

Unincorporated Weber County

Storm Water Management Plan

November 2010

Weber County Engineering

2380 Washington Blvd., Suite 240

Ogden, UT 84401

(801) 399-8374

General Information

Storm Water Management Program Plan

Permittee: Weber County

Permit Number: UTR090022

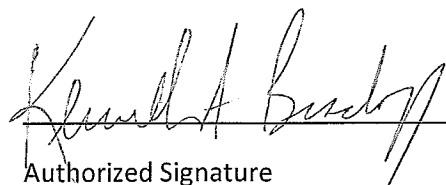
Location of MS4: Northern part of the Wasatch Front.

Submitted with this permit is the following:

- ☐ A map of the MS4 location
- ☐ Information Regarding the overall quality concerns, priorities, and measureable goals specific to the Permittee that were considered in the development and/or revisions to the SWMP document
- ☐ A description of the program elements that will be implemented in each of the six minimum control measures
- ☐ A description of any modifications to ordinances or long-term/ongoing processes implemented in accordance with the previous MS4 general permit for each of the six minimum control measures
- ☐ A description of how the Permittee intends to meet the requirements Permit as described in Part 4.0 by either referencing existing program areas that already meet the Permit requirements or a description and relevant measurable goals that include, as appropriate, the year by which the Permittee will achieve required actions, including interim milestones.
- ☐ If applicable indication of joint submittal of Co-Permittees and the associated responsibility in meeting requirements of the SWMP

Certification

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


Authorized Signature

11/30/2010
Date

Delegation of Authority

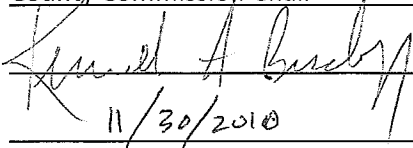
I, Kenneth A. Bischoff designate the person(s) or specifically described position(s) below to be a duly authorized representative for the purpose of overseeing compliance with environmental requirements, including the MS4 Permit. The designee is authorized to sign any reports, stormwater pollution prevention plans and all other documents required by the permit.

*Weber County Engineer
Curtis Christensen
2380 Washington Blvd.
Ogden, UT 84401
(801) 399-8374*

*Director of Operations
Nathan Pierce
444 24th Street
Ogden, UT 84401
(801) 625-3850*

By signing this authorization, I confirm that I meet the requirements to make such a designation as set forth in UTR090000, Section 6.8 and that the designee above meets the definition of a "duly authorized representative" as set forth in UTR090000, Section 6.8.

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

Name: Kenneth A. Bischoff
Company: Weber County
Title: County Commission Chair
Signature: 
Date: 11/30/2010

General Information

0.1 Introduction

The Clean Water Act required that all communities within certain metropolitan areas adopt a Storm Water Management Plan by March 8, 2003. Unincorporated Weber County, hereinafter referred to as “County”, in the Wasatch Front Metropolitan area falls under this requirement. This plan is intended to address the requirements for the County.

As a minimum, these requirements consist of community information, naming responsible persons, mapping, addressing the six Minimum Control Measures (MCM), establishing Best Management Practices (BMP’s), measurable goals and addressing the fiscal requirements of the plan. All of these items are discussed below. This document is being developed in accordance with the Small MS4 General UPDES Permit UTR090000. Weber County has been issued permit #UTR090022.

0.2 Community Information

The Weber County is located on the Wasatch Front. The Unincorporated areas of Weber County mainly include the western and the eastern portions of the county. The eastern portion of the County is very mountainous, and has several water bodies, including Pineview Reservoir and Causey Reservoir. The population of the entire county from the 2000 Census is 196,533. The majority of the land use in the community is agricultural with some residential, commercial and industrial.

0.3 Responsible Persons

The responsible persons for the Storm Water System are the current Public Works Director, and The County Engineer:

Nathan Pierce, Public Works Director
444 24th Street
Ogden, UT 84401
Office: (801) 625-3850

Curtis Christensen, Weber County Engineer
2380 Washington Blvd., Suite 240
Ogden, UT 84401
Office: (801) 399-8374

Please see the included Organizational Chart for additional responsibilities.

0.4 Storm Water Mapping

Included with this Plan, in Appendix G, is a map showing the storm drain system of the County. All discharges from the County are indicated. Master Plan pipes are also shown on the map.

