, leaves, tree and shrub clippings, or any other yard wastes in any street, storm drain, stream, storm water conveyance, or any other location where concentrated storm water flows will wash such wastes into the storm sewers.
2. No privy, animal corral, pen or stable of any kind shall be permitted to stand so near any stream, ditch, drain, or storm water conveyance of any kind that the droppings therefrom will run into such stream, ditch, drain, or storm water conveyance or in any way poison or contaminate the water therein; nor shall the urine from any privy animal corral, pen or stable of any kind be allowed to fall or be emptied into any stream, ditch, drain, or storm water conveyance.

6-3-11 Storm Water Connection Permit

1. **Permit Required:** No person shall connect to the City's storm water system, either directly or indirectly, without first obtaining a storm water connection permit from the City.
2. **When Permit Required:** Any person beginning new construction (development of an undeveloped parcel) or redevelopment (as defined in this Chapter) in the City shall obtain a Storm Water Connection Permit before commencing construction.
3. **Application:** The applicant for a Storm Water Connection Permit shall submit the following to the City:
    a. Application Form. A completed application form. Application forms will be available at the City.
    b. SWPPP. A Storm Water Pollution Prevention Plan incorporating storm water BMPs that meet the requirements of section 6-3-12.

c. Maintenance Plan. A plan outlining how the applicant will maintain the storm water improvements listed in the application.

d. Fee. A fee in an amount set by resolution of the City Council.

4. **Application:** The application shall be submitted to the City as part of the Building Permit or Subdivision Approval.
5. **Review:** The Storm Water Connection Permit application shall be reviewed by the City Engineer, Public Works Director or Building Inspector for respectively subdivision and commercial site plans or private residences and either approved, approved with conditions or denied. Either the permit application or the City may appeal the City Staff's decision as outlined in 6-3-29/
6. **Failure:** Failure to construct or maintain storm water improvements in accordance with an approved Storm Water Connection Permit shall be a violation of this ordinance.
7. **As-**Builts: Any person connecting to the storm water system shall provide the City with "as-built" plans showing the details and the location of the connection. The plans shall be in a format that is acceptable to the City.
8. **Rate:** Connections to the storm water system shall be designed to meet the requirements of this ordinance, the Hooper City Zoning and Subdivision Ordinance and the Hooper City Development Standards and Specifications.

6-3-13. Design and Review of Detailed Construction Plans for Storm Water Systems

1. **Design:** Any person adding or connecting to the storm water system, disturbing existing drainages or flood channels or developing a residential, commercial or industrial site shall submit detailed construction plans prepared by a design professional. The design professional preparing the plans, specifications and other supporting documents subject to the provisions of this ordinance shall be responsible for preparing the plans, specifications and other supporting documents in accordance with the requirements of this ordinance, the Hooper City Zoning and Subdivision Ordinance and the Hooper City Development Standards and Specifications. The design professional shall certify on the plans that the proposed improvements shown on the plans have been designed in accordance with these documents.
2. **Limitation of City Review:** The Review of the submitted detailed construction plans application and supporting documents by the City shall be to determine if the submittal is complete and in accordance with the requirements of this ordinance. Nothing whatsoever in the review should be construed as or be deemed to create additional duties or responsibilities on the part of the City of Hooper that are the responsibilities of the Owner and the design professional. The Owner has full responsibility of the proper operation of the storm water system.

6-3-14. Easements

City personnel may enter all private properties through which the City holds an easement for the purposes of inspection, observing, measuring, sampling, repairing or maintaining any portion of the storm water facilities lying within the easement, or the performance of any other duties pertinent to the operation of the storm water system. All entry and subsequent work, if any, on an easement, shall be completed according to any special terms of the easement.

6-3-15. Authority to Inspect

When necessary to make an inspection in order to enforce any provision of this Chapter, or whenever the City has cause to believe that there exists, or potentially exists, a condition which constitutes a violation of this Chapter, the City may request to enter private premises at all reasonable times to inspect the same and to inspect and copy records related to storm water compliance. In the event the owner or occupant refuses entry after a request to enter and inspect has been made the City is empowered to seek assistance from any court of competent jurisdiction in obtaining such entry.

6-3-16. Requirement to Monitor and Analyze

If City tests or inspections indicate that a site is causing or contributing to storm water pollution, illegal discharges, and/or non-storm water discharges to the storm water system or water of the United States, and if the violations continue after notice from the City, the City may require any person engaged in the activity and/or the owner or operator of the site to provide, at their own expense, monitoring analysis required by the City to determine compliance with this Chapter.

6-3-17. Notice of Violation

Whenever the City finds that a person has violated a prohibition or failed to comply with a requirement of this Chapter, the City may order compliance by written notice of violation to the responsible person. Such notice may require without limitation:

1. The performance of monitoring, analyses, and reporting;
2. The elimination of illicit connections or discharges;
3. The violating discharges, practices, or operations to cease and desist;
4. The abatement or remediation of storm water pollution or contamination hazards and the restoration of any affected property;
5. Payment to cover administrative, remediation, monitoring, analyses, and reporting costs; and
6. The implementation of source control of treatment BMPs. The City may skip the notice requirements set forth in this section and immediately proceed with criminal and/or civil action against the violator if (1) the violator has committed the same violation in the past, or (2) the violation, in the opinion of the City creates a serious risk to persons, the environment or property, or (3) the City deems the violation to constitute an emergency.

6-3-18. Damage to Storm Water System

Any person who damages any portion of the storm water system shall be responsible for repairing the damages. The damages shall be repaired by a licensed contractor bonded to do work in the City and shall be repaired in accordance with the City's Construction Standards and Specifications. It is unlawful to remove or alter any portion of the storm water system without permission from the City.

6-3-19. Manhole Covers

It shall be unlawful to open any storm water manhole or other storm water fixture (such as grates, lids or inlets without permission from the City.

6-3-20. Violation and Penalty

1. The violation of any provision of this Chapter is a Class C misdemeanor. Each day that a violation occurs shall constitute a separate offense.
2. In addition to any criminal fines and/or penalties which may be assessed for a violation of this Chapter, the City shall have the right to issue a stop work order or to install and/or maintain appropriate erosion and sediment control measures on any site which is required to have such measures in the event that construction activity is commenced or continued without such measures having been installed as required by this Chapter. The City shall have the right to have such measures installed or maintained by City personnel or hire a private contractor to perform such work and the contractor and/or property owner shall be liable for any and all expenses related to performing such work plus a 25% penalty charge. The City may assess said charges against the bond posted or the escrow established by the contractor and/or property owner.
3. If, as the result of the violation of any provision of this Chapter, the City or any other party suffers damages and is required to make repairs and/or replace any materials, the cost of repair and/or replacement, shall be borne by the violating party and shall be in addition to any criminal or civil fines and/or penalties.
4. Violators of this Chapter may also be subjected to prosecution, civil fines and penalties from Hooper City, the State of Utah and the United States EPA.

6-3-21. Compliance with Federal and State Law

Nothing in this Chapter shall be interpreted to relieve any person from an obligation to comply with an applicable Federal, State or local law relating to storm water discharges or drinking water protection.

Part 2

Storm Water Construction Activity Permit

6-3-22. Purpose and Intent

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

6-3-23 Storm Water Construction Activity Permit – Application

Any person or entity desiring a Storm Water Construction Activity Permit must first file an application with the Planning Commission Secretary. The application shall be submitted with, or as part of an application for a site plan or subdivision approval or building permit.

1. **Content.** The application shall include a Storm Water Pollution Prevention Plan which meets the criteria set forth in section 6-3-24.
2. **Timing.** The applicant shall file the application on or before the following dates:
    a. **Subdivision.** The date that the applicant submits a site plan application if the applicant proposes to develop a site plan or amended site plan.
    b. **Site Plan.** The date that the applicant submits a site plan application if the applicant proposes to develop a site plan or amended site plan.
    c. **Building Permit.** The date that the applicant submits a building permit application if the applicant propose to construct a building on an existing lot or parcel.
    d. **Other.** At least two (2) weeks before the developer intends to perform any type of work not listed above that would require a Storm Water Construction Activity Permit pursuant to this Chapter.
3. **Compliance.** If an applicant's development comes under more than one of the categories listed above, then the applicant shall submit the Storm Water Construction Activity Permit Application on the earliest of the listed dates. Failure to comply with the

application dates set forth above is not a criminal offense, but may delay the applicant's project. Failure to acquire a required Storm Water Construction Activity Permit is grounds for denying a related subdivision application, site plan application, conditional use permit application, or building permit application. It is unlawful to commence work (move dirt) on a development site before obtaining a required Storm Water Construction Activity Permit.

4. **Fee.** The applicant for a Storm Water Construction Activity Permit shall pay a fee in an amount set by resolution of the City Council.
5. **Application Approval.** The City Staff "City" shall approve the application and grant the permit if the application is complete and meets the criteria set forth in section 6-3-24. The city shall deny the application or approve the application with conditions if the City determines that the measures proposed in the Plan fail to meet the criteria set forth in section 6-3-24. Conditions the City may impose in measures and controls to prevent erosion and the discharge of sediment, debris and other construction related pollutants from the site by storm water.
6. **Term.** Unless otherwise revoked or suspended, a Storm Water Construction Activity Permit shall be in effect for the full period of the construction activity. The construction activity will not be considered to be complete until the following events occur:
    a. Subdivision. For Permits associated with a subdivision plat approval:
        i. The Permittee must complete all required subdivision improvement; and
        ii. One of the following three events must occur:
            1. The City issues a final certificate of occupancy for each lot in the subdivision, or
            2. Individual Storm Water Construction Activity Permits have been issued for each lot in the subdivision not having a final occupancy permit, or
            3. The property has been stabilized as defined by the appropriate State Construction General Permit.
    b. Site Plans. For Permits associated with a site plan approval, the date that the Permittee has completed all required landscaping and all outside construction work associated with the site plan.
    c. Building Permits. For Permits associated with a building permit application, the date that the City issues a final occupancy permit for the structure covered by the building permit.
    d. Other. For Permits issued that are not tied to other approvals from the City, the date that the Permittee has completed all work associated with the Permit and takes steps required by the Permit to prevent further erosion and runoff from the site.
7. **Amendments.** In the event that the proposed construction activity for a site to which a Permit pertains is materially altered from that described in the original Plan in a way that may have significant impact upon the effectiveness of the measures and controls described in the original Plan, the Permittee shall file an amended Storm Water Pollution Prevention Plan which meets the criteria set forth in section 6-3-24.

6-3-24. Storm Water Pollution Prevention Plan

1. **Required Information:** The Storm Water Pollution Prevention Plan (the "Plan") shall contain the following information and shall comply with all the requirements set forth in the UPDES Construction General Permit:
    a. **Site Description.** A site description (including a map with spot elevations and contour lines) which includes a description of the nature and location of the construction activity, a description of the intended sequence of major activities which will disturb soils for major portions of the site (e.g. grubbing, excavation, grading, utilities and infrastructure installation, be disturbed by excavation, grading, or other activities;
    b. **Control Description.** A description of the proposed measures and controls that will be implemented during construction activity and/or while the site is not stable. The Plan must clearly describe the times during the construction process that the measure will be implemented for each major activity identified pursuant to subsection (1). The plan shall state the name and phone number of the person or entity responsible for implementation of each control measure.
2. **Goals and Criteria.** The proposed measures and controls described in the Plan shall be designed to meet the following goals and criteria:
    a. **Prevent or Minimize Discharge.** The proposed measures and controls shall be designed to prevent or minimize, to the maximum extent practicable, the discharge of sediment, debris and other construction-related pollutants from the construction site by storm water runoff into the storm drainage system.
    b. **Prevent and Minimize Construction Debris.** The proposed measures and controls shall be designed to prevent or minimize, to the maximum extent practicable, the deposit, discharge, tracking by construction vehicles, or dropping of mud, sediment, debris or other potential pollutants onto public streets and right-of-way. Any such discharge shall be cleaned up and removed immediately upon notification to the Permittee or when it otherwise comes to the attention of the Permittee. At a minimum, the deposit or discharge shall be cleaned and removed at the end of the work shift in which the deposit occurred, or at the end of the work day, whichever comes first.
    c. **BMPs.** The proposed measures and controls shall consist of Best Management Practices (BMPs) available at the time that the Plan is submitted. BMPs may include, but shall not be limited to temporary silt or sediment fences, sediment traps and detention ponds, gravel construction entrances and wash down pads to reduce or eliminate use of a straw mulch as a temporary ground cover, erosion control blankets, temporary interceptor dikes and swales, storm drain inlet protection, check dams, pipe slope drains, rock outlet protection, reinforced soil retaining system, and gabions.

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

6-3-25 Proper Operation and Maintenance.

The recipient of the Storm Water Construction Activity Permit (the Permittee) shall install the erosion and sediment control measures required by the approved Storm Water Pollution Prevention Plan before commencing any construction activity on the site to which the Plan applies or at such times indicated in the Plan. The erosion and sediment control measures shall be properly installed and maintained in accordance with the Permit, the manufacturer's specifications and good engineering practices. The Permittee shall maintain such measures on the site until the city accepts the termination of the Permit pursuant to Section 6-3-23.

6-3-26. Inspection and Entry.

The Permittee shall allow any authorized employees and representatives of the City, representatives of the State of Utah Division of Water Quality, and representatives of the EPA, to enter the site to which a Permit applies at any time and to inspect the erosion and sediment control measures maintained by the Permittee. The Permittee shall also allow inspection of any records pertaining to the conditions of the Permit.

6-3-27. Revocation or Suspension of Storm Water Construction Activity Permit.

1. **Revocation or Suspension.** A Storm Water Construction Activity Permit may be revoked or suspended by the City upon the occurrence of any one of the following events:
    a. Failure of the Permittee to comply with the Plan or any condition of the Permit; or
    b. Failure of a Permittee to comply with any provision of this Chapter or any other application law, ordinance, rule or regulation related to storm water; or
    c. A determination of the City that the erosion and sediment control measures implemented by a Permittee pursuant to the Plan are inadequate to prevent or minimize, to the maximum extent practicable, the discharge of sediment, debris or other pollutants form the construction site by storm water.
2. **Notice.** The City shall mail a Permittee written notice of noncompliance before revoking or suspending a Permit. The notice shall state the location and nature of the noncompliance and shall also specify what action is required for the Permittee to avoid revocation or suspension of the Permit. The notice shall allow the Permittee a reasonable time to take the necessary corrective action to avoid revocation or suspension of the Permit which time, in the absence of exceptional circumstances, shall not be less than ten (10) nor more than thirty (30) days. The notice shall be mailed to the address listed for the Permittee in the Application. If the Permittee fails to correct the problems identified in the notice during the time specified in the notice, the City may suspend or revoke the

Permit by mailing or delivering written notice of the suspension or revocation to the Permittee. The Permittee may appeal a suspension or revocation of the Permit pursuant to the appeal procedure set forth in Section 6-3-30.

3. **Exceptional Circumstances.** For purposes of this Section, exceptional circumstances include, but are not limited to situations which involve a risk of injury to persons, damage to storm drain facilities, or damage to other property or the environment. The City may take any steps the City deems necessary to alleviate any such exceptional circumstances as defined above, and may bill the owner, developer, or contractor responsible for creating the exception circumstances for the cost of alleviating circumstances.
4. **Stop Work Order**. A stop work order may be issued upon the revocation or suspension of a Permit, or upon the discovery of work being conducted without a required Permit. The stop work order may be issued by inspectors in the Public Works Department or the Building Inspection Department. No construction activity may be commenced or continued on any site for which a Permit has been revoked or suspended until the Permit has been reinstated or reissued.
5. **Reinstatement.** A Storm Water Construction Activity Permit may be reinstated or reissued upon compliance with all provisions of this Chapter and all Permit conditions, or in the case of a suspension for reasons provided in subsection (W)(3), upon the filing of an amended Storm Water Pollution Prevention Plan which is designed to correct the deficiencies of the original Plan.

6-3-28. Exemptions.

The following activities are exempt from the requirements of this Part 2:

1. Actions by a public utility, the City, or any other governmental entity to remove or alleviate an emergency condition, restore utility service, or reopen a public thoroughfare to traffic;
2. Actions by any other person when the City determines, and documents in writing, that the actions are necessary to remove or alleviate an emergency condition, restore utility service, or reopen a public thoroughfare to traffic;
3. Construction activities which disturb less than 1,500 square feet of land surface area, or which consist of the excavation and/or fill of less than 20 cubic yards of material;
4. Landscape maintenance activities on a fully developed property, necessary to maintain the existing developed landscape; and
5. Bona fide agricultural and farming operations which constitute the principal use of any lot or tract of ground located within the City and which meet the requirements of the zoning code of the City.

6-3-29. Appeal

1. An Applicant for a Storm Water Construction Activity Permit, a Permittee of a Storm Water Construction Activity Permit or any entity disputing a decision made pursuant to this Chapter, may appeal any decision or directive made by the City or its representatives pursuant to this Chapter. The party desiring to appeal shall file a notice of appeal with the City Recorder's office within 10 days of the decision or directive being appealed. The notice of appeal shall contain the following information:
    a. The appellant's name, address and daytime telephone number;
    b. A short statement describing the basis for the appeal; and
    c. The relief sought by the appellant.
2. Upon receipt of the notice of appeal, the City Recorder shall schedule an appeal with the City Council for their consideration and final determination.

6-3-30. Compliance with Federal and State Law.

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

Section 2: Effective Date. This Ordinance shall become effective _____, 2018.

PASSED AND APPROVED on this _____ day of _____, 2018.

_____

Korry Green, Mayor

ATTEST:

_____

Delora Fowers, City Recorder

APPENDIX F

APPENDIX F

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STATE OF UTAH DEPARTMENT OF ENVIRONMENTAL QUALITY
DIVISION OF WATER QUALITY

Authorization to Discharge Under the
Utah Pollutant Discharge Elimination System (UPDES)

General Permit for Discharges from Small Municipal Separate
Storm Sewer Systems (MS4s)

UPDES PERMIT NUMBER UTR090000

This Permit is issued in compliance with the provisions of the Utah Water Quality Act, Utah Code Title 19, Chapter 5, (the "Act") and the Federal Water Pollution Control Act (33 U.S.C. §§ 1251 et. seq., as amended to date), and the rules and Regulations made pursuant to those statutes.

This Permit authorizes storm water discharges to waters of the state of Utah resulting from a Small Municipal Separate Storm Sewer System (Small MS4) as provided in Part 1.0 of this Permit. This authorization is conditioned upon an operator of a Small MS4 meeting the eligibility requirements in Part 1.2 of this Permit prior to filing a Notice of Intent ("NOI") to discharge under this General Permit. An operator of a Small MS4 is not covered by this General Permit if the operator submits an NOI but has not met these conditions.

This authorization is subject to the authority of the *Director* of the Division of Water Quality to reopen this Permit (see Part 6.22 of Permit), or to require a discharger to obtain an individual Permit (see Part 6.15 of this Permit). The issuance of a discharge Permit authorization under this General Permit does not relieve Permittees of other duties and responsibilities under the Act or rules made under that Act. Significant terms used in this Permit are defined in Part 7.0 of this Permit.

This modified Permit shall become effective August 16, 2023.

This Permit and the authorization to discharge shall expire at midnight, May 11th, 2026, except as described in Part 6.3 of this Permit.

Signed this August 16, 2023

r

John K. Mackey, P.E.
Director

**UPDES GENERAL PERMIT FOR DISCHARGES FROM
SMALL MUNICIPAL SEPARATE STORM SEWER SYSTEMS (MS4s)**

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1.0 Coverage Under this Permit

1.1. Authority to Discharge

This General Permit authorizes the discharge, to waters of the state of Utah, of storm water from a Small MS4 as defined in R317-8-1.6(15) and Part 7.0. of this Permit. This authorization is subject to all of the terms and conditions of this Permit. This General Permit does not authorize discharges prohibited under Part 1.4. of this Permit.

1.2. Permit Area and Eligibility

1.2.1. This Permit covers all areas of the State of Utah.

1.2.1.1. No operator of a Small MS4 as described in 40 CFR 122.32 may discharge from that system without authorization from the *Director*. (See Utah Administrative Code Section R317-8-11.3(1)(h), which sets forth the Permitting requirement, and R317-8-1.10(12), which incorporates 40 CFR 122.32 by reference.) Authorization to discharge under the terms and conditions of this Permit is granted if:

1.2.1.1.1 It applies to an operator of a Small MS4 within the State of Utah.

1.2.1.1.2 The operator is not a "large" or "medium" MS4 as defined in 40 CFR 122.26(b)(4) or (7);

1.2.1.1.3 The operator submits a Notice of Intent (NOI) in accordance with Part 2.0 of this Permit;

1.2.1.1.4 The MS4 is located fully or partially within an urbanized area as determined by the latest Decennial Census by the Bureau of Census;

1.2.1.1.5 The operator is ordered by the *Director* to obtain coverage under this Permit, as provided in the UPDES rules, R317-8.

1.2.2. The following are types of authorized discharges:

1.2.2.1. *Storm water discharges.* This Permit authorizes storm water discharges to waters of the state from the Small MS4s identified in 1.2.1., except as excluded in Part 1.4.

1.2.2.2. *Non-storm water discharges.* The following non-storm water discharges do not need to be addressed unless the Permittee or the *Director* identifies these discharges as significant sources of pollutants to waters of the state or as causing or contributing to a violation of water quality standards:

- Water line flushing;
- Landscape irrigation;
- Diverted stream flows;
- Rising ground waters;
- Uncontaminated ground water infiltration;
- Uncontaminated pumped ground water;

- Discharges from potable water sources;
- Foundation drains;
- Air conditioning condensate;
- Irrigation water;
- Springs;
- Water from crawl space pumps;
- Footing drains;
- Lawn watering runoff;
- Individual residential car washing;
- Flows from riparian habitats and wetlands;
- Dechlorinated swimming pool discharges;
- Residual street wash water;
- Dechlorinated water reservoir discharges; and
- Discharges or flows from emergency firefighting activity

1.3. Local Agency Authority

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

1.4. Limitations on Coverage

This Permit does not authorize:

1.4.1. Discharges that are mixed with sources of non-storm water unless such non-storm water discharges are in compliance with a separate UPDES Permit or are determined not to be a substantial contributor of pollutants to waters of the state.

1.4.2. Storm water discharges associated with industrial activity as defined in *Utah Administrative Code (UAC) R317-8-11.3(6)(c).*

1.4.3. Storm water discharges associated with construction activity as defined in *UAC R317-8-11.3(6)(e).*

1.4.4. Storm water discharges currently covered under another Permit.

1.4.5. Discharges that would cause or contribute to in-stream exceedances of water quality standards as contained in *UAC R317-2*.

1.4.6. Discharges of any pollutant into any waters of the state for which a Total Maximum Daily Load (TMDL) has been approved by EPA, unless the discharge is consistent with the TMDL. The discharge must be consistent with the TMDL at the time a Notice of Intent is submitted. If conditions change after coverage is issued, the coverage may remain active provided the conditions and requirements of Part 3.1. of this Permit are complied with.

2.0 Notice of Intent and Storm Water Management Program Requirements

2.1. The requirements of this Part apply only to Permittees **not** covered under the previous General Permit for Storm Water Discharges from Small Municipal Separate Storm Sewer Systems**. ("New Applicant")**. Permittees that were covered under the previous MS4 General Permit ("Renewal Permittees") and have submitted a notice of intent (NOI) at least **180 days** prior to the expiration date of the previous Permit, are covered by this Permit and must follow the requirements of Part 2.3.

2.1.1. **New Applicants** must meet the following application requirements. The Notice of Intent (NOI) must include submittal of the Storm Water Management Program (SWMP) document. Detailed information on SWMP requirements can be found in Part 4.0 of this Permit.

2.1.2. Within **180 days** of notification from the *Director*, the operator of the MS4 shall submit a NOI form as provided by the Division at https://deq.utah.gov/water-quality/municipal-separate-storm-sewer-system-ms4s-permits-updes-permits (The *Director* retains the right to grant permission for a later submission date when a good cause has been demonstrated). One original completed NOI shall be submitted, by mail or hand delivery to:

Attention: MS4 Coordinator
General Permitting Section
Department of Environmental Quality
Division of Water Quality
195 North 1950 West
PO Box 144870
Salt Lake City, UT 84114-4870

2.1.3. Late submittal of an NOI is prohibited (unless permission has been granted by the *Director*). If a late NOI is submitted, authorization is only for discharges that occur after Permit coverage is granted. The *Director* reserves the right to take appropriate enforcement actions for any unpermitted discharges.

2.1.4. Where application is made by a New Applicant that has assumed operational control of an MS4 for which coverage under this Permit was previously held by a separate entity, the *Director* may determine that the new applicant shall comply with the Permit requirements in this Permit, as directed for Renewal Permittees. Notification shall be made by the *Director* of this requirement in writing to the New Applicant prior to issuance of Permit coverage

2.1.5. Implementation of the Permittee's SWMP must include the six minimum control measures, including development of Measurable Goals, as described in Part 4.2. Measurable Goals for each of the minimum control measures must include, at a minimum, the year by which the Permittee will undertake required actions, including: interim milestones and the frequency of the action (if applicable.)

2.1.6. Implementation of the Permittee's SWMP as described in the Permittee's application is required to begin within **30 days** after the completed application is submitted. The

Permittee must fully develop and implement the SWMP as discussed in Part 4.0 of the Permit by the end of the Permit term unless a more restrictive timeframe is indicated.

2.1.7. If an Operator is designated by the *Director* as requiring Permit coverage later than one year after the effective date of this General Permit, the *Director* may approve alternative deadlines that would allow the Permittee to have its program areas implemented.

2.2. Contents of the Notice of Intent

The Notice of Intent requires, at a minimum, the following information:

2.2.1. Name, address, and telephone number of the principal executive officer, ranking elected official or other duly authorized employee in charge of municipal resources used for implementation of the SWMP;

2.2.2. Name(s)/ identification of waters of the state as defined by UAC R317-1-1that receive discharges from the Permittee's MS4;

2.2.3. Name of the person responsible for overseeing implementation and coordination of the SWMP;

2.2.4. Summary description of the overall water quality concerns, priorities, and measurable goals specific to the Permittee that were considered in the development of the SWMP;

2.2.5. The SWMP document shall consist of, at a minimum, a description of the program elements that will be implemented (or already exist) for each of the SWMP minimum control measures. The plan must be detailed enough for the *Director* to determine the Permittee's general strategy for complying with the required items in each of the six minimum control measures in the SWMP document (see Part 4.2 of this Permit);

2.2.6. Information on the chosen Best Management Practices (BMPs) and the measurable goals for each of the storm water minimum control measures in Part 4.2 of this Permit and, as appropriate, the timeframe by which the Permittee will achieve required actions, including interim milestones;

2.2.7. Permittees which are applying as Co-Permittees shall each submit an NOI and individual SWMP document which will clearly identify the areas of the MS4 for which each of the Co-Permittees are responsible. Permittees which are relying on another entity (ies) to satisfy one or more of their Permit obligations shall include with the NOI, a summary of the Permit obligations that will be carried out by the other entity (ies). During the term of the Permit, Permittees may terminate or amend shared responsibility arrangements by notifying the *Director*, provided this does not alter implementation deadlines.

2.2.8. Certification and signature requirements in accordance with Part 6.8.

2.3. Storm Water Management Program Plan Description for Renewal Permittees

2.3.1. The requirements of this part apply only to **Renewal Permittees** that were previously covered under the last MS4 General Permit. New Applicants are not required to meet the requirements of this Part and must follow the requirements of Part 2.0.

2.3.2. Renewal Permittees must submit a **revised SWMP document** to the *Director* within **180 days** of the effective date of this Permit, which includes at a minimum, the following information:

2.3.2.1. Permit number;

2.3.2.2. MS4 location description and map;

2.3.2.3. Information regarding the overall water quality concerns, priorities, measurable goals, and interim milestones specific to the Permittee that were considered in the development and/or revisions to the SWMP document;

2.3.2.4. A description of the program elements that will be implemented (or are already being implemented) in each of the six minimum control measures (see Part 4.0);

2.3.2.5. A description of any modifications to ordinances or long-term/ongoing processes implemented in accordance with the previous MS4 General Permit for each of the six minimum control measures;

2.3.2.6. A description of how the Permittee intends to meet the requirements of the Permit as described in Part 4.0 by either referencing existing program areas that already meet the Permit requirements or a description and relevant measurable goals that include, as appropriate, the year by which the Permittee will achieve required actions, including interim milestones.

2.3.2.7. Indicate the joint submittal(s) of Co-Permittees (if applicable) and the associated responsibility (ies) in meeting requirements of the SWMP.

2.3.2.8. Certification and signature requirements in accordance with Part 6.8.

2.3.2.9. The revised SWMP document must contain specific details for complying with the required items in each of the six minimum control measures contained within the SWMP document (See Part 4.2.).

3.0 Special Conditions

3.1. Discharges to Water Quality Impaired Waters

3.1.1. Applicability:

3.1.1.1. Permittees must determine whether storm water discharge from any part of the MS4 contributes to a 303(d) listed (i.e., impaired) waterbody. A 303(d) list of impaired waterbodies is available at: https://wq.deq.utah.gov/. Water quality impaired waters means any segment of surface waters that has been identified by the *Director* as failing to support one or more of its designated uses. If the Permittee has any discharges to an impaired waterbody, the Permittee must comply with Part 3.1.2. and Part 3.2., if applicable, and if no discharges to impaired waterbodies exist, the remainder of this Part 3.1 does notapply.

3.1.1.2. If the Permittee has "303(d)" discharges described above, the Permittee must determine whether a Total Maximum Daily Load (TMDL) has been developed by the *Director* and approved by EPA for the listed waterbody. If there is an approved TMDL, the Permittee must comply with all requirements associated with the TMDL (see Part 3.2.) in addition to the requirements of Part 3.1.2. If no TMDL has been approved, the Permittee must comply with Part 3.1.2. and will be required to meet any TMDL requirements once it is developed and approved.

3.1.2. If the Permittee discharges to an impaired waterbody, the Permittee must include in its SWMP document a description of how the Permittee will control the discharge of all pollutants of concern. This description must identify the measures and BMPs that will collectively control the discharge of the pollutants of concern. The measures should be presented in the order of priority with respect to controlling the pollutants of concern.

3.1.3. Where a discharge is already authorized under this Permit and is later determined to cause or have the reasonable potential to cause or contribute to the violation of an applicable water quality standard, the *Director* will notify the Permittee of such violation(s). The Permittee must take all necessary actions to ensure future discharges do not cause or contribute to the violation of a water quality standard and document these actions as required by the *Director*. If violations remain or re-occur, coverage under this Permit may be terminated by the *Director* and an alternative General Permit or Individual Permit may be issued. Compliance with this requirement does not preclude the State from taking an enforcement action as provided by the Utah Water Quality Act for the underlying violation.

3.2. Jordan River Watershed Wide *Escherichia coli (E. coli)* TMDL

3.2.1. Permittees that discharge to waters listed on the Utah 303(d) list as impaired for *E. coli* for which storm water is a contributing source per the *Jordan River Watershed Wide E. coli TMDL* must update their SWMP document within **180 days** to include a written plan (*TMDL Compliance Plan*) addressing the pollutant reduction requirements of the TMDL as it relates to MS4s. The *Jordan River E. coli TMDL MS4 Guidance Document* available on the division's website will provide supplemental information to assist MS4s in compliance with the below Permit requirements.

3.2.2. The *TMDL Compliance Plan* will supplement and build on the six (6) minimum control

measures identified in Part 4.2 of this permit. The Permittee must develop, fund, and implement source control BMPs that reduce the discharge of *E. coli*. The *TMDL Compliance Plan* must address the following:

3.2.2.1. Identify potential sources of *E. coli* in the MS4 and target specific audiences that may be contributing to the *E. coli* sources. Provide and document education and outreach given to the target audiences on the impacts to water quality associated with these types of discharges and BMPs that can be implemented to reduce the discharge of *E. coli*.

3.2.2.1.1. The Permittee can meet the requirements of permit part 3.2.2.1. through contribution to a collaborative program (e.g., storm water coalition) that evaluates, identifies, and targets sources, as well as, provides outreach that addresses *E. coli*.

3.2.2.2. The Permittee must maintain a written or mapped inventory of areas in the MS4 that are potential sources of *E. coli* (areas with septic, dense waterfowl areas, dog parks, etc.).

3.2.2.2.1. The Permittee must create a plan to prioritize reduction activities to address the areas and sources identified in the inventory. The plan must include BMPs the permittee will implement over the permit term (structural and non-structural).

3.2.2.2.2. The Permittee must add the inventoried areas to the priority areas identified in permit part 4.2.3.3.1. and begin inspecting the additional priority areas annually at a minimum and documenting the inspections on an inspection form.

3.2.2.2.3. The Permittee must add the inventoried areas to the priority areas identified in permit part 4.2.6.6.2. for street sweeping and storm sewer system maintenance and begin maintaining the areas at the same frequency. The Permittee's road and parking lot sweeping and storm drain system maintenance SOPs should identify all priority areas (including *E. coli* sources) and must include a schedule that includes priority area frequency.

3.2.2.3. The Permittee must evaluate their written inventory of potential "high priority" permittee owned and/or operated facilities (Permit Part 4.2.6.1.) and identify sites that have potential sources of *E. coli*. Permittees must add to their inventory any Permittee owned or operated dog parks, parks with open water, sites with septic, or properties that are known potential sources of *E. coli*. Sites that have been identified as potential sources of *E. coli* must have BMPs (structural or nonstructural) that reduce the potential of the discharge of *E. coli*.

3.2.2.4. Permittees must evaluate the potential *E. coli* generating activities below to determine whether existing SOPs should target reduction of *E. coli* discharge or if additional SOPs should be developed for the reduction of *E. coli* discharge from the MS4:

- Roads, highways, and parking lots: Surface cleaning and controlling litter
- Parks and open space: Lake and lagoon maintenance
- Parks and open space: Mowing/Trimming/Planting
- Storm water collection and conveyance system: Inspection and Cleaning of Stormwater Conveyance Structures, Controlling Illicit Connections and Discharges, Controlling Illegal Dumping
- Material storage areas: Solid Waste Collection, Controlling Litter, Controlling Illegal Dumping
- Storm water collection and conveyance system: Water line Maintenance, Sanitary Sewer Maintenance, Spill/Leak/Overflow Control, Response, and Containment.

3.2.2.5. Permittees must promote the use of Low Impact Development (LID) controls for which *E. coli* (listed a bacteria) has a medium or high pollutant removal effectiveness, as identified in the *Guide to Low Impact Development within Utah, Appendix C* on the division's website: https://documents.deq.utah.gov/water-quality/stormwater/updes/DWQ-2019-000161.pdf.

3.2.2.6. Permittees must add potential *E. coli* reduction as a criterion for ranking when evaluating the Permittees retrofit plan (Permit Part 4.2.6.9.).

3.2.3. Permittees must report annually on their TMDL compliance by submitting the TMDL Compliance Report section within the annual report form on the Division's website. The first TMDL Compliance Report within the annual report will be due to the Division by October 1, 2024. The reporting will include identification of problem areas for which source control BMPs were developed, the cost, and the anticipated pollutant reduction.

3.3. Nitrogen and Phosphorus Reduction

3.3.1. As part of the Permittee's Storm Water Management Program (SWMP), all Permittees must specifically address the reduction of water quality impacts associated with nitrogen and phosphorus in discharges from the MS4.

3.3.1.1. The Permittee can meet the requirements of this section through contribution to a collaborative program (e.g. storm water coalitions) that evaluates, identifies, and targets sources, as well as provides outreach that addresses potential sources within the Permittee's watershed.

3.3.1.2. The Permittee must identify and target sources (e.g., residential, industrial,agricultural, or commercial) that are contributing, or have the potential to contribute, nitrogen and phosphorus to waters of the state, where the Permittee is authorized underthis Permit to discharge.

3.3.1.3. The Permittee must prioritize targeted sources that are likely to result in a reduction of nitrogen and phosphorus in discharges through education and outreach. The Permittee must distribute educational materials or equivalent outreach to the prioritized targeted sources. Educational materials or equivalent outreach must describe storm water quality impacts associated with nitrogen and phosphorus in storm water runoff and illicit discharges, the behaviors of concern, and actions that the target source can take to reduce nitrogen and phosphorus. The Permittee may incorporate the education and outreach to meet this requirement into the education and outreach strategies provided in accordance with Permit Part 4.2.1.

3.4. Co-Permittees

3.4.1. Two or more operators of interrelated or neighboring Small MS4s may apply as Co-Permittees.

3.4.2. In order to be permitted as Co-Permittees, the MS4(s) must each submit an NOI which meets the requirements outlined in Permit Part 2.0. Each description of the MS4(s) Storm Water Management Program Plan(s) must clearly describe which Permittees are responsible for implementing each of the minimum control measures.

3.4.3. Each Co-Permittee is individually liable for:

3.4.3.1. Permit compliance for discharges from portions of the MS4 where it is the operator and for areas within its legal jurisdiction;

3.4.3.2. Ensuring that the six minimum control measures described in Part 4.2 are implemented for portions of the MS4 where it is the operator and in areas within its legal jurisdiction; and

3.4.3.3. If any Permit conditions are established for specific portions of the MS4, Co-Permittees need only comply with the Permit conditions relating to those portions of the MS4 for which they are the operator.

3.4.4. Each Co-Permittee is jointly liable for compliance with annual reporting requirements identified in Part 5.5, with the exception that a Co-Permittee is individually liable for any parts of the annual report that relate exclusively to portions of the MS4 where it is the operator.

