DAVIS COUNTY

STORM WATER MANAGEMENT PROGRAM

Permit No. UTR090003

Submitted to:

State of Utah
Department of Environmental Quality
Division of Water Quality

Submitted by:

Davis County, Public Works
1500 East 650 North
Fruit Heights, Utah 84037

November 2026

Davis County
Storm Water Management Program

Certification

To Whom It May Concern:

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

Signature: *Adam Wright* Date: 11-1-26

Title: **Public Works Director**

DAVIS COUNTY

STORM WATER MANAGEMENT PROGRAM

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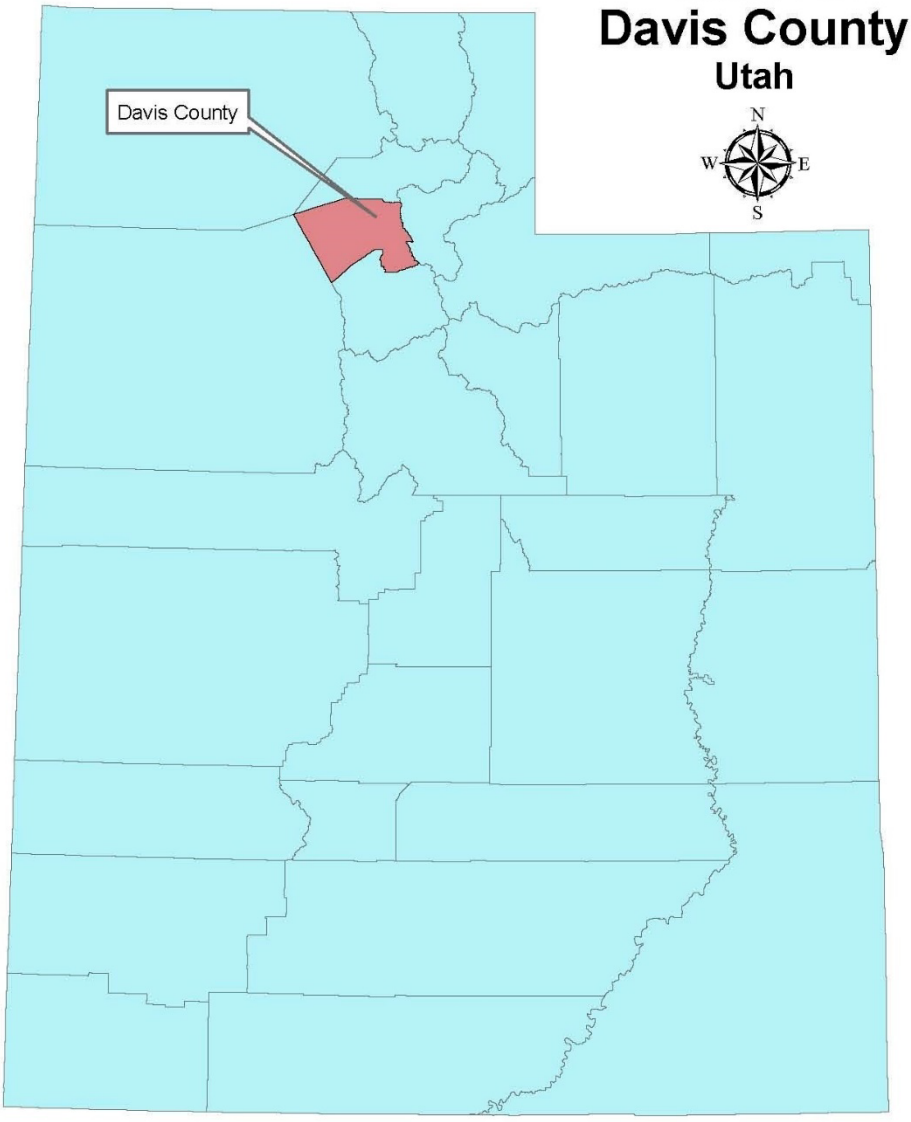
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GLOSSARY

BMP	Best Management Practices
EMC	Event Mean Concentrations
MEP	Maximum Extent Practical
PHF	Pesticides, Herbicides, and Fertilizer
DC	Davis County
SWMP	Storm Water Management Plan
SWPPP	Storm Water Pollution Prevention Plan
UAC	Utah Administrative Code
UDOT	Utah Department of Transportation
UPDES	Utah Pollutant Discharge Elimination System

Location of:
Davis County
Utah



Davis County is Utah's smallest county in land area. It is a narrow strip of land only 634 square miles, of which 299 square miles is land and 335 squaremiles of water. Despite its small size it is the third largest county in population. An estimated 381,227 residents live in the county's fifteen communities.

Approximate Lat/Long:
N 40° 58.8'
W 111° 53.2'

DAVIS COUNTY
STORM WATER MANAGEMENT PROGRAM

PURPOSE

The Storm Water Management Program (SWMP) will be implemented to limit to the maximum extent practical (MEP) the discharge of pollutants from the Davis County storm sewer system and to protect water quality. The development and implementation of the SWMP is to fulfill requirements under the state of Utah UPDES Authorization to discharge Municipal Storm Water, in compliance with provisions of the Utah Water Quality Act, Title 19, Chapter 5, Utah Code Annotated ("UCA") 1953, as amended (the "Act").

LEGAL AUTHORITY

Federal

In 1972, Congress enacted the first comprehensive national clean water legislation (Clean Water Act - 33 U.S.C. Chapter 26) in response to growing public concern for serious and widespread water pollution. The Clean Water Act is the primary federal law that protects our nation's waters, including lakes, rivers, aquifers and coastal areas. The Clean Water Act provides the backbone for the national approach to water quality policy and action. The objective of this federal law is the total elimination of the discharge of pollutants into the nation's navigable waters and to restore and maintain the integrity of the nation's waters.

Two types of discharges are defined in the Clean Water Act: point and non-point source discharges. Although pollutants entering storm and surface water systems are primarily non-point in nature, discharges from the storm and surface water systems have been defined as point sources (40 CFR Section 122.45). As a result, storm and surface water systems are subject to the permitting process of the Clean Water Acts National Pollutant Discharge Elimination System (NPDES).

NPDES Phase II Storm Water Permit

The NPDES Phase II Storm Water Permit focuses on small municipalities and is issued by the Environmental Protection Agency (EPA). The program's main objective is to control point source pollution of waterways in urban areas to the maximum extent practicable. The Phase II permit requires the community to prepare a Notice of Intent which describes the Best Management Practices (BMPs) to be implemented to fulfill EPA's goal of public education and outreach on stormwater impacts, public involvement and participation, illicit connection and illicit discharge detection and elimination, construction site runoff control, post-construction stormwater management in development and re-development, and pollution prevention and good housekeeping of municipal operations.

State

The State Department of Environmental Quality is responsible to oversee the EPA NPDES Phase I and Phase II stormwater regulations and issue Utah Pollutant Discharge Elimination System (UPDES) permits in the State of Utah. The Utah Administrative Code Title R317 – Environmental Quality, Water Quality sets forth the requirements and procedures needed for compliance with state law. Utah Code Title R317-8-3.9 specifically lists the requirements for municipalities to obtain a UPDES permit from the State of Utah.

The UPDES permit will be issued in compliance with the provisions of the Utah Water Quality Act, Title 19, Chapter 5, Utah Code Annotated 1953, as amended.

County

Davis County is responsible for storm drainage in the unincorporated areas of Davis County. Davis County ordinance Title 12, Title 14 and Title 15 sets forth the policy and procedures used by the County to provide this service.

SWMP COORDINATION

Agency:	Davis County, Public Works
Contact:	Adam Wright, Director, Phone: (801) 444-2230 Kenny Achter, Civil Engineer, Phone: (801) 444-2230

Each of the 15 cities in Davis County, as well as Hill Air Force Base, will submit a separate notice of intent and a subsequent SWMP to the state. Although each city will be issued a separate permit as defined under the general permit issued to the State of Utah by EPA, they will jointly work together to facilitate (1) public education and participation (2) mapping, (3) employee training, and (4) preparation of similar ordinances. Coordination of the joint activities is done through the Davis County Storm Water Coalition.

SWMP REVIEW AND MODIFICATION

The SWMP will be reviewed on an annual basis and any changes or modifications will be described and submitted to the State Division of Water Quality as part of the Annual Report. This review will include the following:

- A status review of the program implementation and compliance schedule.
- A review of any revision or change of BMPs during the year and an assessment of the effectiveness of such revision.
- An overall assessment of the goals and direction of the SWMP and effectiveness of BMPs

STAFFING AND RESOURCE ALLOCATIONS

Management and oversight of the Davis County Storm Water Management Program is funded by Davis County through the general tax base. Davis County Public Works is responsible to operate and maintain all storm sewers in unincorporated county.

The Davis County Health Department responds to complaints regarding spills and illegal discharges and follows up on the complaints with tracking and enforcement. The Davis County Health Department also monitors various channels as described in Chapter 3.

WATER QUALITY CONCERNES, PRIORITIES AND MEASURABLE GOALS

Storm water in Unincorporated Davis County drains to several different places. North West Unincorporated County drains through various local sloughs and drains, draining directly to the Great Salt Lake. The Mutton Hollow area drains to the Holmes Creek Drainage Basin. The Holmes Creek Basin is listed as impaired with Copper, E. coli and pH

CHAPTER ONE

PUBLIC EDUCATION AND OUTREACH PROGRAM ON STORM WATER IMPACTS

The Public Education and Outreach Program addresses increasing public and professional awareness of water quality concerns and Best Management Practices (BMPs) that will be implemented to prevent storm water pollution. The BMPs described in this section of the SWMP include Davis County coordinating education of the general public throughout the county and training professionals and municipal employees in each city. The education and training programs will introduce the UPDES program and focus on how to eliminate known contaminant sources.

The following BMPs describe implementation tasks, measurable goals, and funding sources for the Public Education and Outreach Program.

REQUIREMENTS

The requirements of Public Education and Outreach on Storm Water Impacts are listed in section 4.2.1 of the small MS4 General UPDES Permit. A copy of the permit is attached in the appendix.

The basic requirement of the public education and outreach control measure is to communicate the impacts of storm water discharges and the steps to reduce storm water pollution. The EPA requires that a public education program be implemented to distribute educational materials to the community, and to conduct outreach activities that explain the impacts of storm water discharges on local water bodies and the steps that can be taken to reduce storm water pollution. The following goals will be included as a part of this program:

1. Inform the public of the need for storm water management and what role they can play.
2. Contribute to a program that promotes, publicizes and facilitates public reporting of the presence of illicit discharges or improper disposal of materials.
3. Contribute to a program that promotes, publicizes and facilitates the proper management and disposal of used oil and household hazardous wastes.
4. Inform public employees, business, and the general public about the hazards associated with the illegal discharges and disposal of wastes.
5. Encourage the proper use, application, and disposal of pesticides, herbicides, and fertilizers by commercial and private applicators and distributors.

FUNDING SOURCES

Employees of Davis County Public Works are responsible to provide the manpower to implement this portion of the Storm Water Management Plan.

DAVIS COUNTY STORM WATER COALITION

Davis County Storm Water Coalition consists of representatives from 15 cities, Davis County, and Hill Air Force Base, whose purpose is to reduce the load of pollutants entering the storm drains and receiving water bodies and to comply with storm water regulations. The coalition meets 10 times a

year, holds a water fair annually, teaches all 4th grade classes in the county about storm water, pays a portion of the cost of Salt Lake Counties TV ads annually, produces educational pamphlets for specific industries that may affect storm water, Hosts training for contractors and MS4's, supports a spill response hotline, works together to develop sop's, works together to create model ordinance, and contributes to a county wide drainage map.

Davis County will continue to coordinate and contribute to the Davis County Storm Water Coalition.

COMMUNITY AND RESIDENTIAL PROGRAMS

Promote public reporting of illegal dumping and illicit discharges. The purpose of public reporting is to enable the county or the Davis County Health Department to respond to citizen complaints regarding water quality. Reports may be called into phone number 801 525-5128. Procedures for formal complaints are in place. As necessary, Davis County Public Works will assist the Davis County Health Department to investigate the source of the pollution. Investigations and enforcement measures will be documented by the county.

MEASURABLE GOALS FOR EDUCATION

Goals specified in this chapter will be measured by whether they are completed or not. The SWMP will be reviewed annually for program effectiveness.

CHAPTER TWO

PUBLIC INVOLVEMENT AND PARTICIPATION PROGRAM

The Public Involvement/Participation Program section of the SWMP addresses the importance of public involvement with respect to protection of storm water. Community participation provides for broader public support, shorter implementation schedules, a broader base of expertise and the development of important relationships with other community and government programs. The BMPs described in this section of the SWMP includes opportunities for the public to play an active role in the development and implementation of the SWMP. Such opportunities include the public notice process and efforts to reach out and engage all economic and ethnic groups, and additional community programs to foster public input.

This program will be integrated with the Public Education and Outreach Program to incorporate education with hands-on programs. The following BMPs describe implementation tasks and measurable goals to be completed by Davis County for the Public Involvement/Participation Program.

REQUIREMENTS

The requirements of Public Involvement and Participation Program are listed in section 4.2.2 of the small MS4 General UPDES Permit. A copy of the permit is attached in the appendix.

Comply with State and local public notice requirements when implementing a public involvement and participation program. Public involvement and participation programs should include steps to foster and include public input in developing, implementing, and reviewing storm water management programs.

The EPA also requires that appropriate BMPs and measurable goals be included as a part of the program. The EPA recommends that the municipality provide opportunities for all economic and ethnic groups to participate in these activities.

FUNDING SOURCES

Employees of Davis County Public Works will be responsible to provide the necessary manpower and funds to implement this portion of the Storm Water Management Program.

PROPOSED BEST MANAGEMENT PRACTICES (BMPs)

Davis County has elected to implement the following BMPs:

1. Continue compliance with State and local laws regarding the advertisement and notification of public hearings and other related meetings regarding the development and implementation of the Storm Water Management Program.

2. Use the existing Davis County Storm Water Coalition to give input, feedback and recommendations for each of the Storm Water Management Plans in Davis County.

3. Invite representatives from targeted businesses and the community, such as home builders, landscapers, and parks and recreation staff to meet with the Davis County Storm Water Coalition to obtain input and receive training.

4. Provide a display, panels, brochures, and advertisements for presentations at private, church, school, or civic organizations upon request.

5. Encourage public volunteers to participate in the storm drain curb marking program.

6. Involve the community in clean-ups along local creeks, ditches, and other storm water drainage areas.

7. Promote the Davis County Health Departments hotline to assist officials in identifying polluters and monitor what is entering the local waterways through the storm drain system.

HOTLINE

Davis County will promote public reporting of illegal dumping and illicit discharges. The purpose of public reporting is to enable the county or the Davis County Health Department to respond to citizen complaints regarding water quality. Reports may be called into phone number 801 525-5128 or 801 444-2230. The hotline will be posted online on the public works website as well as the Davis County Stormwater Coalition Website. Procedures for formal complaints are in place. As necessary, Davis County Public Works will assist the Davis County Health Department to investigate the source of the pollution. Davis County will document all investigations and enforcement measures, including any fee penalties.

POST SWMP ONLINE

SWMP information and requirements are available online in sections 12, 14 and 15 of the county code.

The table below represents measurable goals that are to be implemented and assessed during the permit term. The purpose of measurable goals is to gauge permit compliance and program effectiveness.

MEASURABLE GOALS FOR PUBLIC INVOLVEMENT AND PARTICIPATON

GOALS	SCHEDULE	LEAD ENTITY
Follow guidance for full compliance with State and local laws regarding the advertisement and notification of public hearings.	Annually	Public Works Program Manager
Use the Davis County Storm Water Coalition to develop and promote the BMPs associated with the Public Involvement and Participation program.	Annually	Public Works Program Manager and the Davis County Stormwater Coalition
Provide each of the 15 city office buildings with information booths.	Annually	Davis County Storm Water Coalition
Post updated SWMP online for public review and comment.	Annually w/ project notifications	Public Works Program Manager

CHAPTER THREE

ILLICIT DISCHARGES AND IMPROPER DISPOSAL PROGRAM

The Illicit Discharges and Improper Disposal Program section of the SWMP addresses non-storm water flows that are discharged to receiving waters via storm water conveyance systems. The program will implement BMPs to assist in the identification of illicit discharges and removal of these discharges from the system. This program will also focus on prevention of new illicit discharges to the storm water system by means of education, regulations, and through spill prevention and response. On a county basis, the Davis County Storm Water Coalition is currently reviewing options to provide a disposal site for used oil, paints, and other toxic wastes at the County Landfill.

This program will also be integrated with the Davis County Stormwater Coalition Public Education and Outreach Program to promote awareness of the importance of protecting the storm water system from illicit discharge and the resultant impact to receiving waters. The following BMPs describe implementation tasks and assessment tasks to be completed by Davis County for the Illicit Discharges and Improper Disposal Program.

REQUIREMENTS

The requirements of Illicit Discharge Detection and Elimination are listed in section 4.2.3 of the small MS4 General UPDES Permit. A copy of the permit is attached in the appendix.

Davis County will:

1. Develop a county-wide storm sewer map, showing all of the outfalls and the waters of the State that receive storm water discharges.
2. Enforce current ordinance to prohibit non-storm water discharges into the storm water system.
3. Continue to screen storm sewers and detect and address non-storm water discharges into the storm water system.
4. Promote and assist in the coordination of the establishment of a program to collect used motor vehicle fluids, household hazardous waste materials for recycle, reuse, or safe disposal.
5. Promote Davis County Health Department Hotline.
6. Document any illicit discharges detected.

STORM DRAIN SYSTEM MAP

Davis County maintains a unincorporated county storm drain map in order to allow personnel to inspect for both the wet and dry weather flows, and the particular water bodies these flows would affect.

DRY WEATHER SCREENING PROGRAM

Davis County Public Works provides dry weather screening program to detect and address illicit discharges. Dry weather screening provides a framework to identify pollutants, which in turn, will initiate a more detailed investigation within the drainage area.

Any dry weather flows that are identified will be traced to their source. Investigations or enforcement actions will be documented. Screenings will occur at each outfall at least once during the permit term.

HAZARDOUS WASTE DISPOSAL

Davis County shall promote and assist in the coordination of the establishment of a county-wide program to collect used motor vehicle fluids, household hazardous waste materials for recycle, reuse, or safe disposal. A collection site may be located at the landfill in connection with a disposal site for waste material collected from the storm drain system.

The table below represents measurable goals that are to be implemented and assessed during the permit term. The purpose of measurable goals is to gauge permit compliance and program effectiveness.

MEASURABLE GOALS FOR ILLICIT DISCHARGES AND IMPROPER DISPOSAL PROGRAM

GOALS	SCHEDULE	LEAD ENTITY
Maintain unincorporated county storm drain map.	Annually	Public Works Program Manager
Complete a dry weather review of all outfalls.	Per Permit Term	Public Works Program Manager Davis County Health Department
Report findings of illicit discharges to Davis Co. Health Department.	As needed	Public Works Program Manager
Continue participation in the Davis County Storm Water Coalition.	On-going	Public Works Program Manager
Enforce Current Illicit Discharge Ordinance	On-going	Davis County Program Manager
Train Public Works Employees On illicit discharge detection	Annually	Public Works Program Manager

CHAPTER FOUR

CONSTRUCTION SITE STORM WATER RUNOFF CONTROL PROGRAM

Generally Davis County is not involved in land development. Proposed residential and commercial land developments in the unincorporated portions of the county are generally required to annex into the adjoining city in order to obtain water service. There are several areas that were developed many years ago in the unincorporated portions of the county, that use either an agreement with the adjoining city, special service district, or private wells to supply water.

REQUIREMENTS

The requirements of Construction Site Storm Water Runoff Control Program are listed in section 4.2.4 of the small MS4 General UPDES Permit. A copy of the permit is attached in the appendix.

Davis County will:

1. Notify all construction permit applicants of the responsibilities under the UPDES permitting program.

PERMIT APPLICATION AND STORM WATER POLLUTION PREVENTION PLAN

Goals and Criteria

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

2. The proposed measures and controls shall be designed to prevent or minimize, to the MEP, the deposit, discharge, tracking by construction vehicles, or dropping of mud, sediment, debris or other potential pollutants onto public streets and rights-of-way. Any such discharge shall be cleaned up and removed immediately upon notification to the permittee or when it otherwise comes to the attention of the permittee. At a minimum, the deposit or discharge shall be cleaned and removed at the end of the work shift in which the deposit occurred, or at the end of the work day, whichever comes first.

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

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

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

4. 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.

SITE PLAN REVIEW

Davis County personnel who currently review site plans will be trained through the Davis County Storm Water Coalition to evaluate storm water controls. Guidelines for appropriate erosion and sediment control measures will be part of the personnel training.

ORDINANCE FOR CONSTRUCTION SITE

Davis County has develop an ordinance with requirements for construction operators to use erosion and sediment controls and maintain appropriate structural and non-structural BMPs to reduce pollutants discharged during times of soil disturbances or excavation activities, along with penalties to enforce and ensure compliance. In addition, develop requirements for operators to control waste such as discarded building materials, concrete truck washout, chemicals, litter and sanitary waste at the site that may cause adverse impacts to water quality.

A construction site permit will be required for construction activities in accordance with the proposed ordinance. For the purposes of this permit, construction activities are defined as activities that change the volume or peak flow discharge rate of rainfall runoff from the land surface. This may include the grading, digging, cutting, scraping, or excavating of soil, placement of fill materials, paving, construction, substantial removal of vegetation, or any activity which bares soil or rock or involves the diversion or piping of any natural or man-made watercourse. The required information to obtain this permit is listed on the following page.