0.5 Priorities and Concerns

There have been pollutants of concern added to the different Minimum Control Measures. Please refer to the MCMs to view the concerns for each different area.

0.6 Impaired Waters

Weber County does not currently discharge to any waters that are on the TMDL list.

0.7 Shared Responsibilities

The County entered into some inter-local agreements in 2003 with several of the cities in the county. The agreements are located in Appendix F. The County has agreed to help with part of MCM1, MCM2, and MCM3. The county is only assisting in these areas. Please refer to the actual agreements for the specific details of what the County is going to do.

0.8 Minimum Control Measures (MCM's)

The Phase II Rule defines a small municipal separate storm sewer systems (MS4s) storm water management program as a program comprising six elements that are expected to result in significant reductions of pollutants discarded into receiving water bodies. The six MS4 program elements, termed "minimum control measures," are:

1. Public Education and Outreach
2. Public Involvement and Participation
3. Illicit Discharge Detection and Elimination
4. Construction Site Runoff Control
5. Post Construction Storm Water Management
6. Pollution Prevention/Good House Keeping

They are discussed in the order given with the Measurable Goals, Implementation Schedule, and Fiscal Ability for each BMP. The format for the majority of the BMPs is similar to other communities on the Wasatch Front, having been originally obtained from Salt Lake County's Storm Water Management Plan.

The measurable goals are mandated by the EPA. A community must be showing improvement over time with these goals. The Implementation Schedule is also included in the section, indication when the goals will be reached. Fiscal Ability is the ability of the County to properly administer the BMP. The table in the section briefly discusses the plan of the County's to meet these goals. Best Management Practices (BMP) gives the details for the goals and provides information for staff and the public to implement this practice.

0.9 Appendices

This Storm Water Management Plan includes several appendices, which are as follows.

1. Appendix A – Supplemental Guide for Contractors
2. Appendix B – Supplemental Guide for Public Works
3. Appendix C – IDDE Program
4. Appendix D – Documentation
5. Appendix E – Ordinances
6. Appendix F – State/County Permits
7. Appendix G – Maps

Public Education and Outreach

Public Education and Outreach

Minimum Control Measure 1

1.1 Introduction

The County has committed to Joint Permit with many of the incorporated cities within Weber County to meet the requirements of Public Education and Outreach. As a condition of the joint permit, the County will provide materials and coordinate educational activities on a county-wide and regional level, including but not limited to media and public relations, publications and advertisements, and school outreach programs. The County may respond to concerns from city officials and relevant public committee recommendations.

1.2 Measurable Goals and Fiscal Ability

Please refer to the tables in this section which summarize the BMP's, Measurable Goals, Implementation Schedule for each BMP.

1.3 Best Management Practices (BMP)

Included in Appendix B are the fact sheet that are referenced from the measurable-goals. There are also other BMPs listed on the Weber County Engineering website that include other possible BMPs for various applications. The format is similar to other communities on the Wasatch Front, having been originally obtained from Salt Lake County.

**General Permit for Discharges from Small Municipal
Separate Storm Sewer Systems (MS4s)
Measurable Goals**

MCM	Target		Desired Result	Measurable Goal	Milestone Date	Associated BMPs	Measure of Success (Effectiveness)
	Pollutant(s)	Audience(s)					
1	Trash, yard waste, chemicals	Residents and Businesses	4.2.1.1 To educate audiences about impacts from storm water discharge	Continue supporting TV ads	Ongoing	PEP and UM	Ads continue to run
1	Trash, yard waste, chemicals, erosion	Residents (4th graders)	4.2.1.1 To educate audiences on ways to avoid, minimize, and reduce impacts of storm water discharge	Continue storm water fair annually	Annually	PEP and CESW	Fair occurs annually
1	Trash, yard waste, chemicals	Residents and Businesses	4.2.1.1 To educate audiences on actions individuals can take to improve water quality	Continue supporting TV ads	Ongoing	PEP and UM	Ads continue to run
1	See list in "desired result" column	General Public	4.2.1.2 Information is provided to target audience on prohibitions against illicit discharges and improper disposal of waste including: maintenance of septic systems; effects of outdoor activities, such as lawn care; benefits of on-site infiltration of storm water; effects of automotive work and car washing on water quality; proper disposal of swimming pool water; and property management of pet wastes.	Include information on the website and in Weber County office newsletter.	Ongoing	PEP and UM	Information is current on website and included Weber County newsletter.