3.4.5. Specific Co-Permittees are jointly liable for Permit compliance on portions of the MS4 as follows:

3.4.5.1. Where operational or SWMP implementation authority over portions of the MS4 has been transferred from one Co-Permittee to another in accordance with legally binding interagency agreements, both the owner and the operator may be jointly liable for Permit compliance on those portions of the MS4; and;

3.4.5.2. Where one or more Co-Permittees jointly owns or operates a portion of the MS4, each owner/operator is jointly liable for compliance with Permit conditions on the shared portion of the MS4.

4.0 Storm Water Management Program

Permittees covered under the previous General Permit for Storm Water Discharges from Small Municipal Separate Storm Sewer Systems, ("**Renewal Permittees")**, are expected to have fully implemented all of the following six minimum control measures as required in the previous Permit term. Permittees that were newly designated during the previous Permit term have 5 years from the date of their submitted NOI to develop, fully implement, and enforce their Storm Water Management Program (SWMP). A Renewal Permittee must continue to implement its SWMP designed to reduce the discharge of pollutants from the MS4 as described in the application and submittals provided in accordance with the previous MS4 General Permit, while updating its SWMP document pursuant to this Permit. This Permit does not extend the compliance deadlines set forth in the previous MS4 General Permit unless specifically noted. All requirements contained in this renewal Permit are effective immediately unless an alternative timeframe is indicated.

4.1. Requirements

4.1.1. All Permittees must develop, implement, and enforce a SWMP designed to reduce the discharge of pollutants to the Maximum Extent Practicable from the MS4, protect water quality, and satisfy the appropriate water quality requirements of the *Utah Water Quality Act.* The SWMP must include the six minimum control measures described in Part 4.2 of this Permit.

4.1.1.1. The SWMP shall be developed and implemented in accordance with the schedules contained in Part 4.0. of this Permit.

4.1.2. Each Permittee shall have an ongoing documentation process for gathering, maintaining, and using information to conduct planning, set priorities, track the development and implementation of the SWMP, evaluate Permit compliance/non-compliance, and evaluate the effectiveness of the SWMP implementation.

4.1.2.1. Each Permittee shall track the number of inspections performed, official enforcement actions taken, and types of public education activities implemented as required for each SWMP component. This information shall be provided to the *Director* upon request and used by the *Director* to determine compliance with this Permit.

4.1.2.2. Each Permittee must secure the resources necessary to meet all requirements of this permit. Each Permittee must conduct an annual analysis of the capital and operation and maintenance expenditures needed, allocated, and spent, as well as, the necessary staff resources needed and allocated to meet the requirements of this permit, including any development, implementation, and enforcement activities required. Each permittee must submit a summary of its fiscal analysis with each annual report.

4.1.3. The SWMP document shall include BMPs that the Permittee or another entity will implement for each of the storm water minimum control measures.

4.1.3.1. The Measurable Goals for each of the BMPs shall include, at a minimum, the months and years in which the Permittee will undertake required actions including: interim milestones and the frequency of the actions (if applicable).

4.1.3.2. The SWMP document shall indicate the person(s) responsible for implementing or coordinating the BMPs contained within the SWMP document.

4.1.3.3. Within **180 days** of the effective date of the Permit, the Permittee shall revise the SWMP document to clearly identify the roles and responsibilities of all offices, departments, Directors, or sub-sections, and if necessary other responsible entities. It shall also include any necessary agreements, contracts, or memorandum of understanding (MOUs) between said entities that affect the implementation and operation of the SWMP. Necessary agreements, contracts, and MOUs shall deal with coordination or clarification of the responsibilities associated with the detection and elimination of improper connections or illicit discharges to the MS4, BMP coordination or other coordinated programs or sensitive issues of unclear or overlapping responsibility. Such agreements, contracts, and MOUs shall be retained by the Permittee as required by the SWMP document.

4.2. Minimum Control Measures

Permittees covered under the previous Small MS4 General UPDES Permit No. UTR090000 ("**Renewal Permittees")**, are expected to have fully implemented Storm Water Management Programs (SWMPs) that reflect the permit requirements of the previous permit cycle. A Renewal Permittee shall continue to implement its SWMP as described in the application and submittals provided in accordance with the previous Small MS4 General Permit, while updating its SWMP document pursuant to this renewal Permit to achieve pollutant reductions to the Maximum Extent Practicable from the MS4, as specified in Part 4.1. This Permit does not extend the compliance deadlines set forth in the previous MS4 Permit or any corrective action plans and associated schedules unless specifically noted.

To achieve pollutant reductions to the Maximum Extent Practicable, Permittees shall include the following six minimum control measures in the SWMP:

4.2.1. Public Education and Outreach on Storm Water Impacts

The Permittee must implement a public education and outreach program to promote behavior change by the public to reduce water quality impacts associated with pollutants in storm water runoff and illicit discharges. Outreach and educational efforts shall include a multimedia approach and shall be targeted and presented to specific audiences for increased effectiveness. The educational program must include documented education and outreach efforts for the following four audiences: (1) residents, (2) institutions, industrial, and commercial facilities, (3) developers and contractors (construction), and (4) MS4-owned or operated facilities.

The minimum performance measures which should be based on the land uses and target audiences found within the community include:

4.2.1.1. Target specific pollutants and pollutant sources determined by the Permittee to be impacting, or have the potential to impact, the beneficial uses of a receiving water. This includes providing information which describe the potential impacts from storm water discharges; methods for avoiding, minimizing, reducing and /or eliminating theadverse impacts of storm water discharges; and the actions individuals can take to

improve water quality, including encouraging participation in local environmental stewardship activities.

4.2.1.2. Provide and document education outreach given to the general public on the Permittee's prohibitions against illicit discharges and improper disposal of waste and the impacts to water quality associated with these types of discharges. The Permittee must at a minimum consider the following topics: maintenance of septic systems; effects of outdoor activities such as lawn care (use of pesticides, herbicides, and fertilizers); benefits of onsite infiltration of storm water; effects of automotive work and car washing on water quality; proper disposal of swimming pool water; and proper management of pet waste. These topics are not inclusive and the Permittee must focus on those topics most relevant to the community.

4.2.1.3. Provide and document education and outreach given to institutions, industrial, and commercial facilities on an annual basis of the Permittee's prohibitions against illicit discharges and improper disposal of waste and the impacts to water quality associated with these types of discharges. The Permittee must at a minimum consider the following topics: proper lawn maintenance (use of pesticides, herbicides and fertilizer); benefits of appropriate onsite infiltration of storm water; building and equipment maintenance (proper management of waste water); use of salt or other deicing materials (cover/prevent runoff to storm system and contamination to ground water); proper storage of materials (emphasize pollution prevention); proper management of waste materials and dumpsters (cover and pollution prevention); and proper management of parking lot surfaces (sweeping). These topics are not inclusiveand the Permittee must focus on those topics most relevant to the community This education can also be a part of the Illicit Discharge Detection and Elimination measuredetailed in Part 4.2.3.

4.2.1.4. Provide and document education and outreach given to engineers, construction contractors, developers, development review staff, and land use planners concerning the development of storm water pollution prevention plans (SWPPPs) and BMP use, to reduce adverse impacts from storm water runoff from development sites. This education can also be a part of the Construction Site Storm Water Runoff minimum control measure detailed in Part 4.2.4.

4.2.1.5. Provide and document education and training given to employees of Permittee-owned or operated facilities concerning the Permittee's prohibition against illicit discharges and improper disposal of waste and the impacts to water quality associated with these types of discharges. The Permittee must at a minimum consider the following topics: equipment inspection to ensure timely maintenance; proper storage of industrial materials (emphasize pollution prevention); proper management and disposal of wastes; proper management of dumpsters; minimization of use of salt and other de-icing materials (cover/prevent runoff to MS4 and ground water contamination); benefits of appropriate onsite infiltration (areas with low exposure to industrial materials such as roofs or employee parking); and proper maintenance of parking lot surfaces (sweeping).

4.2.1.6. Provide and document education and training to MS4 engineers, development and plan review staff, land use planners, and other pertinent parties about Low Impact Development (LID) practices, green infrastructure practices, and the specific

requirements for post-construction control and the associated Best Management Practices (BMPs) chosen within the SWMP.

4.2.1.7. An effective program must show evidence of focused messages and audiences, as well as, demonstrate that the defined goal of the program has been achieved. The Permittee must identify specific messages for each targeted audience. The Permittee must also identify methods that will be used to evaluate the effectiveness of the educational messages and overall education program. Any methods used to evaluate the effectiveness of the program must be tied to the defined goals of the program and the overall objective of changes in behavior and knowledge.

4.2.1.8. The Permittee must include written documentation or rationale as to why particular BMPs were chosen for its public education and outreach program.

4.2.2. Public Involvement/Participation

The Permittee must implement a program that complies with applicable State and Local public notice requirements. The SWMP shall include ongoing opportunities for public involvement and participation, but at a minimum two (2) times annually. Permittees can meet this requirement through advisory panels, public hearings, watershed committees, stewardship programs, environmental activities, volunteer opportunities, or other similar activities. The Permittee should involve potentially affected stakeholder groups, including but is not limited to, commercial and industrial businesses, trade associations, environmental groups, homeowners' associations, and education organizations.

The minimum performance measures are:

4.2.2.1. Permittees shall adopt a program or policy directive to create opportunities for the public to provide input during the decision-making processes involving the development, implementation and update of the SWMP document, including development and adoption of all required ordinances or regulatory mechanisms.

4.2.2.2. **Renewal Permittees** shall make the revised SWMP document available to the public for review and input within **180** days from the effective date of this Permit. **New Applicants** shall make the SWMP document available to the public for review and input within **180** days of receiving notification from the *Director* of the requirement for Permit coverage.

4.2.2.3. A current version of the SWMP document shall remain available for public review and input for the life of the Permit. If the Permittee maintains a website, the latest version of the SWMP document shall be posted on the website within **180 days** from the effective date of this Permit and shall clearly identify a specific contact person and provide the phone number and/or email address to allow the public to review and provide input for the life of the Permit.

4.2.3. Illicit Discharge Detection and Elimination (IDDE)

All Permittees shall revise (as necessary), implement and enforce an Illicit Discharge and Elimination (IDDE) program to systematically find and eliminate sources of non-storm water discharges from the MS4 and to implement defined procedures to prevent

illicit connections and discharges according to the minimum performance measures listed below. The IDDE program must be described in writing, incorporated as part of the Permittee's SWMP document, and contain the elements detailed in this part of the Permit.

The minimum performance measures are:

4.2.3.1. Maintain a current storm sewer system map of the MS4, showing the location of all municipal storm sewer outfalls with the names and location of all State waters that receive discharges from those outfalls, storm drain pipes, and other storm water conveyance structures within the MS4.

4.2.3.2. Effectively prohibit, through ordinance or other regulatory mechanism, non-storm water discharges to the MS4, including spills, illicit connections, illegal dumping and sanitary sewer overflows ("SSOs") into the storm sewer system. The IDDE program shall require removal of such discharges consistent with Part 4.2.3.6. of this Permit and implement appropriate enforcement procedures and actions. The Permittee must have a variety of enforcement options in order to apply and escalate enforcement procedures as necessary based on the severity of violation and/or the failure of the violator to address the violation(s). Discharges pursuant to a separate UPDES Permit (other than the UPDES Permit for discharges from the MS4) and non-storm water discharges listed in Part 1.2.2.2. are exempt.

4.2.3.2.1 The Permittee's IDDE program must have adequate legal authority to detect, investigate, eliminate, and enforce against non-storm water discharges, including illegal dumping, into the MS4. Adequate legal authority consists of an effective ordinance, by-law, or other regulatory mechanism. The documented IDDE program that is included in the Permittee's SWMP must include a reference or citation of the authority the Permittee will use to implement all aspects of the IDDE program.

4.2.3.3. Implement a written plan to detect and address non-storm water discharges to the MS4, including spills, illicit connections, sanitary sewer overflows and illegal dumping. The plan shall include:

4.2.3.3.1 Written systematic procedures for locating and listing the following priority areas likely to have illicit discharges (if applicable to the jurisdiction):

- Areas with older infrastructure with increased potential for illicit connections;
- Industrial, commercial, or mixed-use areas;
- Areas with a history of past illicit discharges;
- Areas with a history of illegal dumping;
- Areas with onsite sewage disposal systems;
- Areas with older sewer lines or a history of sewer overflows or cross-connections;
- Areas upstream of sensitive waterbodies; and,
- Other areas the Permittee determines to have increased potential for illicit discharges.

The Permittee must document the basis for its selection of each priority area and create a list of all priority areas identified in the system. This priority area list must be updated annually to reflect changing priorities.

4.2.3.3.2 Field inspections of areas which are considered a priority area as identified in Permit Part 4.2.3.3.1. Compliance with this provision shall be achieved by inspecting each priority area annually at a minimum. All field assessment activities shall utilize an inspection form to document findings.

4.2.3.3.3 Dry weather screening (See Definitions in 7.0) activities for the purpose of verifying outfall locations and detecting illicit discharges within the Permittee's jurisdiction that discharge to a receiving water. All outfalls shall be inspected at least once during the 5-year Permit term. Dry weather screening activities shall utilize an inspection form to document findings.

4.2.3.3.4 If the Permittee discovers or suspects that a discharger may need a separate UPDES Permit (e.g., Industrial Storm Water Permit, Dewatering Permit), the Permittee shall notify the *Director* within **30 days**.

4.2.3.4. Implement standard operating procedures (SOPs) or similar types of documents for tracing the source of an illicit discharge. The document should include procedures such as: visual inspections, opening manholes when necessary, using mobile cameras, using field tests of selected chemical parameters as indicators of discharge sources, collecting and analyzing water samples for the purpose of determining sanctions or penalties, and/or other detailed inspection procedures.

4.2.3.5. Implement SOPs or similar types of documents for characterizing the nature of illicit discharges and the potential public or environmental threat posed by them when found by or reported to the Permittee by the hotline or other telephone number described in 4.2.3.9. These procedures shall include detailed instructions for evaluating how the discharge will be immediately contained and the steps to be taken to contain the discharge. Compliance with this provision will be achieved by initiating an investigation immediately upon being alerted of a potential illicit discharge.

4.2.3.5.1 When the source of an illicit non-storm water discharge is identified and confirmed, the Permittee must record the following information in an inspection report: the date the Permittee became aware of the non-storm water discharge, the date the Permittee initiated an investigation of the discharge, the date the discharge was observed, the location of the discharge, a description of the discharge, the method of discovery, date of removal, repair, or enforcement action; date and method of removal verification. Analytical monitoring may be necessary to aid in the identification of potential sources of an illicit discharge and to characterize the nature of the illicit discharge. The decision process for utilizing analytical monitoring must be fully documented in the inspection report.

4.2.3.6. Implement SOPs or similar types of documents for ceasing the illicit discharge, including notification of appropriate authorities; notification of the property owner; technical assistance for removing the source of the discharge or otherwise eliminating the discharge; follow-up inspections; and escalating enforcement and legal actions if the discharge is not eliminated. Illicit discharges to the MS4 are prohibited and any such discharges violate this Permit and remain in violation until they are eliminated.

4.2.3.6.1 Upon detection, the Permittee shall require immediate cessation of improper disposal practices pursuant to Part 4.2.3.2.1. of this Permit. Upon confirmation of responsible parties, the Permittee shall take all necessary actions in accordance with its enforcement procedures pursuant to Part 4.2.3.6. of this Permit.

4.2.3.6.2 Although the Permittee is required to prohibit illicit discharges within their boundaries and to take appropriate action to detect and address any violations, this Permit does not impose strict liability on the Permittee.

4.2.3.6.3 All IDDE investigations must be thoroughly documented and may be requested at any time by the *Director.* If a Permittee is unable to meet the minimum performance measures outlined in Parts 4.2.3.5. or 4.2.3.6., the Permittee must immediately submit to the *Director* written documentation or rationale describing the circumstances why compliance with the minimum performance measures was not possible. All IDDE documentation shall be retained by the Permittee as required by the SWMP document.

4.2.3.7. Permittees shall inform public employees, businesses, and the general public ofhazards associated with illicit discharges and improper disposal of waste.

4.2.3.8. Permittees shall promote or provide services for the collection of household hazardous waste.

4.2.3.9. Permittees shall publicly list and promote a hotline or other local telephone number for public reporting of spills and other illicit discharges. A written record shall be kept of all calls received, all follow-up actions taken, and any feedback received from public education efforts.

4.2.3.9.1 The Permittee must develop a written spill and improper disposal response SOP or similar type of document and a flow chart for internal use, that shows the procedures for responding to public referrals of illicit discharges, the various responsible agencies and their contacts, and who would be involved in illicit discharge incident response, even if it is a different entity, other than the Permittee. The procedure and list must be incorporated as part of the IDDE program and incorporated into the Permittee's SWMP document. The list must be maintained and updated as changes occur.

4.2.3.10. Permittees shall implement procedures for program evaluation and assessment which includes maintaining a database for mapping, tracking of the number and type of spills or illicit discharges identified; and inspections conducted.

4.2.3.11. Permittees shall at a minimum, require that all staff, contracted staff, or other responsible entities, that as part of their normal job responsibilities might come into contact with or otherwise observe an illicit discharge or illicit connection to the MS4 receives annual training in the IDDE program including identification, investigation, termination, cleanup, and reporting of illicit discharges including spills, improper disposal, and illicit connections. Office personnel who might receive initial reports of illicit discharges, should also receive the annual training, All Permittees shall require that all new hires are trained within **60 days** of hire date and annually thereafter, at a minimum. Follow-up training shall be provided as needed to address changes in procedures, methods, or staffing. Training shall include how to identify a spill, an improper disposal, or an illicit connection to the MS4 and proper procedures for reporting the illicit discharge. Training records must be kept and shall include dates,

activities or course descriptions, and names and positions of staff in attendance. The Permittee shall include a summary of such training in the annual report.

4.2.3.12. The *Director* reserves the right to request documentation or further investigation of a particular non-storm water discharge of concern, to determine a reasonable basis for allowing the non-storm water discharge and excluding the discharge from the Permittee's program or to require inclusion of the discharge in the Permittee's program, if water quality concerns cannot otherwise be reasonably satisfied.

4.2.4. Construction Site Storm Water Runoff Control

All Permittees shall revise (as necessary), implement and enforce a program to reduce pollutants in any storm water runoff to the MS4 from construction sites with a land disturbance of greater than or equal to one acre. This includes projects less than one acre that are part of a larger common plan of development or sale which collectively disturbs land greater than or equal to one acre according to the minimum performance measures listed below. Public and private projects, including projects proposed by the Permittee's own departments and agencies, shall comply with these requirements.

The minimum performance measures are:

4.2.4.1. Revise (as necessary) and enforce an ordinance or other regulatory mechanism that requires the use of erosion and sediment control practices at construction sites. The ordinance or other regulatory mechanism shall, at a minimum, be equivalent with the requirements set forth in the most current UPDES Storm Water General Permits for Construction activities which can be found at construction.stormwater.utah.gov. The ordinance or other regulatory mechanism shall include sanctions to ensure compliance. The ordinance or other regulatory mechanism shall apply, at a minimum, to construction projects disturbing greater than or equal to one acre, as well as, construction projects of less than one acre that are part of a larger common plan of development or sale which collectively disturbs land greater than or equal to one acre.

4.2.4.1.1 The ordinance or other regulatory mechanism shall, at a minimum, require construction operators to prepare a Storm Water Pollution Prevention Plan (SWPPP) and apply sediment and erosion control BMPs as necessary to protect water quality, reduce the discharge of pollutants, and control waste. This includes, but not limited to, discarded building materials, concrete truck washout, chemicals, litter and sanitary waste at the construction site that may cause adverse impacts to water quality. The SWPPP requirements must be, at a minimum, equivalent with the SWPPP requirement set forth in the most current UPDES Storm Water General Permits for Construction Activities, which can be found at: construction.stormwater.utah.gov.

4.2.4.1.2 Permittees shall require construction operators to obtain coverage under the current UPDES Storm Water General Permits for Construction Activities for the duration of the project. Coverage can be renewed; or obtained online by completing a NOI or renewal request at https://deq.utah.gov/water-quality/updes-ereporting#construction

4.2.4.1.3 The ordinance shall include a provision for access by qualified personnel to inspect construction storm water BMPs on private properties that discharge to the MS4.

4.2.4.2. Develop a written enforcement strategy and implement the enforcement provisions of the ordinance or other regulatory mechanism. The enforcement strategy shall include:

4.2.4.2.1 Standard operating procedures (SOPs) or similar types of documents that include specific processes and sanctions to minimize the occurrence of violations and obtain compliance from violators. The SOP or similar type of document shall include appropriate, escalating enforcement procedures and actions, including an appeals process that is published in a publicly accessible location.

4.2.4.2.2 Documentation and tracking of all enforcement actions.

4.2.4.3. Development and implementation of a checklist for pre-construction SWPPP review that is consistent with the requirements of the current UPDES Storm Water General Permits for Construction Activities. MS4s are required to keep records for, at a minimum, all construction sites that disturb greater than or equal to one acre, including projects less than one acre that are part of a larger common plan of development or sale which collectively disturbs land greater than or equal to one acre, to ensure plans are complete and in compliance with State regulations. Permittees shall keep records of these projects for five years or until construction is completed, whichever is longer.

Prior to construction, the Permittee shall:

4.2.4.3.1 Conduct a pre-construction SWPPP meeting which includes a review of the site design, planned operations at the construction site, planned BMPs during the construction phase, and planned BMPs to be used to manage runoff created after development.

4.2.4.3.2 The Permittee must develop procedures for receiving and considering information and comments submitted by the public on proposed projects.

4.2.4.3.3 Identify priority construction sites considering the following factors at a minimum:

- Soil erosion potential;
- Site slope;
- Project size and type;
- Sensitivity of receiving waterbodies (impaired or high-quality waters);
- Proximity to receiving waterbodies; and,
- Non-storm water discharges and past record of non-compliance by the operators of the construction site.

4.2.4.4. All Permittees shall develop and implement SOPs or similar types of documents for construction site inspection and enforcement of construction storm water pollution control measures. The procedures must clearly identify who is responsible for site inspections, as well as, who has authority to implement enforcement procedures. An individual or entity who prepares a SWPPP for a construction project may not perform the construction site inspections required of Part 4.2.4.4.1 and 4.2.4.4.3 on behalf of the Permittee. The Permittee must have the authority to the extent authorized by law to impose sanctions to ensure compliance with the local program. These procedures and regulatory authorities must be written and documented in the SWMP.

The construction site storm water runoff control inspection program must provide:

4.2.4.4.1 At a minimum, monthly inspections of all new construction sites with a land disturbance of greater than or equal to one acre, including projects less than one acre that are part of a larger common plan of development or sale which collectively disturbs land greater than or equal to one acre are required. These inspections must be conducted by qualified personnel using the Construction Storm Water Inspection Form(Checklist) found on the Division's website at https://deq.utah.gov/water-quality/municipal-separate-storm-sewer-system-ms4s-permits-updes-permits.

A "qualified person" is a person knowledgeable in the principles and practice of erosion and sediment controls and pollutant prevention, who possesses the skills to assess conditions at effectiveness of any storm water controls selected and installed to meet the requirements of this permit, such as but not limited to the following:

- Utah Registered Storm Water Inspector (RSI)
- Certified Professional in Erosion and Sediment Control (CPESC)
- Certified Professional in Storm Water Quality (CPSWQ)
- Certified Erosion, Sediment, and Storm Water Inspector (CESSWI)
- Certified Inspector of Sediment and Erosion Control (CISEC)
- National Institute for Certification in Engineering Technologies, Erosion and Sediment Control, Level 3 (NICET)
- Certified Stormwater Inspector Construction (CSI-Construction)
- Qualified Compliance Inspector of Stormwater (QCIS)
- EPA NPDES Construction General Permit Inspector Training

4.2.4.4.2 The Permittee must inspect all phases of construction, including prior to land disturbance, during active construction, and following active construction. The Permittee must document the procedure for being notified by construction operators/owners of their completion of active construction in its SWMP. Notification is required so that verification of final stabilization and removal of all temporary control measures may be conducted. This procedure must be provided to the construction operator/owner before active construction begins.

4.2.4.4.3 Inspections by the MS4 of priority construction sites, as defined in Part 7.0., must be conducted at least biweekly (every two weeks) using the Construction Storm Water Inspection Form (Checklist) found on the *Division's* website at https://deq.utah.gov/water-quality/municipal-separate-storm-sewer-system-ms4s-permits-updes-permits.

4.2.4.4.4 Permittees may utilize an electronic site inspection tool in place of up to one-half of on-site MS4 inspections at a construction site provided that the Permittee demonstrates to the Director that the tool meets the requirements of Part 4.2.4.

4.2.4.4.5 Based on site inspection findings, the Permittee must take all necessary follow-up actions (i.e., re-inspection, enforcement) to ensure compliance in accordance with the Permittee's enforcement strategy. These follow-up and enforcement actions must be tracked and documented.

4.2.4.5 The Permittee must ensure that all staff whose primary job duties are related to implementing the construction storm water program, including permitting, plan

review, construction site inspections, and enforcement, are annually trained to conduct these activities. The training can be conducted by the MS4 or outside training can be attended. Such training must be extended to third-party inspectors and plan reviewers as well. The Permittee shall ensure that all new hires are trained within **60 days** of hire date and annually thereafter, at a minimum. Follow-up training shall be provided as needed to address changes in procedures, methods, or staffing. Training records must be kept and contain, at a minimum, dates, activities or course descriptions, and names and positions of staff in attendance.

4.2.4.6. All Permittees shall maintain records of all projects disturbing greater than or equal to one acre, including projects less than one acre that are part of a larger common plan of development or sale which collectively disturbs land greater than or equal to one acre. Permittees shall keep records which include but not limited to, site plan reviews, SWPPPs, inspections, and enforcement actions including verbal warnings, stop work orders, warning letters, notices of violation, and any other enforcement conducted. Permittees shall keep records of these projects for five years or until construction is completed, whichever is longer.

4.2.5. Long-Term Storm Water Management in New Development and Redevelopment (Post-Construction Storm Water Management)

The Permittee shall revise (as necessary), implement, and enforce a program to address post-construction storm water runoff to the MS4 from private and public new development and redevelopment construction sites meeting the thresholds below. The water quality considerations of this minimum control measure do not replace or substitute for water quantity or flood management requirements implemented on the local level for new development or redevelopment sites. The water quality controls may be incorporated into the design of structures intended for flow control; or water quality control may be achieved with separate control measures. The program must apply to private and public development sites.

The minimum performance measures are:

4.2.5.1. Post-construction Controls. The Permittee's new development/redevelopment program must have requirements or standards to ensure that any storm water controls or management practices for new development and redevelopment will prevent or minimize impacts to water quality. BMPs must be selected that address pollutants known to be discharged or have potential to be discharged from the site.

4.2.5.1.1. The Permittee's new development/redevelopment program should include non-structural BMPs. The Permittee should consider non-structural BMPs, including. requirements and standards to minimize development in areas susceptible to erosion and sediment loss; minimize the disturbance of native soils and vegetation; preserve areas that provide important water quality benefits; implement measures for flood control; and protect the integrity of natural resources and sensitive areas.

4.2.5.1.2. Retention Requirement. The Permittee must develop and define a specific hydrologic method or methods for calculating runoff volumes and flow rates to ensure consistent sizing of structural BMPs in their jurisdiction and to facilitate plan review.

New development projects that disturb land greater than or equal to one acre, including projects that are part of a larger common plan of development or sale which collectively disturbs land greater than or equal to one acre must manage rainfall on-site and prevent the off-site discharge of the precipitation from all rainfall events less than or equal to the 80th percentile rainfall event or a predevelopment hydrologic condition, whichever is less. This objective must be accomplished by the use of practices that are designed, constructed, and maintained to infiltrate, have evapotranspiration, and/or harvest and reuse rainwater. The 80th percentile rainfall event is the event whose precipitation total is greater than or equal to 80 percent of all storm events over a given period of record.

Redevelopment projects that disturb greater than or equal to one acre, including projects less than an acre that are part of a larger common plan of development or sale which collectively disturbs land greater than or equal to one acre must provide a site-specific and project-specific plan aimed at net gain to onsite retention or a reduction to impervious surface to provide similar water quality benefits. If a redevelopment project increases the impervious surface by greater than 10%, the project shall manage rainfall on-site and prevent the off-site discharge of the net increase in the volume associated with the precipitation from all rainfall events less than or equal to the 80th percentile rainfall event. This objective must be accomplished by the use of practices that are designed, constructed, and maintained to infiltrate, have evapotranspiration, and/or harvest and reuse rainwater.

4.2.5.1.3. Low Impact Development Approach. The program shall include a process which ***requires*** the evaluation of a Low Impact Development (LID) approach for all projects subject to the requirements in 4.2.5.1.2. A LID approach promotes the implementation of BMPs that allow storm water to infiltrate, have evapotranspiration or harvest[1] and use storm water on site to reduce runoff from the site and protect water quality.

Guidance for implementing LID can be found in DWQ's LID controls which are appropriate for use in the State of Utah can be found in *A Guide to Low Impact Development within Utah* (the Guide), available on DWQ's website.

Permittees must allow for use of a minimum of five LID practices from the list in Appendix C of the Guide. If a Permittee has not adopted specific LID practices from Appendix C, any LID approach that meets 4.2.5.1.2 and is feasible may be used to meet this requirement.

4.2.5.1.4. Feasibility. If meeting the retention standards described in Part 4.2.5.1.2 is infeasible, a rationale shall be provided for the use of alternative design criteria. The new or redevelopment project must document and quantify that infiltration, evapotranspiration, and rainwater harvesting have been used to the maximum extent feasible and that full employment of these controls are infeasible due to constraints. LID infeasibility may be due to one or more of the following conditions: high groundwater, drinking water source protection areas, soil conditions, slopes, accessibility, excessive costs, or any other justifiable constraint.

Guidance for assessing and documenting site conditions can be found in DWQ's "A Guide to Low Impact Development within Utah" Appendix B "Storm Water Quality Report Template" located on the DWQ website at: https://documents.deq.utah.gov/water-quality/stormwater/updes/DWQ-2019-000161.pdf.

A MS Word version can be found on DWQ's website at: https://documents.deq.utah.gov/water-quality/stormwater/DWQ-2018-013750.docx.

4.2.5.2. Regulatory Mechanism. Develop and adopt an ordinance or other regulatory mechanism that requires long-term post-construction storm water controls at new development and redevelopment sites. The ordinance or other regulatory mechanism shall apply, at a minimum, to new development and redevelopment sites that discharge to the MS4 that disturb greater than or equal to one acre, including projects less than one acre that are part of a larger common plan of development or sale which collectively disturbs land greater than or equal to one acre. The ordinance or other regulatory mechanism shall require BMP selection, design, installation, operation, and maintenance standards necessary to protect water quality and reduce the discharge of pollutants to the MS4. The Permittee shall implement an enforcement strategy and implement the enforcement provisions of the ordinance or other regulatory mechanism. The Permittee's ordinance or other regulatory mechanism must include an appeals process.

4.2.5.2.1 The Permittee must include enforcement provisions in the ordinance or other regulatory mechanism that must contain procedures for specific processes and sanctions to minimize the occurrences of violations and obtain compliance from chronic and recalcitrant violators. These processes and sanctions shall include appropriate, escalating enforcement procedures and actions.

4.2.5.2.2 The Permittee must maintain documentation on how the requirements of the ordinance or other regulatory mechanism will protect water quality and reduce the discharge of pollutants to the MS4.

Documentation shall include:

- How long-term storm water BMPs were selected;
- The pollutant removal performance expected from the selected BMPs; and
- The technical basis which supports the performance claims for the selected BMPs.

All Permittees shall adopt and implement SOPs or similar types of documents for site inspection and enforcement of post-construction storm water control measures. These procedures must ensure adequate ongoing long-term operation and maintenance of approved storm water control measures.

4.2.5.2.3 The ordinance or other regulatory mechanism shall include provisions for post-construction access for Permittees to inspect storm water control measures on private properties that discharge to the MS4 to ensure that adequate maintenance is being performed. The ordinance or other regulatory mechanism may require private property owner/operators or qualified third parties to conduct maintenance and provide annual certification that adequate maintenance has been performed and the structural controls are operating as designed to protect water quality, in lieu of the Permittee. If the Permittee requires a maintenance agreement addressing maintenance requirements for any control measures installed on site, the agreement must allow the Permittee to conduct oversight inspections of the storm water control measures and also account for transfer of responsibility in leases and/or deeds. The agreement must also allow the

Permittee to perform necessary maintenance or corrective actions neglected by the property owner/operator and bill or recoup costs from the property owner/operator as needed.

4.2.5.2.4 Permanent structural BMPs shall be inspected at least once during installation by qualified personnel. Upon completion, the Permittee must verify that long-term BMPs were constructed as designed.

4.2.5.2.5 Inspections and any necessary maintenance must be conducted at least every other year or as necessary to maintain functionality of the control by either the Permittee, or, if applicable, the property owner/operator. On sites where the property owner/operator is conducting maintenance, the Permittee shall inspect those storm water control measures at least once every five years, or more frequently as determined by the Permittee, to verify and ensure that adequate maintenance is being performed. Following an inspection, if there is an observed failure of a facility to perform as designed, the Permittee must document its findings in an inspection report.
The inspection report must include the following:

- Inspection date;
- Name and signature of inspector;
- Project location;
- Current ownership information;
- A description of the condition of the storm water control measure including the quality of: vegetation and soils; inlet and outlet channels and structures; catch basins; spillways; weirs, and other control structures; and sediment and debris accumulation in storage as well as in and around inlet and outlet structures; and,
- Specific maintenance issues or violations found that need to be corrected by the property owner or operator along with deadlines and re-inspection dates.

4.2.5.3. Plan Review. The Permittee shall:

4.2.5.3.1 Adopt and implement procedures for site plan review which evaluates potential water quality impacts. The procedures shall apply through the life of the project from conceptual design to project closeout.

[1]Since 2010, rainwater harvesting is legal in the State of Utah. Depending on the volume of rainwater collected and stored for beneficial use, the Permittee must meet the requirements of the Utah Division of Water Rights to harvest rainwater found on their website: http://waterrights.utah.gov/forms/rainwater.asp.

4.2.5.3.2 Review post-construction plans for, at a minimum, all new development and redevelopment sites that disturb greater than or equal to one acre, including projects less than one acre that are part of a larger common plan of development or sale which collectively disturbs land greater than or equal to one acre, to ensure that the plans include long-term storm water management measures meet the requirements of this minimum control measure.

4.2.5.4. Inventory. The Permittee must maintain an inventory of all post-construction structural storm water control measures installed and implemented at new development and redeveloped sites that disturb greater than or equal to one acre, including projects less than one acre that are part of a larger common plan of development or sale which collectively disturbs land greater than or equal to one acre. This inventory must include both public and private sector sites located within the Permittee's service area that were developed since the Permittee obtained coverage by this permit or the date that post-construction requirements came into effect, whichever is later.

4.2.5.4.1 Each entry to the inventory must include basic information on each project, such as project's name, owner's name and contact information, location, start/end date, etc.

In addition, inventory entries must include the following for each project:

- Short description of each storm water control measure (type, number, design or performance specifications);
- Short description of maintenance requirements (frequency of required maintenance and inspections); and
- Inspection information (date, findings, follow up activities, prioritization of follow-up activities, compliance status).

4.2.5.4.2 Based on inspections conducted pursuant to Part 4.2.5.2.5, the Permittee must update the inventory when changes occur in property ownership or the specific control measures implemented at the site.

4.2.5.5. Training. Permittees shall ensure that all staff involved in post-construction storm water management, including those that conduct plan review, annual maintenance inspections, and enforcement, receive appropriate training. Training shall be provided or made available for staff in the fundamentals of long-term storm water management through the use of structural and non-structural control methods. Training records must be kept and include, at a minimum, dates, activities or course descriptions, and names and positions of staff in attendance. The Permittee shall ensure that all new hires are trained within **60 days** of hire and annually thereafter, at a minimum. Follow-up training shall be provided as needed to address changes in procedures, methods, or staffing.

4.2.6. Pollution Prevention and Good Housekeeping for Municipal Operations

All Permittees must implement a program for Permittee-owned or operated facilities, operations and structural storm water controls that includes SOPs, pollution prevention BMPs, storm water pollution prevention plans or similar type of documents, and a training component that have the ultimate goal of preventing or reducing the runoff of pollutants to the MS4 and waters of the state. All components of the program shall be

included in the SWMP document and must identify the department responsible for performing each activity described in this section. The Permittee shall develop an inventory of all such Permittee-owned or operated facilities. The Permittee must review this inventory annually and update as necessary.

4.2.6.1. The Permittee shall develop and keep current a written inventory of all the below potential "high priority" facilities that are owned or operated by the Permittee and all the associated storm water controls, at a minimum. The *Director* maintains the authority to add additional facilities to the list, as needed.
The inventory should include, but not limited to, the following facilities:

- Composting facilities;
- Equipment storage and maintenance facilities;
- Fuel farms;
- Hazardous waste disposal facilities;
- Hazardous waste handling and transfer facilities;
- Incinerators;
- Landfills;
- Landscape maintenance facilities on municipal property;
- Materials storage yards;
- Pesticide storage facilities;
- Public buildings, including libraries, police stations, fire stations, municipal buildings, restrooms, and similar Permittee-owned or operated buildings;
- Public parking lots;
- Public golf course maintenance facilities;
- Public swimming pool maintenance facilities;
- Public works yards;
- Public Marinas and Boat Launches;
- Recycling facilities;
- Salt storage facilities and de-icing storage facilities;
- Solid waste handling and transfer facilities;
- Street repair and maintenance facilities and or shed sites;
- Vehicle storage and maintenance yards;
- Airports;
- Animal control facilities;
- Vehicle salvage yards;
- Chemical storage facilities; and
- Transportation hubs, including bus stations

4.2.6.2. All Permittees shall assess the written inventory of Permittee-owned or operated facilities, operations, and storm water controls identified in Part 4.2.6.1 and make a list of common pollutants that may originate from these facilities and how to prevent them from entering the storm water system. A description of the assessment process and findings must be included in the SWMP document.