An erosion control plan must be submitted for review and approval prior to commencing grading operations. The plan is intended to prevent erosion during the construction phase by implementing various erosion control measures as appropriate. Such measures may include temporary silt or sediment fences, sediment traps and detention ponds, temporary and permanent vegetation, etc.

In addition, the permit requires operators to control waste, such as discarded building materials, concrete truck washout, chemicals, litter and sanitary waste, and other construction-related pollutants at the site that may cause adverse impacts to water quality.

PUBLIC REPORTING

As noted in the educational section of the SWMP, Davis County will promote public reporting of illegal dumping and illicit discharges. The purpose of public reporting is to enable the county or the Davis County Health Department to respond to citizen complaints regarding water quality. Reports may be called into phone number 801 525-5128. Procedures for formal complaints are in place. As necessary, Davis County Public Works will assist the Davis County Health Department to investigate the source of the pollution. Davis County will document all investigations and enforcement measures, including any fee penalties.

CONTRACTOR EDUCATION

Davis County Stormwater Coalition has an annual contractor training to educate contractors of the importance of the use of proper BMP's and water quality. Contractor education on storm water issues will be crucial in minimizing storm water pollution during construction activities.

Guidance Document for Storm Water Management: Salt Lake County has developed a guidance document of BMPs which includes a chapter specifically for construction site BMPs. The document is available from Salt Lake County's web site. A copy of the document is attached in the appendix.

Additional Guidance Documents: EPA's *A Storm Water Management for Construction Activities: Developing Pollution Prevention plans and Best Management Practices* and other appropriate publications will be made available. A copy of the document is attached in the appendix.

UPDES CONSTRUCTION PERMIT NOTIFICATION

Notify all construction permit applicants of their potential responsibilities under the UPDES permitting program for construction site runoff. Procedures for notification of UPDES permit requirements will be developed. Making construction permit applicants aware of UPDES permit requirements for constructions activities will be beneficial in minimizing storm water pollutant runoff from such sites.

CHAPTER FIVE

LONG-TERM STORM WATER MANAGEMENT IN NEW DEVELOPMENT AND REDEVELOPMENT PROGRAM

As mentioned in the previous chapter, Davis County is not involved in land development. Proposed residential and commercial land developments in the unincorporated portions of the county are generally required to annex into the adjoining city in order to obtain water service. There are several areas that were developed many years ago in the unincorporated portions of the county, that use either an agreement with the adjoining city, special service district, or private wells to supply water.

This program will also be integrated with the Construction Site Stormwater Runoff Control Program and the Pollution Prevention/Good Housekeeping Program of the SWMP to provide information and up-to-date BMPs to the end user.

REQUIREMENTS

The requirements of Long-Term Storm Water Management in New Development and Redevelopment Program are listed in section 4.2.5 of the small MS4 General UPDES Permit. A copy of the permit is attached in the appendix.

Davis County will:

1. Ensure adequate long-term operation and maintenance of BMPs.

POST-CONSTRUCTION MAINTENANCE

Continue to use procedures to ensure long-term operation and maintenance of storm water controls at post-construction sites for both privately-owned and county-owned storm drain facilities. Prior to final development approval, this procedure clearly defines whether the county, homeowners association, or a special service district has the responsibility to operate and maintain the storm drain facilities. Proper operation and maintenance of the control measures will help to minimize pollutants in storm water runoff.

CHAPTER SIX

POLLUTION PREVENTION/GOOD and GOOD HOUSEKEEPING PROGRAM

The Pollution Prevention/Good Housekeeping Program of the Storm Water Management Plan addresses routine activities in the operation and maintenance for drainage systems, roadways, parks and open spaces, and other municipal operations to help ensure a reduction in pollutants entering the storm drain systems. The program will implement BMPs to address specific roadway practices which include snow removal, deicing, salt pile management, and road crew training. This program will also focus on storm drainage system maintenance, structural floatable controls, maintenance yard practices, flood control projects, litter ordinance development, pesticide, herbicide and fertilizer program and spill prevention and response.

This program will also be integrated with the Public Education and Outreach, Public Involvement/Participation and Illicit Discharges and Improper Disposal Programs to promote awareness of water quality concerns in performing routine roadway maintenance and operation, and other practices. The following BMPs describe implementation tasks and assessment tasks to be completed by Davis County for the Pollution Prevention/Good Housekeeping Program.

REQUIREMENTS

Davis County will:

1. Develop and implement an operation and maintenance program that will allow trained county employees to collect pollutants originating from parks, open spaces, fleet maintenance shops, construction sites, parking lots, public streets, and the storm water system that would otherwise enter the waterways of the state.
2. Coordinate employee training with training used to educate the general public and targeted businesses in the outreach, public participation, and illicit discharge program.
3. Review and analyze existing maintenance activities, schedules, and procedures used to control pollutants.
4. Develop procedures to properly dispose of waste materials collected from the county storm drainage system.
5. Assess both existing and new flood control facilities with respect to their impact on water quality.

SNOW REMOVAL

Davis County has a policy to keep all roads open and free of snow or ice pack during every storm. The salt application rate is based on the temperature and snow pack conditions on the road surface accordingly. It is the objective of Davis County to operate snow removal procedures in a manner to reduce the discharge of pollutants without compromising motorists' safety. Equipment is maintained and calibrated to apply salt efficiently and effectively.

STORM DRAIN SYSTEM WASTE DISPOSAL

Review and assess current disposal procedures for waste removed from the storm drain system. Such wastes include dredge spoil, accumulated sediments, floatables and other debris. Controls for

reducing or eliminating the discharge of pollutants from areas such as roads and parking lots, maintenance and storage yards and waste transfer stations will help to reduce the discharge of pollutants to receiving waterbodies.

It is the intention of Davis County to work with other communities to create a county-wide disposal system for the proper removal and disposal of waste from the storm drain system to reduce the discharge of pollutants to the MEP. This site could also provide disposal for household hazardous materials like paint, pesticides, and oils as stated on page 14, concerning illicit discharges.

ROAD CREW TRAINING

Public Works employees are trained in:

- Equipment operation
- Safety education

POLLUTION PREVENTION PRACTICES FOR MAINTENANCE YARDS

A SWPPP has been created for the Public Works Yard for the State Industrial Stormwater Discharge Permit. The current SWPPP contains a written inventory of permitee owned facilities and a list of potential pollutants. Pollution prevention measures at equipment yards and maintenance facilities. Proper controls and procedures at these locations will help to control polluted runoff. The Davis County Public Works facilities have been constructed with a wet detention pond and swales to treat the storm water. The shops and washing bays drain into an oil and grease separator before flowing into the sewer. Alternative BMPs will be implemented as appropriate to minimize pollutants entering storm drain system from these facilities. A copy of the SWPPP is available upon request at the Public Works Office in Fruit Heights.

PESTICIDE, HERBICIDE, AND FERTILIZER PROGRAM

Maintain current inventory, evaluate pesticide, herbicide and fertilizer usage on Davis County properties by municipal employees. Current BMPs will be evaluated and implemented as appropriate to reduce the discharge of pollutants related to the application of pesticides, herbicides and fertilizers applied by municipal employees or contractors to public right-of-ways, and other municipal facilities.

Davis County will assess and evaluate application procedures and rates, and implement BMPs to reduce the discharge of pollutants related to these activities. Potential alternative PHFs will be evaluated to minimize the discharge of pollutants to storm water from PHF procedures and practices.

SPILL PREVENTION AND RESPONSE PROGRAM

Maintain current Emergency Response Program. Maintain personnel on-call to respond to reports of spills or discharges, and to identify and investigate the source of the discharge and use the regulatory authority to take enforcement actions against violators to correct the illicit discharge activity. Local fire departments are also equipped to respond to spills, to mitigate spills, and to

eliminate the danger to human health. The current program will be evaluated for effectiveness, and will be modified as necessary. Personnel training is an important component to this program.

MONITORING, RECORD KEEPING, AND REPORTING

The receiving waters for Unincorporated Davis County do not have an approved TMDL. Holmes Creek and local drains draining to the Great Salt Lake. Records of monitoring and reporting will be kept at Davis County Public Works office.

ANNUAL REPORT

In accordance with UPDES permit requirements Davis County will submit an annual report showing data accumulated throughout the reporting year with conclusions concerning the data and if the permit objectives are being met. This report will also document BMP activities conducted throughout the year. The annual report will be submitted by October 1.

Annual Report: The Annual Report will include the following:

- A status review of the program implementation and compliance schedule
- A review of any revision or change of BMPs during the year and an assessment of the effectiveness of such revision.
- An overall assessment of the goals and direction of the SWMP and effectiveness of BMPs.
- Current copy of the Appendices of the Permit.
- Annual expenditures for permit compliance and projected budget for the next year.
- A summary describing the activities, progress, and accomplishments in each of the BMPs

MEASURABLE GOALS FOR
POLLUTION PREVENTION/GOOD HOUSEKEEPING PROGRAM

GOALS:

- Improve and rebuild vital stormwater infrastructure.
- Review existing operation and maintenance procedures and practices.
- Prioritize system areas of concern (high use/frequent cleaning.)
- Determine inspection schedule needs.
- Provide personnel training regarding water quality and pollutants.
- Continue snow removal practices and procedures to minimize pollutants.
- Evaluate application procedures and rates for pesticide, herbicide and fertilizer usage.
- Prepare annual report

RESOLUTION NO. 2004-044

A RESOLUTION AUTHORIZING THE PUBLIC WORKS DIRECTOR TO SIGN APPLICATIONS

WHEREAS, from time to time throughout the year, the Public Works Department undertakes various projects that require permits from the United States Army Corps of Engineers and from the Utah State Engineers Office; and

WHEREAS, the permits are required in order to modify or improve storm and flood water channels within Davis County; and

WHEREAS, the permit applications are in the name of Davis County or Davis County Public Works and are necessary in order for the Public Works Department to carry out duties and responsibilities that occur in the ordinary course of the Department's usual business; and

WHEREAS, the Director of Davis County Public Works has the expertise and knowledge necessary to make application with the United States Army Corps of Engineers and the Utah State Engineers Office and the Davis County Commission desires to authorize the Director of Davis County Public Works to sign the permit application forms on behalf of Davis County.

NOW THEREFORE, it is hereby resolved as follows:

1. The Davis County Public Works Director is hereby authorized to sign any permit application forms with the United States Army Corps of Engineers and the Utah State Engineers Office which are necessary for constructing, maintaining or altering flood and storm water channels within Davis County.

2. That the Davis County Public Works Director shall on a quarterly basis inform the Davis County Commission of any permit applications signed by him or her.

3. This Resolution shall become effective immediately upon its adoption.

This Resolution was adopted by the board of County Commissioners of Davis County, Utah, on February 10th, 2004 with Dannie R. McConkie, Carol R. Page and Michael J. Cragun all voting "Aye".

DAVIS COUNTY

By _____
Dannie R. McConkie, Chair
Davis County Board of County
Commissioners

ATTEST:

_____
Steve S. Rawlings
Davis County Clerk/Auditor

Approved as to Form:

_____
Office of Davis County Attorney

A Guide to Stormwater Best Management Practices







DAVIS COUNTY
STORM WATER
COALITION

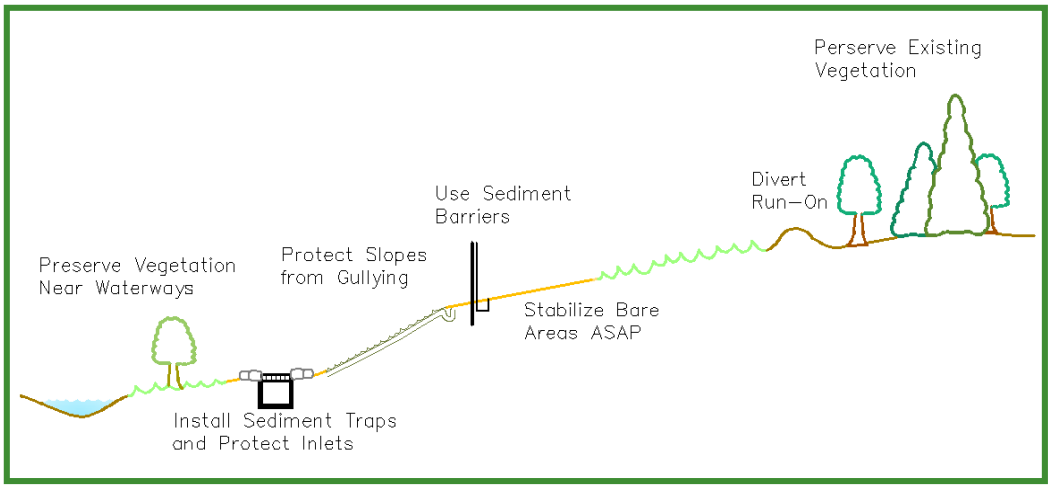
INTRODUCTION

Construction sites should be managed to minimize the pollution that can leave the site with storm water. Taking appropriate measures to reduce erosion, remove sediment, and manage construction materials and equipment will minimize storm water pollution.

Reducing soil erosion is a crucial aspect of storm water pollution prevention for construction sites. Reducing erosion is easier and less expensive than attempting to remove sediment from the storm water.

Contributions to an *increase* in erosion are:

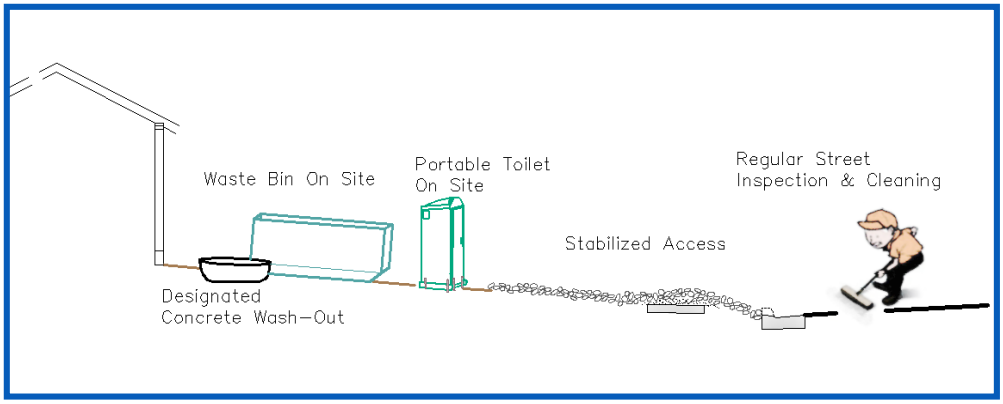
- Removing vegetation
- Exposing sub-soil to weathering
- Exposing sub-soil to vehicle traffic
- Re-shaping the land
- Allowing gullies to form and grow
- Longer/Steeper slopes



Steps must be taken to *minimize* these factors of erosion during and after construction.

Removing the sediment that does get into the storm water is also important to protect the storm drain system and waterways.

Managing construction material and equipment for pollution is important for any construction site, including building construction sites. There must be means for safe disposal of all types of waste. The tracking and washing of soil into the street must be prevented. Downstream storm water inlets should also be protected.



Regular inspection and proper maintenance of the site will help ensure the effectiveness of the BMPs in minimizing storm water pollution.

This manual includes Best Management Practices (BMPs) that are useful for reducing pollutants leaving construction sites, particularly those that may be discharged into the storm water systems. Implementing these measures is important because the water from the storm drain systems drains directly into the streams, usually untreated, then through the wetlands before entering the Great Salt Lake. Construction sites can be a significant source of pollution to the streams and wetlands, which can damage them and be detrimental to their role in our environment.

Not all possible BMPs are available from this menu. If you would like to use a BMP that is not included here, propose it to your local jurisdiction.

DAVIS COUNTY STORM WATER COALITION

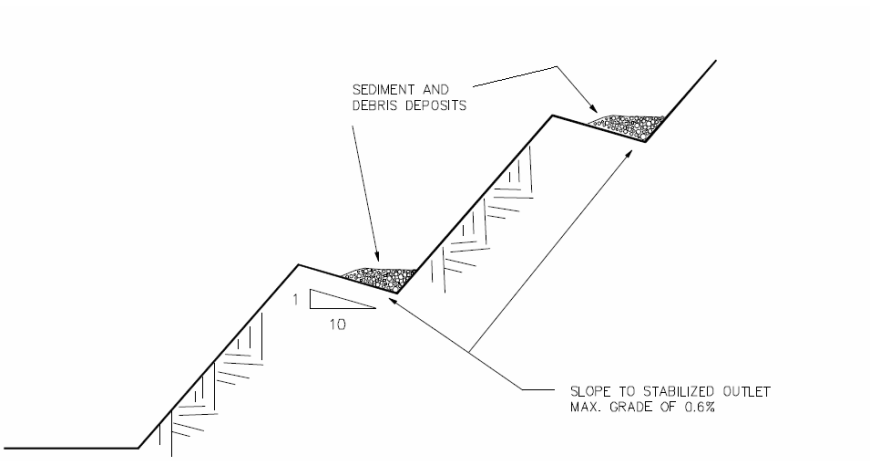
CONSTRUCTION

Best Management Practices

INDEX

		Waste and Material Management	Vehicle and Equipment Management	Stabilization	Runoff Diversion	Velocity Reduction	Sediment Removal
BE	Benching				✓		
BRF	Brush or Rock Filter						✓
BRRC	Building Repair, Remodeling, and Construction	✓					
CD	Check Dams				✓		
CESA	Contaminated or Erodible Surface Area			✓			
CM	Chemical Mulch			✓			
CP	Compaction			✓			
CR	Construction Road Stabilization			✓			
CST	Curb Sedimentation Trap						✓
CWM	Concrete Waste Management	✓					
DC	Dust Controls			✓			
DD	Diversion Dikes				✓		
DI	Drainage Isolation				✓		
EBB	Earth Berm Barrier	✓					
ECB	Erosion Control Blankets			✓			
EVWA	Equipment and Vehicle Washdown Area		✓				
FR	Fiber Rolls						✓
FS	Filter Strips			✓			
GM	Geotextiles and Mats			✓			
HM	Hydromulching			✓			
HWM	Hazardous Waste Management	✓					
IP-E	Inlet Protection - Excavated						✓
IP-GB	Inlet Protection - Gravel Bags						✓
IP-SB	Inlet Protection - Silt Bags						✓
IP-SF	Inlet Protection - Silt Fence or Straw Bale						✓
MS	Material Storage	✓					
MU	Mulching			✓			
OP	Outlet Protection					✓	
PEV	Preservation of Existing Vegetation			✓			
PT	Portable Toilet	✓					
SB	Sediment Basin						✓
SBB	Sand Bag Barrier						✓
SCE	Stabilized Construction Entrance			✓			
SCU	Spill Clean-Up	✓					
SD	Slope Drain				✓		
SF	Silt Fence						✓
SP	Seeding and Planting			✓			
SR	Surface Roughening					✓	
SS	Street Sweeping						✓
ST	Sediment Trap						✓
STB	Straw Bale Barrier						✓
TDS	Temporary Drains or Swales				✓		
TPS	Temporary and Permanent Seeding			✓			
TSC	Temporary Stream Crossing				✓		
VEC	Vehicle and Equipment Cleaning		✓				
VEF	Vehicle and Equipment Fueling		✓				
WD	Waste Disposal	✓					

BMP: Benching BE



DESCRIPTION:

Slope construction with benches spaced at regular intervals perpendicular to the slope which intercept and collect sheet flow and direct it to a stable outfall point.

APPLICATION:

- Unstabilized cut and fill slopes
- Large stockpiles
- Existing unstable slopes

INSTALLATION / APPLICATION CRITERIA:

- Benches should be formed as slope is constructed and graded to the outlet point
- Stabilized outlet with sediment controls should be in place prior to slope construction

LIMITATIONS:

- Construction slope design must accommodate benching
- Not appropriate for sandy or rocky soil
- Only effective if suitable outlet provided

MAINTENANCE:

- Inspect after major storm events and at least biannually; repair damaged areas
- Remove debris blocking water flow
- Inspect outlet, repair/replace sediment controls and remove sediment build up

OBJECTIVES

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

TARGETED POLLUTANTS

H	M	L	
☒	☐	☐	Sediment
☐	☐	☒	Nutrients
☐	☐	☒	Heavy Metals
☐	☐	☒	Toxic Materials
☐	☐	☒	Oil & Grease
☐	☒	☐	Floatable Materials
☐	☐	☒	Bacteria & Viruses
☐	☐	☒	Other Waste

IMPLEMENTATION REQUIREMENTS

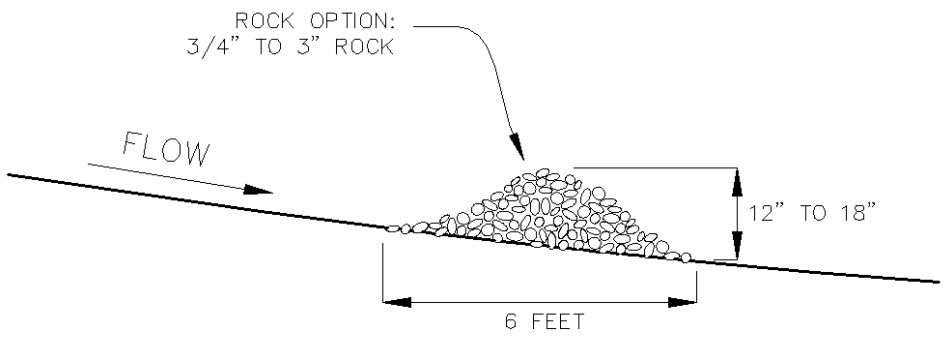
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☐	☐	☒	Training
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H = High **M =** Medium **L =** Low

DAVIS COUNTY STORM WATER COALITION

1500 East 650 North
Fruit Heights, UT 84037

BMP: Brush or Rock Filter — BRF



DESCRIPTION:

A rock filter is made of rock 3/4" - 3" in diameter and placed along a level contour. A brush filter is composed of brush (usually obtained during the site clearing) wrapped in filter cloth and anchored to the toe of the slope. If properly anchored brush or rock filters may be used for sediment trapping and velocity reduction.