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MCM	Target		Desired Result	Measurable Goal	Milestone Date	Associated BMPs	Measure of Success (Effectiveness)
	Pollutant(s)	Audience(s)					
1	See list in "desired result" column	Business and Institutions	4.2.1.3 Information is provided to target audience on prohibitions against illicit discharges and improper disposal of waste including: Proper lawn maintenance Benefits of appropriate on-site infiltration of storm water Building and equipment maintenance Use of salt or other deicing materials Proper storage of materials Proper management of waste materials and dumpsters Proper management of parking lot surfaces.	Include information on the website and distribute a brochure to businesses with the business license renewal.	annually	PEP and UM	Information is current on website and brochures are distributed.
1	Illicit discharge and waste	Contractors, Developers, and plan review staff	4.2.1.4 Reduce adverse impacts from development sites	Assemble packets of information on SWPPP and BMPs that the contractor must read and sign.	By July 2011	EM	Information packets are signed for every new development.

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MCM	Target		Desired Result	Measurable Goal	Milestone Date	Associated BMPs	Measure of Success (Effectiveness)
	Pollutant(s)	Audience(s)					
1	Illicit discharge and waste	Facility Maintenance and Public Works Employees	4.2.1.5 Information is provided to target audience on prohibitions against illicit discharges and improper disposal of waste including: Equipment inspection to ensure timely maintenance Benefits of appropriate on-site infiltration of storm water Minimization of use of salt or other deicing materials Proper storage of industrial materials Proper management of waste materials and dumpsters Proper management of parking lot surfaces.	Have training semi-annually on illicit discharges.	First training by July 2011	ET	Training occurs twice a year
1	All pollutants	Permittee engineers, development and plan review staff, land use planners	4.2.1.6 Training on LID, Green Infrastructure, and post construction BMPs	Require an annual meeting with all engineers, development and plan review staff, and land use planners to review acceptable LID practices	By July 2011		Annual meeting occurs
1	All pollutants	All Audiences	4.2.1.7 Evaluate the effectiveness of the public education program by a defined method.	Research evaluation methods and select the best one. Implement the selected evaluation method.	Research by April 2011 Implementation by April 2012		Evaluation method chosen (2011) and implemented (2012)
1	All pollutants	All Audiences	4.2.1.8 Document why certain BMPs were chosen for public education program (over others)	Include an explanation in the SWMP.	January 1, 2011		Documented rationale included in the SWMP.

Public Involvement and Participation

Public Involvement and Participation

Minimum Control Measure 2

2.1 Introduction

The County has committed to Joint Permit with many of the incorporated cities within Weber County to meet the requirements of Public Involvement and Participation. As a condition of the joint permit, the County may establish a county-wide storm water advisory committee for public participation and for addressing storm water issues.

2.2 Pollutants of Concern

Consider what happens to detergents from washing your car, leave and lawn clippings left in the gutter, or litter that is carelessly deposited alongside of the road. These are the kinds of pollutants that flow into the storm drain system. Below is a brief description of some of the more typical stormwater pollutants and potential impacts these pollutants may have on waterways.

Sediment

Sediment can be harmful to aquatic life (plants, fish, and other animals that live in lakes and streams). Light needed by plants in water is blocked by sediments. Sediments can carry chemicals that are toxic and that cause the oxygen in water to be used up. Sediments clog fish gills and fill in the places they hide. Sediment generally is the result of soil erosion from lawns, hillsides, and gardening/landscaping activities.

Floatables

Floatables are pieces of litter in the water. They may be contaminated with toxic chemicals and bacteria. Floatables are also an eyesore in our waterways. Commonly observed floatables include cigarettes, plastic containers, wrappers, and cans. Floatables such as these are generally the result of careless handling practices or littering.

Bacteria and Viruses

Bacteria are washed with animal excrement and leakage from sewers and septic tanks into waterways. These organisms can cause disease in both animals and humans. Biological contaminants come from litter, organic matter, and animal waste.

Oxygen Demanding Substances

The chemical breakdown of organic materials (leaves, excrement and street litter) washed into waterways decreases levels of dissolved oxygen in water. Aquatic life requires this oxygen to exist.