4.2.6.3. Based on the assessment required in Part 4.2.6.2., the Permittee must identify as "high-priority" those facilities or operations that have:

- Pollutants stored at the site;

- Improperly stored materials;
- Potential pollutant-generating activities performed outside (e.g. changing automotive fluids)
- Close proximity to fresh water and water bodies, including but not limited, to streams, canals, rivers, ponds and lakes;
- Potential to discharge pollutant(s) of concern to impaired water(s).

The Permittee shall provide water quality control measures and BMPs at all high-priority sites designed to target the specific pollutants generated onsite, and/or the pollutants associated with the impaired waters. The Permittee shall monitor the control measures and BMPs regularly to verify that the BMPs are functioning. Control measures, BMPs, and monitoring schedules shall be specified in the Permittee's SWMP.

4.2.6.4 The Permittee shall update the SWMP to include a list of "high priority" facilities according to 4.2.6.3 and prepare a Storm Water Pollution Prevention Plan (SWPPP) for each facility within **180 days** from the effective date of this permit. Each "high priority" facility shall implement a SWPPP outlining measures to prevent pollutants from entering the storm drain system from each of these facilities and contain an inspection schedule of the facility.

The SWPPP shall include a site map showing the following information:

- Facility address;
- Staff/contact information for the facility;
- Property boundaries;
- Buildings and impervious surfaces;
- Directions of storm water flow (use arrows);
- Locations of structural control measures;
- Facility BMPs (non-structural);
- Location and name of the nearest defined drainage(s) which could receive runoff from the facility, whether it contains water or not;
- Locations of all storm water conveyances including ditches, pipes, basins, inlets, and swales;
- Locations where on-site activities may be exposed to storm water, including, but limited to the following:
  - -Fixed fueling operations;
  - -Vehicle and equipment maintenance and/or cleaning areas;
  - -Brine making areas;
  - -Loading/unloading areas;
  - -Waste storage or disposal areas;
  - -Liquid storage tanks;
  - -Process and equipment operating areas;
  - -Materials storage or disposal areas;
- Locations where significant spills or leaks have occurred;
- Locations of all visual storm water monitoring points;
- Locations of storm water inlets and outfalls, with a unique identification code for each outfall and an approximate outline of the areas draining to each outfall;

- Locations of all non-storm water discharges; and
- Locations of sources of run-on to your site from adjacent properties.

4.2.6.5. The following inspections shall be conducted at "high priority" Permittee-owned or operated facilities:

4.2.6.5.1 Monthly visual inspections: The Permittee must perform monthly visual inspections of "high priority" facilities and related storm water outfalls in accordance with the developed SOPs to verify the performance of the BMPs and all other systems designed and placed to eliminate pollutant discharges. The monthly inspections must be tracked in a log for every facility and records must be kept with the SWMP document. The inspection log should also include any identified deficiencies and the corrective actions taken to fix the deficiencies.

4.2.6.5.2 Semi-Annual comprehensive inspections: At least twice per year, a comprehensive inspection of "high priority" facilities, including all storm water controls, must be performed, with specific attention paid to waste storage areas, dumpsters, vehicle and equipment maintenance/fueling areas, material handling areas, and similar pollutant-generating areas. The semi-annual inspection results must be documented and records kept with the SWMP document. This inspection must be done in accordance with the developed SOPs. An inspection report must also include any identified deficiencies and the corrective actions taken to remedy the deficiencies.

4.2.6.5.3 Annual visual observation of storm water discharges: At least once per year, the Permittee must visually observe the quality of the storm water discharges from the "high priority" facilities. Any observed problems (e.g., color, foam, sheen, turbidity) that can be associated with pollutant sources or controls must be remedied as soon as practicable, but at a minimum, before the next storm event. Remediation is required to prevent discharge to the storm drain system. Visual observations must be documented and records kept with the SWMP document. This inspection must be done in accordance with the developed SOPs. The inspection report must also include any identified deficiencies and the corrective actions taken to remedy the deficiencies.

4.2.6.6. Permittees shall develop and implement SOPs to protect water quality at each of the facilities owned or operated by the Permittee and/or activities conducted by the Permittee including, but not limited to, those listed below:

- Buildings and facilities;
- Material storage areas;
- Heavy equipment storage areas and maintenance areas;
- Parks and open space;
- Vehicle and Equipment;
- Roads, highways, and parking lots; and
- Storm water collection and conveyance system.

4.2.6.6.1 SOPs shall address the following practices to ensure they are protective of water quality:

- Use, storage and disposal of chemicals;
- Storage of salt, sand, gravel, landscaping materials, asphalt and other materials;

- Waste and trash management;
- Cleaning, washing, painting and maintenance activities including: cleaning of maintenance equipment, building exteriors, and trash containers;
- Sweeping roads and parking lots;
- Proper application, storage, and disposal of fertilizer, pesticides, and herbicides and minimizing their use;
- Lawn maintenance and landscaping activities including: proper disposal of lawn clipping and vegetation;
- Green waste deposited in the street;
- Proper disposal of pet wastes;
- Vehicle maintenance and repair activities including: use of drip pans and absorbents under or around leaky vehicles and equipment;
- Vehicle/equipment storage including storing indoors where feasible;
- Vehicle fueling including placing fueling areas under cover in order to minimize exposure where feasible;
- Road and parking lot maintenance, including: pothole repair, pavement marking, sealing, and repaving;
- Cold weather operations, including: plowing, sanding, application of deicing compounds, and maintenance of snow disposal areas;
- Right-of-way maintenance, including: mowing, herbicide and pesticide application;
- Municipally-sponsored events such as large outdoor festivals, parades, or street fairs and the clean-up following these events;
- Regular inspection, cleaning, and repair of storm water conveyance and structural storm water controls;
- Graffiti removal; and
- Any activities or operations not listed above that would reasonably be expected to discharge contaminated runoff;

4.2.6.6.2 SOPs must include a schedule for Permittee owned road and parking lot sweeping and storm drain system maintenance. The SOPs must include regular inspection, cleaning, and repair of catch basins, storm water conveyance pipes, ditches and irrigation canals, culverts, structural storm water controls, and structural runoff treatment and/or flow control facilities. Permittees must prioritize sweeping and storm sewer system maintenance, with the highest priority areas being maintained at the greatest frequency. Priorities should be driven by water quality concerns, most recent assessment the receiving water, the amount and type of material that typically accumulates in an area, or other location-specific factors.

4.2.6.6.3 Permittees must ensure and document proper disposal methods of all waste and wastewater removed during cleaning and maintenance of the storm water conveyance system. These disposal methods apply to, but are not limited to, street sweeping and catch basin cleaning. Materials removed from the MS4 should be dewatered in a contained area and discharged to the local sanitary sewer (with approval of local authorities) where feasible. The solid material will need to be stored and disposed of properly to avoid discharge during a storm event. Any other treatment and disposal measures shall be reviewed and approved by the *Director*. Some materials removed from storm drains and open channels may require special handling and disposal, and

may not be authorized to be disposed of in a landfill. The solid material shall be stored and disposed of in accordance to federal, state and local laws.

4.2.6.6.4 Permittees must ensure that vehicle, equipment, and other wash waters are not discharged to the MS4 or waters of the state as these types of discharges are strictly prohibited under this Permit. Additionally, the Permittee must minimize discharges to waters of the state that are associated with snow disposal and melt.

4.2.6.6.5 The Permittee shall develop a spill prevention plan in coordination with the local fire department.

4.2.6.6.6 All Permittees must maintain an inventory of all floor drains inside all Permittee-owned or operated buildings and ensure that all floor drains discharge to appropriate locations. The inventory shall be updated as necessary to ensure accuracy.

4.2.6.7. The Permittee shall be responsible for ensuring, through contractually-required documentation and/or periodic site visits that contractors performing Operation and Maintenance (O&M) activities for the Permittee are using appropriate storm water controls and following the SOPs, storm water control measures, and good housekeeping practices of the Permittee.

4.2.6.8. The Permittee must develop and implement a process to assess the water quality impacts and the design of all new flood management structural controls that are associated with the Permittee or that discharge to the MS4. This process shall include consideration of controls that can be used to minimize the impacts to site water quality and hydrology while still meeting project objectives. A description of this process shall be included in the SWMP document.

4.2.6.8.1 Existing flood management structural controls shall be assessed to determine whether changes or additions should be made to improve water quality. A description of this process and any changes or additions made should be included in the SWMP document.

4.2.6.9. The Permittee must develop a plan to retrofit existing developed sites that the Permittee owns or operates that are adversely impacting water quality. The retrofit plan must be developed to emphasize controls that infiltrate, have evapotranspiration, or harvest and use storm water discharges.

The plan must include a ranking of retrofit sites based on the following criteria:

- Proximity to waterbody;
- Current assessment of waterbody with the goal to improve impaired waterbodies and protect unimpaired waterbodies;
- Hydrologic condition of the receiving waterbody;
- Proximity to sensitive ecosystem or protected area; and
- Any sites that could be further enhanced by retrofitting storm water controls.

4.2.6.10. The Permittee shall require that all employees, contracted staff, and other responsible entities that have primary operation, or maintenance job functions that are likely to impact storm water quality receive annual training. The annual training shall address the importance of protecting water quality, the requirements of this Permit, O&M requirements, inspection procedures, ways prevent or minimize impacts to water

quality by how they perform their job activities SOPs and SWPPPs for the various Permittee-owned or operated facilities, as well as, procedures for reporting water quality concerns, including potential illicit discharges. Training records must be kept and contain, at a minimum, dates, activities or course descriptions, and names and positions of staff in attendance. The Permittee shall document and maintain records of the training provided and the staff in attendance. The Permittees must ensure that all new hires are trained within **60 days** of hire and annually thereafter, at a minimum. Follow-up training shall be provided as needed to address changes in procedures, methods, or staffing.

4.3. Sharing Responsibility

4.3.1. Implementation of one or more of the six minimum measures may be shared with another entity, or the entity may fully take over the measure. A Permittee may rely on another entity only if:

4.3.2. The other entity, in fact, implements the control measure;

4.3.3. The particular control measure, or component of that measure, is at least as stringent as the corresponding Permit requirement; and

4.3.4. The other entity agrees to implement the control measure through a written agreement. This obligation must be maintained as part of the description given in the Permittee's SWMP document. If the other entity agrees to report on the minimum control measure, the Permittee must supply the other entity with the reporting requirements contained in Part 5.5. of this Permit. If the other entity fails to implement the control measure, then the Permittee remains liable for any discharges due to any failure to implement the control measure.

4.3.5. The Permittee conducts training of the responsible entity on the Permit requirements and applicable standard operating procedures.

4.4. Reviewing and Updating Storm Water Management Programs

4.4.1. *Storm Water Management Program Review:* All Permittees must conduct, at a minimum, an annual review of the SWMP document in conjunction with preparation of the annual report required in Part 5.5.

4.4.2. *Storm Water Management Program Update:* A Permittee may change the SWMP document during the life of the Permit in accordance with the following procedures:

4.4.2.1. Changes adding components, controls, or requirements to the SWMP document may be made at any time upon written notification to the *Director*. Changes that reduce or replace any component, control, or requirement of the SWMP document is not authorized, unless it meets requirements outlined in Part 4.4.2.2.

4.4.2.2. Changes replacing an ineffective or unfeasible BMP specifically identified in the SWMP document with an alternate BMP may be adopted at any time, provided the analysis is clearly outlined and subsequently approved by the *Director*.

An analysis shall include:

4.4.2.2.1 An explanation of why the BMP is ineffective or infeasible;

4.4.2.2.2 Expectations or report on the effectiveness of the replacement BMP; and

4.4.2.2.3 An analysis of why the replacement BMP is expected to achieve the goals of the BMP to be replaced, or has achieved those goals.

4.4.3. Change requests or notifications must be made in writing and signed in accordance with Part 6.8.

4.4.4. Change requests or notifications will receive confirmation and approval or denial in writing from the *Director*.

4.4.5. Storm Water Management Program Updates required by the *Director:* The *Director* may require changes to the SWMP as needed to:

4.4.5.1. Address impacts on receiving water quality caused, or contributed to, by discharges from the MS4;

4.4.5.2. Include more stringent requirements necessary to comply with new Federal regulatory requirements; or

4.4.5.3. Include such other conditions deemed necessary by the *Director* to comply with the goals and requirements of the Clean Water Act.

5.0 Narrative Standard, Monitoring, Recordkeeping and Reporting

5.1. Narrative Standard

It shall be unlawful and a violation of this Permit, for the Permittee to discharge or place any waste or other substance in such a way as will be or may become offensive such as unnatural deposits, floating debris, oil, scum or other nuisances such as color, odor or taste, or conditions which produce undesirable aquatic life or which produces objectionable tastes in edible aquatic organisms; or concentrations or combinations of substances which produce undesirable physiological responses in desirable resident fish, or other desirable aquatic life, or undesirable human health effects, as determined by bioassay or other tests performed in accordance with standard procedures.

5.2. Analytical Monitoring

Permittees are not required to conduct analytical monitoring (see definition in Part 7.0) during the effective term of this Permit, with the following exceptions:

5.2.1. Water quality sampling may be required for compliance with TMDLs, pursuant to Part 3.1. of this Permit.

5.2.2. Sampling or testing may be required for characterizing illicit discharges pursuant to Parts 4.2.3.4., 4.2.3.5., and 4.2.3.5.1 of this Permit.

5.2.3. In the event that the Permittee elects to conduct analytical monitoring as part of its Storm Water Management Program, the Permittee is required to comply with Part 6.18. of this Permit.

5.3. Non-analytical Monitoring

5.3.1. Non-analytical monitoring (see definitions in Part 7.0) such as visual dry weather screening is required to comply with Part 4.2.3.3.2 of this Permit.

5.4. Record keeping

5.4.1. Permittees must keep all supplementary documents associated with this Permit (e.g., Storm Water Management Program (SWMP) document, SWMP Implementation Schedule) current and up to date to ensure the purpose and objectives of the required document are achieved.

5.4.2. All modifications to supplementary documents must be submitted to the *Director* in accordance with Parts 4.4 and 6.8.

5.4.3. The *Director* may at any time make a written determination that parts or all of the supplementary documents are not in compliance with this Permit. If such a determination is made the Permittee must make modifications to these parts within a time frame specified by the *Director*.

5.4.4. The Permittee shall retain all required plans, records of all programs, records of all monitoring information, copies of all reports required by this Permit, and records of all

other data required by or used to demonstrate compliance with this Permit, for at least five years. This period may be explicitly modified by alternative provisions of this Permit or extended by request of the *Director* at any time.

5.4.5. The Permittee must make records, including the Notice of Intent (NOI) and the SWMP document, available to the public if requested.

5.5. Reporting

5.5.1. The Permittee must submit an annual report to the *Director* by October 1 for the reporting period of July 1 to June 30 of each year of the Permit term.

5.5.2. The report must be submitted using the report form provided on the *Division's* website at https://deq.utah.gov/water-quality/municipal-separate-storm-sewer-system-ms4s-permits-updes-permits

5.5.3. The Permittee shall sign and certify the annual report in accordance with Part 6.8.

5.5.4. Signed copies of the Annual Report and all other reports required herein, must be submitted directly to the DWQ electronic document system at: https://deq.utah.gov/water-quality/water-quality-electronic-submissions

6.0 Standard Permit Conditions

6.1. Duty to Comply

The Permittee must comply with all conditions of this Permit. Any Permit noncompliance constitutes a violation of the Act and is grounds for enforcement action; for Permit termination; revocation and reissuance; modification; or for denial of Permit coverage. The Permittee shall give advance notice to the *Director* of any planned changes in the Permitted facility or activity, which may result in noncompliance with Permit requirements.

6.2. Penalties for Violations of Permit Conditions

The *Act* provides that any person who violates a Permit condition implementing provisions of the *Act* is subject to a civil penalty not to exceed $10,000 per day of such violation. Any person who willfully or negligently violates Permit conditions or the Act is subject to a fine not exceeding $25,000 per day of violation. Any person convicted under *UCA 19-5-115(2)* a second time shall be punished by a fine not exceeding $50,000 per day.

6.3. Duty to Reapply

If the Permittee wishes to continue an activity regulated by this Permit after the expiration date of this Permit, the Permittee shall apply for and obtain a new Permit. The application shall be submitted at least **180 days** before the expiration date of this Permit. Continuation of expiring Permits shall be governed by regulations promulgated at *UAC R317-8-5* and any subsequent amendments.

6.4. Need to Halt or Reduce Activity not a Defense

It shall not be a defense for a Permittee in an enforcement action that it would have been necessary to halt or reduce otherwise permitted activities in order to maintain compliance with the conditions of this Permit.

6.5. Duty to Mitigate

The Permittee must take all reasonable steps to minimize or prevent any discharge in violation of this Permit, which has a reasonable likelihood of adversely affecting human health or the environment.

6.6. Duty to Provide Information

The Permittee shall furnish to the *Director,* within a time specified by the *Director*, any information which the *Director* may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this Permit, or to determine compliance with this Permit. The Permittee shall also furnish to the *Director*, upon request, copies of records required to be kept by this Permit.

6.7. Other Information

When the Permittee becomes aware that it failed to submit any relevant facts in a Permitapplication, or submitted incorrect information in a Permit application or any report to the *Director*,it shall promptly submit such facts or information.

6.8. Signatory Requirements

All notices of intent, storm water management programs, storm water pollution prevention plans, reports, certifications or information either submitted to the *Director* or that this Permit requires to be maintained by the Permittee, shall be signed, dated and certified as follows:

6.8.1. All Permit applications shall be signed by either a principal executive officer or ranking elected official.

6.8.2. All reports required by the Permit and other information requested by the *Director* shall be signed by a person described above or by a duly authorized representative of that person. A person is a duly authorized representative only if:

6.8.2.1. The authorization is made in writing by a person described above and submitted to the *Director*, and,

6.8.2.2. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility, such as the position of plant manager, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters. A duly authorized representative may thus be either a named individual or any individual occupying a named position.

6.8.2.3. Changes to authorization. If an authorization under *Part 6.8.2.* 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 *Part 6.8.2.* must be submitted to the *Director* prior to or together with any reports, information, or applications to be signed by an authorized representative.

6.8.3. *Certification*. Any person signing documents under this Part shall make the following certification:

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

6.9 Availability of Reports

Except for data determined to be confidential under the Government Records Access and Management Act (*see* particularly Utah Admin. Code § 63-2-309) and Utah Admin Code § 19-1-3-6, all reports prepared in accordance with the terms of this Permit shall be available for public inspection at the office of the *Director*. As required by the *Act*, Permit applications, Permits and effluent data shall not be considered confidential.

6.10. Penalties for Falsification of Reports

The *Act* provides that any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this Permit, including monitoring reports or reports of compliance or noncompliance shall, upon conviction be punished by a fine of not more than $10,000.00 per violation, or by imprisonment for not more than six months per violation, or by both. Utah Admin Code § 19-5-115(4)

6.11. Penalties for Tampering

The *Act* provides that any person who falsifies, tampers with, or knowingly renders inaccurate, any monitoring device or method required to be maintained under this Permit shall, upon conviction, be punished by a fine of not more than $10,000 per violation, or by imprisonment for not more than six months per violation, or by both.

6.12. Property Rights

The issuance of this Permit does not convey any property rights of any sort, 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.

6.13. Severability

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

6.14. Requiring a Different Permit

The *Director* may require the Permittee authorized by this Permit to obtain an individual *UPDES* Permit. Any interested person may petition the *Director* to take action under this paragraph. The *Director* may require the Permittee authorized to discharge under this Permit to apply for an individual *UPDES* Permit only if the Permittee has been notified in writing that a Permit application is required. This notice shall include a brief statement of the reasons for this decision, an application form (as necessary), a statement setting a deadline for the Permittee to file the application, and a statement that on the effective date of the municipal *UPDES* Permit, coverage under this Permit shall automatically terminate. Permit applications shall be submitted to the address of the *Division* shown in *Part 5.5.* of this Permit. The *Director* may grant additional timeto submit the application upon request of the applicant. If the municipality fails to submit in a timely manner a municipal *UPDES* Permit application as required by the *Director*, then the applicability of this Permit to the Permittee is automatically terminated at the end of the day specified for application submittal.

6.15. State/Federal Laws

Nothing in this Permit shall be construed to preclude the institution of any legal action or relieve the Permittee from any responsibilities, liabilities, or penalties established pursuant to any applicable State law or regulation under authority preserved by *UCA 19-5-117* and *Section 510* of the *Clean Water Act* or any applicable Federal or State transportation regulations.

6.16. Proper Operation and Maintenance

The Permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the Permittee to achieve compliance with the conditions of this Permit and with the requirements of the SWMP. Proper operation and maintenance also include adequate laboratory controls and appropriate quality assurance procedures. Proper operation and maintenance requires the operation of backup or auxiliary facilities or similar systems, installed by the Permittee only when necessary to achieve compliance with the conditions of the Permit.

6.17. Monitoring and Records

6.17.1. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity.

6.17.2. The Permittee shall retain records of all monitoring information including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of the reports required by this Permit, and records of all data used to complete the application for this Permit, for a period of at least five years from the date of the sample, measurement, report or application. This period may be extended by request of the *Director* at any time.

6.17.3. Records of monitoring information shall include:

6.17.3.1 The date, exact place, and time of sampling or measurements;

6.17.3.2 The name(s) of the individual(s) who performed the sampling or measurements;

6.17.3.3 The date(s) and time(s) analyses were performed;

6.173.4 The name(s) of the individual(s) who performed the analyses;

6.17.3.5 The analytical techniques or methods used; and

6.17.3.6 The results of such analyses.

6.18. Monitoring Procedures

Monitoring must be conducted according to test procedures approved under *Utah Admin. Code ("UAC") R317-2-10*, unless other test procedures have been specified in this Permit.

6.19. Inspection and Entry

The Permittee shall allow the *Director* or an authorized representative, upon the presentation of credentials and other documents as may be required by law, to:

6.19.1. Enter upon the Permittee's premises where a regulated facility or activity is located or conducted or where records must be kept under the conditions of this Permit;

6.19.2. Have access to and copy at reasonable times, any records that must be kept under the conditions of this Permit;

6.19.3. Inspect at reasonable times any facilities or equipment (including monitoring and control equipment); and

6.19.4. Sample or monitor at reasonable times, for the purposes of assuring Permit compliance or as otherwise authorized by law, any substances or parameters at any location.

6.20. Permit Actions

This Permit may be modified, revoked and reissued, or terminated for cause. The filing of a request by the Permittee for a Permit modification, revocation and re-issuance, termination, or a notification of planned changes or anticipated noncompliance does not suspend any Permit condition.

6.21. Storm Water-Reopener Provision

At any time during the duration (life) of this Permit, this Permit may be reopened and modified (following proper administrative procedures) as per *UAC R317.8*, to include, any applicable storm water provisions and requirements, a storm water pollution prevention plan, a compliance schedule, a compliance date, monitoring and/or reporting requirements, or any other conditions related to the control of storm water discharges to "waters of state".

7.0 Definitions

Definitions related to this Permit and small municipal separate storm sewers (MS4s).

"40 CFR" refers to Title 40 of the Code of Federal Regulations, which is the codification of the general and permanent rules published in the Federal Register by the executive departments and agencies of the Federal government.

"Act" means the *Utah Water Quality Act*.

"Analytical monitoring" refers to monitoring of waterbodies (streams, ponds, lakes, etc.) or of storm water, according to UAC R317-2-10 and 40 CFR 136 "Guidelines Establishing Test Procedures for the Analysis of Pollutants," or to State or Federally established protocols for biomonitoring or stream bio-assessments.

"Beneficial Uses" means uses of the waters of the state, which include but are not limited to: domestic, agricultural, industrial, recreational, and other legitimate beneficial uses.

"Best Management Practices" (BMPs) means 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, and practices to control facility site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage.

"CWA" means *The Clean Water Act of 1987*, formerly referred to as the Federal Water Pollution Control Act.

"Co-Permittee" means any operator of a regulated Small MS4 that is applying jointly with another applicant for coverage under this Permit. A Co-Permittee owns or operates a regulated Small MS4 located within or adjacent to another regulated MS4. A Co- Permittee is only responsible for complying with the conditions of this Permit relating to discharges from the MS4 the Co-Permittee owns or operates. See also 40 CFR 122.26(b)(1).

"Control Measure" refers to any Best Management Practice or other method used to prevent or reduce the discharge of pollutants to waters of the state.

"Common plan of development or sale" means one plan for development or sale, separate parts of which are related by any announcement, piece of documentation (including a sign, public notice or hearing, sales pitch, advertisement, drawing, plat, blueprint, contract, Permit application, zoning request, computer design, etc.), physical demarcation (including contracts) that identify the scope of the project. A plan may still be a common plan of development or sale even if it is taking place in separate stages or phases, is planned in combination with other construction activities, or is implemented by different owners or operators.

"Developed site" means a parcel or property that was previously in commercial, industrial, institutional, governmental, or residential use. A parcel that was previously in an agricultural use would not be considered to be a developed site.

"Director" means the director of the Utah Division of Water Quality, otherwise known as the Executive Secretary of the Utah Water Quality Board.

"Division" means the Utah Division of Water Quality.

"Discharge" for the purpose of this Permit, unless indicated otherwise, refers to discharges from the Municipal Separate Storm Sewer System (MS4).

"Dry weather screening" is monitoring done in the absence of storm events to discharges representing, as much as possible, the entire storm drainage system for the purpose of obtaining information about illicit connections and improper dumping.

"Escalating enforcement procedures" refers to a variety of enforcement actions in order to apply as necessary for the severity of the violation and/or the recalcitrance of the violator.

"Entity" means a governmental body or a public or private organization.

"EPA" means the United States Environmental Protection Agency.

"General Permit" means a Permit which covers multiple dischargers of a point source category within a designated geographical area, in lieu of individual Permits being issued to each discharger.

"Ground water" means water in a saturated zone or stratum beneath the surface of the land or below a surface water body.

"High quality waters" means any water, where, for a particular pollutant or pollutant parameter, the water quality exceeds that quality necessary to support the existing or designated uses, or which supports an exceptional use.

"Illicit connection" means any man-made conveyance connecting an illicit discharge directly to a municipal separate storm sewer.

"Illicit discharge" means any discharge to a municipal separate storm sewer that is not composed entirely of storm water except discharges pursuant to a UPDES Permit (other than the UPDES Permit for discharges from the municipal separate storm sewer) to waters of the state.

"Impaired waters" means any segment of surface waters that has been identified by the *Director* as failing to support one or more of its designated uses. The *Director* periodically compiles a list of such waters known as the 303(d) List.

"Large MS4" *Large municipal separate storm sewer system* means all municipal separate storm sewers that are located in an incorporated place with a population of 250,000 or more as determined by the current Decennial Census by the Bureau of the Census.

"Low Impact Development" (LID) is an approach to land development (or re-development) that works with nature to more closely mimic pre-development hydrologic functions. LID employs principles such as preserving and recreating natural landscape features, minimizing effective imperviousness to create functional and appealing site drainage that treat storm water as a resource rather than a waste product. There are many practices that have been used to adhere to these principles such as bio-retention facilities, rain gardens, vegetated rooftops, rain barrels, and permeable pavements.

"MS4" is an acronym for "municipal separate storm sewer system".

"Maximum Extent Practicable" (MEP) is the technology-based discharge standard for Municipal Separate Storm Sewer Systems established by paragraph 402(p)(3)(B)(iii) of the Federal Clean Water Act (CWA), which reads as follows: "Permits for discharges from municipal storm sewers shall require controls to reduce the discharge of pollutants to the maximum extent practicable, including management practices, control techniques, and system, design, and engineering methods, and other such provisions as the Administrator or the State determines appropriate for the control of such pollutants."

"Medium MS4" *Medium municipal separate storm sewer system* means all municipal separate storm sewers that are located in an incorporated place with a population of 100,000 or more but less than 250,000, as determined by the1990 Decennial Census by the Bureau of the Census

"Monitoring" refers to tracking or measuring activities, progress, results, etc.;

"Municipal separate storm sewer system" means a conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels, or storm drains) pursuant to paragraphs R317-8-1.6(4), (8), & (15), or designated under UAC R317-8-11.3(6)(a) and UAC R317-8-11.3(6)(b):

- that is owned or operated by a state, city, town, county, district, association, or other public body (created by or pursuant to State Law) having jurisdiction over disposal of wastes, storm water, or other wastes, including specialdistricts under State Law such as a sewer district, flood control district or drainage district, or similar entity, or a designated and approved managementagency under section 208 of the CWA that discharges to waters of the state;

- that is designed or used for collecting or conveying storm water;

- which is not a combined sewer; and

- which is not part of a Publicly Owned Treatment Works (POTW) as defined in 40 CFR 122.2.

"NOI" is an acronym for "Notice of Intent" to be covered by this Permit and is the mechanism used to "register" for coverage under a General Permit.

"Non-analytical monitoring" refers to monitoring for pollutants by means other than UAC R317-2-10 and 40 CFR 136, such as visually or by qualitative tools that provide comparative or rough estimates.

"Operator" is the person or entity responsible for the operation and maintenance of the MS4.

"Outfall" means a point source as defined by UAC R317-8-1.5(34) at the point where a municipal separate storm sewer discharges to waters of the state and does not include open conveyances connecting two municipal separate storm sewers, or pipes, tunnels or other conveyances which connect segments of the same stream or other waters of the state and are used to convey waters of the state.

"Phase II areas" means areas regulated under UPDES storm water regulations encompassed by Small MS4's (see definition 7.39.).

"Priority construction site" means a construction site that has potential to threaten water quality when considering the following factors: soil erosion potential; site slope; project size and type; sensitivity of receiving waterbodies; proximity to receiving waterbodies; non-storm water discharges and past record of non-compliance by the operators of the construction site.

"Redevelopment" is the replacement or improvement of impervious surfaces on a developed site.

"Runoff" is water that travels across the land surface, or laterally through the ground near the land surface, and discharges to water bodies either directly or through a collection and conveyance system. Runoff includes storm water and water from other sources that travels across the land surface.

"SWMP" is an acronym for storm water management program. The SWMP document is the written plan that is used to describe the various control measures and activities the Permittee will undertake to implement the storm water management plan.

"SWPPP" is an acronym for storm water pollution prevention plan.

"Small municipal separate storm sewer system" is any MS4 not already covered by the Phase I program as a medium or large MS4. The Phase II Rule automatically covers on a nationwide basis all Small MS4s located in "urbanized areas" (UAs) as defined by the Bureau of the Census (unless waived by the UPDES Permitting authority), and on a case-by-case basis those Small MS4s located outside of UAs that the UPDES Permitting authority designates.

- This term includes systems similar to separate storm sewer systems in municipalities, such as systems at military bases, large hospital or prison complexes, and highways and other thoroughfares. The term does not include separate storm sewers in very discrete areas, such as individual buildings.

"SOP" is an acronym for standard operating procedure which is a set of written instructions that document a routine or repetitive activity. For the purpose of this Permit, SOPs should emphasize pollution control measures to protect water quality.

"Storm water" means storm water runoff, snowmelt runoff, and surface runoff and drainage.

"Storm water management program" means a set of measurable goals, actions, and activities designed to reduce the discharge of pollutants from the Small MS4 to the maximum extent practicable and to protect water quality.

"TMDL" is an acronym for "Total Maximum Daily Load" and in this Permit refers to a study that: 1) quantifies the amount of a pollutant in a stream; 2) identifies the sources of the pollutant; and 3) recommends regulatory or other actions that may need to be taken in order for the impaired waterbody to meet water quality standards.

"Urbanized area" is a land area comprising one or more places and the adjacent densely settled surrounding area that together have a residential population of at least 50,000 and an overall population density of at least 1,000 people per square mile.

"waters of the state" means all streams, lakes, ponds, marshes, water-courses, waterways, wells, springs, irrigation systems, drainage systems, and all other bodies or accumulations of water, surface and underground, natural or artificial, public or private which are contained within, flow through, or border upon this state or any portion thereof, except bodies of water confined to and retained within the limits of private property, and which do not develop into or constitute a nuisance, or a public health hazard, or a menace to fish and wildlife which shall not be considered to be "waters of the state" under this definition ("UAC" R317-1-1).

STATE OF UTAH

DEPARTMENT OF ENVIRONMENTAL QUALITY

DIVISION OF WATER QUALITY

Utah Pollutant Discharge Elimination System

General Permit for Storm Water Discharges from Construction Activities

UPDES Permit No. UTRC00000

This Permit is issued in compliance with the provisions of the Utah Water Quality Act, Title 19, Chapter 5, Utah Code, as amended (the "Act") under delegated authority according to Title 33 U.S. Code Section 1342 with federal oversight from the Environmental Protection Agency under the Federal Clean Water Act, Title 33 U.S. Code Section 1251, *et. seq.,* as amended, and the rules and Regulations made pursuant to those statutes. This permit authorizes "owners/operators" of construction activities (defined in Part 1.1. l and Part 10) that meet the requirements of Part 1. of this Utah Pollutant Discharge Elimination System (UPDES) general permit, to discharge pollutants in accordance with the effluent limitations and conditions set forth herein. Permit coverage is required from the "commencement of earth-disturbing activities" (see Part l 0) until "final stabilization" (see Part 2.2.14).

This MODIFIED permit becomes effective on July 8, 2020.

This MODIFIED permit and the authorization to discharge expire at midnight on June 30, 2024.

Signed this eighth day of July, 2020.

Erica Brown Gaddis, PhD
Director

Table of Contents

Appendix A – BUFFER REQUIREMENTS

1. COVERAGE UNDER THIS PERMIT

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

1.1. ELIGIBILITY CONDITIONS

1.1.1. **All "operators"** of a construction site must sign on the notice of intent or NOI (see part 1.4 for NOI). Owners (or lessee's) and general contractors are both considered "operators" for the purposes of this permit (see definition of "operator" in Part 10). Except for areas listed in part 1.2.2, this permit does not cover area that is not legally owned or leased by the operator defined in Part 10, that has operational control over construction plans and specifications.

1.1.2. **The Project**:

a. A project covered by this permit will **disturb 1 or more acres** of land, or will disturb less than 1 acre of land but be part of a common plan of development or sale[1] that will ultimately disturb 1 or more acres of land; or

b. A project's **discharges have been designated** by the Director as needing a permit under UAC 317-8-3.9(1)(a)5. or UAC 317-8-3.9(6)(e)2.

c. **Single lot residential projects** that disturb **less than 1 acre** of land and are part of a common plan of development or sale may be covered under the Common Plan Permit (UTRH00000) in lieu of this permit. Information on this permit can be found on the DWQ construction storm water web site at https://deq.utah.gov/legacy/permits/water-quality/utah-pollutant-discharge-elimination-system/storm-water-general-construction.htm.

d. Projects **less than five acres** with a **rainfall erosivity factor** ("R" in the revised universal soil loss equation, or RUSLE) value of **less than five** during the period of construction activity may waiver the requirements of this permit by submitting an **Erosivity Waiver Certification.** Information on the Erosivity Waiver can be found on the DWQ construction storm water web site at https://deq.utah.gov/legacy/permits/water-quality/utah-pollutant-discharge-elimination-system/storm-water-general-construction.htm.

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

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

a. **already have coverage** under the UPDES CGP or any other UPDES permit for a storm water discharge associated with construction activity (UPDES wastewater and industrial permit coverage for separate discharges associated with the site is allowed) or,

[1] See definition for common plan of development or sale in Part 10

b. **be in the process of receiving coverage** under a different UPDES permit for a storm water discharge from construction activities that has been denied, terminated, or revoked[2],

c. **be treated with "cationic treatment chemicals"** (see Definitions) unless and until you notify DWQ in advance of receiving permit coverage and have received written approval. To be able to use "cationic treatment chemicals" you must demonstrate to DWQ that appropriate controls and implementation procedures are used to ensure that your use of cationic treatment chemicals will not lead to discharges that cause an exceedance of water quality standards or harm fish populations.

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

a. If the emergency related activity is accomplished within 30-days you are waived from the normal requirements to submit an NOI and prepare a SWPPP, but you must submit a report to DWQ within 45-days and show:

(1) the nature of the emergency work performed,

(2) a description of earth disturbances that occurred,

(3) the proximity of the work to waters of the State, and what was done to protect water quality during the emergency work, and

(4) the occurrence of the public emergency must be substantiated.

b. If the emergency activity continues longer than 30-days you are authorized to discharge on the condition that a complete and accurate NOI is submitted within 30 calendar days after commencing earth-disturbing activities establishing that you are eligible under this permit. You are also required to provide emergency documentation in your SWPPP to substantiate the occurrence of the public emergency.

1.1.6. Water Quality Standards – Eligibility for New Sources. If you are a "new source" (as defined in Part 10), you are not eligible for coverage under this permit for discharges that have the reasonable potential to cause, or contribute to an excursion above any applicable water quality standard. Where DWQ makes such a determination, operators must make adjustments to storm water controls to bring the discharge into compliance with water quality standards immediately or permit coverage will be rescinded. DWQ expects that compliance with the storm water control requirements of this permit, including the requirements applicable to such discharges in Part 3.2, will result in discharges that will not cause, have the reasonable potential to cause, or contribute to an excursion above any applicable water quality standard.