APPLICATION:

- As check dams across mildly sloped construction roads
- Below the ote od slopes
- Along the site perimeter
- In areas where sheet flow occurs
- Around temporary spoil areas
- At sediment traps or culvert/pipe outlets

INSTALLATION / APPLICATION CRITERIA:

- For rock filter, use larger rock and place in a staked, woven wire sheathing if placed where concentrated flows occur
- Install along a level contour
- Leave area behind berm where runoff can pond and sediment can settle
- Drainage areas should not exceed 5 acres

LIMITATIONS:

- Rock berms may be difficult to remove
- Removal problems limit their usefulness in landscaped areas
- Runoff will pond upstream of the filter, possibly causing flooding if sufficient space does not exist

MAINTENANCE:

- Inspect after each rainfall and at a minimum of once every two weeks
- If berm is damaged, reshape and replace lost/dislodged rock
- Remove sediment when depth reaches 1/3 of berm height or 1 ft

OBJECTIVES

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

TARGETED POLLUTANTS

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IMPLEMENTATION REQUIREMENTS

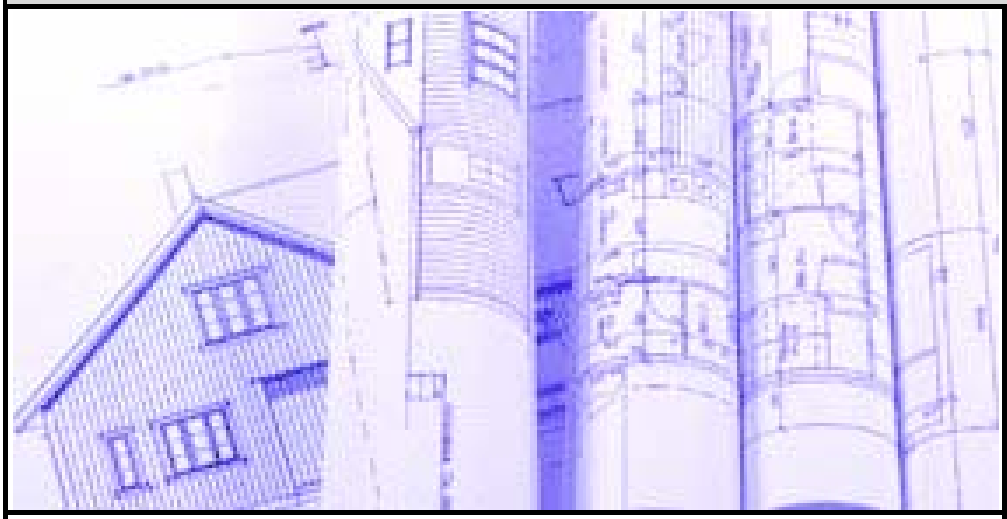
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DAVIS COUNTY STORM WATER COALITION

1500 East 650 North
Fruit Heights, UT 84037

BMP: Building Repair, Remodeling, and Construction BRRC



DESCRIPTION:

Prevent or reduce the discharge of pollutants to storm water from building repair, remodeling and construction by using soil erosion controls, enclosing or covering building material storage areas, using good housekeeping practices, using safer alternative products, and training employees.

APPLICATION:

- Use soil erosion control techniques if bare ground is temporarily exposed
- Use permanent soil erosion control techniques if the remodeling clears buildings from an area that are not to be replaced

INSTALLATION / APPLICATION CRITERIA:

- Enclose painting operations consistent with local air quality regulations and OSHA
- Properly store materials that are normally used in repair and remodeling such as paints and solvents
- Properly store and dispose waste materials generated from the activity
- Maintain good housekeeping practices while work is underway

LIMITATIONS:

- This BMP is for minor construction only
- Hazardous waste that cannot be re-used or recycled must be disposed of by a licensed hazardous waste hauler
- Safer alternative products may not be available, suitable, or effective in every case
- Be certain that actions to help storm water quality are consistent with OSHA and air quality regulations

MAINTENANCE:

None

OBJECTIVES

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

TARGETED POLLUTANTS

	H	M	L
Sediment	☐	☐	☒
Nutrients	☐	☐	☒
Heavy Metals	☐	☐	☒
Toxic Materials	☒	☐	☐
Oil & Grease	☒	☐	☐
Floatable Materials	☒	☐	☐
Bacteria & Viruses	☐	☐	☒
Other Waste	☐	☐	☒

IMPLEMENTATION REQUIREMENTS

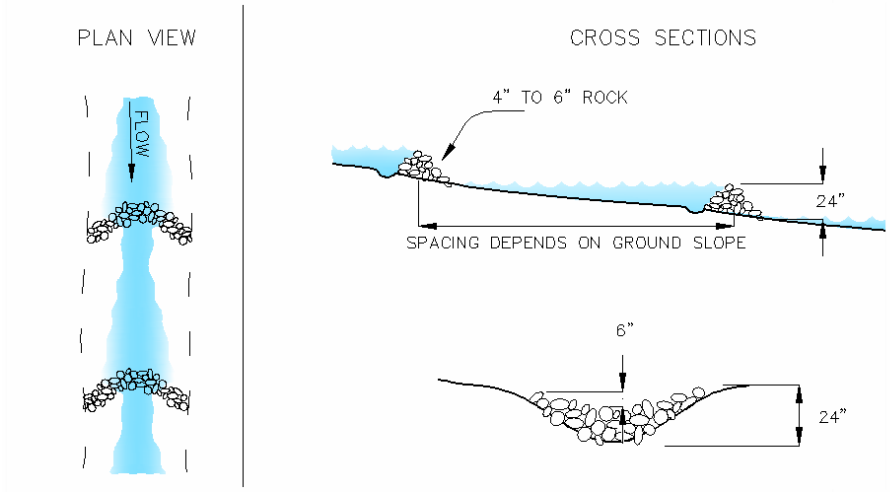
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DAVIS COUNTY STORM WATER COALITION

1500 East 650 North
Fruit Heights, UT 84037

BMP: Check Dams CD



DESCRIPTION:

Small, temporary dams 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
- Space dams to make the base of the upstream dam the same elevation as the top of the next lower dam
- Construct dam with center lower to create a weir effect
- Construct 50% side slopes on dams

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 every two weeks
- 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

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IMPLEMENTATION REQUIREMENTS

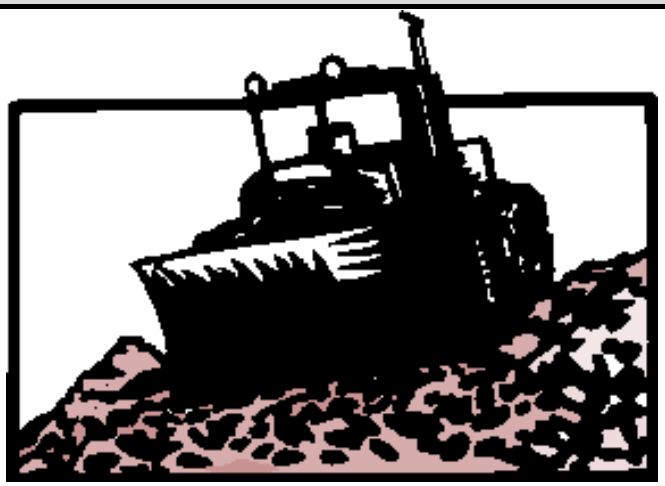
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DAVIS COUNTY STORM WATER COALITION

1500 East 650 North
Fruit Heights, UT 84037

BMP: Contaminated or Erodible Surface Areas — CESA



DESCRIPTION:

Prevent or reduce the discharge of pollutants to storm water from contaminated or erodible surface areas by leaving as much vegetation on-site as possible, minimizing soil exposure time, stabilizing exposed soils, and preventing storm water runon and runoff.

APPLICATION:

This BMP addresses soils which are not so contaminated as to exceed criteria but the soil is eroding and carrrying pollutants off in the storm water.

INSTALLATION / APPLICATION CRITERIA:

Contaminated or erodible surface areas can be controlled by:
- Preservation of natural vegetation, revegitation, chemical stabilization, removal of contaminated soils or geosynthetics.

LIMITATIONS:

Disadvantages of preserving natural vegetation or re-vegetating include:
- Requires substantial planning to preserve and maintain the existing vegetation.
- May not be cost-effective with high land costs.
- Lack of rainfall and/or poor soils may limit the success of re-vegetated areas.

Disadvantages of chemical stabilization include:
- Creation of impervious surfaces.
- May cause harmful effects on water quality.
- Is usually more expensive than vegetative cover.

MAINTENANCE:

Maintenance should be minimal, except possibly if irrigation of vegetation is necessary.

OBJECTIVES

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

TARGETED POLLUTANTS

H	M	L	
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IMPLEMENTATION REQUIREMENTS

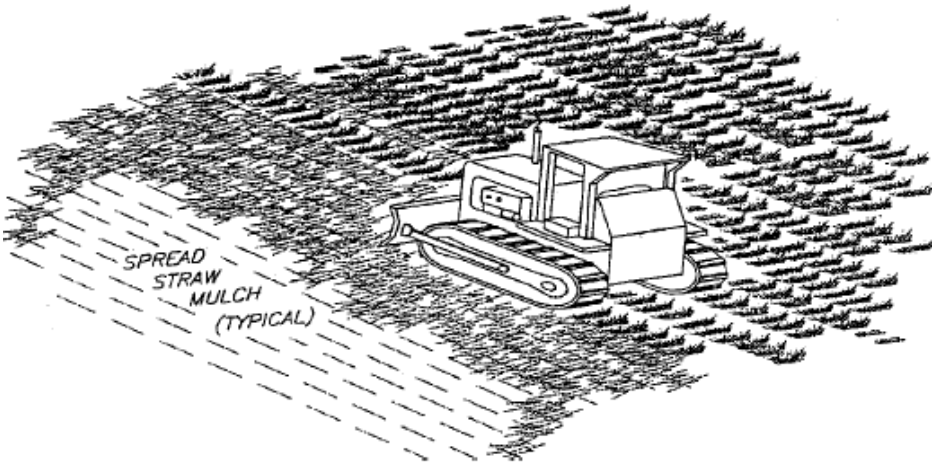
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DAVIS COUNTY STORM WATER COALITION

1500 East 650 North
Fruit Heights, UT 84037

BMP: Chemical Mulch CM



DESCRIPTION:

Applying materials such as vinyl, asphalt, plastics, or rubber on an unprotected slope to temporarily stabilize the slope.

APPLICATION:

- As a tacking agent to aid the stabilization of mulches (where matting is not used)
- As a short-term alternative in areas where temporary seeding practices cannot be used because of seasonal condition or climate
- On steep and rocky slopes where neither mechanical methods or mulches and protective netting can be effectively applied

INSTALLATION / APPLICATION CRITERIA:

- The application rates and procedures recommended by the manufacturer of a chemical stabilization product should be followed to prevent the products from forming ponds and from creating large areas where moisture cannot get through.
- For permanent application, chemical mulches (when used with seed and mulch) should be applied over wood fiber or straw mulch

LIMITATIONS:

- Chemical mulches can create impervious surfaces and impact water quality if not properly applied
- Some products may not be suitable for use near live streams

MAINTENANCE:

- Inspect at regular intervals and after each runoff-producing storm event or at a minimum of once every two weeks
- Replace chemical mulch as needed to ensure adequate level of coverage

OBJECTIVES

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

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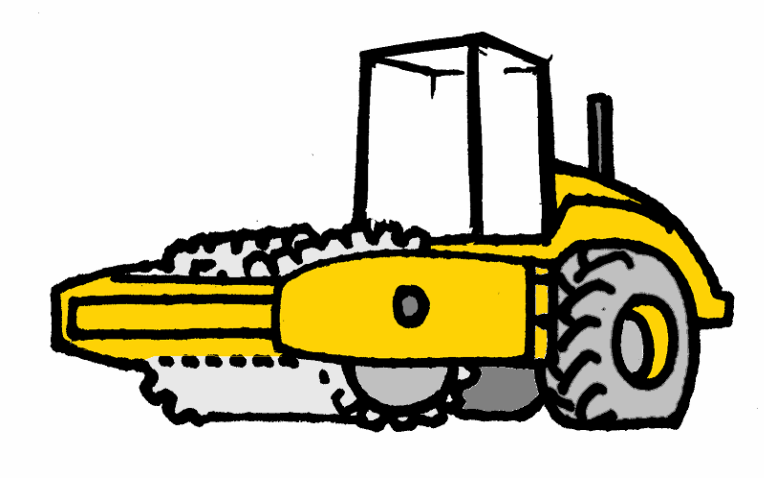
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DAVIS COUNTY STORM WATER COALITION

1500 East 650 North
Fruit Heights, UT 84037

BMP: Compaction CP



DESCRIPTION:

Use of rolling, tamping, or vibration to stabilize 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 prodtect 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 revegitation efforts.

MAINTENANCE:

No maintenance required.

OBJECTIVES

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

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IMPLEMENTATION REQUIREMENTS

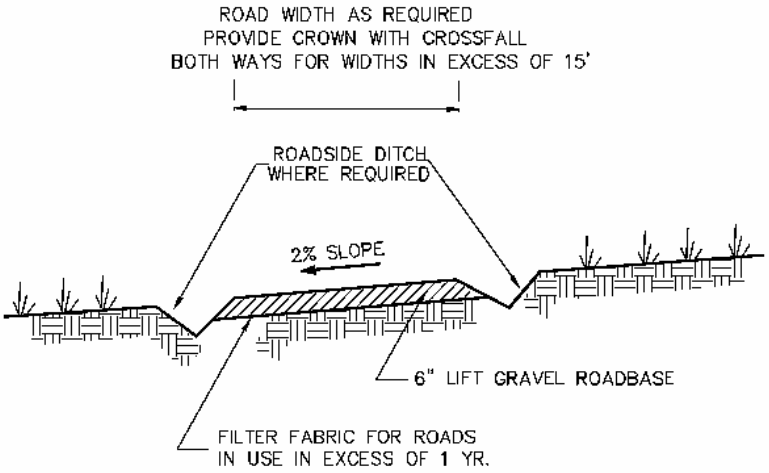
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DAVIS COUNTY STORM WATER COALITION

1500 East 650 North
Fruit Heights, UT 84037

BMP: Construction Road Stabilization CR



DESCRIPTION:

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

APPLICATION:

- On-site roadways used daily by constructioin 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 a minimum of once every two weeks
- 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
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IMPLEMENTATION REQUIREMENTS

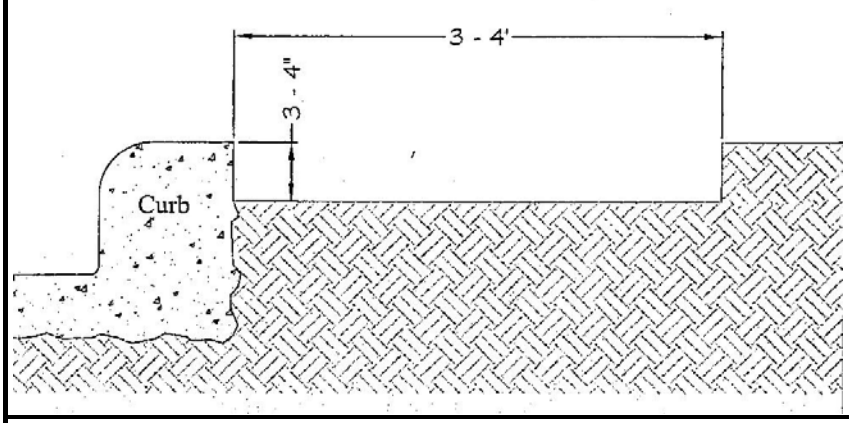
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☐	☐	☒	Training
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H = High **M =** Medium **L =** Low

DAVIS COUNTY STORM WATER COALITION

1500 East 650 North
Fruit Heights, UT 84037

BMP: Curb Sedimentation Trap — CST



DESCRIPTION:

A temporary sediment trap formed by excavation behind the curb.

APPLICATION:

- Interception of runoff containing sediment from the lot during construction
- Retain sediment on the lot during construction

INSTALLATION / APPLICATION CRITERIA:

- Excavate soil behind the curb to a depth of 3-4 inches
- Extend excavation 3-4 feet behind the curb to form sediment trap

LIMITATIONS:

No limitations

MAINTENANCE:

- Inspect after each rainfall event and at a minimum of once every two weeks
- Remove accumulated sediment as it reaches 2/3 height of available storage
- May require additonal excavation if dirt from construction fills in the trap

OBJECTIVES

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

TARGETED POLLUTANTS

H	M	L	
☒	☐	☐	Sediment
☐	☐	☒	Nutrients
☐	☐	☒	Heavy Metals
☐	☒	☐	Toxic Materials
☐	☐	☒	Oil & Grease
☐	☒	☐	Floatable Materials
☐	☐	☒	Bacteria & Viruses
☐	☐	☒	Other Waste

IMPLEMENTATION REQUIREMENTS

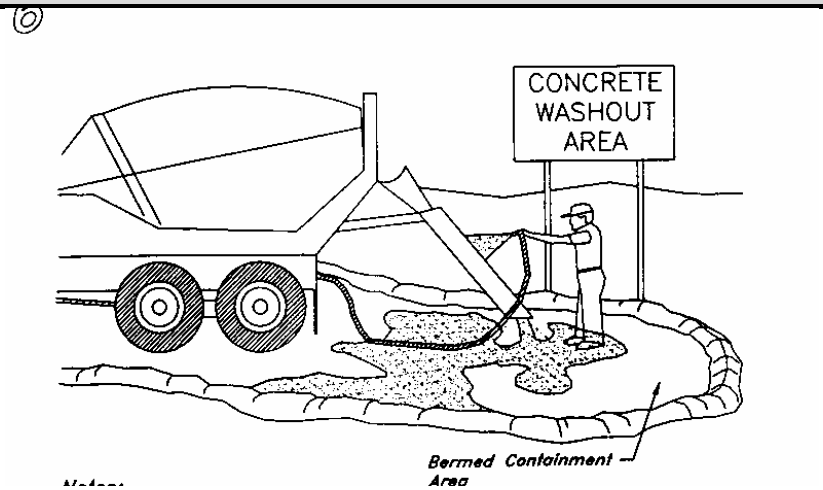
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DAVIS COUNTY STORM WATER COALITION

1500 East 650 North
Fruit Heights, UT 84037

BMP: Concrete Waste Management — CWM



DESCRIPTION:

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

APPLICATION:

This technique is applicable to all types of sites

INSTALLATION / APPLICATION CRITERIA:

- Store dry materials under cover, away from drainage areas
- Minimize excess mixing of fresh concrete, mortar or cement on site
- 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 (6" tall X 6' wide)
- Train employees and subcontractors in proper concrete waste management

LIMITATIONS:

- Off-site washout or 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 of 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

H	M	L	
☐	☐	☒	Sediment
☐	☐	☒	Nutrients
☐	☐	☒	Heavy Metals
☐	☐	☒	Toxic Materials
☐	☐	☒	Oil & Grease
☐	☐	☒	Floatable Materials
☐	☐	☒	Bacteria & Viruses
☒	☐	☐	Other Waste

IMPLEMENTATION REQUIREMENTS

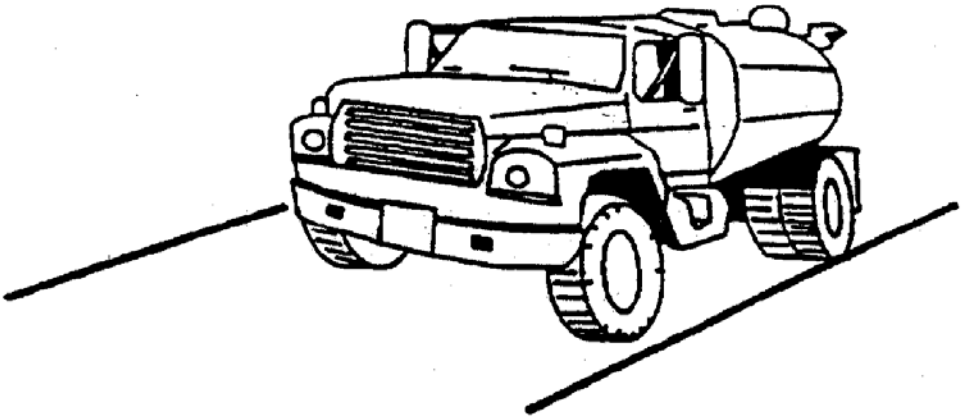
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DAVIS COUNTY STORM WATER COALITION

1500 East 650 North
Fruit Heights, UT 84037

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 agreas, and transfer areas where dust is generated. Street sweepin gis 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 sweepers 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:

- More elaborate equipment may be impossible to maintain by plant personnel
- 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 probabley 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

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☐	☐	☒	Heavy Metals
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☐	☐	☒	Bacteria & Viruses
☐	☐	☒	Other Waste

IMPLEMENTATION REQUIREMENTS

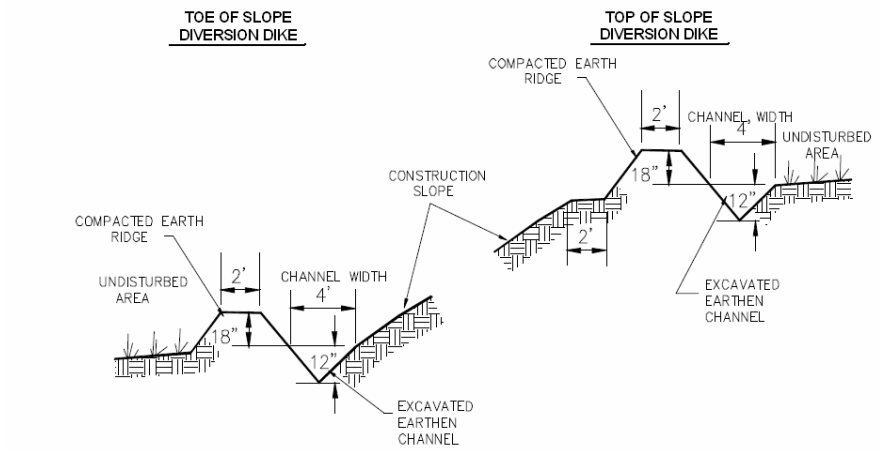
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DAVIS COUNTY STORM WATER COALITION

1500 East 650 North
Fruit Heights, UT 84037

BMP: Diversion Dike DD



DESCRIPTION:

A temporary sediment barrier and storm runoff conveyance consisting of an excavation channel and compacted earth ridge.