Nutrients

Nutrients such as nitrogen and phosphorus result in excessive plant growth that clogs waterways, blocks sunlight, and reduces oxygen. Some sources of nutrients are fertilizer, excrement, and detergents.

Oil and Grease

Petroleum products (gasoline, oil, and grease) may be toxic to aquatic life, even in small amounts. Oil and grease in storm drains can generally be traced to automotive leaks and spills or improper disposal of used oil and automotive products into storm drains.

Pesticides, Herbicides and Fertilizers

Excess amounts of pesticides, herbicides, and fertilizers applied to yards, lawns and greenways are washed into streams during rainfall events. These chemicals can cause increased algae growth and toxicity to organisms.

Metals

Metals Such as lead, zinc, mercury, copper, and cadmium in water, can be toxic to humans, aquatic life and other animals that drink the water. Metals come from vehicle exhaust, weathered paint, metal plating, tires and motor oil.

Toxic Substances

Gasoline, household products, and paint thinner are examples of toxic substances. These substances can deplete oxygen in waterways and cause toxic effects in living organisms.

2.3 General Practices

As citizens, there are many things that we can do to protect the water in our environment. These general practices can be executed by simpler changes to routine habits. With every resident practicing good housekeeping and material management, great effects can be seen in local water quality. Here are just a few:

Household and Home Maintenance

- ✓ Buy household products such as cleaners and furniture polish labeled “non-toxic”. Use small quantities and purchase only the amount you need.
- ✓ Follow manufacturer’s recommendations for use and storage of all toxic products, including cleaners, solvents, and paints.
- ✓ Properly dispose of household hazardous wastes (any toxic substances) at solid waste facilities.
- ✓ Rinse paint brushes in the sink. Filter and reuse paint thinner or brush cleaners. Dispose of used materials at a hazardous materials collection event.
- ✓ Recycle reusable materials. Throw litter into trash cans and keep cans tightly covered to prevent foraging by neighborhood animals.

Lawn and Garden

- ✓ Minimize the use of pesticides, herbicides and fertilizers; apply carefully and sweep up excess.
- ✓ Use a broom rather than a hose to clean up sidewalks and driveways. Do not hose down gutter.
- ✓ Deposit leaves and clippings in a garbage can or a compost pile.
- ✓ Divert rain spouts and garden hoses from paved surfaces onto grass or garden areas to allow filtration through the soil. Water only your lawn and garden.

- ✓ Control sediment migration and erosion, don't let it reach the gutter, sweep up and re-use it.
- ✓ Do not over-water – Don't be a "gutterflooder".
- ✓ Pick-up, bag, and dispose of pet waste in a garbage can.

Automotive

- ✓ Recycle used motor oil and antifreeze at automotive centers.
- ✓ Have your car inspected and maintained regularly to reduce leakage of oil, antifreeze and other fluids.
- ✓ Reduce automotive emissions through regular auto maintenance, ride sharing, and by using public transportation.
- ✓ Conserve water when using your car and use biodegradable soap.

Non-point source pollution comes from many sources and its control is everyone's responsibility. Pollution prevention and good housekeeping practices are essential to reducing non-point source pollution. From the individual gardener to the public official, everyone has a stake in protecting our resources. The best place to get started is your own backyard and garage.

Current programs established to assist with disposal of household chemicals include:

2.4 Measurable Goals and Fiscal Ability

Please refer to the tables in this section which summarize the BMP's, Measurable Goals, Implementation Schedule for each BMP.

2.5 Best Management Practices (BMP)

Included in Appendix B are the fact sheet that are referenced from the measurable-goals. There are also other BMPs listed on the Weber County Engineering website that include other possible BMPs for various applications. The format is similar to other communities on the Wasatch Front, having been originally obtained from Salt Lake County.