[2] Projects having been denied, terminated, or revoked must resolve the problem causing the ineligibility before the same or other coverage will be restored.

1.1.7. Discharging to Waters with High Water Quality – Eligibility for New Sources. If you are a "new source" (as defined in Part 10), you are eligible to discharge to a Category 1 water if your discharge is temporary and limited and where best management practices will be employed to minimize pollution effects, to a Category 2 water only if your discharge will not lower the water quality of the applicable water body. In the absence of information demonstrating otherwise, DWQ expects that compliance with the storm water control requirements of this permit, including the requirements applicable to such discharges in Part 3.2, will result in discharges that will not lower the water quality of the applicable water.

Your project will be considered to discharge to a Category 1 or 2 water if the first surface water to which you discharge is identified by the state as a Category 1 or 2 water. For discharges that enter a storm sewer system prior to discharge, the first surface water to which you discharge is the water body that receives the storm water discharge from the storm sewer system. Please refer to water quality information at http://mapserv.utah.gov/surfacewaterquality/

1.2. DISCHARGES AUTHORIZED UNDER THIS PERMIT. The following is a list of discharges that are allowed under this permit provided that appropriate storm water controls are designed, installed, and maintained:

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

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

a. The support **activity is directly related to the construction site** required to have permit coverage for storm water discharges;

b. The support activity **does not serve multiple unrelated construction projects**;

c. The support activity **does not continue to operate beyond the completion of the construction** activity at the project it supports; and

d. Storm water controls are implemented in accordance with Part 2 and, if applicable, Part 3, for discharges from the support activity areas.

1.2.3. The following non-storm water discharges from your construction activity are allowed under this permit, provided that you comply with all applicable requirements for these discharges in Part 2:

a. Discharges from emergency fire-fighting activities;

b. Fire hydrant flushings;

c. Properly managed landscape irrigation;

d. Water used to wash vehicles and equipment, provided that there is no discharge of soaps, solvents, or detergents used for such purposes;

e. Water used to control dust;

f. Potable water including uncontaminated water line flushings;

g. External building washdown, provided soaps, solvents, and detergents are not used, and external surfaces do not contain hazardous substances;

h. Pavement wash waters, provided spills or leaks of toxic or hazardous materials have not occurred (unless all spill material has been removed) and where detergents (including biodegradable soy bean oils and biodegradable detergents) are not used. You are prohibited from directing pavement wash waters directly into any surface water, storm drain inlet, or storm water conveyance unless the conveyance is connected to a sediment basin, sediment trap, or similarly effective control for the pollutants present. Per 2.2.5.d., hosing of accumulated sediments on pavement into any storm water conveyance is prohibited;

i. Uncontaminated air conditioning or compressor condensate;

j. Uncontaminated, non-turbid discharges of ground water (from natural sources) or spring water; and,

k. Foundation or footing drains where flows are not contaminated with process materials such as solvents, contaminated ground water, or sediment from construction activity.

1.2.4. Comingling of the non-storm water discharges above with other permitted discharges is also authorized.

1.2.5. **Discharging of construction dewatering** (groundwater that intersects with excavation) must be permitted under UTG070000 (Construction Dewatering and Hydrostatic Test Permit), and the Municipal Separate Storm Sewer System (MS4) (of jurisdiction) notified of the discharge. Permitting is not required under UTG070000 if the construction dewatering does not leave the site (it is percolated into the ground on site).

1.3. PROHIBITED DISCHARGES.

1.3.1. Wastewater from washing tools and vehicles after pouring, prepping, or finishing concrete.

1.3.2. Wastewater from washing and cleanout of stucco, paint, concrete, form release oils, curing compounds, and other construction materials;

1.3.3. Fuels, oils, or other pollutants used in vehicle and equipment operation and maintenance;

1.3.4. Soaps, solvents, or detergents used in vehicle and equipment washing or external building washdown; and

1.3.5. Toxic or hazardous substances from a spill or other release.

To prevent the above-listed prohibited non-storm water discharges, operators must comply with the applicable pollution prevention requirements in Part 2.3.

1.4. NOTICE OF INTENT (NOI). To be covered under this permit, you must develop a SWPPP (see part 7.1), submit a complete and accurate NOI, remit the permit fee, and receive an Authorization to Discharge Letter. The permit fee covers a year of permit coverage. If a project extends more than a year the permit must be renewed and the permit fee must be remitted again.

There is a 60-day grace period after the permit expiration date where projects may be completed or the permit renewed.

All NOI application packages, including Authorization to Discharge letters and storm water pollution prevention plans (SWPPP) must also be submitted to regulated MS4s (see the list of municipalities on the DWQ municipal storm water web site https://deq.utah.gov/legacy/permits/water-quality/utah-pollutant-discharge-elimination-system/storm-water-municipal.htm). Not all municipalities are regulated MS4s (see definitions Part 10).

1.4.1. How to Submit Your NOI. NOIs and permit fees may be submitted online at https://cdxnodengn.epa.gov/net-cgp/action/login. A paper copy of the NOI form may be downloaded from the DWQ construction storm water web site at https://documents.deq.utah.gov/water-quality/stormwater/DWQ-2017-004363.pdf, filled out and mailed, with permit fee, to:

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

1.4.2. Start and End of Permit Coverage and Deadlines. Coverage under a permit must be obtained before soil disturbing activities begin. The permit is effective immediately after the Authorization to Discharge Letter has been received. Active coverage may be affected by the following conditions:

a. a notice of termination (NOT) is submitted at: https://cdx.epa.gov/cdx/.

b. the yearly permit fee is kept current and renewed year by year for the period of construction activity,

c. when this general permit (UTRC00000) expires, if no arrangement has been made for continuing coverage, NOIs may need to be submitted for continuing coverage under a new or reissued replacement permit,

d. coverage under the CGP is rescinded or revoked for the project site for administrative reasons for which the permittee will be notified in writing, or

e. if all storm water discharges for the site are permitted under a different general or individual UPDES permit, this permit is terminated on the day the other permit coverage begins.

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

a. authorization of, and an application process, is provided for coverage under a reissued or replacement version of this permit; or

b. the permittee's submittal of a Notice of Termination, submitted at: https://cdx.epa.gov/cdx/; or

c. the issuance of an individual permit or denial of coverage (see part 1.4.4 below) for the project's discharges.

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

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

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

1.5. REQUIREMENT TO POST A NOTICE OF YOUR PERMIT COVERAGE All permitted sites must have a sign posted in a conspicuous, safe, publically accessible place and near the entrance to the project. The font on the sign must large enough for normal corrected vision to easily read the sign contents from a public right-of-way. At a minimum, the notice must include:

1.5.1. the UPDES Permit tracking number,

1.5.2. the name of a contact person for questions, SWPPP requests, or information about the project,

a. the contact phone number (must be available during business hours) or

b. an email address (must be checked and responded to within 24-hours on week days).,

2. TECHNOLOGY-BASED EFFLUENT LIMITATIONS. You must comply with the following technology-based effluent limitations in this Part.

2.1. GENERAL STORM WATER CONTROL DESIGN, INSTALLATION, AND MAINTENANCE REQUIREMENTS. You must design, install, and maintain storm water controls required in Parts 2.2 and 2.3 to minimize the discharge of pollutants in storm water from construction activities. To meet this requirement, you must:

2.1.1. Account for the following factors in designing your storm water controls:

a. The expected amount, frequency, intensity, and duration of precipitation;

b. The nature of storm water runoff and run-on at the site, including factors such as expected flow from impervious surfaces, slopes, and site drainage features. You must design storm water controls to control storm water volume, velocity, and peak flow rates to minimize discharges of pollutants in storm water and to minimize channel and streambank erosion and scour in the immediate vicinity of discharge points; and

c. The soil type and range of soil particle sizes expected to be present on the site.

2.1.2. Design and install all storm water controls in accordance with good engineering practices, including applicable design specifications (see manufacturer specifications and/or applicable erosion and sediment control manuals or ordinances – departures from such specifications must reflect good engineering practices and must be explained in your SWPPP).

2.1.3. Complete installation of storm water controls by the time each phase of construction activities has begun.

a. Before construction activity in any given portion of the site begins, install and make operational any downgradient sediment controls (e.g., buffers, perimeter controls, exit point controls, storm drain inlet protection).

b. Following the installation of storm water controls for the initial construction activities (e.g., clearing, grading, excavating), adjust storm water control and management strategies throughout the project to meet and match the needs for each phase of construction, if applicable, as the project progresses towards completion.

2.1.4. Ensure that all storm water controls are maintained, remain in effective operating condition during permit coverage, and are protected from activities that would reduce their effectiveness.

a. Comply with any specific maintenance requirements for the storm water controls listed in this permit. Regular maintenance is expected and is not limited to response actions from inspections or identified problems.

b. Follow maintenance recommendations from the manufacturer or utilize good engineering practices based on site conditions and document deviations from manufacture recommendations.

c. Any time maintenance issues are discovered in storm water controls, make repairs immediately if practical, prior to weather or activities utilizing the control, or within seven business days, whichever comes first.

d. Any time you find that a storm water control needs to be installed (where none had previously been), replaced, or removed, you must record the corrective action as required in Part 5.

2.2. EROSION AND SEDIMENT CONTROL REQUIREMENTS. You must implement erosion and sediment controls in accordance with the following requirements to minimize the discharge of pollutants in storm water from construction activities.

2.2.1. Provide and maintain natural buffers and/or equivalent erosion and sediment controls when a water of the state is located within 50 feet of the site's earth disturbances. Additional guidance for buffers is provided in Appendix A.

a. Compliance Alternatives. For any discharges to waters of the State located within 50 feet of your site's earth disturbances, you must comply with one of the following alternatives:

(1) Provide and maintain a 50-foot undisturbed natural buffer; or

(2) Provide and maintain an undisturbed natural buffer that is less than 50 feet and is supplemented by erosion and sediment controls that achieve, in combination, the sediment load reduction equivalent to a 50-foot undisturbed natural buffer; or

(3) If infeasible to provide and maintain an undisturbed natural buffer of any size, implement erosion and sediment controls to achieve the sediment load reduction equivalent to a 50-foot undisturbed natural buffer.

b. See Appendix A, Part A.2.2. for exceptions to the compliance alternatives.

2.2.2. Preserve naturally vegetated areas where possible and, if feasible, direct storm water to these areas to maximize storm water infiltration and filtering to reduce pollutant discharges.

2.2.3. Install sediment controls along any perimeter areas of the site that will receive pollutant discharges.

a. Remove sediment before it has accumulated to the point where the control has become ineffective. Often that is one-half of the above-ground height of any perimeter control.

b. **Exception.** For areas at "linear construction sites" (as defined in Part 10) where perimeter controls are infeasible (e.g., due to a limited or restricted right-of-way), implement other practices as necessary to minimize pollutant discharges to perimeter areas of the site.

2.2.4. Minimize sediment track-out.

a. **Restrict vehicle use to properly designated exit points**;

b. Use appropriate stabilization techniques at all points that exit onto paved roads[3].

(1) **Exception**: Stabilization is not required for exit points at linear utility construction sites that are used only episodically and for very short durations over the life of the project, provided other exit point controls[4] are implemented to minimize sediment track-out;

[3] An example of appropriate stabilization techniques is the use of aggregate stone with an underlying geotextile or non-woven filter fabric, and turf mats.

c. Implement additional track-out controls[5] as necessary to ensure that sediment removal occurs prior to vehicle exit; and

d. Where sediment has been tracked-out from your site onto paved roads, sidewalks, or other paved areas outside of your site, you must remove deposited sediment before it accumulates significantly and is tracked beyond the immediate vicinity of the project. Frequency of removal is dependent on site conditions, whatever is necessary to control off site tracking. . Remove the track-out by sweeping, shoveling, or vacuuming these surfaces, or by using other similarly effective means of sediment removal. You are prohibited from hosing or sweeping tracked-out sediment into any storm water conveyance, storm drain inlet, or water of the state[6].

2.2.5. Manage stockpiles or land clearing debris piles composed, in whole or in part, of sediment and/or soil:

a. Locate the piles outside of any natural buffers established under Part 2.2.1 and away from any storm water conveyances, drain inlets, and areas where storm water flow is concentrated;

b. Install a sediment barrier along all downgradient perimeter areas;[7]

c. For piles that will be unused for 14 or more days and are stored in areas that are being inspected at a reduced frequency due to temporary stabilization or frozen conditions (Part 4.4.1. and 4.4.3.), provide cover[8] or appropriate temporary stabilization (consistent with Part 2.2.14);

d. You are prohibited from hosing down or sweeping soil or sediment accumulated on pavement or other impervious surfaces into any storm water conveyance, storm drain inlet, or water of the state.

e. Where practicable, contain and securely protect from wind.

2.2.6. Minimize dust. On areas of exposed soil, minimize the generation of dust through the appropriate application of water or other dust suppression techniques.

2.2.7. Minimize steep slope disturbances. Minimize the disturbance of "steep slopes" (as defined in Part 10).

2.2.8. Preserve native topsoil,[9] unless infeasible.

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[4] Examples of other exit point controls include preventing the use of exit points during wet periods; minimizing exit point use by keeping vehicles on site to the extent possible; limiting exit point size to the width needed for vehicle and equipment usage; using scarifying and compaction techniques on the soil; and avoiding establishing exit points in environmentally sensitive areas (e.g., karst areas; steep slopes).

[5] Examples of additional track-out controls include the use of wheel washing, rumble strips, and rattle plates.

[6] Fine grains that remain visible (i.e., staining) on the surfaces of off-site streets, other paved areas, and sidewalks after you have implemented sediment removal practices are not a violation of Part 2.2.4.

[7] Examples of sediment barriers include berms, dikes, fiber rolls, silt fences, sandbags, gravel bags, or straw bale.

[8] Examples of cover include tarps, blown straw and hydromulching.

[9] Stockpiling topsoil at off-site locations, or transferring topsoil to other locations, is an example of a practice that is consistent with the requirements in Part 2.2.8. Preserving native topsoil is not required where the intended function of a specific area of the site dictates that the topsoil be disturbed or removed. For example, some sites may be designed to be highly impervious after construction, and therefore little or no vegetation is intended to remain, or may not have space to stockpile native topsoil on site for later use, in which case, it may not be feasible to preserve topsoil.

2.2.9. Minimize soil compaction[10] in areas of your site where final vegetative stabilization will occur or where infiltration practices will be installed:

a. Restrict vehicle and equipment use in these locations to avoid soil compaction; and

b. Before seeding or planting areas of exposed soil that have been compacted, use techniques that rehabilitate and condition the soils as necessary to support vegetative growth.

2.2.10. Protect storm drain inlets.

a. Install inlet protection measures that remove sediment from discharges prior to entry into any storm drain inlet that carries storm water flow from your site to a surface water of the state, provided you have authority to access the storm drain inlet;[11] and

b. Clean, or remove and replace, the protection measures as sediment accumulates, the filter becomes clogged, and/or performance is compromised. Where there is evidence of sediment accumulation adjacent to the inlet protection measure, remove the deposited sediment by the end of the same business day in which it is found.

2.2.11. Minimize erosion of storm water conveyance channels and their embankments, outlets, adjacent streambanks, slopes, and downstream waters. Use erosion controls and velocity dissipation devices[12] within and along the length of any storm water conveyance channel and at any outlet to slow down runoff to minimize erosion.

2.2.12. If you install a sediment basin or similar impoundment:

a. Situate the basin or impoundment outside of any water of the state and any natural buffers established under Part 2.2.1;

b. Design the basin or impoundment to avoid collecting water from wetlands;

c. Design the basin or impoundment to provide storage for either:

(1) The calculated volume of runoff from a 2-year, 24-hour storm; or

(2) 3,600 cubic feet per acre drained.

d. Utilize outlet structures that withdraw water from near the surface of the sediment basin or similar impoundment, unless infeasible;[13]

e. Use erosion controls and velocity dissipation devices to prevent erosion at inlets and outlets; and

f. Remove accumulated sediment to maintain at least one-half of the design capacity and conduct all other appropriate maintenance to ensure the basin or impoundment remains in effective operating condition.

[10] Minimizing soil compaction is not required where the intended function of a specific area of the site dictates that it be compacted.
[11] Inlet protection measures can be removed in the event of flood conditions or to prevent erosion
[12] Examples of velocity dissipation devices include check dams, sediment traps, riprap, and grouted riprap at outlets.
[13] The circumstances in which it is infeasible to design outlet structures in this manner are rare. A possible exception is dealing with or treating for temperature, but there may be other reasons. If you determine that it is infeasible to meet this requirement, you must provide documentation in your SWPPP to support your determination, including the specific conditions or time periods when this exception will apply.

2.2.13. If using treatment chemicals (e.g., polymers, flocculants, coagulants):

a. **Use conventional erosion and sediment controls before and after the application of treatment chemicals**. Chemicals may only be applied where treated storm water is directed to a sediment control (e.g., sediment basin, perimeter control) before discharge.

b. **Select appropriate treatment chemicals**. Chemicals must be appropriately suited to the types of soils likely to be exposed during construction and present in the discharges being treated (i.e., the expected turbidity, pH, and flow rate of storm water flowing into the chemical treatment system or area).

c. **Minimize discharge risk from stored chemicals**. Store all treatment chemicals in leak- proof containers that are kept under storm-resistant cover and surrounded by secondary containment structures (e.g., spill berms, decks, spill containment pallets), or provide equivalent measures designed and maintained to minimize the potential discharge of treatment chemicals in storm water or by any other means (e.g., storing chemicals in a covered area, having a spill kit available on site and ensuring personnel are available to respond expeditiously in the event of a leak or spill).

d. **Comply with state/local requirements**. Comply with applicable state and local requirements regarding the use of treatment chemicals.

e. **Use chemicals in accordance with good engineering practices and specifications of the chemical provider/supplier**. Use treatment chemicals and chemical treatment systems in accordance with good engineering practices, and with dosing specifications and sediment removal design specifications provided by the provider/supplier of the applicable chemicals, or document in your SWPPP specific departures from these specifications and how they reflect good engineering practice. Consider changing site conditions that may affect dosing levels such as temperature.

f. **Ensure proper training**. Ensure that all persons who handle and use treatment chemicals at the construction site are provided with appropriate, product-specific training. Among other things, the training must cover proper dosing requirements.

g. **Perform additional measures specified by DWQ for the authorized use of cationic chemicals**. If you have been authorized to use cationic chemicals at your site pursuant to Part 1.1.4.c, you must perform all additional measures as conditioned by your authorization to ensure that the use of such chemicals will not cause an exceedance of water quality standards or harm fish populations.

2.2.14. Stabilize exposed portions of the site. Implement and maintain stabilization measures (e.g., seeding protected by erosion controls until vegetation is established, sodding, mulching, erosion control blankets, hydromulch, gravel) that minimize erosion from exposed portions of the site in accordance with Parts 2.2.14.a and 2.2.14.b.

a. **Stabilization Deadlines**:

(1) Initiate the installation of stabilization measures in any areas of exposed soil where construction activities have permanently ceased or will be temporarily inactive for 14 or more calendar days as soon as possible and prior to the end of the 14th day of inactivity; and

(2) Complete the installation of stabilization measures as soon as practicable, but no later than 14 calendar days after stabilization has been initiated.[14]

(3) **Exceptions**:

(i) Arid, semi-arid, and drought-stricken areas[15] (as defined in Part 10). Where a project is an arid, semi-arid, or a seasonally dry period or a period in which drought is occurring, and vegetative stabilization measures are being used:

(1) Initiate as soon as practicable and, within 14 calendar days of a temporary or permanent cessation of work in any portion of your site, complete the installation of temporary non-vegetative stabilization measures to the extent necessary to prevent erosion;[16]

(2) As soon as practicable, given conditions or circumstances on the site, complete all activities necessary to seed or plant the area to be stabilized; and

(3) If construction is occurring during the seasonally dry period[17], indicate in your SWPPP the beginning and ending dates of the seasonally dry period and your site conditions. Also include the schedule you will follow for initiating and completing vegetative stabilization.

(ii) **Discharges to a sediment- or nutrient-impaired water** (a water having a TMDL identifying sediment or nutrients as the cause of impairment) or to a water that is high quality for antidegradation purposes (see part 3). Complete stabilization as soon as practicable, but no later than seven (7) calendar days after stabilization has been initiated.

b. **Final Stabilization Criteria** (for any areas not covered by permanent structures):

(i) Establish uniform, perennial vegetation (i.e., evenly distributed, without large bare areas) that provides 70 percent or more of the vegetative cover that was provided by vegetation prior to commencing earth-disturbing activities; and/or

(ii) Implement permanent non-vegetative stabilization measures[18] to provide effective cover.

(iii) **Exceptions**:

(1) **Arid, semi-arid, and drought-stricken areas** (as defined in Part 10). Final stabilization is met if the area has been seeded or planted in a manner that vegetation is expected to be

[14] If vegetative stabilization measures are being implemented, stabilization is considered "installed" when all activities necessary to seed or plant the area are completed. If non-vegetative stabilization measures are being implemented, stabilization is considered "installed" when all such measures are implemented or applied.

[15] If you are in an area receiving more than 20 inches of average annual precipitation that is in a drought (as determined by the NOAA drought predictor http://www.cpc.ncep.noaa.gov/products/Drought/) and a seasonal dry period, to comply with drought conditions you must identify the normal seasonal dry period in the SWPPP.

[16] The extent necessary to prevent erosion in arid and semi-arid areas means for visually flat areas, stabilization is not required (roughly from 0 percent up to 5 percent) unless an erosion concern exists. Areas with slopes roughly 5 percent to 20 percent must have, at minimum, controls to reduce storm water velocities to a point that erosion is controlled. Over a 20 percent slope requires soil surface stabilization. The amount of stabilization provided must increase commensurately with increasingly steeper slopes.

[17] The lower elevations of the Wasatch Front are semi-arid, the seasonal dry period for the Wasatch Front is June, July, and August.

[18] Examples of permanent non-vegetative stabilization measures include riprap, gravel, gabions, and geotextiles.

established within three (3) years which provides 70 percent or more of the cover that was provided by vegetation prior to commencing earth disturbing activities and, to the extent necessary to prevent erosion on the seeded or planted area, non-vegetative erosion controls meet standards in footnote 16.

(2) Disturbed areas on agricultural land that are restored to their preconstruction agricultural use. The Part 2.2.14b final stabilization criteria does not apply.

(3) Areas that need to remain disturbed. In limited circumstances, stabilization may not be required if the intended function of a specific area of the site necessitates that it remain disturbed, and only the minimum area needed remains disturbed (e.g., dirt access roads, utility pole pads, areas being used for storage of vehicles, equipment, materials).

2.3. POLLUTION PREVENTION REQUIREMENTS: Implement pollution prevention controls in accordance with the following requirements to minimize the discharge of pollutants in storm water and to prevent the discharge of pollutants from spilled or leaked materials from construction activities.

2.3.1. For equipment and vehicle fueling and maintenance:

a. Provide an effective means of eliminating the discharge of spilled or leaked chemicals, including fuels and oils, from these activities;[19]

b. If applicable, comply with the Spill Prevention Control and Countermeasures (SPCC) requirements in 40 CFR part 112 and Section 311 of the CWA;

c. Ensure adequate supplies are available at all times to handle spills, leaks, and disposal of used liquids;

d. Use drip pans and absorbents under or around leaky vehicles;

e. Dispose of or recycle oil and oily wastes in accordance with other federal, state, tribal, or local requirements; and

f. Clean up spills or contaminated surfaces immediately, using dry clean up measures (do not clean contaminated surfaces by hosing the area down), and eliminate the source of the spill to prevent a discharge or a continuation of an ongoing discharge.

2.3.2. For equipment and vehicle washing:

a. Provide an effective means of minimizing the discharge of pollutants from equipment and vehicle washing, wheel wash water, and other types of wash waters;[20]

[19] Examples of effective means include:
- Locating activities away from waters of the state and storm water inlets or conveyances so that storm water coming into contact with these activities cannot reach waters of the state;
- Providing secondary containment (e.g., spill berms, decks, spill containment pallets) and cover where appropriate; and
- Having a spill kit available on site and ensuring personnel are available to respond expeditiously in the event of a leak or spill.

b. Ensure there is no discharge of soaps, solvents, or detergents in equipment and vehicle wash water; and

c. For storage of soaps, detergents, or solvents, provide either (1) cover (e.g., plastic sheeting, temporary roofs) to minimize the exposure of these detergents to precipitation and to storm water, or (2) a similarly effective means designed to minimize the discharge of pollutants from these areas.

2.3.3. For storage, handling, and disposal of building products and materials:

a. For building materials and building products[21] that have the potential to mobilize or release pollutants, provide either (1) cover (e.g., plastic sheeting, temporary roofs) to minimize the exposure of these products to precipitation and to storm water, or (2) a similarly effective means designed to minimize the discharge of pollutants from these areas.

b. **For pesticides, herbicides, insecticides, fertilizers, and landscape materials**:

(1) In storage areas, provide either (1) cover (e.g., plastic sheeting, temporary roofs) to minimize the exposure of these chemicals to precipitation and to storm water, or (2) a similarly effective means designed to minimize the discharge of pollutants from these areas; and

(2) Comply with all application and disposal requirements included on the registered pesticide, herbicide, insecticide, and fertilizer label (see also Part 2.3.5).

c. **For diesel fuel, oil, hydraulic fluids, other petroleum products, and other chemicals**:

(1) Store chemicals in water-tight containers, and provide either (1) cover (e.g., plastic sheeting, temporary roofs) to minimize the exposure of these containers to precipitation and to storm water, or (2) a similarly effective means designed to minimize the discharge of pollutants from these areas (e.g., having a spill kit available on site and ensuring personnel are available to respond expeditiously in the event of a leak or spill), or provide secondary containment (e.g., spill berms, decks, spill containment pallets); and

(2) Clean up spills immediately, using dry clean-up methods where possible, and dispose of used materials properly. You are prohibited from hosing the area down to clean surfaces or spills. Eliminate the source of the spill to prevent a discharge or a furtherance of an ongoing discharge.

d. **For hazardous or toxic wastes**:[22]

(1) Separate hazardous or toxic waste from construction and domestic waste;

(2) Store waste in sealed containers, which are constructed of suitable materials to prevent leakage and corrosion, and which are labeled in accordance with applicable Resource

[20] Examples of effective means include locating activities away from waters of the state and storm water inlets or conveyances and directing wash waters to a sediment basin or sediment trap, using filtration devices, such as filter bags or sand filters, or using other similarly effective controls.

[21] Examples of building materials and building products typically present at construction sites include asphalt sealants, copper flashing, roofing materials, adhesives, concrete admixtures, and gravel and mulch stockpiles.

[22] Examples of hazardous or toxic waste that may be present at construction sites include paints, caulks, sealants, fluorescent light ballasts, solvents, petroleum-based products, wood preservatives, additives, curing compounds, and acids.

Conservation and Recovery Act (RCRA) requirements and all other applicable federal, state, tribal, or local requirements;

(3) Store all outside containers within appropriately-sized secondary containment (e.g., spill berms, decks, spill containment pallets) to prevent spills from being discharged, or provide a similarly effective means designed to prevent the discharge of pollutants from these areas (e.g., storing chemicals in a covered area, having a spill kit available on site);

(4) Dispose of hazardous or toxic waste in accordance with the manufacturer's recommended method of disposal and in compliance with federal, state, tribal, and local requirements;

(5) Clean up spills immediately, using dry clean-up methods, and dispose of used materials properly. You are prohibited from hosing the area down to clean surfaces or spills. Eliminate the source of the spill to prevent a discharge or a furtherance of an ongoing discharge; and

(6) Follow all other federal, state, tribal, and local requirements regarding hazardous or toxic waste.

e. **For construction and domestic wastes**:[23]

(1) Provide waste containers (e.g., dumpster, trash receptacle) of sufficient size and number to contain construction and domestic wastes;

(2) Provide containment or cover for waste that is blowable or that can leach nutrients, metals, pesticides, herbicides, oil, grease, bacteria, or other pollutants;

(3) On business days, clean up and dispose of waste in designated waste containers; and

(4) Clean up immediately if containers overflow.

f. **For sanitary waste**, position portable toilets so that they are secure and will not be tipped or knocked over. Locate them away from waters of the state and, when possible, at least 10 feet from any storm water conveyance, inlet, curb and gutter, or conduit to a waterway. If it is not possible to maintain at least 10 feet of separation, evaluate the need for additional controls such as secondary containment, additional surface preparation, or berms and implement as appropriate.

2.3.4. For washing applicators and containers used for stucco, paint, concrete, form release oils, curing compounds, or other materials:

a. Direct wash water into a leak-proof container or leak-proof and lined pit designed so that no overflows can occur due to inadequate sizing or precipitation;

b. Handle washout or cleanout wastes as follows:

(1) Do not dump liquid wastes in storm sewers or waters of the state;

(2) Dispose of liquid wastes properly[24]; and

[23] Examples of construction and domestic waste include packaging materials, scrap construction materials, masonry products, timber, pipe and electrical cuttings, plastics, styrofoam, concrete, demolition debris; and other trash or building materials.

(3) Remove and dispose of hardened concrete waste consistent with your handling of other construction wastes in Part 2.3.3; and

c. Locate any washout or cleanout activities as far away as possible from waters of the state and storm water inlets or conveyances, and, to the extent feasible, determine areas to be used for these activities and conduct such activities only in these areas.

2.3.5. For the application of fertilizers:

a. Apply at a rate and in amounts consistent with manufacturer's specifications, or document in the SWPPP departures from the manufacturer specifications where appropriate in accordance with Part 7.3.5.b.(5)(ix);

b. Apply at the appropriate time of year for your location, and preferably timed to coincide as closely as possible to the period of maximum vegetation uptake and growth;

c. Avoid applying before heavy rains that could cause excess nutrients to be discharged;

d. Never apply to frozen ground;

e. Never apply to storm water conveyance channels; and

f. Follow all other federal, state, tribal, and local requirements regarding fertilizer application.

2.3.6. Emergency Spill Notification Requirements: Discharges of toxic or hazardous substances from a spill or other release are prohibited (see Part 1.3). Where a leak, spill, or other release containing a hazardous substance or oil in an amount equal to or in excess of a reportable quantity established under either 40 CFR 110, 40 CFR 117, or 40 CFR 302 occurs during a 24-hour period, you must notify the National Response Center (NRC) at (800) 424-8802 in accordance with the requirements of 40 CFR 110, 40 CFR 117, and 40 CFR 302 as soon as you have knowledge of the release. You must also, within seven (7) calendar days of knowledge of the release, provide a description of the release, the circumstances leading to the release, and the date of the release. State, tribal, or local requirements may necessitate additional reporting of spills or discharges to local emergency response, public health, or drinking water supply agencies.

2.3.7. Construction Dewatering Requirements: Water or accumulated storm water that is removed from excavations, trenches, foundations, vaults, or other similar points of accumulation must be permitted by UPDES permit UTG070000 (UPDES Construction Dewatering and Hydrostatic Test Permit) in accordance with Part 1.2.5., unless it can be managed on site. An option for on site management is percolation of the water back into the ground (assuming it is uncontaminated).

[24] Proper disposal of liquid waste: 1) evaporate the waste and dispose of the residual solids with other solid waste, 2) have a liquid waste hauler for wash water haul it off and dispose of it, 3) settle it and pretreat it if necessary with arrangements to discharge the liquid waste to a treatment plant that has the ability to treat it and dispose of it.

3. WATER QUALITY-BASED EFFLUENT LIMITATIONS.

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

Discharges must be controlled as necessary to meet applicable water quality standards. DWQ expects that compliance with the conditions in this permit will result in storm water discharges being controlled as necessary to meet applicable water quality standards. If at any time you become aware, or DWQ determines, that discharges are not being controlled as necessary to meet applicable water quality standards, you must take corrective action as required in Parts 5.1 and 5.2, and document the corrective actions as required in Part 5.4.

DWQ may insist that you install additional controls on a site-specific basis, or require you to obtain coverage under an individual permit, if information in your NOI or from other sources indicates that your discharges are not controlled as necessary to meet applicable water quality standards. This includes situations where additional controls are necessary to comply with a wasteload allocation in an EPA-established or approved TMDL.

The NOI process requires that you determine if the watershed that you discharge into is impaired or if it is considered high quality. Only the first surface water you discharge to is used when determining if your discharge enters an impaired or high quality waterbody. For discharges that enter a storm water system prior to discharge, the first water of the state to which you discharge is the waterbody that receives the storm water discharge from the storm sewer system. Please refer to water quality information at http://mapserv.utah.gov/surfacewaterquality/

Each of these cases, impaired or high quality, may require an extra effort to maintain water quality standards. An impaired water body can have an approved TMDL (see Part 10 for definitions) or it can be on the list waiting a TMDL study. An EPA-approved TMDL is a water quality standard. If your project is in an area covered by an EPA-approved TMDL that has sediment or nutrients (particularly phosphorus) identified as the pollutant(s) of concern, you must provide an extra effort to prevent sediment from leaving the site. Nutrients are a component in topsoil from natural biotic systems. Nitrogen (a nutrient) is infused into the soil from biotic systems but also at times from the atmosphere during certain weather conditions. Some soils have phosphorus (a nutrient) from geologic formations in addition to biotic sources. Special efforts including site controls and management efforts must be employed for impaired or high quality waters, but especially for areas with TMDLs identifying sediment or nutrients as the pollutants of concern. Your SWPPP must show the special efforts you are taking for sensitive water bodies.

3.2. DISCHARGE LIMITATIONS FOR SITES DISCHARGING TO SENSITIVE WATERS[25]

For any portion of the site that discharges to a sediment or nutrient-impaired water or to a water that is identified as impaired or high quality you must comply with the inspection frequency specified in 4.3 and you must comply with the stabilization deadline specified in Part 2.2.14.[26]

[25] Your construction site will be considered to discharge to an impaired or high quality water if the first water to which you discharge is an impaired or high quality water for the pollutants contained in the discharge from your site. For discharges that enter a storm sewer system prior to discharge, the first water to which you discharge is the waterbody that receives the storm water discharge from the storm sewer system.

If you discharge to a water that is impaired for a parameter other than sediment or nutrients, you must address that parameter in your SWPPP if that pollutant has a presence in the construction process for your site. If the impaired parameter is naturally occurring in soils, it is assumed that the erosion control BMPs required by this permit will address the concern and it does not need to be addressed in the SWPPP as a pollutant source. You must deploy whatever control mechanisms that's needed to limit the discharge of that pollutant to meet water quality standards. This includes, if requested by DWQ, comparing the load discharged from the site for that pollutant to ensure it does not exceed a wasteload allocation for that pollutant in the applicable TMDL for the watershed.

[26] If you qualify for any of the reduced inspection frequencies in Part 4.4, you may conduct inspections in accordance with Part 4.4 for any portion of your site that discharges to a sensitive water.

4. SITE INSPECTION REQUIREMENTS.

4.1. PERSON(S) RESPONSIBLE FOR INSPECTING THE SITE. The person(s) inspecting your site may be a person on your staff or a third party you hire to conduct such inspections. You are responsible for ensuring that the person who conducts inspections is a "qualified person" and currently certified.

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

(1) Utah Registered Storm Water Inspector (RSI)

(2) Certified Professional in Erosion and Sediment Control (CPESC)

(3) Certified Professional in Storm Water Quality (CPSWQ)

(4) Certified Erosion, Sediment, and Storm Water Inspector (CESSWI)

(5) Certified Inspector of Sediment and Erosion Control (CISEC)

(6) National Institute for Certification in Engineering Technologies, Erosion and Sediment Control, Level 3 (NICET)

(7) Utah Department of Transportation Environmental Control Supervisor (ECS)

4.2. FREQUENCY OF INSPECTIONS.[27] At a minimum, you must conduct a site inspection in accordance with one of the two schedules listed below, unless you are subject to the Part 4.3 site inspection frequency for discharges to sensitive waters or qualify for a Part 4.4 reduction in the inspection frequency:

4.2.1. At least once every seven (7) calendar days; or

4.2.2. Once every 14 calendar days and within 24 hours of the occurrence of a storm event of 0.50 inches or greater, or the occurrence of runoff from snowmelt sufficient to cause a discharge.[28] To determine if a storm event of 0.50 inches or greater has occurred on your site, you must either keep a properly maintained rain gauge on your site, or obtain the storm event information from a weather station that is representative of your location. For any day of rainfall during normal business hours that measures 0.50 inches or greater, you must record the total rainfall measured for that day in accordance with Part 4.7.1.d.

4.3. INCREASE IN INSPECTION FREQUENCY FOR SITES DISCHARGING TO SENSITIVE WATERS. For any portion of the site that discharges to a sediment or nutrient-

[27] Inspections are only required during the site's normal working hours.

[28] "Within 24 hours of the occurrence of a storm event" means that you must conduct an inspection within 24 hours once a storm event has produced 0.50 inches within a 24-hour period, even if the storm event is still continuing. Thus, if you have elected to inspect bi-weekly in accordance with Part 4.2.2 and there is a storm event at your site that continues for multiple days, and each day of the storm produces 0.50 inches or more of rain, you must conduct an inspection within 24 hours of the first day of the storm and within 24 hours after the end of the storm.

impaired water or to a high quality water (see Part 3), instead of the inspection frequency specified in Part 4.2, you must conduct inspections in accordance with the following inspection frequencies:

Once every seven (7) calendar days and within 24 hours of the occurrence of a storm event of 0.50 inches or greater, or the occurrence of runoff from snowmelt sufficient to cause a discharge. To determine if a storm event of 0.50 inches or greater has occurred on your site, you must either keep a properly maintained rain gauge on your site, or obtain the storm event information from a weather station that is representative of your location. For any day of rainfall during normal business hours that measures 0.50 inches or greater, you must record the total rainfall measured for that day in accordance with Part 4.7.1d.