APPLICATION:

- Construct along top of construction slope to intercept upgradient runoff and convey around construction site
- Construct along toe of construction to divert sediment laden runoff
- Construct along midpoint of construction slope to intercept runoff and channel to controlled discharge point
- Construct around base of soil stockpiles to capture sediment
- Construct around perimeter of disturbed areas to capture sediment

INSTALLATION / APPLICATION CRITERIA:

- Clear and grub area for dike construction
- Excavate channel and place soil on downgradient side
- Shape and machine compact excavated soil to form ridge
- Place erosion protection (riprap, mulch) at outlet
- Stabilize channel and ridge ad required with mulch, gravel, or vegetative cover

LIMITATIONS:

- Recommended maximum drainage area of 5 acres
- Recommended maximum sideslopes of 2h:1v (50%)
- Recommended maximum slope of 1% on channel

MAINTENANCE:

- Inspect immediately after any rainfall and at least daily during prolonged rainfall
- Look for runoff breaching dike or eroding channel or sideslopes
- Check discharge point for erosion or bypassing of flows
- Repair and stabilize as necessary
- Inspect daily during vehicular activity on slope, check for and repair any traffic damage

OBJECTIVES

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

TARGETED POLLUTANTS

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☐	☐	☒	Other Waste

IMPLEMENTATION REQUIREMENTS

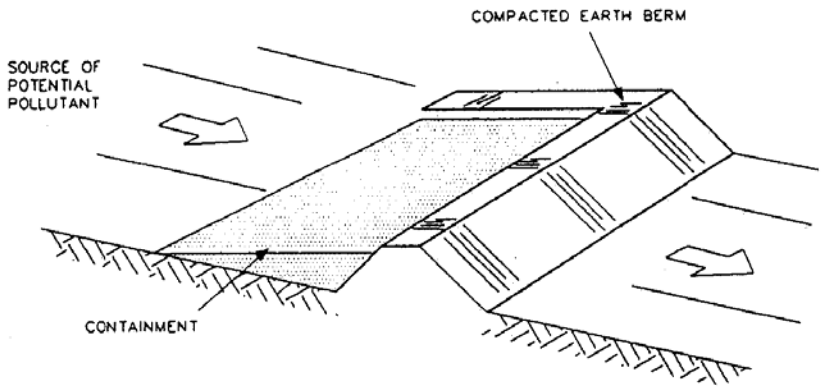
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DAVIS COUNTY STORM WATER COALITION

1500 East 650 North
Fruit Heights, UT 84037

BMP: Earth Berm Barrier — EBB



DESCRIPTION:

A temporary containment control constructed of compacted soil.

APPLICATION:

- Construct around waste and materials storage area
- Construct around staging and maintenance areas
- Construct around vehicle parking and servicing areas

INSTALLATION / APPLICATION CRITERIA:

- Construct an earthen berm down hill of the area to be controlled. The berm should surround fueling facilities and maintenance areas on three sides to provide containment
- Berm needs to sized for application and be compacted by compactor equipment

LIMITATIONS:

- Not effective on steep slopes
- Limits access to controlled area
- Personnel need to quickly respond to spills with remedial actions

MAINTENANCE:

- Observe daily for any non-stormwater discharge
- Look for runoff bypassing ends of berms or undercutting berms
- Repair or replace damaged areas of the berm and remove accumulated sediment
- Recompact soil around berm as necessary to prevent piping

OBJECTIVES

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

TARGETED POLLUTANTS

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IMPLEMENTATION REQUIREMENTS

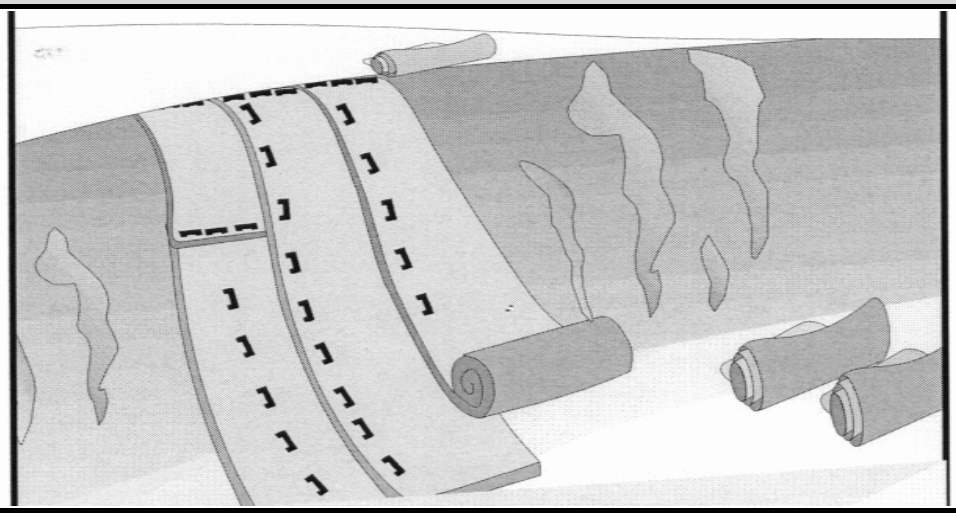
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DAVIS COUNTY STORM WATER COALITION

1500 East 650 North
Fruit Heights, UT 84037

BMP: Erosion Control Blankets — ECB



DESCRIPTION:

Erosion control blankets are used on areas of high velocity runoff and/or steep grade, to aid in controlling erosion on critical areas by protecting young vegetation.

APPLICATION:

- Where vegetation is likely to grow too slowly to provide adequate stabilization
- In areas subject to high winds where mulch would not be effective

INSTALLATION / APPLICATION CRITERIA:

- Install erosion control blankets parallel to the direction of the slope
- In ditches, apply in direction of the flow
- Place erosion control blankets loosely on soil-do not stretch
- Ends of blankets should be buried no less than six inches deep
- Staple the edges of the blanket at least every three feet - per manufacturers' specifications

LIMITATIONS:

- Not recommended in areas which are still under construction

MAINTENANCE:

- Check for erosion and undermining periodically, particulary after rainstorms
- Repair dislocations or failures immediately
- If washouts occur, reinstall after repairing slope damage
- Monitor until permanently stabilized

OBJECTIVES

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

TARGETED POLLUTANTS

H	M	L	
☒	☐	☐	Sediment
☐	☒	☐	Nutrients
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IMPLEMENTATION REQUIREMENTS

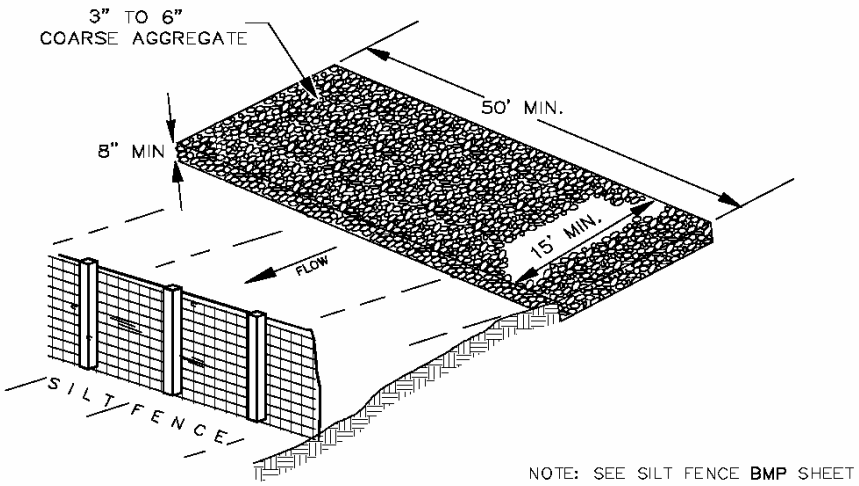
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DAVIS COUNTY STORM WATER COALITION

1500 East 650 North
Fruit Heights, UT 84037

BMP: Equipment and Vehicle Wash Down Area EVWA



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 accommodate activities
- Maintain silt fence as outlined in specific silt fence BMP information sheet

OBJECTIVES

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

TARGETED POLLUTANTS

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IMPLEMENTATION REQUIREMENTS

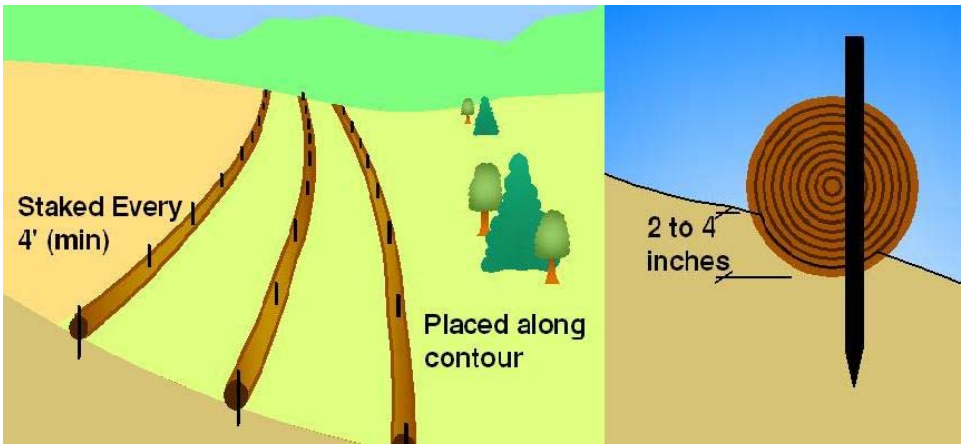
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DAVIS COUNTY STORM WATER COALITION

1500 East 650 North
Fruit Heights, UT 84037

BMP: Fiber Rolls FR



DESCRIPTION:

Commercial products can be made from various types of fibers and shavings that are rolled up and used as sediment barriers.

APPLICATION:

- Good for sites with long slopes, generally flatter than 10:1

INSTALLATION / APPLICATION CRITERIA:

- Must be trenched into the ground 2 to 4 inches
- Must be staked every 4 feet (maximum)
- Manufacturer's instructions must be followed for installation of product

LIMITATIONS:

- Not applicable for high velocity flows
- Only use for a time period within the expected life-span of the product (check with manufacturer)

MAINTENANCE:

- Must be checked to ensure that runoff does not run under or bypass the fiber rolls
- Sediment buildup must also be checked and excess sediment must be removed

OBJECTIVES

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

TARGETED POLLUTANTS

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IMPLEMENTATION REQUIREMENTS

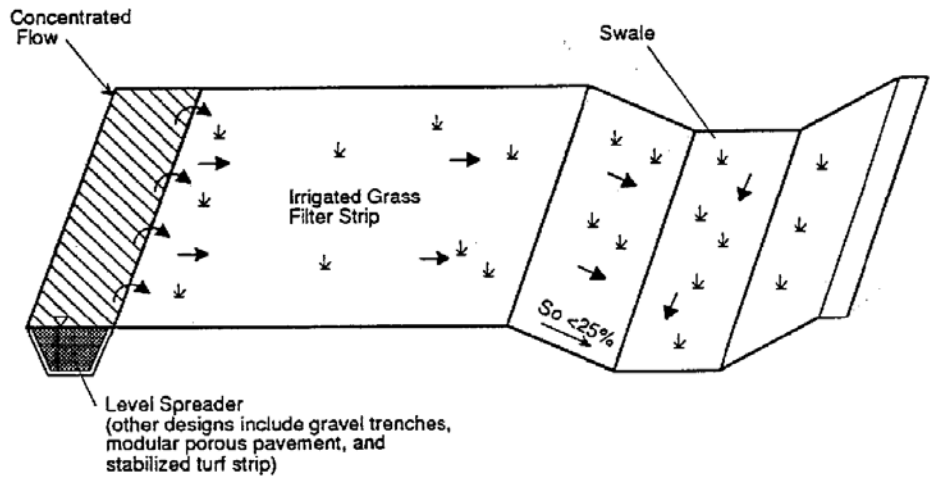
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DAVIS COUNTY STORM WATER COALITION

1500 East 650 North
Fruit Heights, UT 84037

BMP: Filter Strips FS



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.

APPLICATION:

- 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

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IMPLEMENTATION REQUIREMENTS

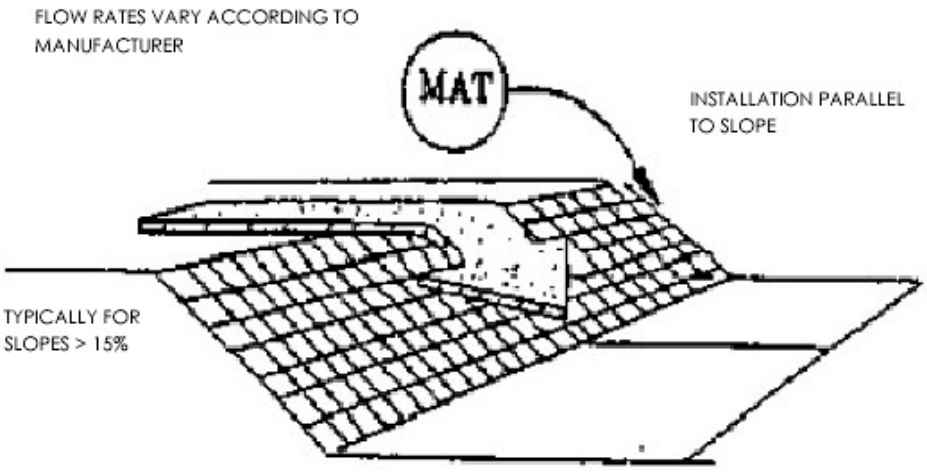
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DAVIS COUNTY STORM WATER COALITION

1500 East 650 North
Fruit Heights, UT 84037

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 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 twice 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

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IMPLEMENTATION REQUIREMENTS

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DAVIS COUNTY STORM WATER COALITION

1500 East 650 North
Fruit Heights, UT 84037

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.

APPLICATION:

- 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 on 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
•Promptly repair damaged areas

OBJECTIVES

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

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☐	☐	☐	O&M Costs
☐	☒	☐	Maintenance
☐	☒	☐	Training
☐	☐	☒	Staffing
☐	☐	☒	Administrative

H = High **M =** Medium **L =** Low

DAVIS COUNTY STORM WATER COALITION

1500 East 650 North
Fruit Heights, UT 84037

BMP: Hazardous Waste Materials — HWM



DESCRIPTION:

Prevent or reduce the discharge of pollutants to stormwater from hazardous waste throughproper 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 grease; 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 PCB's

INSTALLATION / APPLICATION CRITERIA:

The following steps will help reduce storm water 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. 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 wastethat cannot be reused or recycled must be disposed of by a licensed hazardous waste hauler.

MAINTENANCE:

- Inspect hazardous waste receptacles and area regularly
- Arrange for regular hazardous waste collection

OBJECTIVES

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

TARGETED POLLUTANTS

H	M	L	
☐	☐	☒	Sediment
☐	☐	☒	Nutrients
☐	☐	☒	Heavy Metals
☐	☒	☐	Toxic Materials
☐	☐	☒	Oil & Grease
☐	☐	☒	Floatable Materials
☐	☐	☒	Bacteria & Viruses
☐	☐	☒	Other Waste

IMPLEMENTATION REQUIREMENTS

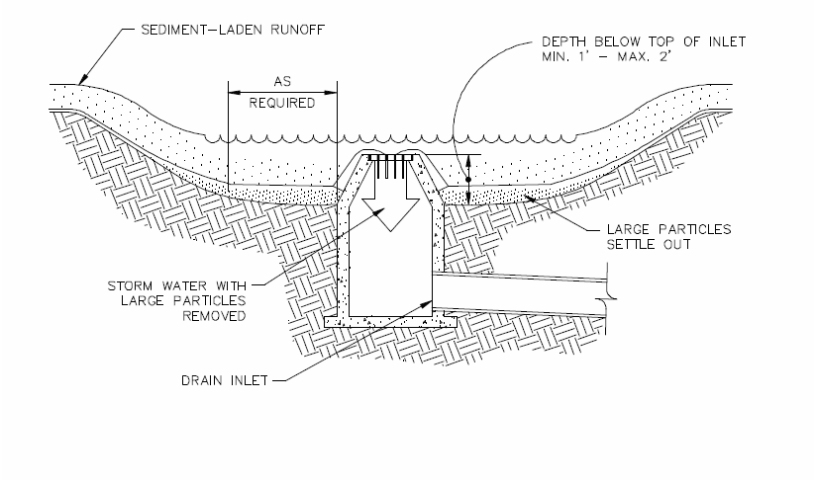
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☐	☒	☐	Maintenance
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☐	☐	☒	Staffing
☐	☐	☒	Administrative

H = High **M =** Medium **L =** Low

DAVIS COUNTY STORM WATER COALITION

1500 East 650 North
Fruit Heights, UT 84037

BMP: Inlet Protection - Excavated IP-E



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 construciton 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

H	M	L	
☒	☐	☐	Sediment
☐	☐	☒	Nutrients
☐	☐	☒	Heavy Metals
☐	☒	☐	Toxic Materials
☐	☐	☒	Oil & Grease
☒	☐	☐	Floatable Materials
☐	☐	☒	Bacteria & Viruses
☐	☐	☒	Other Waste

IMPLEMENTATION REQUIREMENTS

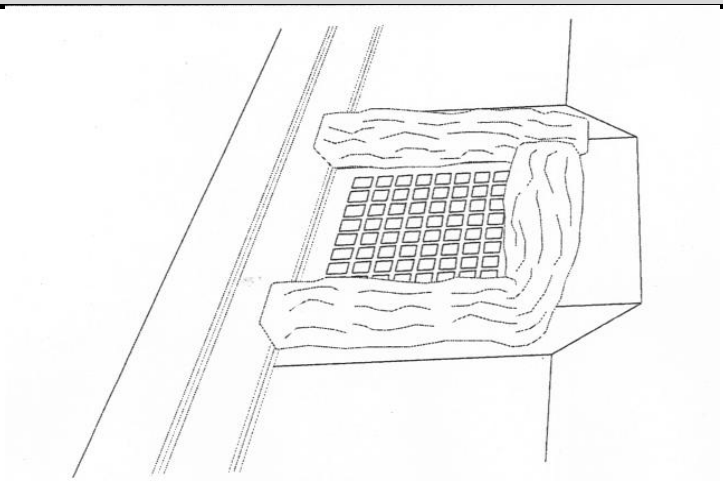
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☐	☐	☒	O&M Costs
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☐	☐	☒	Training
☐	☐	☒	Staffing
☐	☐	☒	Administrative

H = High **M =** Medium **L =** Low

DAVIS COUNTY STORM WATER COALITION

1500 East 650 North
Fruit Heights, UT 84037

BMP: Inlet Protection - Gravel Bags IP-GB



DESCRIPTION:

Sediment barrier erected around storm drain inlet.

APPLICATION:

Construct at storm drainage inlets located down-gradient of areas to be disturbed by construction

INSTALLATION / APPLICATION CRITERIA:

- Provide up-gradient sediment controls, such as silt fence during construction of inlet
- When construction of curb and gutter and roadway is complete, install gravel filled bags around perimeter of inlet
- Fill to recommended levels to reduce splitting of bags

LIMITATIONS:

- Recommended maximum contributing drainage area of one acre
- Requires shallow sloped adjacent to inlet.

MAINTENANCE:

- Inspect inlet protection following storm event and at a minimum of once every 14 days.
- Remove accumulated sediment when it reaches half the height of the bag.
- Look for bypassing or undercutting and repair or realign as needed.
- Replace and clean up spilled gravel when bags split.