4.4. REDUCTIONS IN INSPECTION FREQUENCY.

4.4.1. STABILIZED AREAS.

a. **Temporarily Stabilized Areas**. You may reduce the frequency of inspections to twice per month for the first month, no more than 14 calendar days apart, then once per month in any area of your site where the stabilization steps in part 2.2.14.a. have been completed. If construction activity resumes in this portion of the site at a later date, the inspection frequency immediately increases to that required in Parts 4.2 and 4.3, as applicable. You must document the beginning and ending dates of this period in your SWPPP.

b. **Permanently Stabilized Areas.** Inspections requirements are suspended.

c. **Exception For "Linear Construction Sites"** (as defined in Part 10) where disturbed portions have undergone final stabilization at the same time active construction continues on others, you may reduce the frequency of inspections to twice per month for the first month, no more than 14 calendar days apart, in any area of your site where the stabilization steps in 2.2.14.a have been completed. After the first month, inspect once more within 24 hours of the occurrence of a storm event of 0.50 inches or greater. If there are no issues or evidence of stabilization problems, you may suspend further inspections. If "wash-out" of stabilization materials and/or sediment is observed, following re-stabilization, inspections must resume at the inspection frequency required in Part 4.4.1.a. Inspections must continue until final stabilization is visually confirmed following a storm event of 0.50 inches or greater.

4.4.2. ARID, SEMI-ARID (as defined in Part 10). For inspection frequencies (shown below) where it is required to inspect after a storm event, to determine if a storm event of 0.50 inches or greater has occurred on your site you must either keep a properly maintained rain gauge on your site or obtain the storm event information from a weather station that is representative of your location.

a. **Arid Areas:** Inspections are required once a month and within 24 hours of the occurrence of a storm event of 0.50 inches or greater.

b. **Semi-Arid Areas:** Inspections are the same as in parts 4.2.1 and 4.2.2 except for the seasonally dry times of the year where they go to once a month and within 24 hours of the occurrence of a

storm event of 0.50 inches or greater.[29] Where the inspection frequency changes to once a month the SWPPP must show the reference for the seasonally dry time period.

4.4.3. Frozen conditions

a. If you are suspending construction activities due to frozen conditions, you may temporarily suspend inspections on your site until thawing conditions (as defined in Part 10) begin to occur if:

(1) Runoff is unlikely due to continuous frozen conditions that are likely to continue at your site for at least three (3) months based on historic seasonal averages. If unexpected weather conditions (such as above freezing temperatures or rain events) make discharges likely, you must immediately resume your regular inspection frequency as described in Parts 4.2 and 4.3, as applicable;

(2) Land disturbances have been suspended; and

(3) Disturbed areas of the site have been stabilized, where possible, in accordance with Part 2.2.14.a.

b. If you are still conducting construction activities during frozen conditions, you may reduce your inspection frequency to once per month if:

(1) Runoff is unlikely due to continuous frozen conditions that are likely to continue at your site for at least three (3) months based on historic seasonal averages. If unexpected weather conditions (such as above freezing temperatures or rain events) make discharges likely, you must immediately resume your regular inspection frequency as described in Parts 4.2 and 4.3, as applicable; and

(2) Except for areas in which you are actively conducting construction activities, disturbed areas of the site have been stabilized in accordance with Part 2.2.14.a.

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

4.5. AREAS THAT MUST BE INSPECTED: During your site inspection, you must at a minimum inspect the following areas of your site:

4.5.1. All areas that have been cleared, graded, or excavated and that have not yet completed stabilization consistent with Part 2.2.14.a;

4.5.2. All storm water controls (including pollution prevention controls) installed at the site to comply with this permit;[30]

4.5.3. Material, waste, borrow, and equipment storage and maintenance areas that are covered by this permit;

4.5.4. All areas where storm water typically flows within the site, including drainage ways designed to divert, convey, and/or treat storm water;

[29] The Seasonally dry period for the semi-arid areas on the Wasatch Front is June, July, and August. For other areas there are a few internet sites where it is possible to look up the annual rainfall for an area.

[30] This includes the requirement to inspect for sediment that has been tracked out from the site onto paved roads, sidewalks, or other paved areas consistent with Part 2.2.4.

4.5.5. All points of discharge from the site; and

4.5.6. All locations where stabilization measures have been implemented.

4.5.7. You are not required to inspect areas that, at the time of the inspection, are considered unsafe to your inspection personnel.

4.6. REQUIREMENTS FOR INSPECTIONS; During your site inspection, you must at a minimum:

4.6.1. Check whether all storm water controls (i.e., erosion and sediment controls and pollution prevention controls) are properly installed, appear to be operational, and are working as intended to minimize pollutant discharges. Consider what has caused a BMP's failure if it is not operational;

4.6.2. Check for the presence of conditions that could lead to spills, leaks, or other accumulations of pollutants on the site;

4.6.3. Identify any locations where new or modified storm water controls are necessary to meet the requirements of Parts 2 and/or 3;

4.6.4. Check for signs of visible erosion and sedimentation (i.e., sediment deposits) that have occurred and are attributable to your discharge at points of discharge and, if applicable, the banks of any waters of the state flowing within or immediately adjacent to the site;

4.6.5. Identify any incidents of noncompliance observed;

4.6.6. If a discharge is occurring during your inspection:

a. Identify all discharge points at the site; and

b. Observe and document the visual quality of the discharge, and take note of the characteristics of the storm water discharge, including color; odor; floating, settled, or suspended solids; foam; oil sheen; and other indicators of storm water pollutants.

4.6.7. Based on the results of your inspection, complete any necessary maintenance under Part 2.1.4 and corrective action under Part 5.

4.7. INSPECTION REPORT[31]

4.7.1. You must complete an inspection report within 24 hours of completing any site inspection. Each inspection report must include the following:

a. The inspection date;

b. The UPDES CGP permit tracking number;

c. Names and titles of personnel making the inspection;

d. A summary of your inspection findings, covering at a minimum the observations you made in accordance with Part 4.6, including any necessary maintenance or corrective actions;

e. If you are inspecting your site at the frequency specified in Part 4.2.2, Part 4.3, Part 4.4.1.c, Part 4.4.2.a, or Part 4.4.2.b and you conducted an inspection because of rainfall measuring 0.50

[31] See DWQ construction storm water web page for ideas and examples of self-inspection forms.

inches or greater, you must include the applicable rain gauge or weather station readings that triggered the inspection; and

f. If you determined that it is unsafe to inspect a portion of your site, you must describe the reason you found it to be unsafe and specify the locations to which this condition applies.

4.7.2. Each inspection report must be signed in accordance with 9.16(1)b. of this permit.

4.7.3. You must keep a copy, in paper or electronic form, of all inspection reports at the site or at an easily accessible location, so that it can be made available at the time of an on-site inspection or upon request by DWQ, a local municipality of jurisdiction, or by the EPA.

4.7.4. You must retain all inspection reports completed for this Part for at least three (3) years from the date that your permit coverage expires or is terminated.

4.8. INSPECTIONS BY DWQ MS4 OR EPA: You must allow an authorized representative of DWQ, the MS4 of jurisdiction or the EPA to conduct the following activities at reasonable times. To the extent that you are utilizing shared controls that are not on site to comply with this permit, you must make arrangements for DWQ to have access at all reasonable times to those areas where the shared controls are located.

4.8.1. Enter onto all areas of the site, including any construction support activity areas covered by this permit, any off-site areas where shared controls are utilized to comply with this permit, discharge locations, adjoining waterbodies, and locations where records are kept under the conditions of this permit;

4.8.2. Access and copy any records that must be kept under the conditions of this permit;

4.8.3. Inspect your construction site, including any construction support activity areas covered by this permit (see Part 1.2.2), any storm water controls installed and maintained at the site, and any off-site shared controls utilized to comply with this permit; and

4.8.4. Sample or monitor for the purpose of ensuring compliance.

5. CORRECTIVE ACTIONS

5.1. CONDITIONS TRIGGERING CORRECTIVE ACTION: You must take corrective action to address any of the following conditions identified at your site:

5.1.1. A storm water control needs repair or replacement (beyond routine maintenance required under Part 2.1.4); or

5.1.2. A storm water control necessary to comply with the requirements of this permit was never installed, or was installed incorrectly; or

5.1.3. Your discharges are causing an exceedance of applicable water quality standards; or

5.1.4. A prohibited discharge has occurred (see Part 1.3).

5.2. CORRECTIVE ACTION DEADLINES: For any corrective action triggering conditions in Part 5.1, you must:

5.2.1. When site conditions warrant immediate attention, take all reasonable steps to minimize or prevent the discharge of pollutants until a permanent solution for the problem is installed and made operational;

5.2.2. When the problem does not require a new or replacement control or significant repair, the corrective action must be completed by the close of the next business day;

5.2.3. When the problem requires a new or replacement control or significant repair, the corrective action must be completed no later than seven (7) calendar days from the time of discovery. If it is infeasible to complete the installation or repair within seven (7) calendar days (e.g., due to availability of materials, excessive costs to expedite shipping or activities, or lengthy installation times) you must document in your records why it is infeasible and provide a reasonable correction schedule.

5.3. CORRECTIVE ACTION REQUIRED BY DWQ: You must comply with any corrective actions required by DWQ as a result of permit violations found during an inspection carried out under Part 4.8.

5.4. CORRECTIVE ACTION REPORT: For each corrective action taken in accordance with this Part, you must complete a report in accordance with the following:

5.4.1. Within 24 hours of identifying the corrective action condition, document the specific condition and the date and time it was identified.

5.4.2. Within 24 hours of the observed completion of a corrective action and in accordance with the deadlines in Part 5.2, document the actions taken to address the condition, including the date and whether any SWPPP modifications are required.

5.4.3. Where these actions result in changes to any of the storm water controls or procedures documented in your SWPPP, you must modify your SWPPP (and SWPPP map) accordingly within seven (7) calendar days of completing this work.

5.4.4. You must keep a copy of all corrective action reports at the site or at an easily accessible location, so that it can be made available at the time of an on-site inspection or upon request by

DWQ. Corrective action reports may be maintained and made available in paper or electronically.

5.4.5. You must retain all corrective action reports completed for this Part for at least three (3) years from the date that your permit coverage expires or is terminated.

6. STAFF TRAINING REQUIREMENTS

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

6.1. PRIOR TO THE COMMENCEMENT OF CONSTRUCTION ACTIVITIES, you must ensure that the following personnel[32] on the storm water team understand the requirements of this permit and their specific responsibilities with respect to those requirements:

6.1.1. Personnel who are responsible for the design, installation, maintenance, and/or repair of storm water controls (including pollution prevention controls);

6.1.2. Personnel responsible for the application and storage of treatment chemicals (if applicable);

6.1.3. Personnel who are responsible for conducting inspections as required in Part 4.1; and

6.1.4. Personnel who are responsible for taking corrective actions as required in Part 5.

6.2. YOU ARE RESPONSIBLE FOR ENSURING THAT ALL ACTIVITIES ON THE SITE COMPLY with the requirements of this permit. You are not required to provide formal training for subcontractors or other outside service providers, but you must ensure that such personnel understand any requirements of this permit that may be affected by the work they are subcontracted to perform. You should document that you have explained or have given subcontractors information about how to perform their work in compliance with the SWPPP.

6.3. AT A MINIMUM, MEMBERS OF THE STORM WATER TEAM MUST BE TRAINED to understand the following if related to the scope of their job duties (e.g., only personnel responsible for conducting inspections need to understand how to conduct inspections):

6.3.1. The permit deadlines associated with installation, maintenance, and removal of storm water controls and with stabilization;

6.3.2. The location of all storm water controls on the site required by this permit and how they are to be maintained;

6.3.3. The proper procedures to follow with respect to the permit's pollution prevention requirements; and

6.3.4. When and how to conduct inspections, record applicable findings, and take corrective actions.

6.4. EACH MEMBER OF THE STORM WATER TEAM MUST HAVE EASY ACCESS TO AN ELECTRONIC OR PAPER COPY of applicable portions of this permit, the most updated copy of your SWPPP, and other relevant documents or information that must be kept with the SWPPP.

[32] If the person requiring training is a new employee who starts after you commence construction activities, you must ensure that this person has the proper understanding as required above prior to assuming particular responsibilities related to compliance with this permit.

7. STORM WATER POLLUTION PREVENTION PLAN (SWPPP)

7.1. GENERAL REQUIREMENTS

All operators associated with a construction site under this permit must develop a SWPPP consistent with the requirements in Part 7 prior to their submittal of the NOI.[33] The SWPPP must be kept up-to-date throughout coverage under this permit.

If a SWPPP was prepared under a previous version of this permit, the operator must review and update the SWPPP to ensure that this permit's requirements are addressed prior to submitting an NOI for coverage under this permit.

7.2. SWPPP WRITER/REVIEWER CERTIFICATION REQUIREMENT Beginning January 1, 2021, a "qualified" SWPPP writer must write or certify SWPPPs for all projects disturbing greater than 5 acres, including small construction projects (1 to 5 acres) that have a perennial surface water within 50 feet of the project, or having a steep slope (70% or 35 degrees or more) with an elevation change from the slope of 10 feet or more (at any point during the time of construction – not including stock piles). A "qualified" SWPPP writer is knowledgeable in the principles and practices that must be considered in the development of a SWPPP. Acceptable qualifications include but are not limited to:

a. Utah Registered SWPPP Writer (RSW)

b. Licensed Professional Engineer (PE) in a related field or Professional Geologist (PG)

c. Certified Professional in Erosion and Sediment Control (CPESC)

d. Certified Professional in Storm Water Quality (CPSWQ)

e. National Institute for Certification in Engineering Technologies, Erosion and Sediment Control, Level 3 (NICET)

7.3. SWPPP CONTENTS. At a minimum, the SWPPP must include the information specified in this Part and as specified in other parts of this permit.

7.3.1. Storm Water Team. Identify the personnel (by name or position) that are part of the storm water team, as well as their individual responsibilities, including which members are responsible for conducting inspections.

7.3.2. Nature of Construction Activities.[34] Include the following:

a. A description of the nature of your construction activities, including the age or dates of past renovations for structures that are undergoing demolition;

b. The size of the property (in acres or length in miles if a linear construction site);

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

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

c. The total area expected to be disturbed by the construction activities including on-site and off-site construction support activity areas (to the nearest quarter acre or nearest quarter mile if a linear construction site);

d. A description of any on-site and off-site construction support activity areas covered by this permit (see Part 1.2.2);

e. A description and projected schedule for the following:

(1) Commencement of construction activities in each portion of the site, including clearing and grubbing, mass grading, demolition activities, site preparation (i.e., excavating, cutting and filling), final grading, and creation of soil and vegetation stockpiles requiring stabilization;

(2) Temporary or permanent cessation of construction activities in each portion of the site;

(3) Temporary or final stabilization of exposed areas for each portion of the site; and

(4) Removal of temporary storm water controls and construction equipment or vehicles, and the cessation of construction-related pollutant-generating activities.

f. A list and description of all pollutant-generating activities[35] on the site. For each pollutant-generating activity, include an inventory of pollutants or pollutant constituents (e.g., sediment, fertilizers, pesticides, paints, caulks, sealants, fluorescent light ballasts, contaminated substrates, solvents, fuels) associated with that activity, which could be discharged in storm water from your construction site. You must take into account where potential spills and leaks could occur that contribute pollutants to storm water discharges, and any known hazardous or toxic substances, such as PCBs and asbestos, that will be disturbed or removed during construction;

g. Business days and hours for the project;

7.3.3. Site Map. Include a legible map, or series of maps, showing the following features of the site:

a. Boundaries of the property;

b. Locations where construction activities will occur, including:

(1) Locations where earth-disturbing activities will occur (note any phasing), including any demolition activities;

(2) Approximate slopes before and after major grading activities (note any steep slopes (as defined in Part 10));

(3) Locations where sediment, soil, or other construction materials will be stockpiled;

(4) Any water of the state crossings;

(5) Designated points where vehicles will exit onto paved roads;

(6) Locations of structures and other impervious surfaces upon completion of construction; and

(7) Locations of on-site and off-site construction support activity areas covered by this permit (see Part 1.2.2).

[35] Examples of pollutant-generating activities include paving operations; concrete, paint, and stucco washout and waste disposal; solid waste storage and disposal; and dewatering operations

c. Locations of all waters of the state within one mile downstream of the site's discharge point. Also identify if any are listed as impaired or high quality water;

d. Type and extent of pre-construction cover on the site (e.g., vegetative cover, forest, pasture, pavement, structures);

e. Drainage patterns of storm water and authorized non-storm water before and after major grading activities;

f. Storm water and authorized non-storm water discharge locations, including:

(1) Locations where storm water and/or authorized non-storm water will be discharged to storm drain inlets;[36] and

(2) Locations where storm water or authorized non-storm water will be discharged directly to waters of the state.

g. Locations of all potential pollutant-generating activities identified in Part 7.3.2.g;

h. Locations of storm water controls, including natural buffer areas and any shared controls utilized to comply with this permit; and

i. Locations where polymers, flocculants, or other treatment chemicals will be used and stored.

7.3.4. Non-Storm water Discharges. Identify all authorized non-storm water discharges in Part 1.2.3 that will or may occur.

7.3.5. Description of Storm water Controls.

a. For each of the Part 2.2 erosion and sediment control effluent limits, Part 2.3 pollution prevention effluent limits as applicable to your site, you must include the following:

(1) A description of the specific control(s) to be implemented to meet the effluent limit;

(2) Any applicable storm water control design specifications (including references to any manufacturer specifications and/or erosion and sediment control manuals/ordinances relied upon);[37]

(3) Routine storm water control maintenance specifications; and

(4) The projected schedule for storm water control installation/implementation.

b. You must also include any of the following additional information as applicable.

(1) **Natural buffers** and/or equivalent sediment controls (see Part 2.2.1 and Part 10). You must include the following:

(i) The compliance alternative to be implemented;

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

[37] Design specifications may be found in manufacturer specifications and/or in applicable erosion and sediment control manuals or ordinances. Any departures from such specifications must reflect good engineering practice and must be explained in the SWPPP.

(ii) If complying with alternative 2, the width of natural buffer retained;

(iii) If complying with alternative 2 or 3, the erosion and sediment control(s) you will use to achieve an equivalent sediment reduction, and any information you relied upon to demonstrate the equivalency;

(iv) If complying with alternative 3, a description of why it is infeasible for you to provide and maintain an undisturbed natural buffer of any size;

(v) For "linear construction sites" where it is infeasible to implement compliance alternative 1, 2, or 3, a rationale for this determination, and a description of any buffer width retained and/or supplemental erosion and sediment controls installed; and

(vi) A description of any disturbances that are exempt under Part 2.2.1 that occur within 50 feet of a water of the state.

(2) **Perimeter controls for a "linear construction site**" (see Part 2.2.3). For areas where perimeter controls are not feasible, include documentation to support this determination and a description of the other practices that will be implemented to minimize discharges of pollutants in storm water associated with construction activities.

Note: Routine maintenance specifications for perimeter controls documented in the SWPPP must include the Part 2.2.3.a requirement that sediment be removed before it has accumulated to one-half of the above-ground height of any perimeter control.

(3) **Sediment track-out controls** (see Parts 2.2.4.b and 2.2.4.c). Document the specific stabilization techniques and/or controls that will be implemented to remove sediment prior to vehicle exit.

(4) **Sediment basins** (see Part 2.2.12). In circumstances where it is infeasible to utilize outlet structures that withdraw water from the surface, include documentation to support this determination, including the specific conditions or time periods when this exception will apply.

(5) **Treatment chemicals** (see Part 2.2.13), you must include the following:

(i) A listing of the soil types that are expected to be exposed during construction in areas of the project that will drain to chemical treatment systems. Also include a listing of soil types expected to be found in fill material to be used in these same areas, to the extent you have this information prior to construction;

(ii) A listing of all treatment chemicals to be used at the site and why the selection of these chemicals is suited to the soil characteristics of your site;

(iii) If DWQ authorized you to use cationic treatment chemicals for sediment control, include the specific controls and implementation procedures designed to ensure that your use of cationic treatment chemicals will not lead to an exceedance of water quality standards, or harm to aquatic life;

(iv) The dosage of all treatment chemicals to be used at the site or the methodology to be used to determine dosage;

(v) Information from any applicable Safety Data Sheet (SDS);

(vi) Schematic drawings of any chemically enhanced storm water controls or chemical treatment systems to be used for application of the treatment chemicals;

(vii) A description of how chemicals will be stored consistent with Part 2.2.13.c;

(viii) References to applicable local requirements affecting the use of treatment chemicals, and copies of applicable manufacturer's specifications regarding the use of your specific treatment chemicals and/or chemical treatment systems; and

(ix) A description of the training that personnel who handle and apply chemicals have received prior to permit coverage, or will receive prior to use of the treatment chemicals at your site.

(6) **Stabilization measures** (see Part 2.2.14). You must include the following:

(i) The specific vegetative and/or non-vegetative practices that will be used;

(ii) The stabilization deadline that will be met in accordance with Part 2.2.14.a(1)-(2);

(iii) It is important to meet the deadlines during the wet times of the year (if the area has a wet time of the year). During the dry times of the year the significance of stabilization deadlines is less important.

(7) **Spill prevention and response procedures** (see Part 1.3.5 and Part 2.3). You must include the following:

(i) Procedures for expeditiously stopping, containing, and cleaning up spills, leaks, and other releases. Identify the name or position of the employee(s) responsible for detection and response of spills or leaks; and

(ii) Procedures for notification of appropriate facility personnel, emergency response agencies, and regulatory agencies where a leak, spill, or other release containing a hazardous substance or oil in an amount equal to or in excess of a reportable quantity consistent with Part 2.3.6 and established under either 40 CFR 110, 40 CFR 117, or 40 CFR 302, occurs during a 24-hour period. Contact information must be in locations that are readily accessible and available to all employees.

(iii) You may also reference the existence of Spill Prevention Control and Countermeasure (SPCC) plans developed for the construction activity under Part 311 of the CWA, or spill control programs otherwise required by an UPDES permit for the construction activity, provided that you keep a copy of that other plan on site or electronically available.[38]

(8) **Waste management procedures** (see Part 2.3.3). Describe the procedures you will follow for handling, storing and disposing of all wastes generated at your site consistent with state and local requirements, including clearing and demolition debris, removal of spoil (excess dirt) from the site, construction and domestic waste, hazardous or toxic waste, and sanitary waste.

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

(9) **Application of fertilizers** (see Part 2.3.5). Document any departures from the manufacturer specifications where appropriate.

7.3.6. Procedures for Inspection, Maintenance, and Corrective Action. Describe the procedures you will follow for maintaining your storm water controls, conducting site inspections, and, where necessary, taking corrective actions, in accordance with Part 2.1.4, Part 4, and Part 5 of this permit. Also include:

a. Personnel responsible for conducting inspections;

b. The inspection schedule you will follow, which is based on whether your site is subject to Part 4.2 or Part 4.3, or whether your site qualifies for any of the reduced inspection frequencies in Part 4.4;

c. If you will be conducting inspections in accordance with the inspection schedule in Part 4.2.2, or Part 4.3, the location of the rain gauge or the address of the weather station you will be using to obtain rainfall data;

d. If you will be reducing your inspection frequency in accordance with Part 4.4.3, the beginning and ending dates of frozen conditions on your site; and

e. Any maintenance or inspection checklists or other forms that will be used.

7.3.7. Staff Training. Include documentation that the required personnel were, or will be, trained in accordance with Part 6.

7.3.8. Compliance with Other Requirements.

a. **Utah Water Quality Act Underground Injection Control (UIC) Program Requirements for Certain Subsurface Storm Water Controls**. If you are using any of the following storm water controls at your site, as they are described below, you must document any contact you have had with DWQ for implementing the requirements for underground injection wells in the Safe Drinking Water Act and DEQ's implementing regulations at UAC R317-7. In addition there may be local requirements related to such structures. Such controls (below) would generally be considered Class V UIC wells and all Class V UIC wells must be reported to DWQ for an inventory:

b. Infiltration trenches (if storm water is directed to any bored, drilled, driven shaft or dug hole that is deeper than its widest surface dimension, or has a subsurface fluid distribution system);

c. Commercially manufactured pre-cast or pre-built proprietary subsurface detention vaults, chambers, or other devices designed to capture and infiltrate storm water flow; and

d. Drywells, seepage pits, or improved sinkholes (if storm water is directed to any bored, drilled, driven shaft or dug hole that is deeper than its widest surface dimension, or has a subsurface fluid distribution system).

7.3.9. SWPPP Certification. You must sign and date your SWPPP in accordance with 9.16(1)a.

7.3.10. Post-Authorization Additions to the SWPPP. Once you are authorized for coverage under this permit, you must include the following documents as part of your SWPPP:

a. A copy of your NOI submitted to DWQ, the Authorization to Discharge Letter, along with any correspondence exchanged between you and DWQ related to coverage under this permit;

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

7.4. ON-SITE AVAILABILITY OF YOUR SWPPP

7.4.1. You must keep a current copy of your SWPPP at the site or at an easily accessible location so that it can be made available at the time of an on-site inspection or upon request by DWQ, the EPA, or an MS4. The SWPPP can be stored electronically as long as personnel on-site can access it and make it available for inspector review.

7.5. SWPPP MODIFICATIONS.

7.5.1. You must modify your SWPPP, including the site map(s), within seven (7) days of any of the following conditions:

a. Whenever you make changes to your construction plans, storm water controls, or other activities at your site that are no longer accurately reflected in your SWPPP. This includes changes made in response to corrective actions triggered under Part 5. You do not need to modify your SWPPP if the estimated dates in Part 7.3.2.f change during the course of construction;

b. To reflect areas on your site map where operational control has been transferred (e.g., new general contractor or owner),note the change and the date of transfer since initiating permit coverage;

c. If inspections or investigations by DWQ or its authorized representatives determine that SWPPP modifications are necessary for compliance with this permit;

d. Where DWQ determines it is necessary to install and/or implement additional controls at your site in order to meet the requirements of this permit, the following must be included in your SWPPP:

(1) A copy of any correspondence describing such measures and requirements; and

(2) A description of the controls that will be used to meet such requirements.

e. To reflect any revisions to applicable federal, state, tribal, or local requirements that affect the storm water controls implemented at the site; and

f. If applicable, if a change in chemical treatment systems or chemically enhanced storm water control is made, including use of a different treatment chemical, different dosage rate, or different area of application.

7.5.2. You must maintain records showing the dates of all SWPPP modifications. The records must include the name of the person authorizing each change (see Part 7.5.1 above) and a brief summary of all changes.

7.5.3. All modifications made to the SWPPP consistent with Part 7.5 must be authorized by a person identified in 9.16.(1)b.

7.5.4. Upon determining that a modification to your SWPPP is required, you must notify any persons or subcontractors that may be impacted by the change to the SWPPP.

8. HOW TO TERMINATE COVERAGE. Until you terminate coverage under this permit, you must comply with all conditions and effluent limitations in the permit. To terminate permit coverage, you must submit to DWQ a complete and accurate Notice of Termination (NOT, the NOT can be done online in the same account that the NOI was taken out in), which certifies that you have met the requirements for terminating in Part 8.

8.1. MINIMUM INFORMATION REQUIRED IN NOT.

8.1.1. UPDES ID (i.e., permit tracking number) provided by DWQ when you received coverage under this permit;

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

8.1.3. Operator contact information;

8.1.4. Name of site and address (or a description of location if no street address is available); and

8.1.5. NOT certification.

8.2. CONDITIONS FOR TERMINATING CGP COVERAGE. You must terminate CGP coverage only if one or more of the following conditions has occurred:

8.2.1. You have completed all construction activities at your site and, if applicable, construction support activities covered by this permit (see Part 1.2.2.c), and you have met the following requirements:

a. You have met the requirements for final vegetative or non-vegetative stabilization in Part 2.2.14.b for any areas that (1) were disturbed during construction, (2) are not covered over by permanent structures, and (3) over which you had control during the construction activities.;

b. You have removed and properly disposed of all construction materials, waste and waste handling devices, and have removed all equipment and vehicles that were used during construction, unless intended for long-term use following your termination of permit coverage;

c. You have removed all storm water controls that were installed and maintained during construction, except those that are intended for long-term use following your termination of permit coverage or those that are biodegradable; and

d. You have removed all potential pollutants and pollutant-generating activities associated with construction, unless needed for long-term use following your termination of permit coverage; or

8.2.2. You have transferred control of all areas of the site for which you are responsible under this permit to another operator, and that operator has submitted a new NOI and obtained coverage under this permit. This only applies if the new operator obtains a new NOI. Termination is not required if a transfer form has been signed by both the previous operator and the new one to move the existing coverage; or

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

8.2.4. Completed homes that are occupied by home owners where at least temporary sediment and erosion controls are in place are allowed to be terminated without final stabilization. If a home owner buys a newly completed house the permit can be terminated while the property is being transferred to the home owner. The home owner should not be involved in the permit process. If

a home owner builds his/her house, they must terminate when the house is approved for occupancy where temporary storm water controls are in place on the site.

8.3. HOW TO SUBMIT YOUR NOT.

8.3.1. It is preferred that the DWQ "on-line" NOI system be used to submit an electronic NOT.

Access to the DWQ online storm water database found at the DWQ webpage at https://cdxnodengn.epa.gov/net-cgp/action/login. You must logon to the account created when the NOI was submitted and find the "Terminate" (or NOT) button for the permit tracking number when you wish to terminate a coverage. In the case where the permittee does not have access to the account for which the NOI was submitted the permittee must either contact DWQ and request account access or fill out and submit to DWQ a paper copy of the NOT form, which can be downloaded from the same DWQ website.

8.4. DEADLINE FOR SUBMITTING THE NOT. You must submit your NOT within 30 calendar days after any one of the conditions in Part 8.2 occurs.

8.5. PARTIAL NOT REQUIREMENTS. A partial NOT must be filed if a portion of the permitted site is sold to a new owner prior to completion of construction. You must notify the new owner of the requirement to obtain a storm water permit unless the new owner is the home owner. Prior to releasing a residential lot to a home owner the site must be temporarily stabilized as required in 8.2.4. You must notify DWQ of the change in ownership and provide the name, address, and telephone number of the new owner.

8.6. EFFECTIVE DATE OF TERMINATION OF COVERAGE. Your authorization to discharge under this permit terminates at midnight of the calendar day that a complete NOT is submitted to DWQ.

9. STANDARD PERMIT CONDITIONS.

9.1. DUTY TO COMPLY.

(1) The permittee must comply with all conditions of the UPDES permit. Any permit noncompliance is a violation of the Utah Water Quality Act, as amended and is grounds for enforcement action; permit termination, revocation and reissuance or modification; or denial of a permit renewal application.

(2) Penalties for Violations of Permit Conditions. The Utah Water Quality Act, in 19-5-115, provides that any person who violates the Act, or any permit, rule, or order adopted under it is subject to a civil penalty not to exceed $10,000 per day of such violation.

(3) Willful Non-Compliance or Negligence. Any person who willfully or with gross negligence violates the Act, or any permit, rule or order adopted under it is subject to a fine of not more than $25,000 per day of violation. Any person convicted under 19-5-115 a second time shall be punished by a fine not exceeding $50,000 per day.

(4) False Statements. The Act provides that any person who knowingly makes any false material statement, representation, or certification in any application, record, report, plan, or other document filed or required to be maintained under the Act, the rules, or this Permit, or who knowingly falsifies, tampers with, or renders inaccurate, any monitoring device or method required to be maintained under the Act shall upon conviction, be punished by a fine of not more than $10,000 or by imprisonment for 6 months, or by both. Utah Code Ann. § 19-5-115(4).

9.2. DUTY TO REAPPLY. If the permittee wishes to continue an activity regulated by this permit after the expiration date of the permit, the permittee shall apply for and obtain a new permit as required in R317-8-3.1

9.3. NEED TO HALT OR REDUCE ACTIVITY NOT A DEFENSE. It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit. (Upon reduction, loss, or failure of the treatment facility, the permittee, to the extent necessary to maintain compliance with the permit, shall control production of all discharges until the facility is restored or an alternative method of treatment is provided.)

9.4. DUTY TO MITIGATE. The permittee shall take all reasonable steps to minimize or prevent any discharge or sludge use or disposal in violation of the UPDES permit which has a reasonable likelihood of adversely affecting human health or the environment.

9.5. DUTY TO PROVIDE INFORMATION. The permittee shall furnish to the Director, within a reasonable time, any information which the Director may request to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with this permit. The permittee shall also furnish to the Director, upon request, copies of records required to be kept by the permit.

9.6. OTHER INFOMRATION. When the permittee becomes aware that he or she failed to submit any relevant facts or submitted incorrect information in the Notice of Intent or in any other report to the Director, he or she shall promptly submit such facts or information.

9.7. OIL AND HAZARDOUS SUBSTANCE LIABILITY. Nothing in this Permit shall be construed to preclude the institution of any legal action or relieve the Permittee from any responsibilities, liabilities, or penalties to which the Permittee is or may be subject under the "Act".

9.8. PROPERTY RIGHTS. The issuance of this Permit does not convey any property rights of any sort, nor any exclusive privileges, nor does it authorize any injury to private property nor any invasion of personal rights, nor any infringement of Federal, State or local laws or regulations.

9.9. SEVERABILITY. The provisions of this Permit are severable, and if any provision of this Permit, or the application of any provision of this Permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this Permit shall not be affected thereby.

9.10. RECORDS RETENTION.

(1) The Permittee shall retain copies of SWPPPs, Authorization to Discharge Letters, and all reports required by this Permit, and records of all data used to complete the Notice of Intent to be covered by this Permit, for a period of at least three years from the date that the site is finally stabilized. This period may be extended by request of the Director at any time.

(2) After final stabilization of the construction site is complete, the SWPPP is no longer required to be maintained on site, but may be maintained by the Permittee(s) at its primary headquarters. However, you must continue to allow DWQ access to the SWPPP as described in paragraph B.10(1) (above).

9.11. ADDRESSES. All written correspondence under this permit shall be directed to the Division of Water Quality at the following address:

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

9.12. STATE LAWS.

(1) Nothing in this Permit shall be construed to preclude the institution of any legal action or relieve the Permittee from any responsibilities, liabilities, or penalties established pursuant to any applicable State law or regulation under authority preserved by Utah Code Ann. § 19-5-117.

(2) No condition of this Permit shall release the Permittee from any responsibility or requirements under other environmental statutes or regulations.

9.13. PROPER OPERATION AND MAINTENANCE. The Permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the Permittee to achieve compliance with the conditions of this Permit and with the requirements of SWPPPs. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. Proper operation and maintenance requires the operation of backup or auxiliary

facilities or similar systems, installed by a Permittee only when necessary to achieve compliance with the conditions of the Permit.

9.14. INSPECTION AND ENTRY. The Permittee shall allow, upon presentation of credentials, the Director or an authorized representative:

(1) To enter upon the Permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this Permit;

(2) Have access to and copy at reasonable times, any records that must be kept under the conditions of this Permit;

(3) Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this Permit; and

(4) Sample or monitor at reasonable times, for the purposes of assuring permit compliance or as otherwise authorized by law, any substances or parameters at any location.

9.15. REOPENER CLAUSE.

(1) Reopener Due to Water Quality Impacts. If there is evidence indicating that the storm water discharges authorized by this Permit cause, have the reasonable potential to cause or contribute to, a violation of a water quality standard, the discharger may be required to obtain an individual permit or an alternative general permit in accordance with Part 1.4.4 of this Permit or the Permit may be modified to include different limitations and/or requirements.

(2) Reopener Guidelines. Permit modification or revocation will be conducted according to UAC R317-8-5.6 and UAC R317-8-6.2.

(3) Permit Actions. This Permit may be modified, revoked and reissued, or terminated for cause. The filing of a request by the Permittee for a Permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any Permit condition.

9.16. SIGNATORY REQUIREMENTS.

(1) All Notices of Intent, SWPPPs, reports, certifications or information submitted to the Director, or that this Permit requires to be maintained by the Permittee, shall be signed as follows:

a. All notice of intent (NOIs), notices of termination (NOTs), and SWPPPs shall be signed as follows:

i. For a corporation: by a responsible corporate officer. For the purpose of this section, a responsible corporate officer means: a president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation; or the manager of one or more manufacturing, production or operating facilities employing more than 250 persons or having gross annual sales or expenditures exceeding $25,000,000 (in second-quarter 1980 dollars) if authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures;

ii. For a partnership of sole proprietorship: by a general partner or the proprietor, respectively; or

iii. For a municipality, State, Federal, or other public agency: by either a principal executive officer or ranking elected official. For purposes of this section, a principal executive officer of a Federal agency includes (1) the chief executive officer of the agency, or (2) a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g. Regional Administrators of EPA).

b. All reports required by the Permit and other information requested by the Director or by an authorized representative of the Director shall be signed by a person described above or by a duly authorized representative of that person. A person is a duly authorized representative only if:

i. The authorization is made in writing by a person described above and kept with the SWPPP; and

ii. The authorization specifies either an individual or a position having responsibility for overall operation of the regulated site, facility or activity, such as the position of manager, operator, superintendent, or position of equivalent responsibility or an individual or position having overall responsibility for environmental matters for the company. (A duly authorized representative may thus be either a named individual or any individual occupying a named position).

c. Certification. Any person signing documents under this Part B.16 shall make the following certification:

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

10. DEFINITIONS AND ACRONYMS

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

"Authorization to Discharge Letter" – The receipt generated when a Notice of Intent (NOI) is successfully entered and payment is processed by DWQ. The receipt demonstrates that the permittee has coverage under the appropriate Storm Water Permit. Authorization to Discharge Letters contain the dates of the permittee's coverage under the Construction General Permit (CGP).