OBJECTIVES

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

TARGETED POLLUTANTS

H	M	L	
☒	☐	☐	Sediment
☐	☐	☒	Nutrients
☐	☐	☒	Heavy Metals
☐	☐	☒	Toxic Materials
☐	☐	☒	Oil & Grease
☒	☐	☐	Floatable Materials
☐	☐	☒	Bacteria & Viruses
☒	☐	☐	Other Waste

IMPLEMENTATION REQUIREMENTS

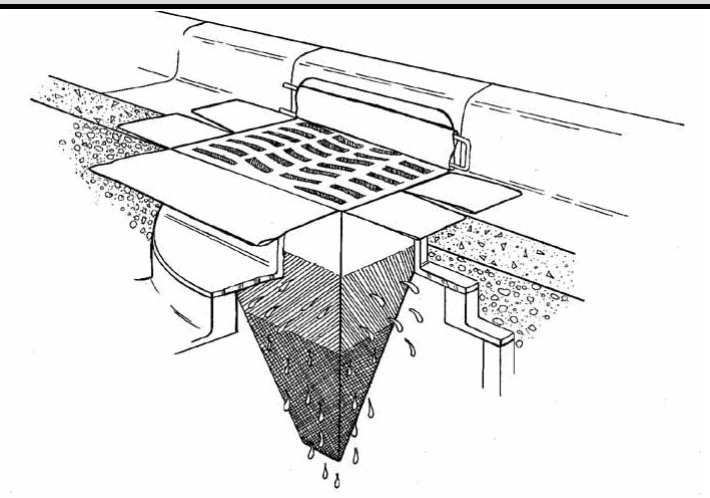
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☐	☐	☒	Administrative

H = High **M =** Medium **L =** Low

DAVIS COUNTY STORM WATER COALITION

1500 East 650 North
Fruit Heights, UT 84037

BMP: Inlet Protection- Silt Bags IP-SB



DESCRIPTION:

Collect and trap sediment and debris entering catch basins from either grated or curb inlets. Insert is made of fabric and is placed in the drain inlet around the perimeter of the grate. Runoff passes through the bag before discharging into the drain outlet pipe. Overflow holes are usually provided to pass larger flows without causing a backwater at the grate. Certain manufactured products include polymers intended to increase pollutant removal effectiveness.

APPLICATIONS:

- Storm drain inlet boxes

INSTALLATION / APPLICATION CRITERIA:

- Regular Maintenance is necessary
- Evaluation of the device chosen should be balanced with cost
- Hydraulic capacity controls effectiveness
- Most useful in small drainage areas (< 1 Acre)
- Ideal in combination with other BMP's

LIMITATIONS:

- Cost
- Maintenance required to prevent plugging and remain effective

MAINTENANCE:

Inspection after all storm events and as required between events

OBJECTIVES

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

TARGETED POLLUTANTS

H	M	L	
☒	☐	☐	Sediment
☐	☐	☒	Nutrients
☐	☐	☒	Heavy Metals
☐	☐	☒	Toxic Materials
☐	☐	☒	Oil & Grease
☒	☐	☐	Floatable Materials
☐	☐	☒	Bacteria & Viruses
☐	☐	☒	Other Waste

IMPLEMENTATION REQUIREMENTS

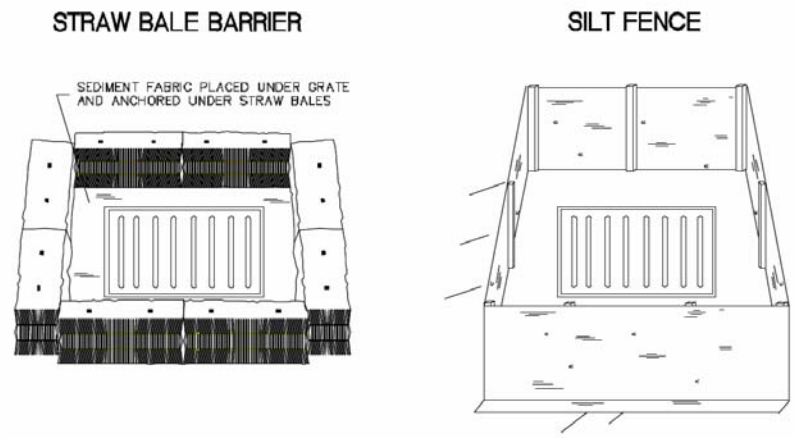
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☐	☐	☒	Staffing
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H = High **M =** Medium **L =** Low

DAVIS COUNTY STORM WATER COALITION

1500 East 650 North
Fruit Heights, UT 84037

BMP: Inlet Protection - Silt Fence or Straw Bale — IP-SF



DESCRIPTION:

Sediment barrier erected around storm drain 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 sedimant controls, such as silt fence during construction of inlet
- When construction of linet is complete, erect straw bale barrier or silt fence surrounding perimeter of inlet. Follow instructions and guidelines on individual BMP information sheets for straw bale barrier and silt fence construction

LIMITATIONS:

- Recommended maximum contributing drainage area of one acre
- Limited to inlets located in open unpaved areas
- Requires shallow slopes adjacent to inlet

MAINTENANCE:

- Inspect inlet protection following storm event and at a minimum of once every two weeks
- Remove accumulated sediment when it reaches 4" in depth
- Repair or realign barrier/fence as needed
- Look for bypassing or undercutting and recompact soil around barrier/fence as required

OBJECTIVES

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

TARGETED POLLUTANTS

H	M	L	
☒	☐	☐	Sediment
☐	☐	☒	Nutrients
☐	☐	☒	Heavy Metals
☐	☐	☒	Toxic Materials
☐	☐	☒	Oil & Grease
☒	☐	☐	Floatable Materials
☐	☐	☒	Bacteria & Viruses
☐	☐	☒	Other Waste

IMPLEMENTATION REQUIREMENTS

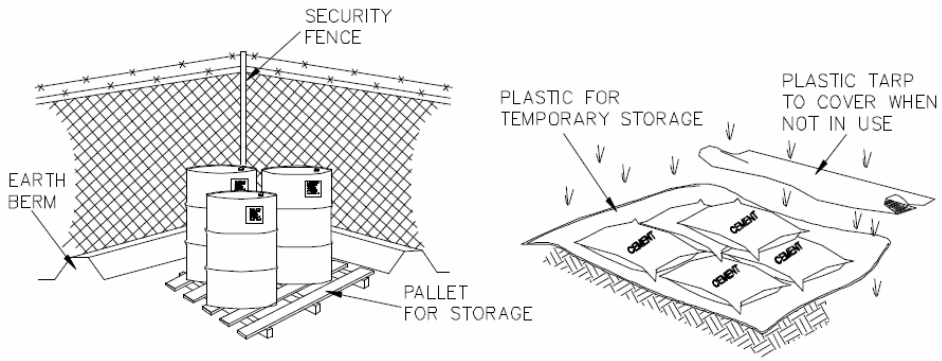
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DAVIS COUNTY STORM WATER COALITION

1500 East 650 North
Fruit Heights, UT 84037

BMP: Materials Storage MS



- CONTROLLED STORAGE LOCATION
- BARRIER AROUND PERIMETER
- ELEVATE CONTAINERS 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

H	M	L	
☐	☐	☒	Sediment
☐	☐	☒	Nutrients
☐	☐	☒	Heavy Metals
☒	☐	☐	Toxic Materials
☐	☐	☒	Oil & Grease
☐	☐	☒	Floatable Materials
☐	☐	☒	Bacteria & Viruses
☐	☒	☐	Other Waste

IMPLEMENTATION REQUIREMENTS

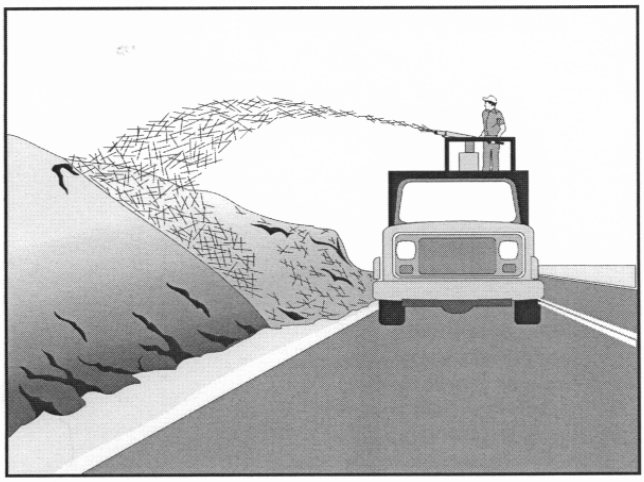
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☐	☐	☒	Administrative

H = High **M =** Medium **L =** Low

DAVIS COUNTY STORM WATER COALITION

1500 East 650 North
Fruit Heights, UT 84037

BMP: MULCHING MU



DESCRIPTION:

Placement of material such as straw, grass, woodchips, or wood fibers over open areas.

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 havebeen seeded
- Stockpiled soil materials

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 or 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

H	M	L	
☒	☐	☐	Sediment
☐	☒	☐	Nutrients
☐	☐	☒	Heavy Metals
☒	☐	☐	Toxic Materials
☐	☐	☒	Oil & Grease
☐	☐	☒	Floatable Materials
☐	☐	☒	Bacteria & Viruses
☐	☐	☒	Other Waste

IMPLEMENTATION REQUIREMENTS

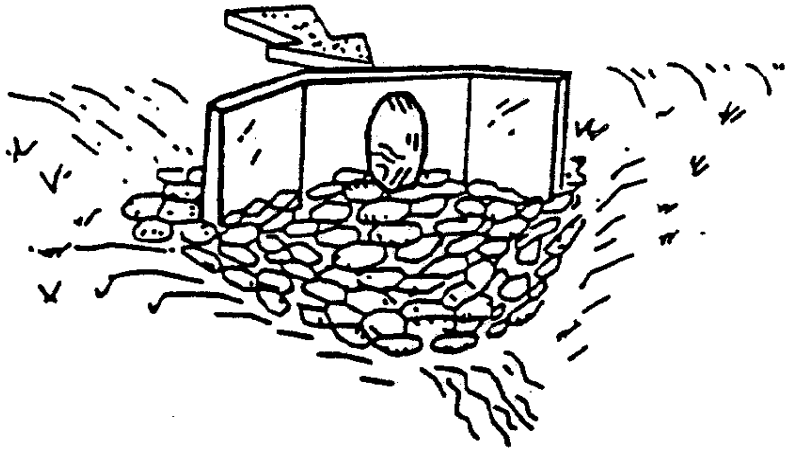
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H = High **M =** Medium **L =** Low

DAVIS COUNTY STORM WATER COALITION

1500 East 650 North
Fruit Heights, UT 84037

BMP: Outlet Protection — OP



OBJECTIVES

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

TARGETED POLLUTANTS

H	M	L	
☒	☐	☐	Sediment
☐	☐	☒	Nutrients
☐	☐	☒	Heavy Metals
☐	☐	☒	Toxic Materials
☐	☐	☒	Oil & Grease
☐	☐	☒	Floatable Materials
☐	☐	☒	Bacteria & Viruses
☐	☐	☒	Other Waste

IMPLEMENTATION REQUIREMENTS

H	M	L	
☐	☒	☐	Capital Costs
☐	☐	☒	O&M Costs
☐	☒	☐	Maintenance
☐	☐	☒	Training
☐	☐	☒	Staffing
☐	☐	☒	Administrative

H = High **M =** Medium **L =** Low

DESCRIPTION:

A rock outlet protection is a physical device composed of rock, or grouted riprap which is placed at the outlet of a pipe to prevent scour of the soil caused by high pipe flow velocities, and to absorb flow energy to produce nonerosive velocities.

APPLICATION:

- Wherever discharge velocities and energies at the outlets of culverts, conduits, or channels are sufficient to erode the next downstream reach
- Rock outlet protection is best suited for temporary use during construction because it is usually less expensive and easier to install than concrete aprons or energy dissipators
- A sediment trap below the pipe outlet is recommended if runoff is sediment laden
- Permanent rock riprap protection should be designed and sized by the engineer as part of the culvert, conduit or channel design
- Grouted riprap should be avoided in areas of freeze and thaw because the grout will break up

INSTALLATION / APPLICATION CRITERIA:

- Rock outlet protection is effective when the rock is sized and placed properly. When this is accomplished, rock outlets do much to limit erosion at pipe outlets. Rock size should be increased for high velocity flows. Best results are obtained when sound, durable, angular rock is used.

LIMITATIONS:

- Large storms often wash away the rock outlet protection and leave the area susceptible to erosion
- Sediment captured by the rock outlet protection may be difficult to remove without removing the rock
- Outlet protection may negatively impact the channel habitat

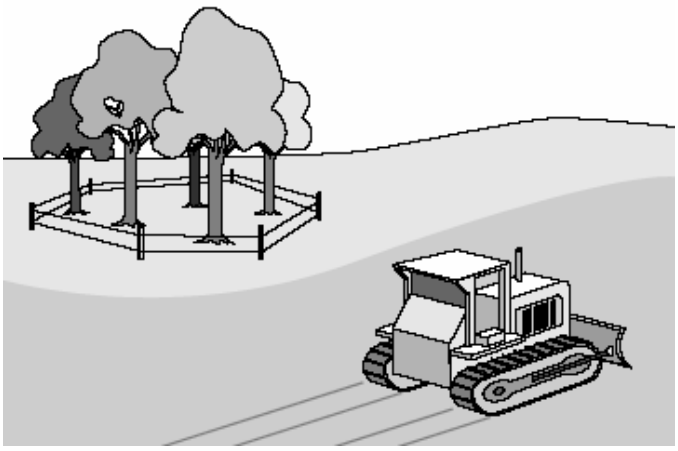
MAINTENANCE:

- Inspect after each significant rain for erosion and/or disruption of the rock, and repair immediately
- Grouted or wire-tied rock riprap can minimize maintenance requirements

DAVIS COUNTY STORM WATER COALITION

1500 East 650 North
Fruit Heights, UT 84037

BMP: **PEV**



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.

APPLICATION:

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

H	M	L	
☒	☐	☐	Sediment
☐	☐	☒	Nutrients
☐	☐	☒	Heavy Metals
☐	☐	☒	Toxic Materials
☐	☐	☒	Oil & Grease
☐	☐	☒	Floatable Materials
☐	☐	☒	Bacteria & Viruses
☐	☐	☒	Other Waste

IMPLEMENTATION REQUIREMENTS

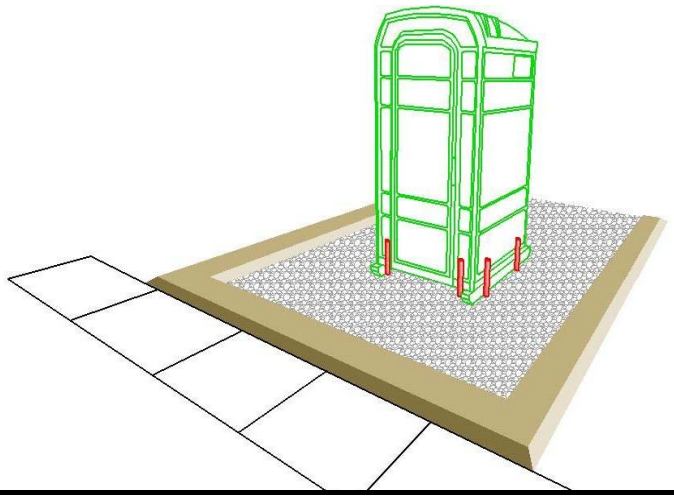
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☐	☐	☒	Staffing
☐	☐	☒	Administrative

H = High **M =** Medium **L =** Low

DAVIS COUNTY STORM WATER COALITION

1500 East 650 North
Fruit Heights, UT 84037

BMP: Portable Toilet PT



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 a 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 perimiter (see Earth Berm Barrier Sheet), control for spill / leak protection.
- Anchor the portable toilet to prevent tipping

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

OBJECTIVES

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

TARGETED POLLUTANTS

H	M	L	
☐	☐	☒	Sediment
☐	☐	☒	Nutrients
☐	☐	☒	Heavy Metals
☒	☐	☐	Toxic Materials
☐	☐	☒	Oil & Grease
☐	☐	☒	Floatable Materials
☒	☐	☐	Bacteria & Viruses
☒	☐	☐	Other Waste

IMPLEMENTATION REQUIREMENTS

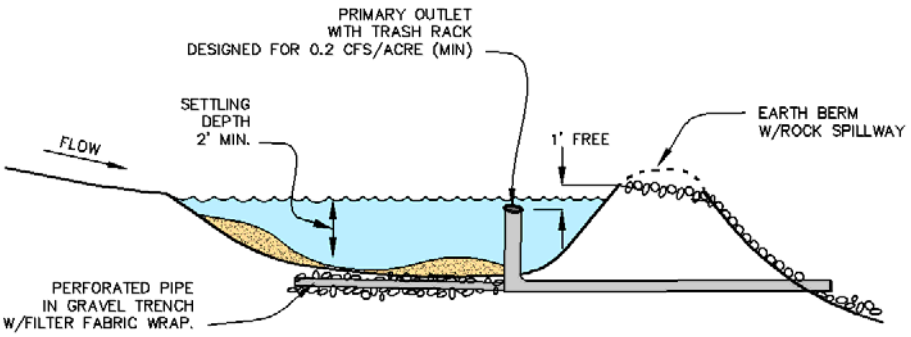
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☐	☐	☒	Administrative

H = High **M =** Medium **L =** Low

DAVIS COUNTY STORM WATER COALITION

1500 East 650 North
Fruit Heights, UT 84037

BMP: Sediment Basin SB



DESCRIPTION:

A pond created by excavating or construction of an embankment, and designed to retain or detain runoff sufficiently to allow excessive sediment to settle.

APPLICATION:

- At the outlet of all disturbed watersheds 10 acres or larger
- At the outlet of smaller disturbed watersheds, as necessary
- Where post construction detention basins will be located

INSTALLATION / APPLICATION CRITERIA:

- Design basin for site specific location, maintian effective flow length 2 times width
- Excavate basin or construct compacted berm containment; ensure no downgradient hazard if failure should occur. (Provide minimum of 67 cy. per acre of drainage area.)
- Construct dewtering and outfall structure and emergency spillway with apron

LIMITATIONS:

- Should be sized based on anticipated runoff, sediment loading and drainage area size
- May require silt fence at outlet for entrapment of very fine silts and clays
- May require safety fencing to prevent public access
- Height restrictions for embankment regulated by Utah Division of Dam Safety

MAINTENANCE:

- Inspect after each rainfall event and at a minimum of once every two weeks
- Repair any damage to berm, spillway or sidewalls
- Remove accumulated sediment as it reaches 2/3 height of available storage
- Check outlet for sedimentation/erosion of downgradient area and remediate as necessary. Install silt fence if sedimentation apparent

OBJECTIVES

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

TARGETED POLLUTANTS

H	M	L	
☒	☐	☐	Sediment
☐	☐	☒	Nutrients
☐	☐	☒	Heavy Metals
☐	☒	☐	Toxic Materials
☐	☐	☒	Oil & Grease
☐	☒	☐	Floatable Materials
☐	☐	☒	Bacteria & Viruses
☐	☐	☒	Other Waste

IMPLEMENTATION REQUIREMENTS

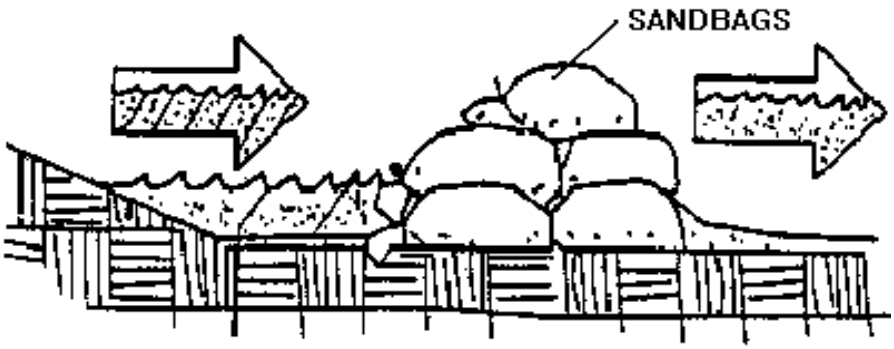
H	M	L	
☒	☐	☐	Capital Costs
☐	☒	☐	O&M Costs
☐	☒	☐	Maintenance
☐	☐	☒	Training
☐	☐	☒	Staffing
☐	☐	☒	Administrative

H = High **M =** Medium **L =** Low

DAVIS COUNTY STORM WATER COALITION

1500 East 650 North
Fruit Heights, UT 84037

BMP: Sand Bag Barrier — SBB



DESCRIPTION:

Stacking sand bags along a level contour creates a barrier which detains sediment - laden water, ponding water upstream of the barrier and promoting sedimentation

APPLICATION:

- Along the perimeter of the site
- May be used in drainage areas up to 5 acres
- Along streams and channels
- Across swales with small catchments
- Around temporary spoil areas
- Below the toe of a cleared slope

INSTALLATION / APPLICATION CRITERIA:

- Install along a level contour
- Base of sand bag barrier should be at least 48" wide
- Height of sand bag barrier should be at least 18" high
- 4" PVC pipe may be installed between the top layer of sand bags to drain large flood flows
- Provide area behind barrier for runoff to pond and sediment to settle
- Place below the toe of a slope
- UV resistant bags should be used

LIMITATIONS:

- Sand bags are more expensive than other barriers, but also more durable
- Burlap should not be used

MAINTENANCE:

- Inspect after each rain and a minimum of once every two weeks
- Reshape or replace damaged sand bags immediately
- Remove buildup of sediment

OBJECTIVES

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

TARGETED POLLUTANTS

H	M	L	
☒	☐	☐	Sediment
☐	☐	☒	Nutrients
☐	☐	☒	Heavy Metals
☐	☐	☒	Toxic Materials
☐	☐	☒	Oil & Grease
☐	☐	☒	Floatable Materials
☐	☐	☒	Bacteria & Viruses
☐	☐	☒	Other Waste

IMPLEMENTATION REQUIREMENTS

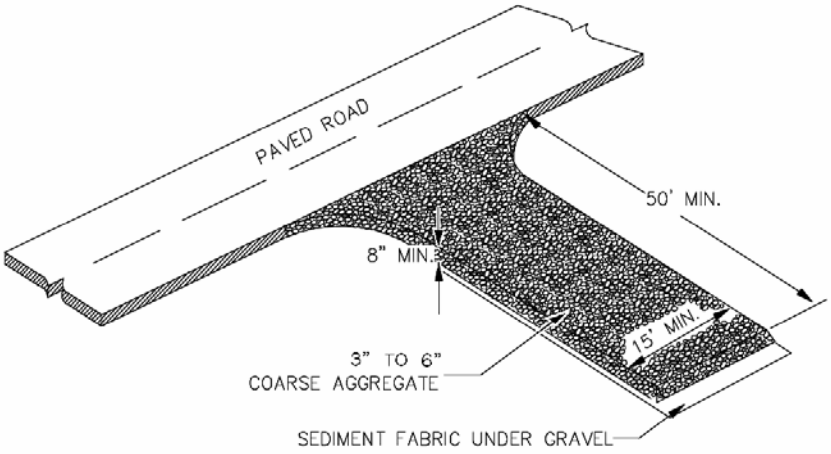
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☒	☐	☐	Capital Costs
☐	☐	☒	O&M Costs
☐	☐	☒	Maintenance
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H = High **M =** Medium **L =** Low

DAVIS COUNTY STORM WATER COALITION

1500 East 650 North
Fruit Heights, UT 84037

BMP: Stabilized Construction Entrance SCE



DESCRIPTION:

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

APPLICATION:

At any point of ingress and 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, 3-6 inches in size, to a minimum depth of 8 inches

LIMITATIONS:

- Requires periodic top dressing with additional stones
- Should be used in conjuction 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 accommodate 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

H	M	L	
☒	☐	☐	Sediment
☐	☐	☒	Nutrients
☐	☐	☒	Heavy Metals
☐	☐	☒	Toxic Materials
☐	☐	☒	Oil & Grease
☐	☐	☒	Floatable Materials
☐	☐	☒	Bacteria & Viruses
☐	☐	☒	Other Waste

IMPLEMENTATION REQUIREMENTS

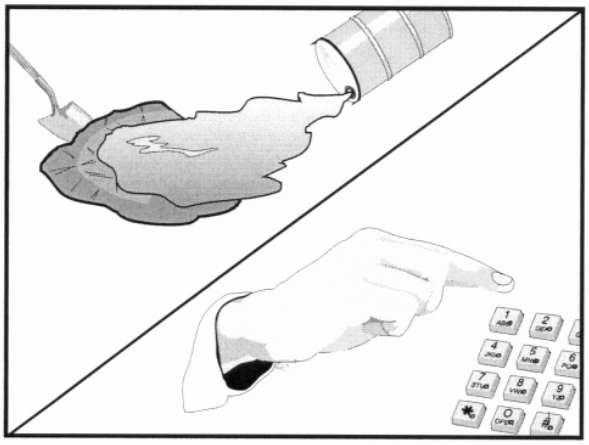
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☐	☒	☐	O&M Costs
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H = High **M =** Medium **L =** Low

DAVIS COUNTY STORM WATER COALITION

1500 East 650 North
Fruit Heights, UT 84037

BMP: Spill Clean-Up SCU





Standard Symbol

BMP Objectives

- ○ Soil Stabilization
- ○ Sediment Control
- ○ Tracking Control
- ○ Wind Erosion Control
- ● Non-Storm Water Management
- ● Materials and Waste Management

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
- Designate an Emergency Coordinator responsible practices and for providing spill response
- Maintain a supply of clean-up equipment on-site 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

	H	M	L
Sediment	☐	☐	☒
Nutrients	☐	☐	☒
Heavy Metals	☐	☐	☒
Toxic Materials	☒	☐	☐
Oil & Grease	☐	☒	☐
Floatable Materials	☐	☐	☒
Bacteria & Viruses	☐	☐	☒
Other Waste	☐	☐	☒

IMPLEMENTATION REQUIREMENTS

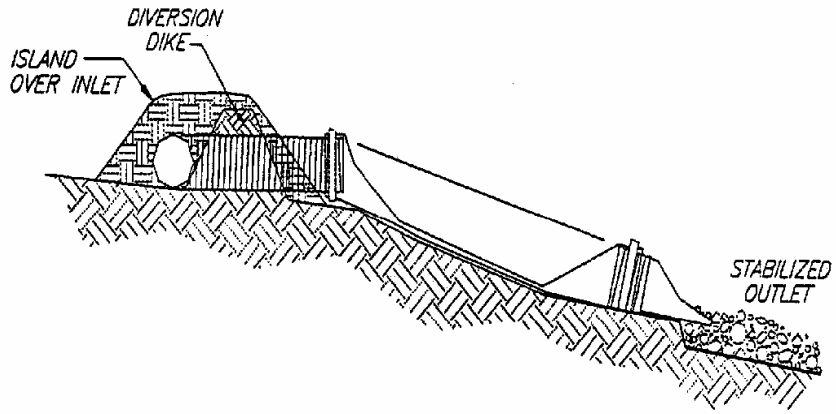
	H	M	L
Capital Costs	☐	☒	☐
O&M Costs	☐	☐	☒
Maintenance	☐	☐	☒
Training	☒	☐	☐
Staffing	☐	☐	☒
Administrative	☐	☐	☒

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DAVIS COUNTY STORM WATER COALITION

1500 East 650 North
Fruit Heights, UT 84037

BMP: Slope Drain SD



DESCRIPTION:

A tempoarary 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.

APPLICATION:

- Where concentrated flow of surface runoff must be conveyed down a slope in order ro prevent erosion
- Emergency spillway for a sediment basin

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 weekly and after storms
- Inlet must be protected form 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

H	M	L	
☒	☐	☐	Sediment
☐	☐	☒	Nutrients
☐	☐	☒	Heavy Metals
☐	☐	☒	Toxic Materials
☐	☐	☒	Oil & Grease
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☐	☐	☒	Other Waste

IMPLEMENTATION REQUIREMENTS

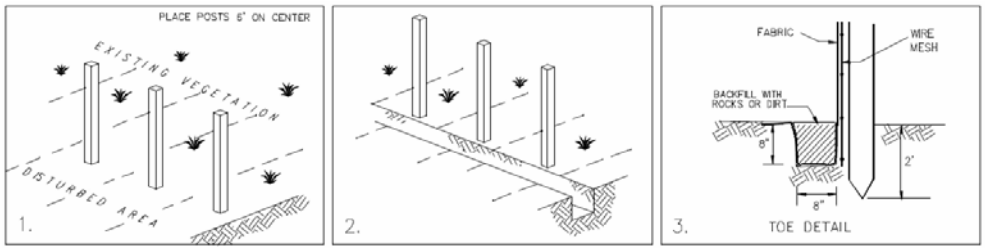
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DAVIS COUNTY STORM WATER COALITION

1500 East 650 North
Fruit Heights, UT 84037

BMP: Silt Fence SF



DESCRIPTION:

A temporary sediment barrier consisting of entrenched filter fabric stretched across and secured to supporting posts.

APPLICATION:

- Perimeter control: place barrier at downgradient limits of disturbance
- Sediment barrier: place barrier at toe of slope or soil stockpile
- Protection of existing waterways: place barrier at top of stream bank
- Inlet protection: place fence surrounding catch basins

INSTALLATION / APPLICATION CRITERIA:

- Place posts 6' apart on center along contour (or use preassembled unit) and drive 2' minimum into ground. Excavate an anchor trench immediately up gradient of posts
- Cut fabric to require width, unroll along length of barrier and drape over barrier. Secure fabric to mesh with twine, staples, or similar, with trailing edge extending into anchor trench
- Backfill trench over fabric to anchor
- Fabric must have 85% minimum sediment removal efficiency

LIMITATIONS:

- Recommended maximum drainage area of 0.5 acre per 100 feet
- Recommended maximum upgradient slope length of 150'
- Recommended maximum uphill grade of 2:1 (50%)
- Recommended maximum flow rate of 0.5 cfs
- Ponding should not be allowed behind fence

MAINTENANCE:

- Inspect immedialty after any rainfall and at least daily during prolonged rainfall
- Look for runoff bypassing ends of barriers or undercutting barriers
- Repair or replace damaged areas of the barrier and remove accumulated sediment
- Reanchor fence as necessary to prevent shortcutting
- Remove accumulated sediment when it reaches 1/2 the height of the fence

OBJECTIVES

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

TARGETED POLLUTANTS

H	M	L	
☒	☐	☐	Sediment
☐	☐	☒	Nutrients
☐	☐	☒	Heavy Metals
☐	☐	☒	Toxic Materials
☐	☐	☒	Oil & Grease
☐	☐	☒	Floatable Materials
☐	☐	☒	Bacteria & Viruses
☐	☐	☒	Other Waste

IMPLEMENTATION REQUIREMENTS

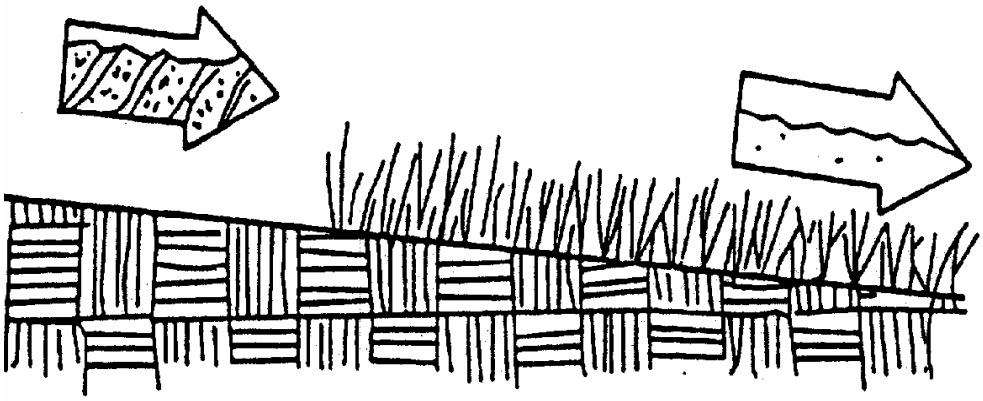
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H = High **M =** Medium **L =** Low

DAVIS COUNTY STORM WATER COALITION

1500 East 650 North
Fruit Heights, UT 84037

BMP: Seeding and Planting SP



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. Use in conjunction with matting, mulch or blanketing where appropriate.

INSTALLATION / APPLICATION CRITERIA:

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

Grasses:

- Ground preparations: 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 irrigations 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

OBJECTIVES

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

TARGETED POLLUTANTS

H	M	L	
☒	☐	☐	Sediment
☐	☒	☐	Nutrients
☐	☐	☒	Heavy Metals
☐	☒	☐	Toxic Materials
☐	☐	☒	Oil & Grease
☐	☐	☒	Floatable Materials
☐	☐	☒	Bacteria & Viruses
☐	☐	☒	Other Waste

IMPLEMENTATION REQUIREMENTS

H	M	L	
☐	☒	☐	Capital Costs
☐	☒	☐	O&M Costs
☐	☒	☐	Maintenance
☐	☐	☒	Training
☐	☐	☒	Staffing
☐	☐	☒	Administrative

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DAVIS COUNTY STORM WATER COALITION

1500 East 650 North
Fruit Heights, UT 84037

BMP: Surface Roughening SR

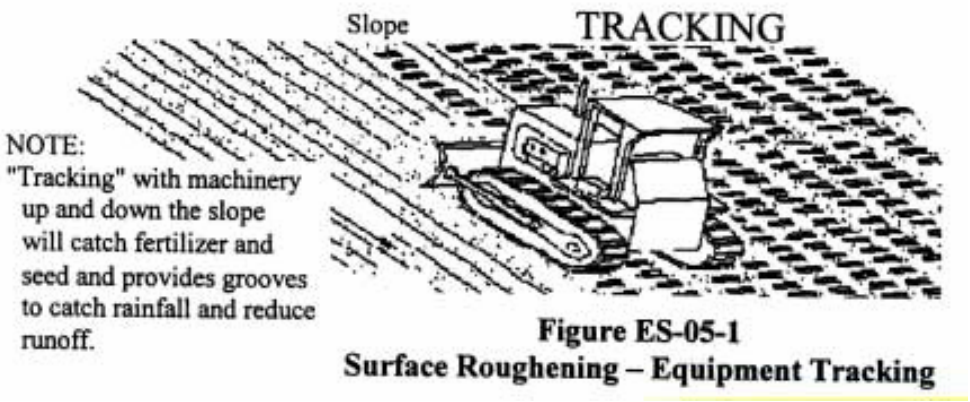


Figure ES-05-1
Surface Roughening – Equipment Tracking

DESCRIPTION:

Rough preparation of working areas leaving depressions and uneven surface. Depressions should be done parallel 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 if appropriate)

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

	H	M	L
Sediment	☒	☐	☐
Nutrients	☐	☐	☒
Heavy Metals	☐	☐	☒
Toxic Materials	☐	☐	☒
Oil & Grease	☐	☐	☒
Floatable Materials	☐	☐	☒
Bacteria & Viruses	☐	☐	☒
Other Waste	☐	☐	☒

IMPLEMENTATION REQUIREMENTS

	H	M	L
Capital Costs	☐	☒	☐
O&M Costs	☐	☒	☐
Maintenance	☐	☒	☐
Training	☐	☐	☒
Staffing	☐	☐	☒
Administrative	☐	☐	☒

H = High **M =** Medium **L =** Low

DAVIS COUNTY STORM WATER COALITION

1500 East 650 North
Fruit Heights, UT 84037

BMP: Street Sweeping SS





DESCRIPTION:

Prevent sediment from entering storm water by sweeping the streets near construction activities.

APPLICATION:

- Useful for any paved streets near construction sites where sediment is blown, tracked, or spilled onto the streets.

INSTALLATION / APPLICATION CRITERIA:

- The equipment used should be appropriate for the conditions. Vacuum sweepers work more effectively when the area is dry. Brush sweepers work better when the sediment is wet or stuck to the surface.
- Mechanical equipment should be operated and maintained according to the manufacturer's recommendations

LIMITATIONS:

- Is labor and equipment intensive
- May cause dust

MAINTENANCE:

- The street should be checked daily for any sediment deposits. Street sweeping should be implemented whenever sediment from construction activity is found on the streets

OBJECTIVES

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

TARGETED POLLUTANTS

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IMPLEMENTATION REQUIREMENTS

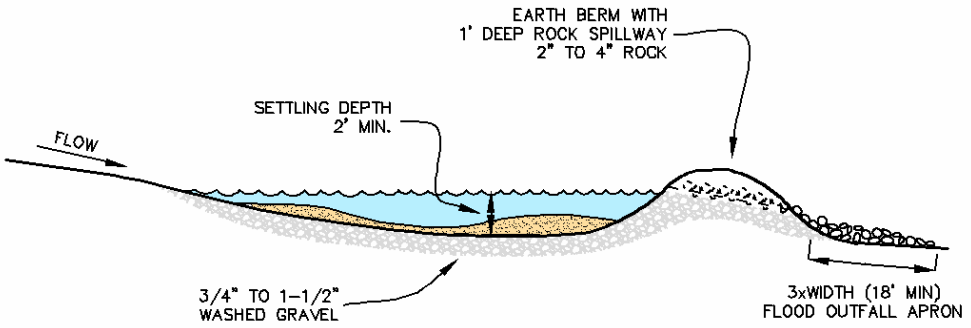
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DAVIS COUNTY STORM WATER COALITION

1500 East 650 North
Fruit Heights, UT 84037

BMP: Sediment Trap ST



DESCRIPTION:

A sediment trap is a small excavated or bermed area where runoff from small drainage areas is detained and sediment can settle.

APPLICATION:

- Temporary control for runoff from disturbed areas of less than 3 arcres
- Temporary control for discharge from diversion dike, surface benching, or other temporary drainage measures

INSTALLATION / APPLICATION CRITERIA:

- Design basin for site specific location
- Excavate basin or construct compacted berm containment
- Construct outfall spillway with apron
- Provide downstream silt fence if necessary

LIMITATIONS:

- Should be sized based on anticipated runoff, sediment loading and drainage area size
- May require silt fence at outlet for entrapment of very fine silts and calys

MAINTENANCE:

- Inspect after each rainfall event and at a minimum of once every two weeks
- Repair any damage to berm, spillway or sidewalls
- Remove accumulated sediment as it reaches 2/3 height of available storage
- Check outlet for sedimentation/erosion of downgradient area and remediate as necessary. Install silt fence if sedimentation apparent.

OBJECTIVES

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

TARGETED POLLUTANTS

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IMPLEMENTATION REQUIREMENTS

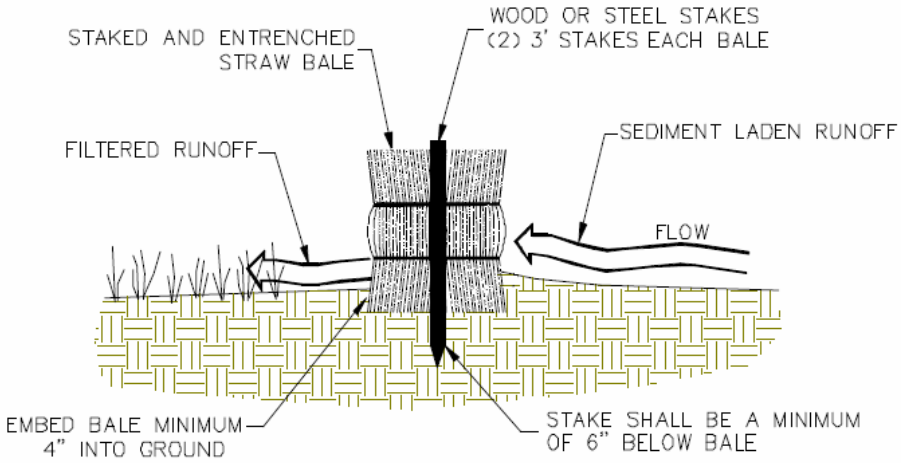
H	M	L	
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H = High **M =** Medium **L =** Low

DAVIS COUNTY STORM WATER COALITION

1500 East 650 North
Fruit Heights, UT 84037

BMP: Straw Bale Barrier — SBB



DESCRIPTION:

Temporary sediment barrier consisting of a row of entrenched and anchored straw bales.