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

"Best Management Practices (BMPs) – schedules of activities, prohibitions of practices, maintenance procedures, and other physical, structural and/or managerial practices to prevent or reduce pollution of waters of the State. BMPs include treatment requirements, operating procedures, and practices to control storm water associated with construction activity, spillage or leaks, sludge or waste disposal, or drainage from raw material storage.

"Bluff" – a steep headland, promontory, riverbank, or cliff.

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

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

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

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

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

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

• Raw materials related to your construction activity, such as building materials or products, landscape materials, fertilizers, pesticides, herbicides, detergents, fuels, oils, or other chemicals have been placed at your site;

• Use of authorized non-storm water for washout activities, or dewatering activities, have begun; or

• Any other activity has begun that causes the generation of or the potential generation of pollutants.

"Common Plan of Development or Sale" –is a plan to subdivide a parcel of land into separate parts for separate sale. This can be for a residential, commercial, or industrial development. The plan originates as a single parcel that is separated into parts. This usually goes through an approval process by a local governmental unit, but in some cases, it may not require that process. The original plan is considered the "common plan of development or sale" whether phased or completed in steps.

Additional information related to Common Plan of Development for Permit Purposes:

For UPDES storm water permit purposes, a common plan must have been initiated after October, 1992. A common plan of development or sale remains so until each lot or section of the development has fulfilled its planned purposes (e.g. in a residential development as homes are completed, stabilized, and sold or occupied). As lots or separated sections of the development are completed, the lot or section is stabilized, and the plan purposes are fulfilled for that area, lot, or section, it is no longer part of the common plan of development or sale (e.g. if a home is sold in a development and the owner decides to add a garage somewhere on the lot, that garage project is not part of the common plan of development or sale. In this process a common plan of development or sale may become reduced in size and/or separated by completed areas which are no longer part of the common plan of development or sale, but all unfinished lots remain part of the same common plan of development or sale until they are completed, stabilized, and fulfilled according to the purposes of the plan.

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

"Construction and Development Point Source Category" (C&D Rule) – as published in 40 CFR § 450 is the regulation requiring effluent limitations guidelines (ELG's) and new source performance standards (NSPS) for controlling the discharge of pollutants from construction sites.

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

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

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

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

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

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

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

"Director" – the director of the Division of Water Quality, otherwise known as the Executive Secretary of the Utah Water Quality Board.

"Discharge" –discharge of storm water or "discharge of a pollutant."

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

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

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

"Discharge to an Impaired Water" – for the purposes of this permit, a discharge to an impaired water occurs if the first water of the State to which you discharge is identified by DWQ or EPA pursuant to Section 303(d) of the Clean Water Act as not meeting an applicable water

quality standard, or is included in an EPA-approved or DWQ established total maximum daily load (TMDL). For discharges that enter a storm sewer system prior to discharge, the water of the State to which you discharge is the first water of the State that receives the storm water discharge from the storm sewer system.

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

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

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

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

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

"Electronic Notice of Intent" – DWQ's online system for submitting electronic Construction General Permit forms. Can be accessed at https://secure.utah.gov/stormwater.

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

"Excursion" – a violation of a standard or limit.

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

"Existing Permit Coverage" – means that the permittee had permit coverage under a previous permit prior to the issuance of this permit.

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

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

"Final Stabilization" – All disturbed areas must be covered by permanent structures such as pavement, concrete slab, building, etc., or for areas not covered by permanent structures but that are receiving 20 inches or more of average annual precipitation, vegetation has been established with a uniform (e.g., evenly distributed, without large bare areas) perennial

vegetative cover equivalent to 70 percent of the natural background vegetative cover. In the case of areas that are not covered by permanent structures, but that are receiving less than 20 inches of average annual precipitation (arid areas, 0-10 inches; semi-arid areas, 10-20 inches), final stabilization is equivalent to the requirements of 2.2.2.b of this permit, including the provisions for permanent stabilization.

"Groundwater" – water in the voids and interstitial spaces around soil particles beneath the surface of the ground, even if it is only temporary.

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

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

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

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

1. All land within the limits of any Indian reservation under the jurisdiction of the United States Government, notwithstanding the issuance of any patent, and, including rights-of way running through the reservation;

2. All dependent Indian communities within the borders of the United States whether within the originally or subsequently acquired territory thereof; and

3. All Indian allotments, the Indian titles to which have not been extinguished, including rights-of-ways running through the same.

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

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

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

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

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

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

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

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

1. Owned and operated by a state, city, town, county, district, association, or other public body (created by or pursuant to State law) having jurisdiction over disposal of sewage, industrial wastes, storm water, or other wastes, including special districts under State law such as a sewer district, flood control district or drainage district, or similar entity, or a designated and approved management agency under section 208 of the CWA that discharges to waters of the State;

2. Designed or used for collecting or conveying storm water;

3. Which is not a combined sewer; and

4. Which is not part of a Publicly Owned Treatment Works (POTW) as defined at 40 CFR §122.2.

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

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

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

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

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

"New Project" – a construction project that commenced construction activities on or the issuance date of this permit.

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

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

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

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

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

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

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

"Operator" – for the purposes of this permit and in the context of storm water discharges associated with construction activity, any party associated with a construction project that meets either of the following two criteria:

1. The party which has operational control over construction plans and specifications, including the ability to make modifications to those plans and specifications (e.g. in most cases this is the owner of the site, sometimes it is a lessor); or

2. The party which has day-to-day operational control of those activities at a project that are necessary to ensure compliance with the permit conditions (e.g., they are authorized to direct workers at a site to carry out activities required by the permit; in most cases this is the general contractor of the project).

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

"Outfall" – see "Discharge Point."

"Owner" – for the purpose of this permit an owner has legal ownership of property on which construction activity is taking place. Except in the case of leased property, an owner is the party that has ultimate control over the destiny of a project. This is the lessor in the case of leased property.

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

"Point(s) of Discharge" – see "Discharge Point."

"Point Source" – any discernible, confined, and discrete conveyance, including but not limited to, any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock

concentrated animal feeding operation, landfill leachate collection system, or vessel or other floating craft from which pollutants are or may be discharged. This term does not include return flows from irrigated agriculture or agricultural storm water runoff.

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

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

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

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

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

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

1. Wastewater from washout of concrete;

2. Wastewater from washout and cleanout of stucco, paint, form release oils, curing compounds and other construction materials;

3. Fuels, oils, or other pollutants used in vehicle and equipment operation and maintenance;

4. Soaps or solvents used in vehicle and equipment washing;

5. Toxic or hazardous substances from a spill or other release; and

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

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

"Receiving Water" – a "Water of the State into which the regulated storm water discharges. If the discharge is to a storm sewer system, the receiving water is the waterbody to which the storm system discharges.

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

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

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

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

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

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

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

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

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

"Steep Slopes" –for this permit steep slopes are defined as those that are 70 percent or greater in grade.

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

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

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

"Storm Water" – storm water runoff from precipitation, snow melt runoff, and surface runoff and drainage.

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

"Storm Water Controls" – see "Storm Water Control measure."

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

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

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

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

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

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

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

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

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

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

"Toxic Waste" – see "Hazardous Materials."

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

"Uncontaminated Discharge" – a discharge that does not cause or contribute to an exceedance of applicable water quality standards.

"Upland" - the dry land area above and 'landward' of the ordinary high water mark.

"Utah Pollutant Discharge Elimination System (UPDES)" – The State of Utah's program for issuing, modifying, revoking and resissuing, terminating, monitoring, and enforcing permits, and imposing and enforcing pretreatment requirements, under sections 307, 102, 318, and 405 of the Clean water Act (CWA) for the "discharge" of "pollutants" to "Waters of the State". This program is specifically designed to be compatible with the federal National Pollutant Discharge Elimination System (NPDES) program established and administered by the EPA.

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

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

"Waters of the State" – means all streams, lakes, ponds, marshes, water-courses, waterways, wells, springs, irrigation systems, drainage systems, and all other bodies or accumulations of water, surface and underground, natural or artificial, public or private, which are contained within, flow through, or border upon this state or any portion thereof, except that bodies of

water confined to and retained within the limits of private property, and which do not develop into or constitute a nuisance, or a public health hazard, or a menace to fish and wildlife, shall not be considered to be "waters of the state" under this definition (Section 19-5-102).

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

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

Acronyms
C&D – Construction & Development
CGP – Construction General Permit
CFR – Code of Federal Regulations
CPoD – Common Plan of Development or Sale
CWA – Clean Water Act
DEQ – Department of Environmental Quality
DDW – Division of Drinking Water
DWQ – Division of Water Quality
EPA – United States Environmental Protection Agency
MS4 – Municipal Separate Storm Sewer System
NMFS – United States National Marine Fisheries Service
NOI – Notice of Intent
NOT – Notice of Termination
NPDES – National Pollutant Discharge Elimination System
NRC – National Response Center
NRCS – National Resources Conservation Service
POTW – Publicly Owned Treatment Works
SPCC – Spill Prevention Control and Countermeasure
SW – Storm Water
SWMP – Storm Water Management Plan
SWPPP – Storm Water Pollution Prevention Plan
TMDL – Total Maximum Daily Load
UAC – Utah Administrative Code
UCA – Utah Code Annotated
UPDES – Utah Pollution Discharge Elimination System
UWQA – Utah Water Quality Act
WQS – Water Quality Standard

Appendix A

Buffer Requirements

The purpose of this appendix is to assist you in complying with the requirements in Part 2.2.1 of the permit regarding the establishment of natural buffers and/or equivalent sediment controls. This appendix is organized as follows:

A.1 SITES THAT ARE REQUIRED TO PROVIDE AND MAINTAIN NATURAL BUFFERS AND/OR EQUIVALENT EROSION AND SEDIMENT CONTROLS

The requirement in Part 2.2.1 to provide and maintain natural buffers and/or equivalent erosion and sediment controls applies for any discharges to waters of the state located within 50 feet of your site's earth disturbances. If the water of the state is not located within 50 feet of earth-disturbing activities, Part 2.2.1 does not apply. See Figure A-1.

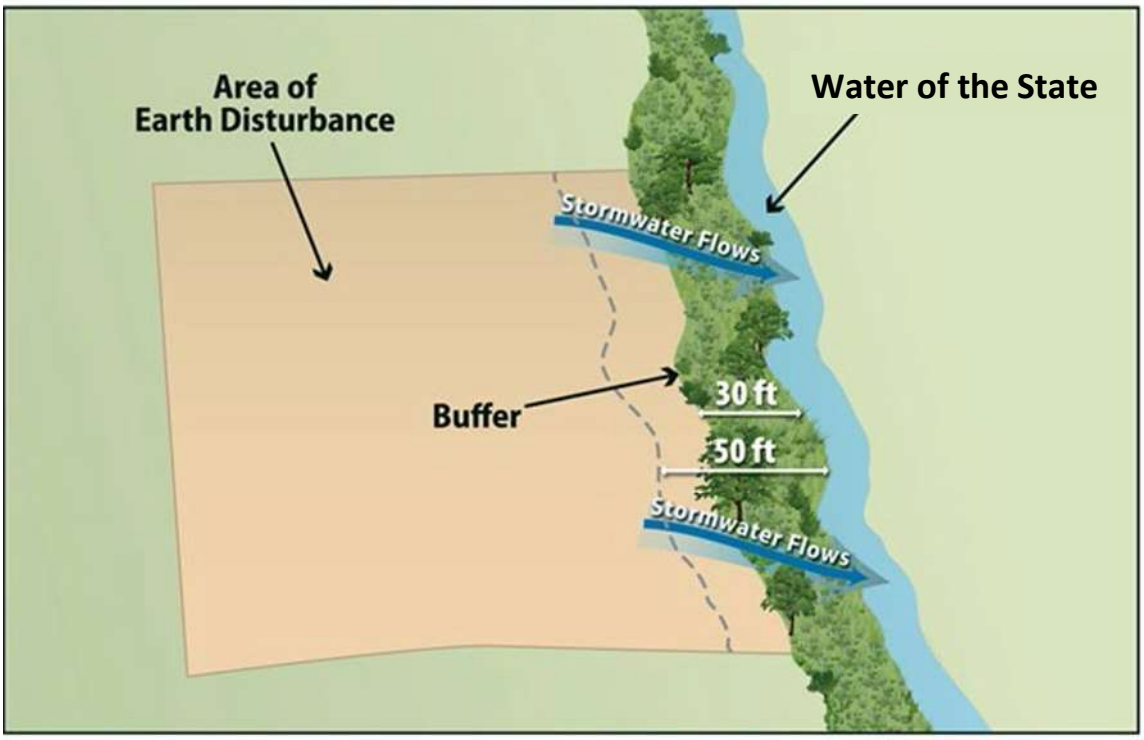

Figure A-1 Example of earth-disturbing activities within 50 feet of a water of the state.

A.2 COMPLIANCE ALTERNATIVES AND EXCEPTIONS

A.2.1. Compliance Alternatives

If Part 2.2.1 applies to your site, you have three compliance alternatives from which you can choose, unless you qualify for any of the exceptions (see below and Part 2.2.1.a):

1. Provide and maintain a 50-foot undisturbed natural buffer; or
2. Provide and maintain an undisturbed natural buffer that is less than 50 feet and is supplemented by erosion and sediment controls that achieve the sediment load reduction equivalent to a 50-foot undisturbed natural buffer; or
3. If infeasible to provide and maintain an undisturbed natural buffer of any size, implement erosion and sediment controls to achieve the sediment load reduction equivalent to a 50-foot undisturbed natural buffer.

The compliance alternative selected must be maintained throughout the duration of permit coverage.

See Part A.2.2 below for exceptions to the compliance alternatives.

See Part A.2.3 for requirements applicable to providing and maintaining natural buffers under compliance alternatives 1 and 2 above.

See Part A.2.4 for requirements applicable to providing erosion and sediment controls that achieve the sediment load reduction equivalent to a 50-foot undisturbed natural buffer under compliance alternatives 2 and 3 above.

A.2.2. Exceptions to the Compliance Alternatives

The following exceptions apply to the requirement to implement one of the Part 2.2.1.a compliance alternatives (see also Part 2.2.1.b):

- The following disturbances within 50 feet of a water of the state are exempt from the requirements Part 2.2.1 and this Appendix:
  - Construction approved under a CWA Section 404 permit; or
  - Construction of a water-dependent structure or water access areas (e.g., pier, boat ramp, trail).
- If there is no discharge of storm water to waters of the state through the area between the disturbed portions of the site and any waters of the state located within 50 feet of your site, you are not required to comply with the requirements in Part 2.2.1 and this Appendix. This includes situations where you have implemented controls measures, such as a berm or other barrier that will prevent such discharges.
- Where no natural buffer exists due to preexisting development disturbances (e.g., structures, impervious surfaces) that occurred prior to the initiation of planning for the current development of the site, you are not required to comply with the requirements in Part 2.2.1 and this Appendix.

  Where some natural buffer exists but portions of the area within 50 feet of the water of the state are occupied by preexisting development disturbances, you are required to comply with the requirements in Part 2.2.1 and this Appendix. For the purposes of calculating the sediment load reduction for either compliance alternative 2 or 3, you are not expected to compensate for the reduction in buffer function that would have resulted from the area covered by these preexisting disturbances. Clarity about how to implement the compliance alternatives for these situations is provided in A.2.3 and A.2.4 below.

  If during your project, you will disturb any portion of these preexisting disturbances, the area removed will be deducted from the area treated as a "natural buffer."
- For "linear construction sites" (see Definitions), you are not required to comply with this requirement if site constraints (e.g., limited right-of-way) make it infeasible to implement one of the Part 2.2.1.a compliance alternatives, provided that, to the extent feasible, you limit disturbances within 50 feet of any waters of the state and/or you provide supplemental erosion and sediment controls to treat storm water discharges from earth

disturbances within 50 feet of the water of the state. You must also document in your SWPPP your rationale for why it is infeasible for you to implement one of the Part 2.2.1.a compliance alternatives, and describe any buffer width retained and supplemental erosion and sediment controls installed.

- For "small residential lot" construction (i.e., a lot being developed for residential purposes that will disturb less than 1 acre of land, but is part of a larger residential project that will ultimately disturb greater than or equal to 1 acre), you have the option of complying with one of the "small residential lot" compliance alternatives in Part A.3 of this appendix.

  Note that you must document in your SWPPP if any disturbances related to any of the above exceptions occurs within the buffer area on your site.

A.2.3. Requirements for Providing and Maintaining Natural Buffers

This part applies to you if you choose compliance alternative 1 (50-foot buffer), compliance alternative 2 (a buffer of < 50 feet supplemented by additional erosion and sediment controls that achieve the equivalent sediment load reduction as the 50-foot buffer), or if you are providing a buffer in compliance with one of the "small residential lot" compliance alternatives in Part A.3.

Buffer Width Measurement

Where you are retaining a buffer of any size, the buffer should be measured perpendicularly from any of the following points, whichever is further landward from the water:

4. The ordinary high water mark of the water body, defined as the line on the shore established by fluctuations of water and indicated by physical characteristics such as a clear, natural line impressed on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, and/or the presence of litter and debris; or
5. The edge of the stream or river bank, bluff, or cliff, whichever is applicable.

Refer to Figure A-2 and Figure A-3. You may find that specifically measuring these points is challenging if the flow path of the water of the state changes frequently, thereby causing the measurement line for the buffer to fluctuate continuously along the path of the waterbody. Where this is the case, DWQ suggests that rather than measuring each change or deviation along the water's edge, it may be easier to select regular intervals from which to conduct your measurement. For instance, you may elect to conduct your buffer measurement every 5 to 10 feet along the length of the water.

Additionally, note that if earth-disturbing activities will take place on both sides of a water of the state that flows through your site, to the extent that you are establishing a buffer around this water, it must be established on both sides. For example, if you choose compliance alternative 1, and your project calls for disturbances on both sides of a small stream, you would need to retain the full 50 feet of buffer on both sides of the water. However, if your construction activities will only occur on one side of the stream, you would only need to retain the 50-foot buffer on the side of the stream where the earth- disturbance will occur.

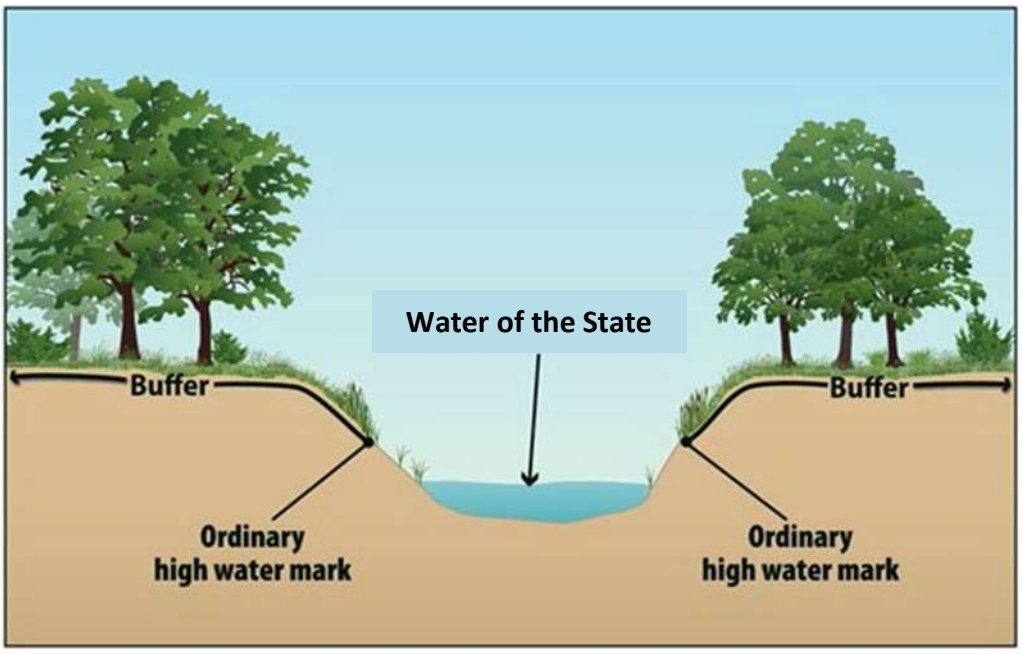

Figure A-2 Buffer measurement from the ordinary high water mark of the water body, as indicated by a clear natural line impressed on the bank, shelving, changes in the character of the soil, destruction of terrestrial vegetation, and/or the presence of litter/debris.

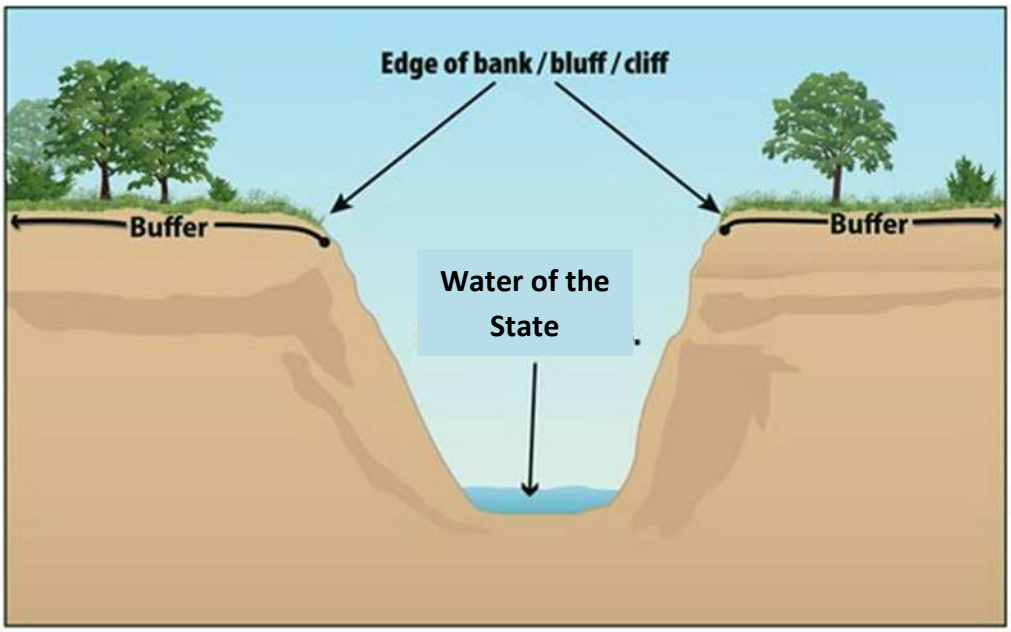

Figure A-3 Buffer measurement from the edge of the bank, bluff, or cliff, whichever is applicable.

Limits to Disturbance Within the Buffer

You are considered to be in compliance with the requirement to provide and maintain a natural buffer if you retain and protect from construction activities the natural buffer that existed prior to the commencement of construction. If the buffer area contains no vegetation prior to the

commencement of construction (e.g., sand or rocky surface), you are not required to plant vegetation. As noted above, any preexisting structures or impervious surfaces may occur in the natural buffer provided you retain and protect from disturbance the buffer areas outside of the preexisting disturbance.

To ensure that the water quality protection benefits of the buffer are retained during construction, you are prohibited from conducting any earth-disturbing activities within the buffer during permit coverage. In furtherance of this requirement, **prior to commencing earth-disturbing activities on your site, you must delineate, and clearly mark off, with flags, tape, or a similar marking device, the buffer area on your site.** The purpose of this requirement is to make the buffer area clearly visible to the people working on your site so that unintended disturbances are avoided.

While you are not required to enhance the quality of the vegetation that already exists within the buffer, you are encouraged to do so where such improvements will enhance the water quality protection benefits of the buffer. (Note that any disturbances within the buffer related to buffer enhancement are permitted and do not constitute construction disturbances.) For instance, you may want to target plantings where limited vegetation exists, or replace existing vegetation where invasive or noxious plant species (see http://plants.usda.gov/java/noxiousDriver) have taken over. In the case of invasive or noxious species, you may want to remove and replace them with a diversity of native trees, shrubs, and herbaceous plants that are well-adapted to the climatic, soil, and hydrologic conditions on the site. You are also encouraged to limit the removal of naturally deposited leaf litter, woody debris, and other biomass, as this material contributes to the ability of the buffer to retain water and filter pollutants.

If a portion of the buffer area adjacent to the water of the state is owned by another party and is not under your control, you are only required to retain and protect from construction activities the portion of the buffer area that is under your control. For example, if you comply with compliance alternative 1 (provide and maintain a 50-foot buffer), but 10 feet of land immediately adjacent to the water of the U.S. is owned by a different party than the land on which your construction activities are taking place and you do not have control over that land, you must only retain and protect from construction activities the 40-foot buffer area that occurs adjacent to the property on which your construction activities are taking place. DWQ would consider you to be in compliance with this requirement regardless of the activities that are taking place in the 10-foot area that is owned by a different party than the land on which your construction activities are taking place that you have no control over.

Discharges to the Buffer

You must ensure that all discharges from the area of earth disturbance to the natural buffer are first treated by the site's erosion and sediment controls (for example, you must comply with the Part 2.2.3 requirement to install sediment controls along any perimeter areas of the site that will receive pollutant discharges), **and if necessary to prevent erosion caused by storm water flows within the buffer, you must use velocity dissipation devices.** The purpose of this requirement is to decrease the rate of storm water flow and encourage infiltration so that the pollutant filtering functions of the buffer will be achieved. To comply with this requirement,

construction operators typically will use devices that physically dissipate storm water flows so that the discharge entering the buffer is spread out and slowed down.

SWPPP Documentation

You are required to document in your SWPPP the natural buffer width that is retained. For example, if you are complying with alternative 1, you must specify in your SWPPP that you are providing a 50-foot buffer. Or, if you will be complying with alternative 2, you must document the reduced width of the buffer you will be retaining (and you must also describe the erosion and sediment controls you will use to achieve an equivalent sediment reduction, as required in Part A.2.4 below). Note that you must also show any buffers on your site map in your SWPPP consistent with Part 7.3.3.h. Additionally, if any disturbances related to the exceptions in Part A.2.2 occur within the buffer area, you must document this in the SWPPP.

A.2.4 Guidance for Providing the Equivalent Sediment Reduction as a 50-foot Buffer

This part applies to you if you choose compliance alternative 2 (provide and maintain a buffer that is less than 50 feet that is supplemented by erosion and sediment controls that achieve the sediment load reduction equivalent to a 50-foot buffer) or compliance alternative 3 (implement erosion and sediment controls to achieve the sediment load reduction equivalent to a 50-foot buffer).

Determine Whether it is Feasible to Provide a Reduced Buffer

EPA recognizes that there will be a number of situations in which it will be infeasible to provide and maintain a buffer of any width. While some of these situations may exempt you from the buffer requirement entirely (see A.2.2), if you do not qualify for one of these exemptions, there still may be conditions or circumstances at your site that make it infeasible to provide a natural buffer. For example, there may be sites where a significant portion of the property on which the earth-disturbing activities will occur is located within the buffer area, thereby precluding the retention of natural buffer areas.

Therefore, you should choose compliance alternative 2 if it is feasible for you to retain some natural buffer on your site. (Note: For any buffer width retained, you are required to comply with the requirements in Part A.2.3, above, concerning the retention of vegetation and restricting earth disturbances.) Similarly, if you determine that it is infeasible to provide a natural buffer of any size during construction, you should choose alternative 3.

Design Controls That Provide Equivalent Sediment Reduction as 50-foot Buffer

You must next determine what additional controls must be implemented on your site that, alone or in combination with any retained natural buffer, achieve a reduction in sediment equivalent to that achieved by a 50-foot buffer.

Note that if only a portion of the natural buffer is less than 50 feet, you are only required to implement erosion and sediment controls that achieve the sediment load reduction equivalent to the 50-foot buffer for discharges through that area. You would not be required to provide additional treatment of storm water discharges that flow through 50 feet or more of natural buffer. See Figure A-4.

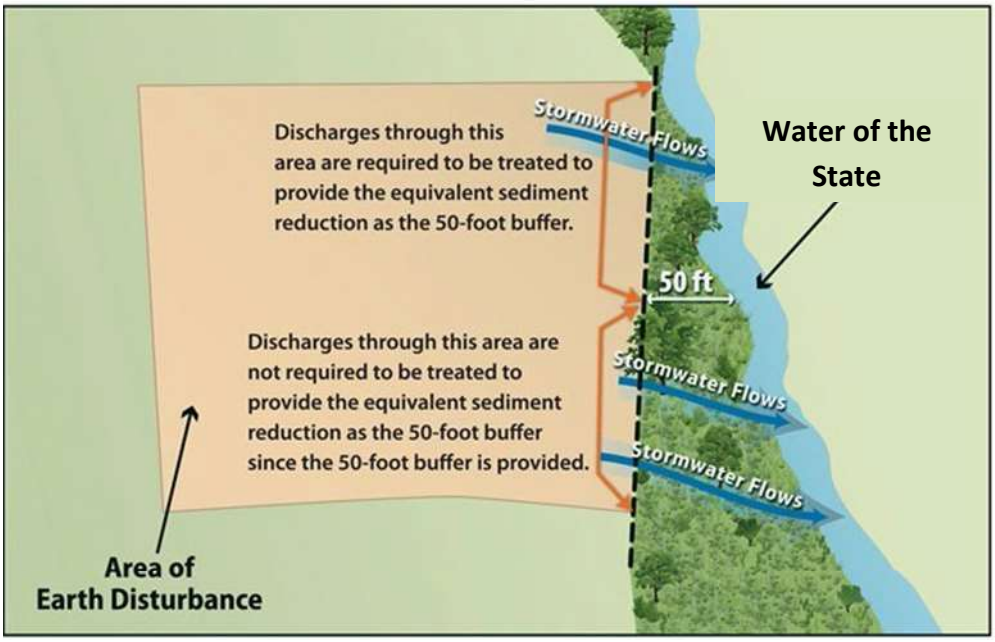

Figure A-4 Example of how to comply with the requirement to provide the equivalent sediment reduction when only a portion of your earth-disturbances discharge to a buffer of less than 50- feet.

Steps to help you meet compliance alternative 2 and 3 requirements are provided below.

Step 1 - Estimate the Sediment Reduction from the 50-foot Buffer

In order to design controls that match the sediment removal efficiency of a 50-foot buffer, you first need to know what this efficiency is for your site. The sediment removal efficiencies of natural buffers vary according to a number of site-specific factors, including precipitation, soil type, land cover, slope length, width, steepness, and the types of erosion and sediment controls used to reduce the discharge of sediment prior to the buffer. EPA has simplified this calculation by developing buffer performance tables covering a range of vegetation and soil types for the areas covered by the CGP. See Attachment 1 of this Appendix, Tables A-8 and A-9. Note: buffer performance values in Tables A-8 and A-9 represent the percent of sediment captured through the use of perimeter controls (e.g., silt fences) and 50-foot buffers at disturbed sites of fixed proportions and slopes.[39] The number of tables has been reduced since many were irrelevant and

[39] EPA used the following when developing the buffer performance tables:

- The sediment removal efficiencies are based on the U.S. Department of Agriculture's RUSLE2 ("Revised Universal Soil Loss Equation 2") model for slope profiles using a 100-foot long denuded slopes.
- Sediment removal was defined as the annual sediment delivered at the downstream end of the 50-foot natural buffer (tons/yr/acre) divided by the annual yield from denuded area (tons/yr/acre).
- As perimeter controls are also required by the CGP, sediment removal is in part a function of the reduction due to a perimeter control (i.e., silt fence) located between the disturbed portion of the site and the upstream edge of the natural buffer and flow traveling through a 50-foot buffer of undisturbed natural vegetation.
- It was assumed that construction sites have a relatively uniform slope without topographic features that accelerate the concentration for erosive flows. (footnote continues on next page)

Table A-8 for Idaho most closely represents northern Utah, and Table A-9 for New Mexico most closely represents southern Utah.

Using Table A-8 for northern Utah or A-9 for southern Utah (see Attachment 1 of this Appendix), you can determine the sediment removal efficiency of a 50-foot buffer for your geographic area by matching the vegetative cover type that best describes your buffer area and the type of soils that predominate at your site. For example, if your site is located in Idaho (northern Utah --Table A-8), and your buffer vegetation corresponds most closely with that of tall fescue grass, and the soil type at your site is best typified as sand, your site's sediment removal efficiency would be 44 percent.

In this step, you should choose the vegetation type in the tables that most closely matches the vegetation that would exist naturally in the buffer area on your site regardless of the condition of the buffer. However, because you are not required to plant any additional vegetation in the buffer area, in determining what controls are necessary to meet this sediment removal equivalency in Step 2 below, you will be able to take credit for this area as a fully vegetated "natural buffer."

Similarly, if a portion of the buffer area adjacent to the water of the state is owned by another party and is not under your control, you can treat the area of land not under your control as having the equivalent vegetative cover and soil type that predominates on the portion of the property on which your construction activities are occurring.

> *For example, if your earth-disturbances occur within 50 feet of a water of the state, but the 10 feet of land immediately adjacent to the water of the state is owned by a different party than the land on which your construction activities are taking place and you do not have control over that land, you can treat the 10 foot area adjacent to the stream as having the equivalent soil and vegetation type that predominates in the 40 foot area under your control. You would then make the same assumption in Step 2 for purposes of determining the equivalent sediment removal (which would be 44% in this case).*

Alternatively, you may do your own calculation of the effectiveness of the 50-foot buffer based upon your site-specific conditions, and may use this number as your sediment removal equivalency standard to meet instead of using Tables A-8 and A-9. This calculation must be documented in your SWPPP.

Step 2 - Design Controls That Match the Sediment Removal Efficiency of the 50-foot Buffer

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- It was assumed that vegetation has been removed from the disturbed portion of the site and a combination of cuts and fills have resulted in a smooth soil surface with limited retention of near-surface root mass.

To represent the influence of soil, EPA analyzed 11 general soil texture classifications in its evaluation of buffer performance. To represent different types of buffer vegetation, EPA evaluated 4 or more common vegetative types for each state/territory covered under the permit. For each vegetation type evaluated, EPA considered only permanent, non-grazed, and non-harvested vegetation, on the assumption that a natural buffer adjacent to the water of the U.S. will typically be undisturbed. EPA also evaluated slope steepness and found that sediment removal efficiencies present in Tables A-8 and A-9 are achievable for slopes that are less than nine percent.

Once you determine the estimated sediment removal efficiency of a 50-foot buffer for your site in Step 1, you must next select storm water controls that will provide an equivalent sediment load reduction. These controls can include the installation of a single control, such as a sediment pond or additional perimeter controls, or a combination of storm water controls. Whichever control(s) you select, you must demonstrate in your SWPPP that the controls will provide at a minimum the same sediment removal capabilities as a 50-foot natural buffer (Step 1). You may take credit for the removal efficiencies of your required perimeter controls in your calculation of equivalency, because these were included in calculating the buffer removal efficiencies in Tables C-8 through C-9. (Note: You are reminded that the controls must be kept in effective operating condition until you complete final stabilization on the disturbed portions of the site discharging to the water of the state)

To make the determination that your controls and/or buffer area achieve an equivalent sediment load reduction as a 50-foot buffer, you should use a model or other type of calculation. As mentioned above, there are a variety of models available that can be used to support your calculation, including USDA's RUSLE-series programs and the WEPP erosion model, SEDCAD, SEDIMOT, or other models. An example is provided in Attachment 3 to help illustrate how this determination could be made.

If you retain a buffer of less than 50 feet, you may take credit for the removal that will occur from the reduced buffer and only need to provide additional controls to make up the difference between the removal efficiency of a 50 foot buffer and the removal efficiency of the narrower buffer. For example, if you retain a 30 foot buffer, you can account for the sediment removal provided by the 30 foot buffer retained, and you will only need to design controls to make up for the additional removal provided by the 20 feet of buffer that is not being provided. To do this, you would plug the width of the buffer that is retained into RUSLE or another model, along with other storm water controls that will together achieve a sediment reduction equivalent to a natural 50-foot buffer.

As described in Step 1 above, you can take credit for the area you retained as a "natural buffer" as being fully vegetated, regardless of the condition of the buffer area.

> *For example, if your earth-disturbances occur 30 feet from a water of the state, but the 10 feet of land immediately adjacent to the water of the U.S. is owned by a different party than the land on which your construction activities are taking place and you do not have control over that land, you can treat the 10-foot area as a natural buffer, regardless of the activities that are taking place in the area. Therefore, you can assume (for purposes of your equivalency calculation) that your site is providing the sediment removal equivalent of a 30-foot buffer, and you will only need to design controls to make up for the additional removal provided by the 20-foot of buffer that is not being provided.*

Step 3 - Document How Site-Specific Controls Will Achieve the Sediment Removal Efficiency of the 50-foot Buffer

In Steps 1 and 2, you determined both the expected sediment removal efficiency of a 50-foot buffer at your site, and you used this number as a performance standard to design controls to be installed at your site, which alone or in combination with any retained natural buffer, achieves

the expected sediment removal efficiency of a 50-foot buffer at your site. The final step is to document in your SWPPP the information you relied on to calculate the equivalent sediment reduction as an undisturbed natural buffer.

DWQ will consider your documentation to be sufficient if it generally meets the following:

- For Step 1, refer to the table in Attachment 1 that you used to derive your estimated 50-foot buffer sediment removal efficiency performance. Include information about the buffer vegetation and soil type that predominate at your site, which you used to select the sediment load reduction value in Tables A-8 and A-9. Or, if you conducted a site-specific calculation for sediment removal efficiency, provide the specific removal efficiency, and the information you relied on to make your site-specific calculation.
- For Step 2, (1) Specify the model you used to estimate sediment load reductions from your site; and (2) the results of calculations showing how your controls will meet or exceed the sediment removal efficiency from Step 1.

If you choose compliance alternative 3, you must also include in your SWPPP a description of why it is infeasible for you to provide and maintain an undisturbed natural buffer of any size.

A.3 SMALL RESIDENTIAL LOT COMPLIANCE ALTERNATIVES

EPA has developed two additional compliance alternatives applicable only to "small residential lots" that are unable to provide and maintain a 50 foot buffer.

> A small residential lot (Common Plan Lot) is a lot or grouping of lots being developed for residential purposes that will disturb less than 1 acre of land, but that is part of a larger residential project that will ultimately disturb greater than or equal to 1 acre.

The following steps describe how a small residential lot operator would achieve compliance with one these 2 alternatives.

A.3.1 Small Residential Lot Compliance Alternative Eligibility

In order to be eligible for the small residential lot compliance alternatives, the following conditions must be met:

6. The lot or grouping of lots meets the definition of "small residential lot"; and
7. The operator must follow the guidance for providing and maintaining a natural buffer in Part A.2.3 of this Appendix, including:
    - Ensure that all discharges from the area of earth disturbance to the natural buffer are first treated by the site's erosion and sediment controls, and use velocity dissipation devices if necessary to prevent erosion caused by storm water within the buffer;
    - Document in the SWPPP the natural buffer width retained on the property, and show the buffer boundary on your site plan; and

- Delineate, and clearly mark off, with flags, tape, or other similar marking device, all natural buffer areas.

A.3.2. Small Residential Lot Compliance Alternatives

You must next choose from one of two small residential lot compliance alternatives and implement the storm water control practices associated with that alternative.

Note: The compliance alternatives provided below are not mandatory. Operators of small residential lots can alternatively choose to comply with the any of the options that are available to other sites in Part 2.2.1.a and A.2.1 of this Appendix.

Small Residential Lot Compliance Alternative 1

Alternative 1 is a straightforward tiered-technology approach that specifies the controls that a small residential lot must implement based on the buffer width retained. To meet the requirements of small residential lot compliance alternative 1, you must implement the controls specified in Table A-1 based on the buffer width to be retained. See footnote 40, below, for a description of the controls you must implement.

For example, if you are an operator of a small residential lot that will be retaining a 35-foot buffer and you choose Small Residential Lot Compliance Alternative 1, you must implement double perimeter controls between earth disturbances and the water of the state.

In addition to implementing the applicable control, you must also document in your SWPPP how you will comply with small residential lot compliance alternative 1.

Table A-1 Alternative 1 Requirements[40]

Retain 50 foot Buffer	Retain <50 and >30 Buffer	Retain ≤30 foot Buffer
No Additional Requirements	Double Perimeter Controls	Double Perimeter Controls and 7-Day Site Stabilization

Small Residential Lot Compliance Alternative 2

Alternative 2 specifies the controls that a builder of a small residential lot must implement based on both the buffer width retained and the site's sediment discharge risk. By incorporating the

[40]Description of Additional Controls Applicable to Small Residential Lot Compliance Alternatives 1 and 2:
•I No Additional Requirements: If you implement a buffer of 50 feet or greater, then you are not subject to any additional requirements. Note that you are required to install perimeter controls between the disturbed portions of your site and the buffer in accordance with Part 2.2.3.
•I Double Perimeter Control: In addition to the reduced buffer width retained on your site, you must provide a double row of perimeter controls between the disturbed portion of your site and the water of the U.S. spaced a minimum of 5 feet apart.
•I Double Perimeter Control and 7-Day Site Stabilization: In addition to the reduced buffer width retained on your site and the perimeter control implemented in accordance with Part 2.2.3, you must provide a double row of perimeter controls between the disturbed portion of your site and the water of the U.S. spaced a minimum of 5 feet apart, and you are required to complete the stabilization activities specified in Parts 2.2.14 within 7 calendar days of the temporary or permanent cessation of earth-disturbing activities.

sediment risk, this approach may result in the implementation of controls that are more appropriate for the site's specific conditions.

Step 1 – Determine Your Site's Sediment Risk Level

To meet the requirements of Alternative 2, you must first determine your site's sediment discharge "risk level" based on the site's slope, location, and soil type. To help you to determine your site's sediment risk level, EPA developed five different tables for different slope conditions. You should select the table that most closely corresponds to your site's average slope.

> *For example, if your site's average slope is 7 percent, you should use Table C-4 to determine your site's sediment risk.*

After you determine which table applies to your site, you must then use the table to determine the "risk level" (e.g., "low", "moderate", or "high") that corresponds to your site's location and predominant soil type.[41]

> *For example, based on Table C-3, a site located in Northern Utah with a 4 percent average slope and with predominately sandy clay loam soils would fall into the "low" risk level.*

Table A-2 Risk Levels for Sites with Average Slopes of ≤ 3 Percent

Soil Type / Location	Clay	Silty Clay Loam or Clay-Loam	Sand	Sandy Clay Loam, Loamy Sand or Silty Clay	Loam, Silt, Sandy Loam or Silt Loam
Idaho (Northern Utah)	Low	Low	Low	Low	Low
New Mexico (Southern Utah)	Low	Low	Low	Low	Low

Table A-3 Risk Levels for Sites with Average Slopes of > 3 Percent and ≤ 6 Percent

Soil Type / Location	Clay	Silty Clay Loam or Clay- Loam	Sand	Sandy Clay Loam, Loamy Sand or Silty Clay	Loam, Silt, Sandy Loam or Silt Loam
Idaho (Northern Utah)	Low	Low	Low	Low	Low
New Mexico (Southern Utah)	Low	Low	Low	Low	Moderate

[41] One source for determining your site's predominant soil type is the USDA's Web Soil Survey located at http://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx.

Table A-4 Risk Levels for Sites with Average Slopes of > 6 Percent and ≤ 9 Percent

Soil Type / Location	Clay	Silty Clay Loam or Clay- Loam	Sand	Sandy Clay Loam, Loamy Sand or Silty Clay	Loam, Silt, Sandy Loam or Silt Loam
Idaho (Northern Utah)	Low	Low	Low	Low	Low
New Mexico (Southern Utah)	Low	Low	Low	Low	Moderate

Table A-5 Risk Levels for Sites with Average Slopes of > 9 Percent and ≤ 15 Percent

Soil Type / Location	Clay	Silty Clay Loam or Clay- Loam	Sand	Sandy Clay Loam, Loamy Sand or Silty Clay	Loam, Silt, Sandy Loam or Silt Loam
Idaho (Northern Utah)	Low	Low	Low	Low	Low
New Mexico (Southern Utah)	Low	Moderate	Low	Moderate	Moderate

Table A-6 Risk Levels for Sites with Average Slopes of > 15 Percent

Soil Type / Location	Clay	Silty Clay Loam or Clay- Loam	Sand	Sandy Clay Loam, Loamy Sand or Silty Clay	Loam, Silt, Sandy Loam or Silt Loam
Idaho (Northern Utah)	Low	Low	Low	Low	Moderate
New Mexico (Southern Utah)	Moderate	Moderate	Moderate	Moderate	High

Step 2 – Determine Which Additional Controls Apply

Once you determine your site's "risk level", you must next determine the additional controls you need to implement on your site, based on the width of buffer you plan to retain. Table A-7

specifies the requirements that apply based on the "risk level" and buffer width retained. See footnote 40, above, for a description of the additional controls that are required.

For example, if you are the operator of a small residential lot that falls into the "moderate" risk level, and you decide to retain a 20-foot buffer, using Table A-7 you would determine that you need to implement double perimeter controls to achieve compliance with small residential lot compliance alternative 2.

You must also document in your SWPPP your compliance with small residential lot compliance alternative 2.

Table A-7. Alternative 2 Requirements

Risk Level Based on Estimated Soil Erosion	Retain ≥ 50' Buffer	Retain <50' and >30' Buffer	Retain ≤30' and >10' Buffer	Retain ≤ 10' Buffer
Low Risk	No Additional Requirements	No Additional Requirements	Double Perimeter Control	Double Perimeter Control
Moderate Risk	No Additional Requirements	Double Perimeter Control	Double Perimeter Control	Double Perimeter Control and 7-Day Site Stabilization
High Risk	No Additional Requirements	Double Perimeter Control	Double Perimeter Control and 7-Day Site Stabilization	Double Perimeter Control and 7-Day Site Stabilization

ATTACHMENT 1

Sediment Removal Efficiency Tables[42]

EPA recognizes that very high removal efficiencies, even where theoretically achievable by a 50-foot buffer, may be very difficult to achieve in practice using alternative controls. Therefore in the tables below, EPA has limited the removal efficiencies to a maximum of 90%. Efficiencies that were calculated at greater than 90% are shown as 90%, and this is the minimum percent removal that must be achieved by alternative controls.

For the Utah CGP only the tables for Idaho and New Mexico are shown. The table for Idaho substitutes for northern Utah and the table for New Mexico substitutes for southern Utah.

Table A-8 Estimated 50-foot Buffer Performance in Idaho* (Northern Utah)

	Estimated % Sediment Removal				
Type of Buffer Vegetation**	**Clay**	**Silty Clay Loam or Clay-Loam**	**Sand**	**Sandy Clay Loam, Loamy Sand or Silty Clay**	**Loam, Silt, Sandy Loam or Silt Loam**
Tall Fescue Grass	42	52	44	48	85
Medium-density Weeds	28	30	28	26	60
Low-density Warm-season Native Bunchgrass (i.e., Grama Grass)	25	26	24	24	55
Northern Mixed Prairie Grass	28	30	28	26	50
Northern Range Cold Desert Shrubs	28	28	24	26	50

* Applicable for sites with less than nine percent slope

** Characterization focuses on the under-story vegetation

Table A-9 Estimated 50-foot Buffer Performance in New Mexico* (Southern Utah)

	Estimated % Sediment Removal				
Type of Buffer Vegetation **	**Clay**	**Silty Clay Loam or Clay-Loam**	**Sand**	**Sandy Clay Loam, Loamy Sand or Silty Clay**	**Loam, Silt, Sandy Loam or Silt Loam**
Tall Fescue grass	71	85	80	86	90

[42] The buffer performances were calculated based on a denuded slope upgradient of a 50-foot buffer and a perimeter controls, as perimeter controls are a standard requirement (see Part 2.2.3).

Medium-density Weeds	56	73	55	66	78
Low-density Warm-season Native Bunchgrass (i.e., Grama Grass)	53	70	51	62	67
Southern Mixed Prairie Grass	53	71	52	63	50
Southern Range Cold Desert Shrubs	56	73	55	65	53

* Applicable for sites with less than nine percent slope

** Characterization focuses on the under-story vegetation

ATTACHMENT 2

Using the Sediment Removal Efficiency Tables – Questions and Answers

– **What if my specific buffer vegetation is not represented in Tables A-8 and A-9?** Tables A-8 and A-9 provide a range of factors affecting buffer performance; however, there are likely instances where the specific buffer vegetation type on your site is not listed. If you do not see a description of the type of vegetation present at your site, you should choose the vegetation type that most closely matches the vegetation type on your site. You can contact your local Cooperative Extension Service Office (http://nifa.usda.gov/partners-and-extension-map) for assistance in determining the vegetation type in Tables C-8 through C-9 that most closely matches your site-specific vegetation.

– **What if there is high variability in local soils?** EPA recognizes that there may be a number of different soil type(s) on any given construction site. General soil information can be obtained from USDA soil survey reports (http://websoilsurvey.nrcs.usda.gov) or from individual site assessments performed by a certified soil expert. Tables A-8 and A-9 present eleven generic soil texture classes, grouping individual textures where EPA has determined that performance is similar. If your site contains different soil texture classes, you should use the soil type that best approximates the predominant soil type at your site.

– **What if my site slope is greater than 9 percent after final grade is reached?** As indicated in the buffer performance tables, the estimated sediment removal efficiencies are associated with disturbed slopes of up to 9 percent grade. Where your graded site has an average slope of greater than 9 percent, you should calculate a site-specific buffer performance.

– **How do I calculate my own estimates for sediment reduction at my specific site?** If you determine that it is necessary to calculate your own sediment removal efficiency using site- specific conditions (e.g., slopes at your site are greater than 9 percent), you can use a range of available models that are available to facilitate this calculation, including USDA's RUSLE- series programs and the WEPP erosion model, SEDCAD, SEDIMOT, or other equivalent models.

– **What is my estimated buffer performance if my site location is not represented by Tables Tables A-8 and A-9?** If your site is located in an area not represented by Tables A-8 and A-9, you should use the table that most closely approximates conditions at your site (Table A-8 generally represents northern Utah, Table A-9 generally represents southern Utah). You may instead choose to conduct a site-specific calculation of the buffer performance.

– **What if only a portion of my site drains to the buffer area?** If only a portion of your site drains to a water of the State, where that water is within 50 feet of your earth disturbances, you are only required to meet the equivalency requirement for the storm water flows corresponding to those portions of the site. See Attachment 3 for an example of how this is expected to work.

ATTACHMENT 3

Example of How to Use the Sediment Removal Efficiency Tables

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

An operator of a site in southern Utah determines that it is not feasible to provide a 50-foot buffer, but a 28-foot buffer can be provided. Because the operator will provide a buffer that is less than 50 feet, the operator must determine which controls, in combination with the 28-foot buffer, achieve a sediment load reduction equivalent to the 50-foot buffer. In this example, the project will disturb 6.5 acres of land, but only 1.5 acres of the total disturbed area drains to the buffer area. Within the 28-foot buffer area is a preexisting concrete walkway. The equivalence analysis starts with Step 1 in Part A.2.4 of this Appendix with a review of the southern Utah buffer performance (Table A-9). The operator determines that the predominate vegetation type in the buffer area is prairie grass, the soil type is similar to silt, and the site is of a uniform, shallow slope (e.g., 3 percent grade). Although the operator will take credit for the disturbance caused by the concrete walkway as a natural buffer in Step 2, here the operator can treat the entire buffer area as being naturally vegetated with prairie grass. Based on this information, the operator refers to Table A-9 to estimate that the 50-foot buffer would retain 50 percent of eroded soil.

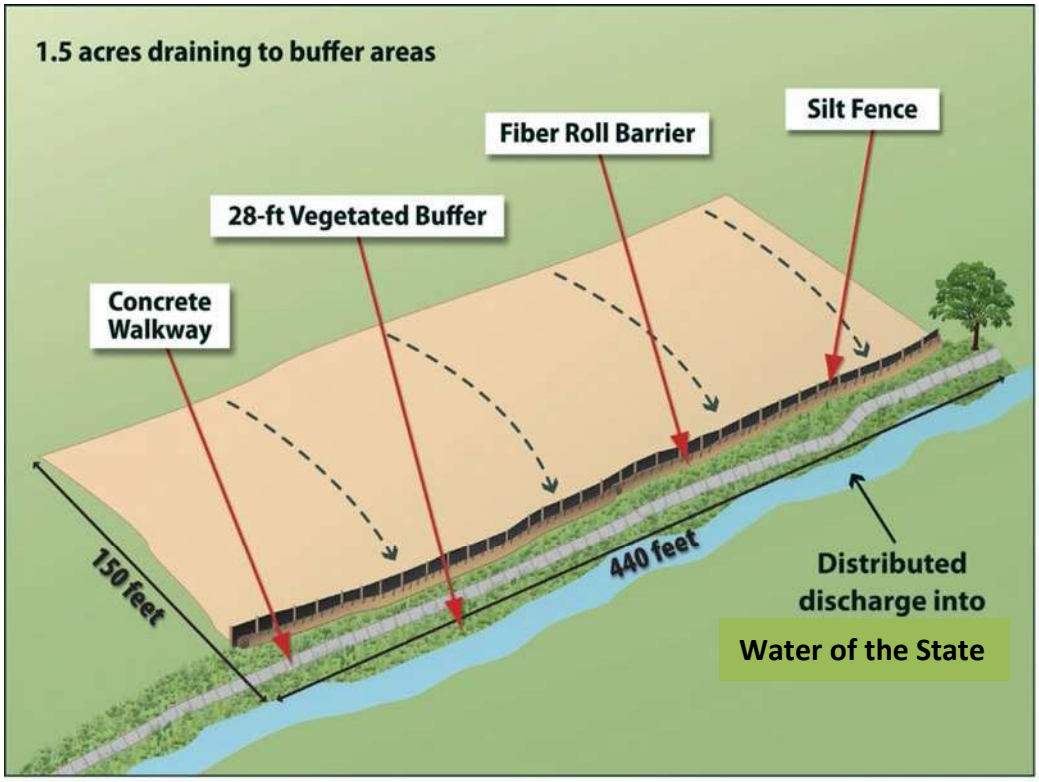

Figure A-5 Example – Equivalent Sediment Load Reductions at a 6.5 ac Site in Southern Utah.

The second step is to determine, based on the 50 percent sediment removal efficiency found in Table A-9, what sediment controls, in combination with the 28-foot buffer area, can be implemented to reduce

sediment loads by 50 percent or more. The operator does not have to account the reduction in buffer function caused by the preexisting walkway, and can take credit for the entire 28-foot buffer being fully vegetated in the analysis. For this example, using the RUSLE2 profile model, the operator determined that installing a fiber roll barrier between the silt fence (already required by Part 2.2.3) and the 28-foot buffer will achieve an estimated 84 percent sediment removal efficiency. See Figure A-5. Note that this operator is subject to the requirement in Part A.2.3 of this Appendix to ensure that discharges through the silt fence, fiber roll barrier, and 28-foot buffer do not cause erosion within the buffer. The estimated sediment reduction is greater than the required 50 percent; therefore the operator will have met the buffer alternative requirement.

General Permit for Storm Water Discharges from Construction Activities
STATE OF UTAH, DEPARTMENT OF ENVIRONMENTAL QUALITY,
DIVISION OF WATER QUALITY

General Storm Water Permit for Construction Activity
Connected with Single Lot Housing Projects
Utah Pollution Discharge Elimination System Permit No. UTRH00000
(Common Plan Permit)

This Permit is issued in compliance with the provisions of the Utah Water Quality Act (Utah Code Annotated 19-5, as amended) the federal Water Pollution Control Act (33 United States 1251 et. seq., as amended by the Water Quality Act of 1987, Public Law 100-4), and the rules and Regulations made pursuant to those statutes.

This permit applies to "construction activity" for a single lot disturbing a total of one acre or less and for construction activities related to residential dwellings. A single lot covered by this permit is part of a common plan of development or sale (see definitions in Part 6).

Issuance of this permit does not authorize any permittee to violate water quality standards. The permittee shall develop best management practices (BMPs) and engage in activities that will protect water quality during the construction project.

This permit shall become effective on February 1, 2021.

This permit and the authorization to discharge expire at midnight on January 31, 2026.

Signed this 29th day of January, 2021

Erica Brown Gaddis, PhD
Director

DWQ-2021-001314

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1. COVERAGE UNDER THIS PERMIT. Conditions for coverage under this permit.

1.1. Coverage Limitations. A project site (see definition of a project site in Part 6) is eligible for this permit if it meets the following requirements:

1.1.1. It is found within the State of Utah but is not in Indian Country,

1.1.2. The construction activity is related to residential building on an individual lot or parcel.

1.1.3. It disturbs a total of one acre or less over the duration of the construction project,

1.1.4. *Multiple site coverage*:

1.1.4.a. This permit may apply to multiple lots with the contingency that each lot be covered under a different permit number (separate permit coverage for each lot). Lots do not necessarily need to be located within the same sub-division.

1.1.4.b. If multiple lot coverage is desired under one permit, it may be obtained under the General Permit for Discharges from UPDES Permit No. UTRC00000 (CGP). Multiple lots may be covered under one number (one permit coverage) provided that UTRC00000 is the controlling permit, and all lots covered under that tracking number are within the same sub-division.

1.1.5. *High Risk Sites*: If the project is located within the jurisdiction of, or discharges into, a Municipal Separate Storm Sewer System (MS4), the MS4 may require the permittee to utilize coverage under the CGP instead of using this permit if;

1.1.5.a. the project site is located within 50 feet of a perennial surface water, or;

1.1.5.b. the project site has a steep slope (70% or 35 degrees or more) with an elevation change from the slope of 10 feet or more (at any point during the time of construction – not including stockpiles).

1.1.6. *Common Plan of Development Limitations:* If the purpose of the project lot within common plan of development has been completed, the lot is no longer eligible for coverage under the Common Plan Permit. The purpose is considered complete as lots or separated sections of the development are completed, the lot or section is stabilized, and the plan purposes are fulfilled for that area, lot, or section.

1.2. Discharges Allowed. This permit allows discharges of storm water from construction activity at a project site, provided the storm water discharge meets the requirements within this permit.

1.3. Non-Storm Water Discharges. Other non-storm water discharges that are allowed are:

1.3.1. Flushings from potable or irrigation water sources where they have not been used for a washing or cleaning activity;

1.3.2. Water used for dust control;

1.3.3. Spring water and groundwater that have not been soiled with sediment or other pollutants from construction activity;

1.3.4. Emergency fire-fighting activities, and;

1.3.5. Footing drains that have not been soiled from construction activity.

1.4. How to Obtain Permit Coverage. The permit may be obtained online at the Utah Department of Environmental Quality (DEQ) UPDES Permits website at https://deq.utah.gov/water-quality/general-construction-storm-water-updes-permits. Click on the "UPDES NeT Apply Online" button. Create an account, or if an account has already been created, proceed with providing the information requested. **The notice of intent (NOI) for this permit is the same NOI that is used for the CGP, UTRC00000.** To complete the application process the permittee must pay a permit fee. The NOI may be filled out electronically using the online permit application system. The NOI can also be submitted using a downloadable pdf version of the NOI obtained from the same website cited above along with the permit fee. The form and fee can either be hand delivered to Utah Division of Water Quality [DWQ], 195 North 1950 West, Salt Lake City, Utah, 3rd floor in the MASOB building, or mailed to DWQ, P.O. Box 144870, Salt Lake City, Utah 84114-4870. When a party receives coverage under the permit, they will receive a permit number, and the opportunity to download a copy the NOI and Authorization to Discharge Letter for "proof of coverage." A copy of this permit may be downloaded from the Online Permits Database.

1.4.1. Signature on the NOI. The owner and the general contractor, which in some cases could be the same party, must sign the downloadable pdf version of the NOI (see 5.16.1.a) and place it in the storm water pollution prevention plan (SWPPP) along with the Authorization to Discharge Letter. (see 4.2.8). In the online permits database, if technical limitations prevent the signature of both owner and operator, either the owner or operator is acceptable, but the owner's signature is preferred.

1.5. Permit Renewal. This permit must be renewed yearly on the anniversary date of the original permit application. This is done by logging onto the account created at the time of NOI application, refreshing the information on the NOI, and paying the yearly permit fee.

1.6. Start and end of Permit Coverage. Permit coverage begins immediately upon completion and submission of an NOI and the permit fee. If the NOI is submitted electronically on-line permit coverage begins on that day, upon the receipt of the Authorization to Discharge Letter. If the NOI is submitted by mail permit coverage begins when the NOI is received and entered into the on-line data base by DWQ staff, and an Authorization to Discharge Letter is generated with coverage dates, for the permittee. For projects within the jurisdiction of a regulated MS4 (see definitions in Part 6; the list of regulated MS4s is found on https://deq.utah.gov/water-quality/municipal-separate-storm-sewer-system-ms4s-permits-updes-permits), the permittee must also notify and receive approval for the project from the regulated MS4 having jurisdiction before the project may commence (see 4.2.11.). The permit fee is an annual fee that must be paid yearly on the anniversary date of permit issuance. The permit will remain effective until or unless any of the following occurs:

1.6.1. The permittee completes the notice of termination (NOT) process, as outlined in section 1.7,

1.6.2. The permittee fails to submit the yearly permit fee,

1.6.3. Aside from permit coverage, which may be renewed annually by the permittee, as needed, this general permit expires every 5 years and normally is renewed through a public notice process by DWQ. In the event that the permit nears the end of its 5 year cycle, and the year of permit coverage for a construction site extends beyond the expiration date for the permit, the permittee must request continuing coverage through the permit renewal process. Otherwise permit coverage for a construction site will terminate when the general permit expires. Renewal of permit coverage can be done in the online electronic storm water data base up to 12 months prior to the expiration of the permit, or by letter

received by DWQ before the expiration date of the specific permit coverage in question where concurrently all entries in the NOI can be updated as needed.

1.6.3.a. If a renewal permit has been issued and is in place at the expiration date of this permit, this permit will terminate and coverage under the renewed permit will begin on the expiration date unless 1.7.1 has been invoked by the permittee.

1.6.3.b. If a renewal permit has not been issued, this permit will be administratively extended until a renewal permit is issued or it is determined that this permit will not be continued. If a renewal permit is issued, and the permittee indicated a desire for continuing coverage under the new permit, coverage will continue for the permittee under the new permit coverage unless 1.7.1 is invoked. If the permit is discontinued, the permittee must continue coverage under another general permit or an individual permit.

1.6.4. Coverage under this permit is rescinded or revoked for administrative reasons. In this case, the permittee will be notified in writing from the Director and will be required to apply for coverage under a different general or individual UPDES permit. This permit is terminated on the day coverage under another permit begins.

1.7. Notice of Termination. The permittee must terminate the permit by submitting an NOT when the project is completed. The NOT must be filed and retained for 3 years after the permit has been terminated (see 3.7). To terminate the permit, the permittee must comply with either 1.8.1 or 1.8.2, outlined below, and must comply with 1.8.3 if the project is within the jurisdiction of a regulated MS4 (see http://www.deq.utah.gov/Permits/water/updes/stormwatermun.htm for regulated MS4s):

1.7.1. The landscaping is completed and the site meets "final stabilization" requirements (see part 6, definitions, for final stabilization).

1.7.2. When a project (residential building) is completed but 'final stabilization' is not established, the building must be in process of being sold and ready for homeowners to take possession. If built by the homeowners, they must be in the process of moving in or already have moved in the house. The lot must have perimeter controls on downslope boundaries and surface stabilization controls on all surfaces that are 20% (1 to 5 slope, or 11.3 degrees) or greater to prevent erosion and soil migration offsite;

1.7.3. The permittee must submit a downloadable pdf copy of a NOT form to the MS4 of jurisdiction and schedule a final inspection (with the MS4). Termination is complete upon approval of the final inspection from the local MS4, or from DWQ if outside the jurisdiction of a regulated MS4.

1.8. Water Quality: Through the design of appropriate BMPs, it is expected that the permittee will achieve compliance with water-quality standards. If additional information becomes available indicating a project site is causing or is contributing to a violation of water quality standards or an existing total maximum daily load (TMDL), coverage under this permit may be revoked or rescinded, and the permittee may be required to get coverage under an individual UPDES permit or another UPDES general permit. If this occurs, the owner and the general contractor will be notified in writing by the Director and given instructions on how they must proceed.

1.9. Requirement to Post a Notice of Permit Coverage. The permittee must post a sign at the project

site that includes the UPDES Permit tracking number, owner or general contractor contact name, a phone number for the owner or general contractor (must be available during business hours), an email address for the owner or general contractor (must be checked and responded to within 24 hours on week days), and in the case of an electronic SWPPP, a web address or information on how to access the electronic SWPPP. The notice must be posted with lettering large enough to be readable from a public right-of-way.

2. POLLUTION PREVENTION REQUIREMENTS

2.1. Structural Controls. Minimize sediment transport off the site as follows:

2.1.1. *Stockpiled Material*. Stockpiled material must not be stored on an impervious surface, except a material that will not be transported with precipitation, such as two-inch graded and washed gravel, unless it will be permanently and immediately placed and the holding area will be swept clean the same day it is dropped. If stored for more than a day, it must be placed as far as feasibly possible from roads or other impervious surfaces, storm water inlets, or water bodies, and with stockpile perimeter runoff controls utilized.

2.1.2. *Perimeter Controls.* Perimeter controls such as silt fences, straw wattles, other filter berms, cut back curbs, vegetative buffers, etc., must be properly placed on the downslope sides of the project to prevent sediment from leaving the site during a storm event. As perimeter controls become loaded to 1/3 of capacity, they must be cleaned.

2.1.3. *Inlet Protection*. Storm-drain inlets on the project site and on adjacent roads immediately down gradient from the site must be protected if they receive drainage from the active construction site. Protection may be, but is not limited to, rock wattles, gravel bags, or proprietary or other devices. Rock wattles and sand or gravel bags are not advised for use in winter because they can be destroyed or removed by snow plows.

2.2. Protection of Critical or Sensitive Areas: Critical or sensitive areas such as preservation of the drip line around trees, wetlands, buffer zones by water bodies, etc., must be separated and isolated by clearly marking the areas with environmental fencing.

2.3. Managing the Site to Minimize Sediment Transport Offsite.

This may be accomplished using experience, estimates, and good judgment; unless unusual or extraordinary site conditions present a potential for excessive erosion, hillside/impoundment collapse, environmental/safety hazards, or other site problems; for which a professional engineer must be consulted.

2.3.1. The total area of soil disturbance at any one time must be minimized by disturbing only the area necessary to complete that stage of construction in the construction process.

2.3.2. Soil disturbances on steep slopes must be minimized. For purposes of this permit a steep slope is 70% (or 1 to 1.66, or 35 degrees), or greater. This means avoiding a disturbance of soils on steep slopes or if disturbing the soil surface is necessary providing a robust surface stabilizing cover (such as geomats, environmental blankets, or other robust slope stabilizing control) to prevent erosion.

2.3.3. Storm water volume and velocity must be controlled to minimize soil erosion and sediment transport by methods such as allowing or not obstructing infiltration and using velocity-control devices to reduce energy in runoff flowing on slopes.

2.3.4. Storm water discharges leaving the site, including both peak flowrates and total storm water volume, must be controlled to minimize channel and stream-bank erosion and scour in the immediate vicinity of discharge points.

2.3.5. *Fifty-Foot Vegetative Buffer*. If a waterbody is adjacent to, within 50 feet from, or passing through the project boundaries, a 50-foot natural buffer between the waterbody and construction activity must be provided. If a 50-foot natural buffer cannot be provided, a substitute control measure equivalent to the 50-foot buffer must be provided, or the SWPPP must contain an explanation why neither is feasible. If it is not feasible to maintain a 50-foot natural buffer, as much natural buffer as is possible must be preserved and coupled with placement of additional erosion and sediment controls designed, implemented, and maintained to substitute and be equivalent to the 50-foot natural buffer.

The requirement for a natural buffer or substitute controls does not apply to any area outside of the project boundaries, but if a waterbody is within, for example, 20 feet from the project boundary, there must be 30 feet of natural vegetative buffer or substitute controls.

2.3.5.a. Substitution for a natural buffer should be calculated with models such as USDA's RUSLE2 or WEPP, or by using SEDCAD, SEDIMOT, or other similar models. In lieu of using a model for calculation of a substitution buffer, the permittee shall deploy the following:

2.3.5.a.i. For every full 9 feet of natural buffer that is not provided on slopes up to 10 percent, one row of an effective perimeter control, such as a silt fence, staked straw wattle, proprietary or other filter berm, or other perimeter control, must be properly placed. For example, if only 15 feet of natural buffer can be provided, the permittee will substitute one row of a perimeter control in addition to the 15 feet of natural buffer to make up for the 15 feet of buffer that could not be preserved.

2.3.5.a.ii. In addition to the requirements above for substitutions in place of the 50-foot natural buffer, on slopes between 10 percent and 30 percent, five feet of surface stabilization must be placed down gradient of and between each perimeter control substituted. For slopes steeper than 30 percent, 6 feet of surface stabilization must be placed downgradient of and between each perimeter control substituted, such as mulch, hydromulch, wood chips, bark, compost, erosion mat, etc., but excluding tackifiers.

2.4. Good Housekeeping Measures. The permittee must address the following:

2.4.1. *Track Out*. Track-out pads (see definitions) and or rumble strips (see definitions) must be used to prevent dirt/mud tracked on streets as vehicles leave the site. If traffic onto and off the site is not frequent, a site operator may impose a blanket prohibition of vehicle traffic onto the site, allowing for the occasions to deliver and unload, but afterwards providing sweeping and/or cleaning of tracked out dirt (keep in mind that vehicles leaving a muddy site with no track out protection can track mud for several blocks – the operator is liable for all track out from the site except for a dirt stain after sweeping -- see note after 3.2.2.). Dirt or mud tracked out on the street must not be washed or hosed into a storm drain. Tracked out mud or dirt on the street must be swept and/or scraped up as needed every day (see 3.2.2).

2.4.2. *Curb Ramps*: This permit prohibits the intentional placement of dirt and/or mud on paved streets or sidewalks. Curb ramps may be crushed rock, wood or steel ramps, or another material that does not wash away with storm water.

2.4.3. *Waste and Debris*. The site must be cleaned of waste and debris daily (see daily self-inspection 3.2.2). Waste and debris must be contained and secured adequately to prevent scattering from wind until it is removed from the site and disposed of properly.

2.4.4. *Portable Toilet*. Portable toilets must be tied down, staked down, or secured using other measures to prevent turn over, and they must be placed away from a road gutter, storm water inlet, or waterbody.

2.4.5. *Washing of Concrete, Stucco, and Paint Equipment*. A lined, leak-proof pit or a rigid, leak-proof container must be provided for washout of equipment used for concrete, stucco, and water-based paint. After completion of concrete, stucco, and paint tasks, the permittee must dispose of the waste by drying and sending solids to a landfill. Oil-based paint cleanout must be done in containers, taken off-site, and disposed of separately.

2.5. Soil Compaction/Top Soil. Topsoil must be preserved and placed on areas to be landscaped or areas planned for receiving vegetative cover, unless infeasible. Soil compaction must be minimized on areas that will not be used for support of structural elements such as roads, parking areas, structures, etc., unless infeasible. Note in the SWPPP and locations where it is infeasible and document the reason for infeasibility.

2.6. Stabilization Requirement. Stabilization requirements are as follows:

2.6.1. *Stabilization requirements for areas that receive 20 inches of rainfall annually or greater*: Stabilization of disturbed areas must, at a minimum, be initiated immediately whenever any clearing, grading, excavating or other earth disturbing activities have permanently ceased on any portion of the site or have temporarily ceased on any portion of the site for greater than 14 calendar days. Stabilization can be sodding, planting, application of mulch (wood chips, rock, gravel, bark, compost, cat tracking on straw, hydromulch, etc.), application of geotextiles or erosion blankets, application of a tackifier, seeding (including preparation for germination and growth), a combination of these methods, or other method.

2.6.2. *Stabilization or equivalent requirements for arid and semi-arid areas (areas receiving less than 20 inches of rainfall annually)*: Stabilization for visually flat areas is not required (roughly up to 5 percent, 1 to 20 slope, or 2.3 degrees slope). Areas with slopes up to roughly 20 percent (1 to 5 slope or 11.3 degrees) must have, at minimum, velocity-control devices in every area where storm water collects and flows, spaced close enough across the flow to stop erosion (see also 2.3.3). Soil surface stabilization such as sodding, planting, hydromulch, compost, bark, cat tracking on straw, gravel, geotextiles, erosion blankets, or other stabilization methods is required on all other sloped areas, increasing the robust nature of stabilizing cover commensurately with increasingly steeper slopes.

2.6.3. Permanent Stabilization for Arid areas.

2.6.3.a. In addition to requirements above (see 2.6.2), permanent stabilization requires seeding with a seed mix of plants indigenous to the area or tolerant to the local

climatic conditions that does not include invasive species on all areas that are not covered with permanent stabilization elements or structural elements such as building structure or pavement, or that are engineered or intended for structural purposes like graveled parking or dirt roads.

2.6.3.b. Disturbed areas on projects located outside of populated and developed areas and where no irrigation water is available and where future periodic landscaping maintenance is not planned must be reclaimed with a seed mix of plants indigenous to the area or tolerant to the local climatic conditions that does not include invasive species. Velocity-control devices may be permanent or temporary. If velocity-control devices are intended for temporary use, they must be biodegradable and designed durable enough to withstand extreme weather.

2.7. Construction Dewatering. Construction dewatering can occur onsite without an additional UPDES permit if it is infiltrated or contained onsite and is not discharged offsite. Otherwise, construction dewatering discharges must be permitted under the General Permit for Construction Dewatering and Hydrostatic Testing UPDES Permit UTG070000, which can be obtained online through submittal of an NOI at https://secure.utah.gov/waterquality.

2.8. Pollution Prevention Measures. The permittee must design, install, implement, and maintain effective pollution prevention measures to minimize the discharge of pollutants. At a minimum, such measures must address the following:

2.8.1. *Vehicle, Wheel, and Other Washing*. Minimize the discharge of pollutants from equipment and vehicle washing, wheel-wash water, and other wash waters. Wash waters must be treated in a sediment basin or alternative control that provides equivalent or better treatment prior to discharge

2.8.2. *Exposure to Pollutants*. Minimize the exposure of building materials, building products, construction wastes, trash (see 2.4.3), landscape materials, fertilizers, pesticides, herbicides, detergents, sanitary waste (see 2.4.4), and other materials present on the site to precipitation and to storm water. Minimization of exposure is not required in cases where the exposure to precipitation and to storm water will not result in a discharge of pollutants, or where exposure of a specific material or product poses little risk of storm water contamination (e.g., final products and materials intended for outdoor use).

2.8.3. *Leaks and Spills*. Minimize the discharge of pollutants from spills and leaks and implement procedures for preventing and responding to chemical leaks and spills.