APPLICATION:

- Perimeter Control: place barrier at downgradient limits of disturbance
- Sediment barrier: place barrier at toe of slope or soil stockpile
- Protection of existing waterways: place barrier at top of stream bank
- Inlet Protection

INSTALLATION / APPLICATION CRITERIA:

- Excavate a 4" minimum deep trench along contour line, i.e., parallel to slope, removing all grass and other material that may allow underflow
- Place bales in trench with ends tightly abutting; fill any gaps by wedging loose straw into openings
- Anchor each bale and compact to prevent piping; backfill on uphill side to be built up 4" above ground at the barrier

LIMITATIONS:

- Recommended maximum area of 0.5 acre per 100' of barrier
- Recommended maximum upgradient slope length of 150 feet
- Recommended maximum uphill grade of 2:1 (50%)
- Maximum duristation of use is 6 months

MAINTENANCE:

- Inspect immediately after any rainfall and at least daily during prolonged rainfall
- Look for runoff bypassing ends of barriers or undercutting barriers
- Repair or replace damaged areas of the barrier and remove accumulated sediment
- Realign bales as necessary to provide continuous barrier and fill gaps
- Recompact soil around barrier as necessary to prevent piping

OBJECTIVES

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

TARGETED POLLUTANTS

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☐	☐	☒	Other Waste

IMPLEMENTATION REQUIREMENTS

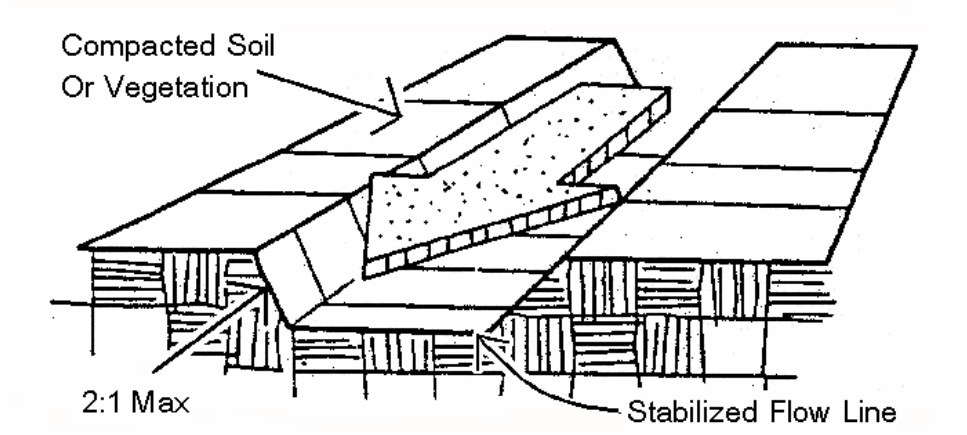
H	M	L	
☐	☒	☐	Capital Costs
☐	☐	☒	O&M Costs
☐	☒	☐	Maintenance
☐	☐	☒	Training
☐	☐	☒	Staffing
☐	☐	☒	Administrative

H = High **M =** Medium **L =** Low

DAVIS COUNTY STORM WATER COALITION

1500 East 650 North
Fruit Heights, UT 84037

BMP: Temporary Drains and Swales TDS



DESCRIPTION:

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

APPLICATION:

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

INSTALLATION / APPLICATION CRITERIA:

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

LIMITATIONS:

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

MAINTENANCE:

- Inspect weekly and after each rain
- Repair any erosion immediately
- Remove sediment which builds up in the swale and restrcts its flow capacity

OBJECTIVES

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

TARGETED POLLUTANTS

H	M	L	
☒	☐	☒	Sediment
☐	☐	☒	Nutrients
☐	☐	☒	Heavy Metals
☐	☐	☒	Toxic Materials
☐	☐	☒	Oil & Grease
☐	☐	☒	Floatable Materials
☐	☐	☒	Bacteria & Viruses
☐	☐	☒	Other Waste

IMPLEMENTATION REQUIREMENTS

H	M	L	
☐	☒	☐	Capital Costs
☐	☐	☒	O&M Costs
☐	☐	☒	Maintenance
☐	☐	☒	Training
☐	☐	☒	Staffing
☐	☐	☒	Administrative

H = High **M =** Medium **L =** Low

DAVIS COUNTY STORM WATER COALITION

1500 East 650 North
Fruit Heights, UT 84037

BMP: Temporary and Permanent Seeding — TPS



DESCRIPTION:

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
28 E. State Street (Room 20D)
Farmington, Utah 84025
Phone: (801) 451-3412

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, hydro-seeding
- 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

OBJECTIVES

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

TARGETED POLLUTANTS

H	M	L	
☒	☐	☐	Sediment
☒	☐	☐	Nutrients
☐	☐	☒	Heavy Metals
☐	☐	☒	Toxic Materials
☐	☐	☒	Oil & Grease
☐	☐	☒	Floatable Materials
☐	☐	☒	Bacteria & Viruses
☐	☐	☒	Other Waste

IMPLEMENTATION REQUIREMENTS

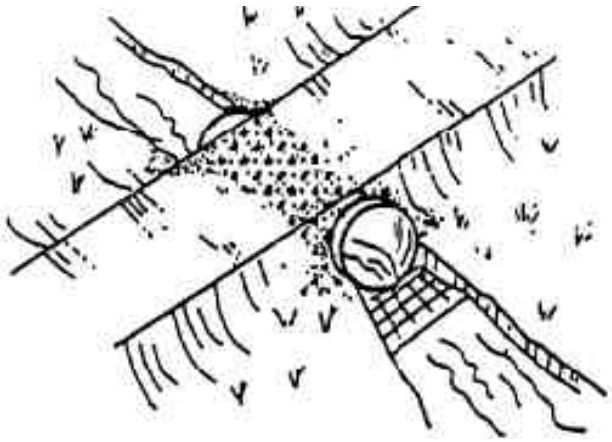
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☐	☒	☐	Maintenance
☐	☐	☒	Training
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DAVIS COUNTY STORM WATER COALITION

1500 East 650 North
Fruit Heights, UT 84037

BMP: Temporary Stream Crossing — TSC



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.

APPLICATION:

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

INSTALLATION / APPLICATION CRITERIA:

- 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 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 aggregate from inlets and outlets of culverts

OBJECTIVES

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

TARGETED POLLUTANTS

H	M	L	
☒	☐	☐	Sediment
☐	☐	☒	Nutrients
☐	☐	☒	Heavy Metals
☐	☐	☒	Toxic Materials
☐	☒	☐	Oil & Grease
☐	☐	☒	Floatable Materials
☐	☐	☒	Bacteria & Viruses
☐	☐	☒	Other Waste

IMPLEMENTATION REQUIREMENTS

H	M	L	
☐	☒	☐	Capital Costs
☐	☐	☒	O&M Costs
☐	☒	☐	Maintenance
☐	☐	☒	Training
☐	☐	☒	Staffing
☐	☐	☒	Administrative

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DAVIS COUNTY STORM WATER COALITION

1500 East 650 North
Fruit Heights, UT 84037

BMP: Vehicle And Equipment Cleaning VEC



DESCRIPTION:

Prevent or reduce the discharge of pollutants to storm water from vehicle and equipment 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/or training employees and subcontractors.

INSTALLATION / APPLICATION CRITERIA:

- Use off-site commercial washing 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 storm water. If you wash 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 storm water, 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

MAINTENANCE:

- Minimal, some berm repair may be necessary

OBJECTIVES

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

TARGETED POLLUTANTS

H	M	L	
☐	☐	☒	Sediment
☐	☐	☒	Nutrients
☐	☐	☒	Heavy Metals
☐	☒	☐	Toxic Materials
☐	☒	☐	Oil & Grease
☐	☐	☒	Floatable Materials
☐	☐	☒	Bacteria & Viruses
☐	☐	☒	Other Waste

IMPLEMENTATION REQUIREMENTS

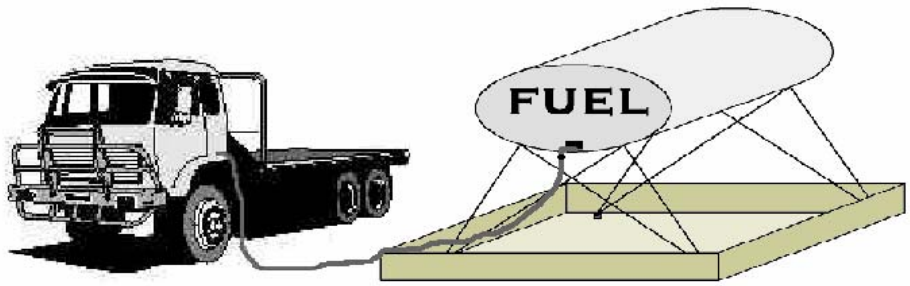
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☐	☐	☒	O&M Costs
☐	☒	☐	Maintenance
☐	☐	☒	Training
☐	☐	☒	Staffing
☐	☐	☒	Administrative

H = High **M =** Medium **L =** Low

DAVIS COUNTY STORM WATER COALITION

1500 East 650 North
Fruit Heights, UT 84037

BMP: Vehicle And Equipment Fueling VEF



OBJECTIVES

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

TARGETED POLLUTANTS

	H	M	L
Sediment	☐	☐	☒
Nutrients	☐	☐	☒
Heavy Metals	☐	☐	☒
Toxic Materials	☐	☒	☐
Oil & Grease	☐	☒	☐
Floatable Materials	☐	☐	☒
Bacteria & Viruses	☐	☐	☒
Other Waste	☐	☐	☒

IMPLEMENTATION REQUIREMENTS

	H	M	L
Capital Costs	☐	☒	☐
O&M Costs	☐	☐	☒
Maintenance	☐	☒	☐
Training	☐	☒	☐
Staffing	☐	☐	☒
Administrative	☐	☐	☒

H = High **M =** Medium **L =** Low

DESCRIPTION:

Prevent fuel spills and leaks, and reduce their impacts to storm water by using offsite facilities, fueling in designated areas only, enclosing or covering stored fuel, implementing spill controls, and training employees and subcontractors.

INSTALLATION / APPLICATION CRITERIA:

- 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 storm water. 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 run on of storm water 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.(40 CF Sub. J) 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

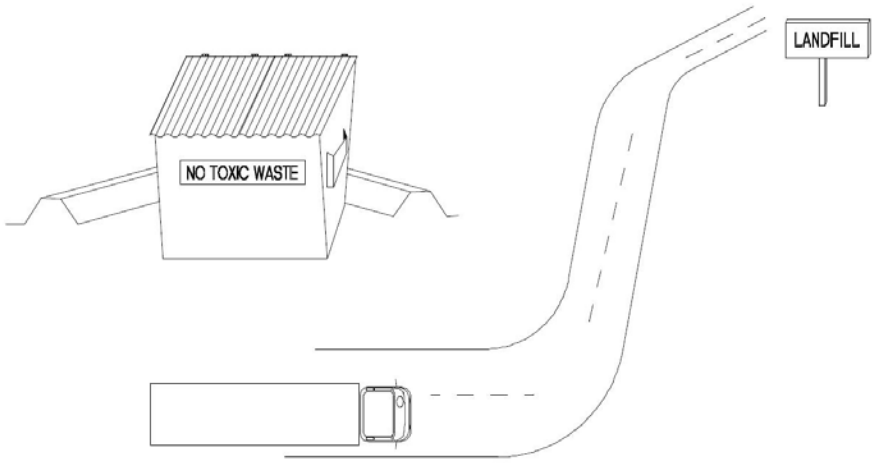
MAINTENANCE:

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

DAVIS COUNTY STORM WATER COALITION

1500 East 650 North
Fruit Heights, UT 84037

BMP: Waste Disposal WD



DESCRIPTION:

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

APPLICATION:

All construction sites

INSTALLATION / APPLICATION CRITERIA:

- 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.
- 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 containers at designated collection areas
- Randomly check disposed materials for any unauthorized waste (e.g. toxic materials).

OBJECTIVES

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

TARGETED POLLUTANTS

H	M	L	
☐	☐	☐	Sediment
☐	☐	☐	Nutrients
☐	☐	☐	Heavy Metals
☒	☐	☐	Toxic Materials
☐	☒	☐	Oil & Grease
☒	☐	☐	Floatable Materials
☐	☐	☐	Bacteria & Viruses
☒	☐	☐	Other Waste

IMPLEMENTATION REQUIREMENTS

H	M	L	
☒	☐	☐	Capital Costs
☒	☐	☐	O&M Costs
☐	☒	☐	Maintenance
☒	☐	☐	Training
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☐	☐	☒	Administrative

H = High **M =** Medium **L =** Low

DAVIS COUNTY STORM WATER COALITION

1500 East 650 North
Fruit Heights, UT 84037

STORMWATER RESOURCES

Environmental Protection Agency (EPA) Region VIII ..... (800) 227-8917

Army Corps of Engineers ..... (801) 295-8380

Utah Department of Environmental Quality

Division of Water Quality..... 538-6146

Division of Environmental Response and Remediation 536-4100

Division of Air Quality 536-4000

Solid and Hazardous Waste - Used Oil Hotline..... (800) 458-0145

Utah Division of Natural Resources

General Information..... 539-4001

Davis County Health Department

Water Quality and Hazardous Waste

Environmental Health

Davis County Public Works Engineering

Bountiful City
Centerville City
Clinton City
Farmington City
Fruit Heights City
Kaysville City
Layton City
North Salt Lake City
South Weber City
Sunset City
West Bountiful City
West Point City
Woods Cross City

Chapter 12.04 STORM DRAINAGE SYSTEM
Section 12.04.010 Designated Drainage Systems
Section 12.04.020 Development Permit
Section 12.04.030 Construction Permit
Section 12.04.040 Conveyance Of Easements And Rights-Of-Way
Section 12.04.050 Board Of Appeals
Section 12.04.060 Dumping In Critical Flood Area Restricted
Section 12.04.070 Abrogation Of Other County Provisions
Section 12.04.080 Penalties

Section 12.04.010 Designated Drainage Systems

The following facilities wherever located in the unincorporated area of Davis County and within the incorporated area of Davis County, including open channel sections and sections in conduit, are declared to be a part of the Storm Drainage and Flood Control System of Davis County and are subject to the provisions of this chapter relating to such facilities.

Designated Drainage Systems.

A. Mill Creek drainage;
B. Barton Creek drainage;
C. Stone Creek drainage;
D. Deuel Creek drainage;
E. Parrish Creek drainage;
F. Barnard Creek drainage;
G. Ricks Creek drainage;
H. Davis Creek drainage;
I. Steed Creek drainage;
J. Farmington Creek drainage;
K. Shepard Creek drainage;
L. Rigby's Dry Hollow drainage;
M. Haights Creek—Bear Canyon drainage;
N. Holmes Creek drainage;
O. Kays Creek drainage;
P. Howard Slough drainage;
Q. Hooper Canyon drainage;
R. North Canyon drainage;
S. Weber River;
T. 2300 North, Clinton, Utah;
U. Channels West of Bluff Road:
    1. 300 North, West Point, Utah,

2. 700 South, Syracuse, Utah,
3. 3000 West, Syracuse, Utah,
4. 2000 West, Syracuse, Utah;

V. Jordan River;

W. A-1 Agricultural drainage;

X. West Gentile drainage;

Y. Clearfield/West Point 200 south storm drain;

Z. Syracuse 1500 west storm drain;

AA. Clinton 2050 north storm drain.

The above and foregoing designated drainage systems are more particularly identified and described on the official flood control map of Davis County, a true and exact copy of which is attached to the ordinance and codified in this chapter and by reference made a part of this chapter.

(Ord. 2-1998 § 1; Ord. 1-1987 § 1)

Section 12.04.020 Development Permit

Before any subdivision plat which contains property located within the critical flood area is recorded, a development permit shall be obtained from Davis County. As defined in this section "critical flood area" is the area designated on the official flood control base map, or where no area is defined on the official flood control base map, it is the area within one hundred (100) feet of any of the drainage systems or facilities identified in Section 12.04.010. Application for a development permit shall be made on forms furnished by the Davis County Flood Control Department and may include but not be limited to, plans, in duplicate, drawn to scale showing the nature, location, dimensions, and elevations of the proposed subdivision. Upon review of the subdivision plat, the Flood Control Director shall identify any rights-of-way or easements needed for flood control purposes.

(Ord. 1-1987 § 2)

Section 12.04.030 Construction Permit

Before any construction begins within any "critical flood area," as that term is defined in Section 12.04.020, a construction permit shall be obtained from Davis County. Application for a construction permit shall be made on forms furnished by the Davis County Flood Control Director and may include, but not be limited to, plans in duplicate drawn to scale showing the nature, location, dimensions and elevations of the area in question; existing or proposed structures, fill, storage of materials, drainage facilities, and the location of the foregoing.

(Ord. 1-1987 § 3)

Section 12.04.040 Conveyance Of Easements And Rights-Of-Way

Before the approval and recording of any subdivision, the subdivider of any property contained within any "critical flood area," as that term is defined in Section 12.04.020, shall convey to Davis County any rights-of-way or easements designated by the Flood Control Director. On such granted rights-of-way and easements, Davis County shall reserve to itself the right of entry by agents, employees and contractors to survey, plan, construct and maintain such improvements as may be necessary to insure adequate flood control.

(Ord. 1-1987 § 4)

Section 12.04.050 Board Of Appeals

There is created, a Board of Appeals, consisting of five members, three of whom must be qualified by experience and training, to pass upon matters pertaining to flood control. The Davis County Flood Control Director shall act as the Secretary of the Board, but shall not be considered a part of the five member Board of Appeals. The Board of Appeals shall be appointed by the Davis County Commission, and shall hold office at its pleasure. The Board shall adopt reasonable rules and regulations for conducting its investigations, and shall render all decisions and findings in writing to the Flood Control Director with a duplicate copy to the appellant. Those aggrieved by the decision of the Board of Appeals may appeal such decision to the District Court of Davis County as provided by law.

(Ord. 1-1987 § 5)

Section 12.04.060 Dumping In Critical Flood Area Restricted

It is unlawful for any person, firm or corporation to dump or place garbage, trees, brush, dirt, or any other material or substance whatsoever in any part of any area located within the "critical flood area," as that term is defined in 12.04.020, without obtaining a permit as required by this chapter.

(Ord. 1-1987 § 6)

Section 12.04.070 Abrogation Of Other County Provisions

This chapter does not supersede or abrogate any County flood damage prevention ordinance enacted by Davis County nor relieve any person of the obligation to fully comply with Chapter 14.24 of this Code.

(Ord. 1-1987 § 9) (Ord. 01-2006, Amended, 02/22/2006)

Section 12.04.080 Penalties

In addition to any penalties which may be imposed pursuant to this chapter, Davis County may do the following:

A. Remove any obstruction located within the stream channels identified in Section 12.04.010.

B. Give written notice to persons in violation of the provisions of this chapter requiring the removal of offending installations from the natural channels identified in Section 12.04.010. Notices may be personally served or may be mailed to violators by registered mail. If such installations are not removed within ten (10) days after notice is given, the County may effect removal at the expense of the person in violation and may recover its costs and expenses therefore; and/or

C. Bring an action for abatement of the nuisance caused by the offending installation, or for recovery of the County's costs and expenses incurred in removing the offending installation.

(Added during 2001 codification)

Chapter 14.24 ILLICIT DISCHARGE AND EROSION CONTROL

Section 14.24.010 Purpose
Section 14.24.020 Definitions
Section 14.24.030 Applicability
Section 14.24.040 Responsibility Of Administration
Section 14.24.050 Ultimate Responsibility
Section 14.24.060 Prohibitions
Section 14.24.070 Illicit Discharges
Section 14.24.080 Erosion Control On Construction Sites
Section 14.24.090 Post Construction
Section 14.24.100 Basic Storm Water Management Design Criteria
Section 14.24.110 Enforcement

Section 14.24.010 Purpose

The purpose of this chapter is to protect the health, safety and welfare of the county and its inhabitants by improving the County's separate storm sewer system, managing and controlling storm water run-off, protecting property, preventing polluted water from entering the County's storm water system and other receiving waters to the maximum extent practicable as required by Federal and State law. The objectives of this ordinance are:

A. To regulate the contribution of pollutants to the County separate storm sewer system by storm water discharges by any user;

B. To prohibit illicit connections and discharges to the County storm water system;

C. To guide, regulate and control the design, construction, use, and maintenance of any development or other activity that results in the movement of earth on land within the County;

D. To minimize increases in non-point source pollution caused by storm water run-off from development which would otherwise degrade local water quality;

E. To reduce storm water run-off rates and volumes, soil erosion and non-point source pollution, wherever possible, through storm water management controls and to ensure that these management controls are properly maintained and pose no threat to public safety;

F. To establish a viable and fair method of financing the construction management, operation and maintenance of the storm sewer system;

G. To establish legal authority to carry out all inspection, surveillance and monitoring procedures necessary to ensure compliance with this ordinance; and

H. To establish a penalty procedure for violations(s) of this code.

(Ord. 01-2006, Add, 02/22/2006)

Section 14.24.020 Definitions

For the purposes of this chapter, the following shall mean:

A. "Authorized Enforcement Agency" shall mean the Public Works Director (PWD) and/or any individual designated by the PWD as an Authorized Enforcement Agent designated to enforce this ordinance.

B. "Berm" shall mean an earthen mound used to direct the flow of run-off around or through a structure.

C. "Best Management Practices (BMP's)" shall mean schedules of activities, prohibitions of practices, maintenance procedures, design standards, and other management practices to prevent or reduce the discharge of pollutants directly or indirectly into the waters of the United States. BMP's also include treatment requirements, operating procedures, educational activities, and practices to control plant site run-off spillage or leaks, sludge or waste disposal, or drainage from raw material storage.

D. "Clean Water Act" shall mean the Federal Water Pollution Control Act enacted by Public Law 92-500 as amended by Public Laws 95-217, 95-576, 96-483, and 97-117, enacted at 33 U.S.C. Section 1251 et seq., and any subsequent amendments thereto.

E. "Construction Activity" shall mean activities subject to NPDES Construction Permits. These include construction projects resulting in land disturbance of one acre or more. Such activities include, but are not limited to, clearing and grubbing, grading, excavating, and demolition.

F. "Conveyance System" shall mean any channel or pipe for collecting and directing the storm water.

G. "Culvert" shall mean a covered channel or large diameter pipe that directs water flow below the ground surface.

H. "Degradation (Biological or Chemical)" shall mean the breakdown of chemical compounds into simpler substances, usually less harmful than the original compound, as with the degradation of a persistent pesticide. "Degradation (Geological)" shall mean the wearing down by erosion. "Degradation (Water)" shall mean the lowering of the water quality of a watercourse by an increase in the amount of pollutant(s).

I. "Dike" shall mean an embankment to confine or control water, often built along the banks of a river to prevent overflow of lowlands; a levee.

J. "Discharge" shall mean the release of storm water or other substance from a conveyance system or storage container.

K. "Drainage" shall mean the collection, conveyance, containment, and/or discharge of surface and storm water run-off.

L. "Erosion" shall mean the wearing away of land surface by wind, water, ice, gravity, or mechanical processes, including vehicular traffic. Erosion occurs naturally from weather or run-off but can be intensified by land-clearing practices related to farming, residential or industrial development, road building, timber-cutting, or recreational activities including OHV use, hiking, equestrian, etc.

M. "Fill" means a deposit of earth material placed by artificial means.

N. "First Flush" shall mean the delivery of a disproportionately large load of pollutants during the early part of storms due to the rapid run-off of accumulated pollutants.

O. "General Permit" shall mean a Federal, State, or County permit issued under the National Pollutant Discharge Elimination Systems (NPDES) to allow storm water discharges to waters of the United States.

P. "Grading" shall mean the cutting and/or filling of the land surface to a desired slope or elevation.

Q. "Hazardous Waste" shall mean by-products of society that can pose a substantial or potential hazard to human health or the environment when improperly managed. Possesses, at least, one of four characteristics (flammable, corrosivity, reactivity, or toxicity), or appears on special EPA lists.

R. "Heavy Metals" shall mean metals of high specific gravity, present in municipal and industrial wastes that pose long-term environmental hazards. Such metals include cadmium, chromium,

cobalt, copper, lead, mercury, nickel, and zinc.