2.9. Prohibited Discharges. The following discharges are prohibited:

2.9.1. Wastewater from washout or cutting of concrete (see 2.4.5),

2.9.2. Wastewater from washout and cleanout of stucco, paint, form release oils, curing compounds, and other construction materials (see 2.4.5),

2.9.3. Fuels, oils, or other pollutants used in vehicle and equipment operation and maintenance,

2.9.4. Soaps or solvents used in vehicle and equipment washing.

2.10. Impaired Waters If the first receiving water the site discharges to a sediment or nutrient-impaired water the site must implement Best Management Practices to minimize and prevent the discharge

of the respective pollutants.

2.10.1. The NOI process requires that you determine if the watershed that you discharge into is impaired or if it is considered high quality. Only the first surface water you discharge to is used when determining if your discharge enters an impaired or high quality waterbody. For discharges that enter a storm water system prior to discharge, the first water of the state to which you discharge is the waterbody that receives the storm water discharge from the storm sewer system. Please refer to water quality information at http://mapserv.utah.gov/surfacewaterquality/

3. SELF-INSPECTION REQUIREMENTS.

3.1. Inspector Qualifications. Weekly inspections (see 3.2.1 below) must be done by a qualified person. A qualified person means a person knowledgeable in the principles and practices of erosion and sediment control that possesses the skills to:

3.1.1. Assess conditions at the construction site that could impact storm water quality,

3.1.2. Assess the effectiveness of a storm water control measure selected to control the quality of storm water discharges from the construction activity.

3.2. Self-Inspections.

3.2.1. *Weekly Self Inspections*: Self-inspections must occur every 7 days. A written report is required (see 3.4).

3.2.2. *Daily Site Check*: Each day of construction activity, the site must be inspected for dirt in the street and trash on the site. Streets must be swept clean (see note below), if soiled. Dirt must be removed off the street (not swept or washed into the storm drain system). Trash on the site must be picked up and disposed of into trash containers (see 2.4.3.) or disposed of off-site (e.g., municipal/private garbage collection service or construction waste landfill). Sub-contractors must be held responsible by the permit holder to perform these duties in accordance with this paragraph for the activities they are contracted to perform. A written report is not required, however the operator will keep a daily log (for the active construction days) listing the initials of the person doing the site check.

3.2.2.a. If the site discharges to a water body impaired for either sediment or nutrients, the daily site check must also include any additional areas where potential sediment or nutrient discharges may occur.

Note: Swept clean means sweeping and scraping. Scraping if there is dirt left behind that is crusted and that sweeping will not pick up. This does not mean removing the microscopic layer of dust or the minute amounts of dirt in the cracks and crevices of the surface left behind staining the pavement.

3.3. Weekly Self-Inspection Requirements.

3.3.1. Areas to check include the following:

3.3.1.a. Areas that have been cleared, graded, or excavated that are not stabilized,

3.3.1.b. All storm water control measures, including perimeter controls,

3.3.1.c. Material piles, waste-disposal containers, sanitary facilities, loose trash, litter, washout areas, portable toilets, track out pad, egress points (if any), etc.,

3.3.1.d. Storm water conveyances through the site, treatment areas, and drainages,

3.3.1.e. All storm water discharge points, street gutters, storm water inlets,

3.3.1.f. Areas that have been temporarily stabilized,

3.3.1.g. Areas that have been permanently stabilized and are completed do not need further inspections.

3.3.2. *Items to check include the following*:

3.3.2.a. All erosion and sediment controls and other pollution prevention controls

have been installed, are operational, and are working as intended to minimize pollutant discharges. Determine if any controls need to be replaced, repaired, or maintained.

3.3.2.b. Identify any locations where new or modified storm water controls are necessary.

3.3.2.c. Signs of visible erosion and sedimentation (i.e., sediment deposits) that have occurred and are attributable to discharges from your site,

3.4. Weekly Inspection Reports. The weekly self-inspection report must be written within 24 hours of inspection and must include:

3.4.1. The initials of the person doing the inspection,

3.4.2. The date of the inspection,

3.4.3. The weather during the inspection,

3.4.4. The problems that were found needing correction (as they pertain to 3.3.1 and 3.3.2 above),

3.4.5. The date when corrective action is completed,

3.4.6. All self-inspection reports must be filed with other permit records regarding the permit. Inspection reports must be available during an oversight inspection.

3.5. Corrective Action Due Dates: Corrective action must be completed before the next weekly inspection is due.

3.5.1. Corrective actions stemming from an inspection by an oversight authority may be given at the discretion of the inspector, but must be completed prior to the next rain event or 7 days, whichever is sooner.

3.6. Conditions Triggering Corrective Action: You must take corrective action to address any of the following conditions at your site:

3.6.1. A storm water control needs repair or replacement from any inspection.

3.6.2. A storm water control necessary to comply with the terms of this permit was not installed, or installed incorrectly

3.6.3. Your discharges are either prohibited, or are causing an exceedance of water quality standards

3.7. Inspections by an Oversight Authority. A copy of an oversight inspection report must be filed and be available for review during other oversight inspections.

3.8. Record Keeping. Records regarding this permit, the Authorization to Discharge, the NOT, the SWPPP, inspection reports, other related information and documents must be preserved for 3 years after the submission of the NOT (see 5.10).

4. STORM WATER POLLUTION PREVENTION PLAN (SWPPP).

4.1. SWPPP Requirement. The permittee must prepare a SWPPP before the NOI for the project is submitted. The SWPPP must address all the applicable requirements in Part 2.

4.1.1. *SWPPP Site Design*. The design, installation, and maintenance of erosion and sediment controls must address factors such as the amount, frequency, intensity and duration of precipitation; the nature of resulting storm water runoff; and soil characteristics, including the range of soil particle sizes expected to be present onsite. These may be accomplished using experience, estimates, and good judgement, unless unusual or extraordinary site conditions create hazards for which a professional engineer must be consulted.

4.1.2. *Surface Outlets*: When discharging from basins and impoundments, utilize outlet structures that withdraw water from the surface, unless infeasible.

4.2. Contents of a SWPPP. A SWPPP must contain the following:

4.2.1. *Contacts*. The contacts for the site with contact information (name, address, telephone, email) including owner, general contractor, and any other party that significantly affects the implementation of the SWPPP or has responsibilities over the SWPPP.

4.2.2. *Sequence and Estimated Dates of Construction Activities.* Listed in the sequence with estimated dates including the following:

4.2.2.a. Start and end of excavation activities, initial excavation, backfill excavation and final grading,

4.2.2.b. Any temporary or permanent cessation of earth-disturbing activities,

4.2.2.c. Start and end of landscaping if this is done as part of the construction activity before the home is sold.

4.2.3. *Site Map or Chart*. A site map may be hand drawn (as close to scale as possible) or may be a copy of an architect drawing including the following information:

4.2.3.a. Boundaries of the property,

4.2.3.b. Boundaries of soil surface disturbances, including any outside the boundaries of the property,

4.2.3.c. Slopes, including areas of steep slopes,

4.2.3.d. Locations of stockpiles of soils, storage of construction materials, portable toilets, trash containers, concrete washout pits or containers, egress points, and track out pads,

4.2.3.e. Waterbodies, wetlands, and natural buffer areas,

4.2.3.f. Locations and types of BMPs or storm water control measures for the control and/or treatment of storm water flowing onto, through, and/or offsite,

4.2.3.g. Locations of storm water inlets, storm water discharge points going off site,

4.2.3.h. Areas that will be temporarily or permanently stabilized during the construction period.

4.2.4. *Fifty-Foot Natural Buffer*. The SWPPP must show the dimensions and placement of the 50-foot natural buffer, the substitute control measures, or a detailed explanation of why a natural buffer or substitute control measure could not be applied.

4.2.5. *Receiving Water*: The SWPPP must identify the first receiving water that the site discharges into, whether the water is impaired, and if so, what the impairment is for. Information about the receiving waters and impairments can be found at http://mapserv.utah.gov/surfacewaterquality/

4.2.6. *Pollutants*. A list of construction site pollutants including the pollutant-generating activity, and an inventory of pollutants for each pollutant generating activity (e.g., paints, solvents, form oil, fuels, and other chemicals; applications, materials, and liquids that if released could pollute storm water).

4.2.7. *Waste Management*. Waste management procedures including soil removal, clearing debris removal, demolition removal, trash disposal, construction-waste disposal, and sanitary-waste disposal.

4.2.8. *Training*. The permittee will ensure that each subcontractor or utility provider is aware of their responsibilities for keeping soil on the site and preventing pollution. The permittee must keep in mind that they are responsible for and may be issued fines for poor performances by their subcontractors and utility providers. Consideration will be given if the permittee can document when and what instructions were given to the subordinate party.

4.2.9. *Authorization to Discharge Documentation*. The SWPPP must contain a copy of this permit and a copy of the Authorization to Discharge Letter for the project.

4.2.10. *SWPPP Signature and Certification.* The SWPPP must be signed and certified by both the Owner and the General Contractor in accordance with 5.16.1.a.

4.2.11. *MS4 Approval of Project*. For areas where projects are within a regulated MS4's jurisdiction (see definitions in Part 6; the list of regulated MS4's is found onhttps://deq.utah.gov/water-quality/municipal-separate-storm-sewer-system-ms4s-permits-updes-permits), the SWPPP must contain the signature and date of the MS4 reviewer who has approved the proposed project for construction (see 1.7.).

4.2.12. *Availability of the SWPPP*. The SWPPP must be available at the construction site covered under this permit during onsite construction activity, unless the SWPPP is available online. If the SWPPP is available online there must be a sign (see 1.10) that describes where the SWPPP can be accessed online. The SWPPP is a plan for the site, and workers must be able to refer to the SWPPP and update it as needed to manage the site (including SWPPPs found on the internet). The SWPPP is not required to be on the site when construction workers leave for the day or when there is no activity occurring on the site, but at all times there must be posted contact information where the SWPPP can be obtained (see Part 1.10). The SWPPP must be made available within 24 hours to DWQ representatives or other oversight inspectors, e.g., U.S. Environmental Protection Agency [EPA] or a local MS4, on request, or immediately during an inspection on the site when

there are workers and activity at the site.

4.2.13. *Required Modifications of the SWPPP*. The SWPPP must be modified as follows:

4.2.13.a. During inspections when it is determined from observations of site conditions that storm water control measures are:

4.2.13.a.i. Not adequate or not shown in the SWPPP, or

4.2.13.a.ii. Changes in the SWPPP are necessary for compliance with this permit.

4.2.13.b. When an oversight authority determines that the SWPPP is not adequate based on missing a required SWPPP or permit item, not addressing pollutants properly, not being up to date and reflecting current site conditions, or not being clear, thorough, and understandable.

4.2.14. *SWPPP Modifications Deadline*. Modifications to the SWPPP from inspections or oversight authority direction must occur before or during the next weekly inspection.

5. STANDARD PERMIT CONDITIONS.

5.1. Duty to Comply.

5.1.1. The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the Utah Water Quality Act (the Act) and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application.

5.1.2. Penalties for Violations of Permit Conditions

5.1.2.a. *Violations*. The Act provides that any person who violates the Act, Utah wastewater or storm water rules, or conditions of a permit issued under the Act, is subject to a fine of up to $10,000 per day.

5.1.2.b. *Willful or Gross Negligence*. The Act provides that any person who discharges a pollutant to waters of the State as a result of criminal negligence or who intentionally discharges is criminally liable and is subject to imprisonment and a fine of up to $50,000 per day (Utah Code Annotated 19-5-115).

5.1.2.c. *False Statements*. The Act provides that any person who knowingly makes any false material statement, representation, or certification in any application, record, report, plan, or other document filed or required to be maintained under the Act, the rules, or this permit, or who knowingly falsifies, tampers with, or renders inaccurate, any monitoring device or method required to be maintained under the Act shall upon conviction, be punished by a fine of not more than $10,000 or by imprisonment for 6 months, or by both (Utah Code Annotated 19-5-115(4)).

5.2. Duty to Reapply. If a permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, the permittee must apply for and obtain a new permit except as provided in 1.6 and 1.7 of this permit.

5.3. Need to Halt or Reduce Activity not a Defense. It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

5.4. Duty to Mitigate. The permittee shall take all reasonable steps to minimize or prevent any discharge in violation of this permit that has a reasonable likelihood of adversely affecting human health or the environment.

5.5. Duty to Provide Information. The permittee shall furnish to the Director or an authorized representative, within a reasonable time, any information that is requested to determine compliance with this permit. The permittee must also furnish to the Director or an authorized representative copies of records to be kept by this permit.

5.6. Other Information. When the permittee becomes aware that he or she failed to submit any relevant facts or submitted incorrect information in the NOI or in any other report to the Director, he or she shall promptly submit such facts or information.

5.7. Oil and Hazardous Substance Liability. Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties to which the permittee is or may be subject under the Act.

5.8. Property Rights. The issuance of this permit does not convey any property rights of any sort, nor any exclusive privileges, nor does it authorize any injury to private property nor any invasion of personal rights, nor any infringement of Federal, State or local laws or regulations.

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

5.10. Record Retention. The permittee shall retain copies of SWPPPs and all reports required by this permit, and records of all data used to complete the NOI to be covered by this permit, for a period of at least three years from the date that the permit for the site is terminated (see 3.7). This period may be extended by request of the Director at any time.

5.11. Addresses. All written correspondence under this permit shall be directed to the DWQ at the following address:

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

5.12. State Laws. Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties established pursuant to any applicable State law or regulation under authority preserved by Utah Code Annotated 19-5-117.

5.12.1. No condition of this permit shall release the permittee from any responsibility or requirements under other environmental statutes or regulations.

5.13. Proper Operation and Maintenance. The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control and related appurtenances which are installed or used by the permittee to achieve compliance with the conditions of this permit and with the requirements of SWPPPs. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. Proper operation and maintenance requires the operation of backup or auxiliary facilities or similar systems, installed by a permittee only when necessary to achieve compliance with the condition of the permit.

5.14. Inspection and Entry. The permittee shall allow, upon presentation of credentials, the Director or an authorized representative to:

5.14.1. Enter upon the permittee's premises where a regulated facility or activity is located or conducted or where records must be kept under the conditions of this permit;

5.14.2. Have access to and copy at reasonable times, any records that must be kept under the conditions of this permit.

5.14.3. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices or operations regulated or required under this permit; and

5.14.4. Sample or monitor at reasonable times for the purposes of assuring permit compliance or as otherwise authorized by law, any substances or parameters at any location.

5.15. Reopener Clause.

5.15.1. *Reopener Due to Water Quality Impacts*. If there is evidence indicating that the storm water discharges authorized by this permit cause, have the reasonable potential to cause, or contribute to a violation of a water-quality standard, the discharger may be required to obtain an individual permit or an alternative general permit in accordance with 1.7.4 of this permit or the permit may be modified to include different limitations and/or requirements.

5.15.2. *Reopener Guidelines*. Permit modification or revocation will be conducted according to Utah Administrative Code R317-8-5.6 and UAC R317-8-6.2.

5.15.3. *Permit Actions*. This permit may be modified, revoked and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification revocation and reissuance, termination, a modification of planned changes or anticipated noncompliance does not stay any permit condition.

5.16. Signatory Requirements.

5.16.1. All NOIs, SWPPPs, reports, certifications or information submitted to the Director, or that this permit requires be maintained by the permittee, shall be signed as follows:

5.16.1.a. All NOIs shall be signed by either the operator or owner, and SWPPPs shall be signed by both the owner or lessee of the project/property and the general contractor.

5.16.1.b. All reports required by the permit and other information requested by the Director or by an authorized representative of the Director shall be signed by a person described above or by a duly authorized representative of that person. A person is a duly authorized representative only if:

5.16.1.b.i. The authorization is made in writing by a person described above and submitted to the Director; and

5.16.1.b.ii. The authorization specifies either an individual or a position having such as the position of manager, operator, superintendent, or position of equivalent responsibility or an individual or position having overall responsibility for environmental matters for the company. A duly authorized representative may therefore be either a named individual or any individual occupying a named position.

5.16.1.c. *Certification*. Any person signing documents under 5.16 shall make the

following certification:

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

5.16.2. If a document is to be signed electronically, the Division's rules regarding electronic transactions govern, if applicable.

6. DEFINITIONS

Arid Areas: Areas with an average annual rainfall of 10 inches or less.

Authorization to Discharge Letter: The receipt generated when a Notice of Intent (NOI) is successfully entered and payment is processed by DWQ. The receipt demonstrates that the permittee has coverage under the appropriate Storm Water Permit. Authorization to Discharge Letters contain the dates of the permittee's coverage under the Construction General Permit (CGP).

Common Plan of Development (or sale): A plan to subdivide a parcel of land into separate parts for separate sale. This can be for a residential, commercial, or industrial development. The plan originates as a single parcel that is separated into parts. This usually goes through an approval process by a local governmental unit, but in some cases, it may not require that process. The original plan is considered the "common plan of development or sale" whether phased or completed in steps.

Additional information related to *Common Plan of Development for Permit Purposes*:

For UPDES storm water permit purposes, a common plan must have been initiated after October, 1992. A common plan of development or sale remains so until each lot or section of the development has fulfilled its planned purposes (e.g. in a residential development as homes are completed, stabilized, and sold or occupied). As lots or separated sections of the development are completed, the lot or section is stabilized, and the plan purposes are fulfilled for that area, lot, or section, it is no longer part of the common plan of development or sale (e.g. if a home is sold in a development and the owner decides to add a garage somewhere on the lot, that garage project is not part of the common plan of development or sale.

In this process a common plan of development or sale may become reduced in size and/or separated by completed areas which are no longer part of the common plan of development or sale, but all unfinished lots remain part of the same common plan development or sale until they are completed, stabilized, and fulfilled according to the purposes of the plan.

Construction Activity: Earth-disturbing activities, such as the clearing, grading, and excavation of land.

Construction Waste: Discarded material such as packaging materials, scrap construction materials, masonry products, timber, steel, pipe, and electrical cuttings, plastics, and Styrofoam.

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

Dewatering: The act of draining rainwater and/or groundwater from building foundations, vaults, and trenches (Note: if dewatering is occurring on a construction site and it causes a discharge to waters of the State, it must be permitted separately under the General Permit for Construction Dewatering and Hydrostatic Testing , UPDES Permit UTG070000).

Director: The director of the Division of Water Quality.

Discharge Point: For the purposes of this permit, the location where collected and concentrated storm

water flows are discharged from the construction site.

Final Stabilization: All disturbed areas must be covered by permanent structures such as pavement, concrete slab, building, etc., or for areas not covered by permanent structures but that are receiving 20 inches or more of average annual precipitation, vegetation has been established with a uniform (e.g., evenly distributed, without large bare areas) perennial vegetative cover equivalent to 70 percent of the natural background vegetative cover. In the case of areas that are not covered by permanent structures, but that are receiving less than 20 inches of average annual precipitation (arid areas, 0-10 inches; semi-arid areas, 10-20 inches), final stabilization is equivalent to the requirements of 2.6.3 of this permit, including the provisions for permanent stabilization.

Impervious Surface: For the purpose of this permit, any land surface with a low or no capacity for water infiltration including, but not limited to, pavement, sidewalks, parking areas, driveways, or rooftops.

Indian Country: Defined at 40 CFR §122.2 as follows:

1. All land within the limits of any Indian reservation under the jurisdiction of the United States Government, notwithstanding the issuance of any patent, and, including rights-of-way running through the reservation;

2. All dependent Indian communities within the borders of the United States whether within the originally or subsequently acquired territory thereof; and

3. All Indian allotments, the Indian titles to which have not been extinguished, including rights-of-ways running through the same.

Infeasible: Infeasible means not technologically possible or not economically practicable and achievable in light of best industry practices. DWQ notes that it is not intentional for permit storm water control efforts required in the permit to conflict with State water rights law.In the case of conflict, State water rights law supersedes.

Install or Installation: When used in connection with storm water controls, to connect or set in position storm water controls to make them operational.

Municipal Separate Storm Sewer System or MS4: A storm-sewer system owned and operated by a state, city, town, county, district, association, or other public body created by or pursuant to State law having jurisdiction over disposal of storm water that discharges to waters of the State (e.g., Sandy City owns and operates the MS4 within the jurisdiction of Sandy City, or essentially Sandy City is the MS4).

Natural Buffer: For the purposes of this permit, an area of undisturbed natural cover surrounding surface waters within which construction activities are restricted. Natural cover includes the vegetation, exposed rock, or barren ground that exists before earth-disturbing activities begin.

Oversight Authority: Oversight authorities for storm water permits are agents from the EPA, DWQ or the Municipality of jurisdiction, when they are addressing compliance of storm water permits.

Owner: For the purpose of this permit an owner has ownership of a property on which construction activity is taking place, but it also includes ownership of a project for which construction activity is

occurring on property that is leased. An owner is the party that has ultimate control over construction plans and specifications, including the ability at the highest level to make modifications to those plans and specifications. “Owner” in this context is the party that has ultimate control over the destiny of a project.

Permittee: The owner and/or the general contractor (those that signed on the NOI), for the project.

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

- Sediment
- Nutrients
- Heavy metals
- Pesticides and herbicides
- Oil and grease
- Bacteria and viruses
- Trash, debris, and solids
- Treatment polymers
- Any other toxic chemicals

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

Project Site: A project site is not necessarily contained within the property boundaries designated for the final construction objective, or property owned by the owner of the project. The project site includes all areas affected by the construction process where disturbances, storage, or other construction activity occurs. If an area outside of property boundaries is used for the construction process, DWQ assumes the permittee has the right to access and use that area and the permittee must also meet permit requirements in that area.

Receiving Water: A “Water(s) of the State” is as defined in UAC R317-1-1, into which the regulated storm water discharges (see waters of the State listed below).

Rumble Strip: A rigid ramp/track (often made of steel) that vehicles drive over that causes tires to flex and shake for the removal of dirt.

Semi-Arid Areas: Areas with an average annual rainfall of between 10 and 20 inches.

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

Storm water: Means storm water runoff, snowmelt runoff, and surface runoff and drainage.

Storm Water Control Measures: Refers to any storm water control, BMP, or other method used to prevent or reduce the discharge of pollutants to waters of the state.

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

Storm Event: A precipitation event that results in a measurable amount of precipitation.

Track Out Pad: A track out pad is a pad normally made up of 4 to 6 inches of up to 6 inch cobble rocks or gravel of various size (the size is sometimes specified by a local MS4). Sometimes it is underlain with a fabric to keep dirt and mud separated from rock or gravel. It is wide enough to underlay the tires of any/all traffic leaving a construction site as vehicles exit the site. Its function is to flex and shake the tires to dislodge mud and dirt from the tires of vehicles leaving the construction site. Track out pads must be stirred or worked periodically so that mud or dirt collected is moved to the bottom and the rock/gravel on the pad is clean and effective dislodging more mud/dirt.

Waters of the State: All streams, lakes, ponds, marshes, watercourses, waterways, wells, springs, irrigation systems, drainage systems, and all other bodies or accumulations of water, surface and underground, natural or artificial, public or private, that are contained within, flow through, or border upon this state or any portion thereof, except that bodies of water confined to and retained within the limits of private property, and that do not develop into or constitute a nuisance, or a public health hazard, or a menace to fish and wildlife, shall not be considered to be "Waters of the State" under this definition (see Utah Code Annotated, 19-5-102(23)(a) &(b), and UAC R317-1-1).

HOOPER
RESOLUTION NO. R-2019-01

A RESOLUTION APPROVING AN INTERLOCAL AGREEMENT BETWEEN HOOPER CITY AND WEBER COUNTY RELATING TO OBLIGATIONS REQUIRED FOR UPDES GENERAL PERMIT FOR DISCHARGES FROM SMALL MUNICIPAL SEPARATE STORM SEWER SYSTEMS (MS4'S) PERMIT NO. UTR090000

WHEREAS, the Utah Interlocal Cooperation Act, Title 11, Chapter 13, Utah Code Annotated 1953 as amended, permits governmental units to enter into agreements with one another for the purpose of exercising on a joint cooperative basis powers and privileges that will benefit their citizens and make the most efficient use of their resources; and

WHEREAS, Title 11, Chapter 13 of the Utah Code Annotated, 1953 as amended, requires that governing bodies of governmental units adopt resolutions approving an interlocal agreement before such agreements become effective; and

WHEREAS, Weber County and have negotiated an Agreement for the purposes of providing storm water services in accordance with the Federal Water Pollution Control Act, as amended by the Clean Water Act of 1987, and the Utah Water Quality Act, together with federal and state regulation adopted pursuant to such Acts for the City of Hooper;

WHEREAS, Weber County and Hooper City find that mutual benefit and cost effective government can be achieved through this interlocal agreement for services entailed herein;

NOW, THEREFORE, BE IT RESLVED by the Mayor and City Council of Hooper City the attached interlocal agreement is entered with Weber County for the purposes of storm water management as authorized in the Interlocal Agreement, and the Interlocal Agreement is hereby approved and incorporated by this reference. The Hooper City Council hereby authorizes and directs the Mayor to execute the Interlocal Agreement for and on behalf of Hooper.

PASSED AND APPROVED by the Hooper City Council this 3rd day of January, 2019.

Mayor, Hooper

ATTEST:
City Recorder

HOOPER CITY SEAL STATE OF UTAH

Interlocal Agreement Relating to Obligations
Required for a Small MS4 General UPDES Permit No. UTR090000
For
Storm Water Management

This Agreement made effective this 3rd day of January, 2019 is entered into by and among the City of Hooper (hereafter "City"), and Weber County (hereafter "County").

Recitals

WHEREAS, the Utah Interlocal Cooperation Act, Title 11, Chapter 13, Utah Code Annotated 1953, as amended, permits public agencies to enter into agreements with one another for the purpose of exercising, on a joint and cooperative basis, powers and privileges that will benefit their citizens and make the most efficient use of their resources; and,

WHEREAS, all of the parties hereto are public agencies as defined by the Interlocal Cooperation Act;

WHEREAS, the County is a body politic duly organized under the laws of Utah;

WHEREAS, the City is a municipal corporation duly organized under Title 10 of the Utah Code Annotated, as amended;

WHEREAS, in accordance with the Federal Water Pollution Control Act, as amended by the Clean Water Act of 1987, and the Utah Water Quality Act, together with federal and state regulations adopted pursuant to such Acts, the County and the City, as operators of storm water systems, must reduce pollutants in storm water to the Maximum Extent Practicable (hereafter "MEP") to protect water quality;

WHEREAS, the Phase 2 NPDES and UPDES Storm Water Regulations (hereafter "Regulations") specify that compliance with the Regulations can be attained by developing, implementing and enforcing a storm water management plan which incorporates Best Management Practices addressing State of Utah Department of Environmental Quality Division of Water Quality Small MS4 General UPDES Permit, No. UTR090000 (MS4 Permit)

WHEREAS, pursuant to said MS4 Permit Section 4.3. Sharing Responsibility, the County and the City as Permittees may share with each other the implementation of the MS4 Permit Section 4.2. Minimum Control Measures; listed in Permit Articles:

4.2.1 Public Education and Outreach on Storm Water Impacts
4.2.2 Public Involvement /Participation
4.2.3. Illicit Discharge Detection and Elimination (IDDE)
4.2.4. Construction Storm Water Runoff Control
4.2.5. Long-Term Storm Water Management in New Development and Redevelopment (Post-Construction Storm Water management)

4.2.6. Pollution Prevention and Good Housekeeping for Municipal Operations;

through a written agreement with the obligations of said Permit to be maintained as part of each Permittee's Storm Water Management Plan or SWMP.

WHEREAS, the County and the City desire to work cooperatively in compliance with the MS4 Permit and subsequent renewals of the MS4 Permit with other relevant federal and state storm water Regulations as enacted within the time period of this agreement or through subsequent extensions to this agreement;

NOW, THEREFORE, for the reasons cited above, and in consideration of the mutual covenants and agreements contained herein, the City and County do mutually agree and undertake as follows:

Section One

Scope of Agreement

Intent. The parties intend by this Agreement to co-permit with one another in compliance to and for the implementation of the State of Utah Department of Environmental Quality Division of Water Quality MS4 Permit.

Specifically, this Agreement addresses the obligations of the County and the City in relation to compliance with the Regulations which require developing, implementing and enforcing a storm water management plan (SWMP) incorporating Best Management Practices. Each party remains responsible for its own implementation of its Storm Water Management Plan.

1. County Storm Water Management. The County shall provide for Storm Water Management Administration in accordance with the relevant rules and regulations and laws imposed upon the County.

2. Golden Spike Stormwater Coalition Management. The County, after following its procurement process, shall select and provide a contracted entity or firm to serve as a Golden Spike Stormwater Coalition Manager to assist in the direction and management of the Golden Spike Stormwater Coalition. If allowed by the County's procurement law, the City and each other member of the Coalition shall have the right to provide input regarding the selection of the Coalition Manager. After the contract with the Manager is in place, the Coalition shall supervise the Manager. The agreement of a majority of all Coalition members shall be required for any decision of the Coalition to take effect. Each Coalition member shall have an equal vote in all decisions to be made by the Coalition.

3. Co-permitting. The County and the City mutually agree to jointly implement the current and subsequent MS4 Permit, which may be renewed on a 5 year basis, and shall provide one another with the relevant management plan, storm water information, and other necessary documentation relevant to said MS4 Permit, with applicable forms provided by the Department of Environmental Quality.

4. Services Provided. Each party shall be responsible for each of the following control measures within its own jurisdictional boundaries (i.e., in unincorporated areas for the County, and within the municipal boundaries for the City) but shall not be responsible for the control measures in other jurisdictions, except as noted below. However, upon request, a party may agree to work cooperatively with the other party on a control measure within the other party's jurisdictional boundaries.

    a. Public Education and Outreach. The parties shall work with the Manager of the Golden Spike Stormwater Coalition to provide materials and coordinate educational activities within their jurisdictions, including but not limited to media and public relations, publications and advertisements, and school outreach programs. The Manager shall receive and respond to concerns from all Coalition members and relevant public committee recommendations. Coalition members may do additional public education and outreach at their discretion.

    b. Public Involvement and Participation. The County shall participate actively with the City through the Golden Spike Stormwater Coalition for public involvement and participation for addressing storm water issues.

    c. Illicit Discharge Detection and Elimination. In coordination with the Weber-Morgan Health Department, the County shall provide for this control measure as it relates to mapping and coordinating of discharges occurring in multiple jurisdictions, or otherwise crossing jurisdictional boundaries between the Coalition participants.

    d. Construction Site Runoff Control.

    e. Post Construction Storm Water Management.

    f. Pollution Prevention and Good House Keeping.

5. Annual Fee. The County, through its participation in the Golden Spike Stormwater Coalition, may assess an annual fee to the City and other Coalition participants to reimburse the County for the costs of administering the contract, including the costs of compensation to the entity or firm serving as the Coalition Manager, copy costs, brochure and publication costs, community outreach program costs, etc. This fee will equal the City's share of the total of such costs, with each Coalition member paying an equal share. The City agrees to pay the fee assessed by the County, in a timely manner, upon receiving a written billing notice for the same from the Coalition or County. Each party will establish and maintain its own budget for income and expenses related to this agreement. Each party will be responsible for acquiring, holding, and disposing of all property to be used under this agreement, except as otherwise stated or implied in this agreement.

6. Limitations. Except as outlined by this Agreement or by agreement separate from this, neither party assumes any responsibility to inspect, install, operate or otherwise maintain the other party's storm water system, storm water program, or storm water utility. Further, this

Agreement does not impose on either party any duty regarding storm water management, fees, inspections, or any other types of activity outside the scope of this Agreement.

7. Designated Contacts. The City shall designate its contact with the County for any and all issues which may arise under this Agreement. The County designates the Weber County Engineer as its contact with the City for any and all issues which may arise under this Agreement. The County and the City contacts may also consult with each other from time to time on the status of mutual relations and the terms of this Agreement. To the extent that any administration of this Agreement becomes necessary, then the parties' contacts, or their successors, shall constitute a joint board for such purpose, and each party shall have an equal vote in any decision that needs to be made.

Section Two

General Provisions

1. Term and Renewal. This Agreement shall automatically terminate upon the expiration of the term of the current MS4 permit. If the MS4 permit is renewed or extended, then the parties may renew this Agreement to match the term of the renewed MS4 permit.

2. Termination. This Agreement may be terminated by either party upon ninety (90) days written notice from the Mayor or County Commission provided either to the County Clerk or the City Recorder, as the case may dictate. Upon termination of the Agreement, each party shall retain all property that it has contributed to this joint effort and that remains in the possession of either party, unless the parties negotiate for the transfer of the property to the other party for adequate consideration.

3. Effective Date. This Agreement shall become effective upon compliance with state law governing interlocal cooperation agreements and upon ratification by the parties as provided in U.C.A. Title 11, Chapter 13, Part 2, as amended.

4. Amendment. This Interlocal Agreement may be changed, modified, or amended by written agreement of the participants, upon adoption of appropriate resolutions from the County and the City, along with being approved as to form by the County Attorney and City Attorney, and upon meeting all other applicable requirements of the Interlocal Cooperation Act.

5. Entire Agreement. This Agreement, together with any written amendments, shall constitute the entire agreement between the parties and any prior understanding or representation of any kind preceding the date of this Agreement shall not be binding upon either party except for the resolutions of each party herein attached and incorporated by reference.

6. Indemnification. Each party agrees to indemnify, defend, and save and hold the other party and its respective officers, trustees, agents, employees, and permitted assigns harmless against and in respect of the following:

a. all claims, losses, liabilities, damages, costs, deficiencies, and expenses affecting any persons or property as a result of the indemnifying party's actions;

b. any misrepresentation, material omission, breach of warranty, or non-fulfillment of any covenant or agreement by the indemnifying party, relating to this Agreement; and

c. any and all actions, suits, proceedings, demands, assessments, judgments, costs, legal and accounting fees, and other expenses incident to any of the foregoing.

7. Employee Status. It is understood and agreed by the parties that any and all personnel furnished by the parties shall remain employees of the respective parties and shall abide by the personnel policies of the respective parties.

8. Hired Consultant Status. It is understood and agreed by the parties that any consultant including and not limited to the firm or entity serving as Coalition Manager as engaged by the County to provide management for the Coalition shall not be, and shall not represent themselves as, employees of the respective parties.

9. Warranties. Each party represents and warrants that it is a public agency within the meaning of the Interlocal Cooperation Act, is authorized to execute and deliver this Agreement and there is no litigation, legal action or investigation between the parties that would adversely affect this Agreement.

10. Documents on File. Executed copies of this Agreement shall be placed on file in the office of the County Clerk and the City Recorder and shall remain on file for public inspection for the duration of this Agreement.

11. Governing Law. It is understood and agreed by the parties that this Agreement shall be governed by the laws of the State of Utah as to interpretation and performance.

12. Non-transferable. This rights, duties, powers and obligations of this Agreement may not be transferred, assigned or delegated without the consent of the parties.

13. Rules of Construction and Severability. Standard rules of construction, as well as the context of this agreement, shall be used to determine the meaning of the provisions herein, except as follows: If any of the provisions herein are different from what is normally allowed or required by law, every effort shall be made to construe the clauses to be legally binding and to infer voluntary arrangements which are in addition to what is normally allowed or required by law. If any provision, article, sentence, clause, phrase, or portion of this agreement, including but not limited to any written amendments, is for any reason held to be invalid or unconstitutional by the decision of any court of competent jurisdiction, such decision shall not affect the validity of the remaining portions of this agreement, unless the invalidation of the provision materially alters the agreement by interfering with the purpose of the agreement or by resulting in non-compliance with applicable law. If the invalidation of the provision materially alters the agreement, then the parties shall negotiate in good faith to modify the agreement to match, as

closely as possible, the original intent of the parties. It is thus the intention of the parties that each provision of this agreement shall be deemed independent of all other provisions herein, as long as the overall purpose of the agreement is preserved.

14. Additional Interlocal Cooperation Act provisions. In satisfaction of the requirements of the Interlocal Cooperation Act, the parties agree as follows:

    a. This Agreement shall be authorized and adopted by resolution of the legislative body of each party, pursuant to Section 11-13-202.5.

    b. This Agreement shall be reviewed as to proper form and compliance with applicable law by a duly authorized attorney on behalf of each party, pursuant to Section 11-13-202.5.

    c. A duly executed original counterpart of this Agreement shall be filed immediately with the keeper of records of each party pursuant to Section 11-13-209.

    d. This Agreement shall become effective upon (a) its approval and execution by each party and (b) the filing of an executed copy of this Agreement with the keeper of records of each of the parties.

    e. Immediately after execution of this Agreement by both parties, each party shall cause to be published notice regarding this Agreement pursuant to Section 11-13-219.

    f. The parties agree that they do not, by this Agreement, create an interlocal entity or any separate entity.

Interlocal Agreement Relating To Obligations
Required For a Small MS4 General UPDES Permit No. UTR090000
For
Storm Water Management

DATED this _____ Day of _____, _____

FOR WEBER COUNTY:

_____
(Chair, Weber County Commission)

ATTEST:

_____
County Clerk

APPROVED AS TO FORM AND COMPLIANCE WITH APPLICABLE LAW:

_____
County Attorney

DATED this 3rd Day of January, 2019

FOR the CITY OF HOOPER_____:

_____
Mayor

HOOPER CITY SEAL STATE OF UTAH

ATTEST:

_____
City Clerk

APPROVED AS TO FORM AND COMPLIANCE WITH APPLICABLE LAW:

_____
City Attorney

APPENDIX G

OUTFALL AND MONITORING LOCATIONS INVENTORY

Unique Identifier	Location	Description	Monitoring Schedule		Actual Date Completed	Observations
			Dry Weather Screening (5 years)	Wet Weather Screening (Quarterly)		