S. "Illegal Discharge" shall mean any direct or indirect non-storm water discharge to the storm drain system, except discharges from fire fighting activities and other discharges exempted in this ordinance.

T. "Illicit Connection" shall mean any physical connection to a publicly maintained storm drain system allowing discharge of non-storm water which has not been permitted by the public entity responsible for the operation and maintenance of the system.

U. "Impervious Surface" shall mean a surface which prevents or retards the penetration of water into the ground including, but not limited to, roofs, sidewalks, patios, driveways, parking lots, concrete and asphalt paving, gravel, compacted native surfaces and earthen materials, and oiled, macadam, or other surfaces which similarly impede the natural infiltration of storm water.

V. "Individual Permit" shall mean a permit issued under the NPDES program for a specific facility, whereby the unique characteristics of that facility may be addressed through the imposition of special conditions or requirements.

W. "Infiltration" shall mean the downward movement of water from the surface to the subsoil. The infiltration capacity is expressed in terms of inches/hour.

X. "Ingress/Egress" shall mean the points of access to and from a property.

Y. "Inlet" shall mean an entrance into a ditch, storm sewer, or other waterway.

Z. "Land Disturbing Activity" shall mean a human induced change to improved or unimproved land, including, but not limited to, new home or building construction, expansion of an existing building or home, demolition activity, clearing, grubbing, leveling, excavation, fill operations, grading, trenching, landscaping, drainage, pipe installation, drilling, mining, dredging, road construction or improvement, paving, and improvements for use as parking or storage.

AA. "Municipal Separate Storm Sewer System" (MS4) shall mean a municipally owned and operated storm water collection system that may consist of any or all of the following shall mean curb and gutter, drainage swales, piping, ditches, canals, detention basins, inlet boxes, or any other system used to convey storm water that discharges into canals, ditches, streams, rivers, or lakes not owned and operated by that County.

AB. "Mulch" shall mean a natural or artificial layer of plant residue or other materials covering the land surface which conserves moisture, holds soil in place, aids in establishing plant cover, and minimizes temperature fluctuations.

AC. "Non-point Source" shall mean pollution caused by diffuse sources (not a single location such as a pipe) such as agricultural or urban run-off.

AD. "NPDES (National Pollutant Discharge Elimination System)" shall mean EPA's program to control the discharge of pollutants to waters of the United States.

AE. "NPDES Permit" shall mean an authorization, or license, or equivalent control document issued by EPA or an approved state agency to implement the requirements of the NPDES program.

AF. "Off-site" shall mean any area lying upstream of the site that drains onto the site and any area lying downstream of the site to which the site drains.

AG. "On-site" shall mean the entire property that includes the proposed development.

AH. "Outfall" shall mean the point, location, or structure where wastewater or drainage discharges from a sewer pipe, ditch, or other conveyance to a receiving body of water.

AI. "Point Source" shall mean 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, or vessel or other floating craft, from which pollutants are or may be discharged.

AJ. "Plat" shall mean a map or representation of a subdivision showing the division of a tract or parcel of land into lots, blocks, streets, or other divisions and dedications.

AK. "Pollutant" shall mean generally, any substance introduced into the environment that adversely affects the usefulness of a resource. Pollutants may include, but are not limited to, paints, 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, and accumulations, so that same may cause or contribute to pollution; floatables; pesticides, herbicides, and fertilizers; hazardous substances and wastes; sewage, fecal coliform and pathogens; dissolved and particulate metals; animal wastes; wastes and residues that result from constructing a building or structure; and noxious or offensive matter of any kind.

AL. "Receiving Waters" shall mean bodies of water or surface water systems receiving water from upstream constructed (or natural) systems.

AM. "Retention" shall mean the holding of run-off in a basin without release except by means of evaporation, infiltration, or emergency bypass.

AN. "Riparian" shall mean a relatively narrow strip of land that borders a stream or river.

AO. "Riprap" shall mean a combination of large stone, cobbles and boulders used to line channels, stabilize banks, reduce run-off velocities, or filter out sediment.

AP. "Run-off" shall mean that part of precipitation, snow melt, or irrigation water that runs off the land into streams or other surface water. It can carry pollutants from the air and land into the receiving waters.

AQ. "Run-on" shall mean storm water surface flow or other surface flow which enters property other than that where it originated.

AR. "Sedimentation" shall mean the process of depositing soil particles, clays, sands, or other sediments that were picked up by run-off.

AS. "Sheet Flow" shall mean run-off which flows over the ground surface as a thin, even layer, not concentrated in a channel.

AT. "Source Control" shall mean a practice or structural measure to prevent pollutants from entering storm water run-off or other environmental media.

AU. "Stabilization" shall mean the proper placing, grading and/or covering of soil, rock, or earth to ensure its resistance to erosion, sliding, or other movement.

AV. "Storm Drain" shall mean a slotted opening leading to an underground pipe or open ditch for carrying surface run-off.

AW. "Storm Water" shall mean rainfall run-off, snow melt run-off, and drainage. It excludes infiltration.

AX. "Storm Water Pollution Prevention Plan" shall mean a document which describes the Best Management Practices and activities to be implemented by a person or business to identify sources of pollution or contamination at a site and the actions to eliminate or reduce pollutant discharges to storm water, storm water conveyance systems, and/or receiving waters.

AY. "Swale" shall mean an elongated depression in the land surface that is at least seasonally wet, is usually heavily vegetated, and is normally without flowing water. Swales direct storm water flows into primarily drainage channels and allow some of the storm water to infiltrate into the ground surface.

AZ. "Treatment Control BMP" shall mean a BMP that is intended to remove pollutants from storm water.

BA. "Waters of the State" shall mean surface waters and ground waters within the boundaries of the State of Utah and subject to its jurisdiction.

BB. "Waters of the United States" shall mean surface watercourses and water bodies as defined in Title 40 Part 122.2 of Code of Federal Regulation (CFR) including all natural waterways and definite channels and depressions in the earth that may carry water, even though such waterways may only carry water during rains and storms and may not carry storm water at and during all times and seasons.

BC. "Wetlands" shall mean an area that is regularly saturated by surface or ground water and subsequently characterized by a prevalence of vegetation that is adapted for life in saturated soil conditions. Examples include, but are not limited to, swamps, bogs, marshes, and estuaries.

(Ord. 01-2006, Add, 02/22/2006)

Section 14.24.030 Applicability

This ordinance shall apply to all water entering the storm drain system generated on any developed and undeveloped lands unless explicitly exempted by an authorized enforcement agency.

(Ord. 01-2006, Add, 02/22/2006)

Section 14.24.040 Responsibility Of Administration

The Public Works Department shall administer, implement, and enforce the provisions of this ordinance. Any powers granted or duties imposed upon the authorized enforcement agency may be delegated in writing by the Director of Public Works to persons or entities acting in the beneficial interest of or in the employ of the agency.

(Ord. 01-2006, Add, 02/22/2006)

Section 14.24.050 Ultimate Responsibility

The standards set forth herein and promulgated pursuant to this ordinance are minimum standards; therefore, this ordinance does not intend nor imply that compliance by any person will ensure that there will be no contamination, pollution, nor unauthorized discharge of pollutants.

(Ord. 01-2006, Add, 02/22/2006)

Section 14.24.060 Prohibitions

It is unlawful for any person to:

A. Track mud or sediment onto public streets by construction or delivery vehicles. Provisions shall be made at all construction sites to either clean the streets or clean the vehicles or both before vehicles leave the site.

B. Wash out concrete trucks at all 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 Department. This includes, but is not limited to, ramps being constructed for temporary access across the existing curb and gutter; stockpiling of topsoil or other fill material;

stockpiling of sand, gravel, landscape rock, bark, mulch or any other material that may be considered a source of pollution in the storm water system.

(Ord. 01-2006, Add, 02/22/2006)

Section 14.24.070 Illicit Discharges

No person shall discharge or cause to be discharged into the municipal storm drain system or watercourses any materials including, but not limited to, pollutants or waters containing any pollutants that cause or contribute to a violation of applicable water quality standards other than storm water.

A. The commencement, conduct or continuance of any illegal discharge to the storm drain system is prohibited except as described as follows:
    1. Water line flushing or other potable water sources;
    2. Landscape irrigation or lawn watering;
    3. Diverted stream flows;
    4. Rising ground water;
    5. Ground water infiltration to storm drains;
    6. Uncontaminated pumped ground water;
    7. Foundation or footing drains (not connected to floor drains);
    8. Crawl space sump pumps;
    9. Air conditioning condensation;
    10. Springs;
    11. Non-commercial washing of vehicles;
    12. Natural riparian habitat or wetland flows;
    13. Swimming pools (if de-chlorinated - typically less than one PPM chlorine);
    14. Fire fighting activities, and any other water source not containing pollutants;
    15. Discharges specified in writing by the authorized enforcement agency as being necessary to protect public health and safety.

B. Dye testing is an allowable discharge, but requires a verbal notification to the authorized enforcement agency prior to the time of the test.

C. The prohibition shall not apply to any non-storm water discharge permitted under an NPDES permit, waiver, or waste discharge order issued to the discharger and administered under full compliance with all requirements of the permit, waiver, or order and other applicable laws and regulations, and provided that written approval has been granted for any discharge to the storm drain system.

D. This prohibition expressly includes, without limitation, illicit connections made in the past, regardless of whether the connection was permissible under law or practices applicable or prevailing at the time of connection. This prohibition also expressly includes, without limitation, connections of sanitary sewer lines to the MS4.

(Ord. 01-2006, Add, 02/22/2006)

Section 14.24.080 Erosion Control On Construction Sites

A. Permits for Construction Sites 1 Acre or Larger.

1. Any person or business responsible for disturbing one acre or more of ground shall obtain a General Construction County Storm Water Permit from the Public Works Department.
2. No person shall be granted a General Construction County Storm Water Permit for land-disturbing activity that would require the uncovering of 1 acre or more without the approval of a Storm Water Pollution Prevention Plan by the Public Works Department.
3. A General Construction Storm Water Permit is not required for the following activities:
    a. Any emergency activity that is immediately necessary for the protection of life, property, or natural resources.
    b. Existing nursery and agricultural operations conducted as a permitted main or accessory use.
4. Each application shall bear the name and address of the owner or developer of the site, and of any consulting firm retained by the applicant together with the name of the applicant's principal contact at such firm and shall be accompanied by a filing fee.
5. The applicant will be required to file a faithful performance bond, letter of credit, or other improvement security in an amount deemed sufficient by the Public Works Department to cover all costs of improvements, landscaping, maintenance of improvements for such period as specified by the city, and engineering and inspection costs to cover the cost of failure or repair of improvements installed on the site.
6. The applicant must also obtain a General Construction Storm Water Permit from the Department of Environmental Quality, Division of Water Quality.

B. Application Review Fees.

1. The fee for review of the Construction Storm Water Permit shall be based on the amount of land to be disturbed at the site, and the fee structure shall be established by the Public Works Department and approved by County Commission.
2. All of the monetary contributions shall be credited to a local budgetary category to support local plan review, inspection and program administration, and shall be made prior to the issuance of any building permit for the development.

C. Waivers for Providing Storm Water Pollution Prevention Plan. Every applicant shall provide for storm water pollution prevention plan as required by this ordinance, unless a written request is filed to waive this requirement. Requests to waive the storm water pollution prevention plan requirements shall be submitted to the Public Works Department for approval.

1. The minimum requirements for storm water pollution prevention plan may be waived in whole or in part upon written request of the applicant, provided that at least one of the following conditions applies:
    a. It can be demonstrated that the proposed development is not likely to impair attainment of the objectives of this ordinance.
    b. Alternative minimum requirements for on-site management of storm water discharges have been established in a storm water pollution prevention plan that has been approved by the Public Works Department and the implementation of the plan is required by local ordinance.

c. The Public Works Department finds that meeting the minimum on-site pollution prevention plans are not feasible due to the natural or existing physical characteristics of a site.

d. Non-structural practices will be used on the site that reduces:

(1) The generation of storm water from the site;

(2) The size and cost of storm water storage; and

(3) The pollutants generated at the site.

The amount of credit available for using such non-structural practices shall be determined by the Public Works Department.

2. In instances where one of the conditions above applies, the Public Works Department may grant a waiver from strict compliance with these storm water pollution prevention plans, as long as acceptable mitigation measures are provided. However, to be eligible for a variance, the applicant must demonstrate to the satisfaction of the Public Works Department that the variance will not result in the following impacts to downstream waterways:

a. Deterioration of existing culverts, bridges, dams, and other structures;

b. Degradation of biological functions or habitat;

c. Accelerated stream bank or streambed erosion or siltation;

d. Increased threat of flood damage to public health, life, property.

D. Storm Water Management Plan.

1. A Storm Water Management Plan shall be required with all permit applications and will include sufficient information (e.g., maps, hydrologic calculations, etc.) to evaluate the environmental characteristics of the project site, the potential impacts of all proposed development of the site, both present and future, on the water resources, and the effectiveness and acceptability of the measures proposed for managing storm water generated at the project site.

2. The intent of this planning process is to determine the type of storm water management measures necessary for the proposed project, and ensure adequate planning for management of storm water run-off from future development.

3. The Storm Water Management Plan shall be prepared in accordance with the checklist provided by the Public Works Department.

4. For development or redevelopment occurring on a previously developed site, an applicant shall be required to include within the storm water management plan measures for controlling existing storm water runoff discharges from the site in accordance with the standards of this Ordinance to the maximum extent practicable.

E. Fee in Lieu of Storm Water Management Practices.

1. Where the Public Works Department waives all or part of the minimum storm water management requirements, or where the waiver is based on the provision of adequate storm water facilities provided downstream of the proposed development, the applicant shall be required to pay a fee in an amount as determined by the Public Works Department.

2. When an applicant obtains a waiver of the required storm water management, the monetary contribution required shall be in accordance with a fee schedule (unless the developer and the storm water authority agree on a greater alternate contribution) established by the Public Works Department, and based on the cubic feet of storage required for storm water management of the development in question.

3. All of the monetary contributions shall be credited to an appropriate capital improvements program project, and shall be made by the developer prior to the issuance of any building permit for the development.

F. Dedication of Land.

1. In lieu of a monetary contribution, an applicant may obtain a waiver of the required storm water management by entering into an agreement with the Public Works Department for the granting of an easement or the dedication of land by the applicant, to be used for the construction of a storm water management facility.

2. The agreement shall be entered into by the applicant and the Public Works Department prior to the recording of plats or, if no record plat is required, prior to the issuance of the building permit.

G. Review and Approval.

1. The Public Works Department will review each application to determine its conformance with the provisions of this regulation. Within 30 days after receiving an application, the Public Works Department shall, in writing:

    a. Approve the permit application;

    b. Approve the permit application subject to such reasonable conditions as may be necessary to secure substantially the objectives of this regulation, and issue the permit subject to these conditions; or

    c. Disapprove the permit application, indicating the reason(s) and procedure for submitting a revised application and/or submission.

2. Failure of the Public Works Department to act on an original or revised application within the specified time period shall authorize the applicant to proceed with the plans as filed unless such time is extended by agreement between the applicant and the Public Works Department.

H. Inspection. Field inspections shall be conducted by the Public Works Department or other designated agent as outlined in the inspection checklist provided by the Public Works Department.

I. As Built Plans.

1. All applicants are required to submit an actual "as built" plan for any storm water management practices located on-site after final construction is completed.

2. The plan must show the final design specifications for all storm water management facilities and must be certified by a professional engineer. A final inspection by the Public Works Department is required before the release of any performance securities can occur.

(Ord. 01-2006, Add, 02/22/2006)

Section 14.24.090 Post Construction

Unless judged by the Public Works Department to be exempt or granted a waiver, the following performance criteria shall be addressed for storm water management at all sites:

A. All site designs shall establish storm water management practices to control the peak flow rates.

    1. Transmission pipes shall be designed to accommodate a ten year, one hour storm, and regional detention basins shall be designed to facilitate a 100 year, one hour storm, with a 0.2 cfs per acre discharge and local on-site detention basins shall be designed to facilitate a 25 year, one hour storm.

    2. These practices should seek to utilize pervious areas for storm water treatment and to infiltrate storm water run-off from driveways, sidewalks, rooftops, parking lots, and landscaped areas to the maximum extent practical to provide treatment for both water quality and quantity.

B. All storm water run-off generated from new development shall not discharge untreated storm water directly into a jurisdictional wetland or waters of the state without adequate treatment. In no case shall the impact on functional values be any greater than that allowed by the Army Corp of Engineers (ACE) or the Department of Environmental Quality (DEQ) responsible for natural resources.

C. Annual groundwater recharge rates shall be maintained by promoting infiltration through the use of structural and non-structural methods. At a minimum, annual recharge from the post development site shall mimic the annual recharge from pre-development site conditions.

D. For new development, structural best management practices (BMP's) shall be designed to remove 75% of the average annual post development total suspended solids load (TSS). It is presumed that a STP complies with this performance standard if it is:

    1. Sized to capture the prescribed water quality volume (WQV);

    2. Designed according to the specific performance criteria outlined in the American Public Works Association Manual;

    3. Constructed properly; and

    4. Maintained regularly.

E. Storm water discharges to critical areas with sensitive resources (i.e., cold water fisheries, shellfish beds, swimming beaches, recharge areas, water supply reservoirs) may be subject to additional performance criteria, or may need to utilize or restrict certain storm water management practices.

F. Storm water discharges from land uses or activities with higher potential pollutant loadings, known as "hotspots," may require the use of specific structural BMPs and pollution prevention practices.

(Ord. 01-2006, Add, 02/22/2006)

Section 14.24.100 Basic Storm Water Management Design Criteria

A. Site Design Feasibility. Storm water management practices for a site shall be chosen based on the physical conditions of the site. Among the factors that should be considered:

    1. Topography

2. Maximum Drainage Area
3. Depth to Water Table
4. Soils
5. Slopes
6. Ground cover
7. Location in relation to environmentally sensitive features or ultra-urban areas

B. Conveyance Issues. All storm water management practices shall be designed to convey storm water to allow for the maximum removal of pollutants and reduction in flow velocities. This shall include, but not be limited to:

1. Maximizing of flow paths from inflow points to outflow points
2. Protection of inlet and outfall structures
3. Elimination of erosive flow velocities
4. Providing of under drain systems, where applicable

C. Landscaping Plans Required. All storm water management practices must have a landscaping plan detailing both the vegetation to be used and who will manage and maintain this vegetation.

D. Maintenance Agreements. All Storm water treatment practices shall have an enforceable operation and maintenance agreement to ensure the system functions as designed.

1. This agreement will include any and all maintenance easements required to access and inspect the storm water treatment practices, and to perform routine maintenance as necessary to ensure proper functioning of the storm water treatment practice.
    a. The agreement shall include provisions allowing for access and inspections on a reasonable basis.
    b. In addition, a legally binding covenant specifying the parties responsible for the proper maintenance of all storm water treatment practices shall be secured prior to issuance of any permits for land disturbance activities.

2. If a responsible party fails or refuses to meet the requirements of the maintenance covenant, the Public Works Department, after reasonable notice, may correct a violation of the design standards or maintenance needs by performing all necessary work to place the facility in proper working condition.
    a. In the event that the storm water management facility becomes a danger to public safety or public health, the Public Works Department shall notify the party responsible for maintenance of the storm water management facility in writing.
    b. Upon receipt of that notice, the responsible person shall have 30 days to effect maintenance and repair of the facility in an approved manner.
    c. After proper notice, the Public Works Department may assess the owner(s) of the facility for the cost of repair work and any penalties; and the cost of the work shall be a lien on the property, or prorated against the beneficial users of the property, and may be placed on the tax bill and collected as ordinary taxes by the County.

(Ord. 01-2006, Add, 02/22/2006)

Section 14.24.110 Enforcement

A. Stop-Work Order; Revocation of Permit. In the event that any person holding a General County Construction Storm Water Permit pursuant to this Ordinance violates the terms of the permit or implants site development in such a manner as to materially adversely affect the health, welfare, or safety of persons residing or working in the neighborhood or development site so as to be materially detrimental to the public welfare or injurious to property or improvements in the neighborhood, the Public Works Department may suspend or revoke the site development permit, such that no work on storm water infrastructure shall be performed or approved.

B. Violation and Penalties.

1. Whenever the Public Works Department finds that a person has violated a prohibition or failed to meet a requirement of this Ordinance, the Department of Public Works may order compliance by written notice of violation to the responsible person. Such notice may require, without limitation:

    a. The performance of monitoring, analyses, and reporting;

    b. The elimination of illicit connections or discharges;

    c. That violating discharges, practices, or operations shall cease and desist;

    d. The abatement or remediation of storm water pollution or contamination hazards and the restoration of any affected property;

    e. Payment of a fine to cover administrative and remediation costs; and

    f. The implementation of source control or treatment BMP's.

2. Any person violating any of the provisions of this Ordinance shall be deemed guilty of a misdemeanor and each day during which any violation of any of the provisions of this Ordinance is committed, continued, or permitted, shall constitute a separate offense.

(Ord. 01-2006, Add, 02/22/2006)

Section 15.28.010 Compliance With Davis County Code

All land use, development, and subdivisions shall be in full compliance with the provisions of:

A. Chapter 14.04, Article E, regarding Flood Damage Prevention;
B. Chapter 12.04, regarding storm drainage systems;
C. Chapter 12.08, regarding irrigation water; and
D. All applicable County, State, and Federal laws, rules, regulations, and standards.

(Ord. 13-2007C, Add, 09/25/2007)