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Separate Storm Sewer Systems (MS4s)
Measurable Goals**

MCM	Target		Desired Result	Measurable Goal	Milestone Date	Associated BMPs	Measure of Success (Effectiveness)
	Pollutant(s)	Audience(s)					
2	All pollutants	General public	4.2.2.1 Have a program or policy in place that allows for the public to provide input	Notify the public 7 days in advance of the meeting when the SWMP update will be reviewed.	By December 1 2010	PEP	The program or policy is in place
2	All pollutants	General public	4.2.2.2 Have SWMP document available for public review before it's submitted to the state	Have a copy of the draft of the SWMP available at the Engineering office Friday prior to the public hearing	Friday before meeting (in order to be complete by Dec. 1)	PEP	SWMP document is available for public review a week before public hearing
2	All pollutants	General public	4.2.2.3 Have SWMP document available to the public at all times	Post the SWMP on the website	By December 1, 2010	PEP	SWMP is updated and posted on the website
2	All pollutants	General public	4.2.2.3 Make updated SWMP document available to the public annually	Post updated SWMP annually	Ongoing	PEP	SWMP is updated and posted on the website annually
2	All pollutants	General public	4.2.2.4 Comply with State and Local public notice requirements	Research and document what the State and Local public notice requirements are. Set goals to comply with them.	By December 1, 2010	PEP	Understand what the state and local public notice requirements are.

Illicit Discharge Detection and Elimination

Illicit Discharge Detection and Elimination

Minimum Control Measure 3

3.1 Introduction

The County has committed to Joint Permit with many of the incorporated cities within Weber County to help meet the requirements of Illicit Discharge Detection and Elimination. As a condition of the joint permit, the County will only help with the mapping and coordinating of discharges that occur in multiple jurisdictions, or as otherwise crosses jurisdictional boundaries between different cities.

3.2 Measurable Goals and Fiscal Ability

Please refer to the tables in this section which summarize the BMP's, Measurable Goals, Implementation Schedule for each BMP.

3.3 Best Management Practices (BMP)

The following pages consist of the BMP's for the County. Each page represents a separate BMP with details given. The intent of this section is to provide a variety of practices that could be related to Illicit Discharge Detection and Elimination. The format is similar to other communities on the Wasatch Front, having been originally obtained from Salt Lake County's Storm Water Management Plan.

3.4 Storm Water Mapping

Included in Appendix B are the fact sheet that are referenced from the measurable-goals. There are also other BMPs listed on the Weber County Engineering website that include other possible BMPs for various applications. The format is similar to other communities on the Wasatch Front, having been originally obtained from Salt Lake County.

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MCM	Target		Desired Result	Measurable Goal	Milestone Date	Associated BMPs	Measure of Success (Effectiveness)
	Pollutant(s)	Audience(s)					
3	All Pollutants	Contractors, Developers, County Commission	4.2.3 Enforcement ability for storm water rules	Review and update the ordinance to conform with new permit	Draft by Aug 2011 & Final Feb 2012	OD	If ordinance is in place and meets the permit requirements
3	N/A	Public Works	4.2.3.1 Maintain Storm Water Map	Establish policy to maintain a Current SD System Map on all new developments	Completed by July 1, 2011	MSWD	If policy is in place and meets the permit requirements
3	"	"	"	Implementing policy and have all map updates done within 12 months of development completion	Completed by July 1, 2012	MSWD	Successful if 90% are input within 12 months
3	"	"	"	Implementing policy and have all map updates done within 6 months of development completion	Completed by July 1, 2014	MSWD	Successful if 90% are input within 6 months
3	All Pollutants	All Audiences	4.2.3.2 Develop, implement, and prepare in writing a plan to detect and address non-SW discharges	Do Dry weather screening 20% of all outfalls each year	1 July of each year	NSWD	Successful if all screens are done
3	"	"	"	Have SOP in place and training to Staff	Complete by July 1, 2011	NSWD	Successful if completed by that date and staff is following SOP
3	All Pollutants	All Audiences	4.2.3.4 Develop and implement standard operating procedures for tracing the source of illicit discharge	Have SOP in place and training to Staff	Complete by July 1, 2013	IIC	SOP in place and training being held
3	All Pollutants	All Audiences	4.2.3.5 Develop and implement standard operating procedures for characterizing the nature of any illicit discharges found or reported to the Permittee by the hotline developed in 4.2.3.9	Create the Incidence Response SOP, complaint form, and train personnel	Completed by July 1, 2011	IIC, CH	Successful if completed by that date and staff is following SOP
3	"	"	"	Review SOP with staff and provide training annually.	Ongoing	IIC, CH	Successful if training is completed annually for all staff involved in incident reporting.
3	All Pollutants	All Audiences	4.2.3.6 Develop and implement standard operating procedures for ceasing the illicit discharge	Create the Incidence Response SOP and train personnel	Completed by July 1, 2011	IDC, ISDC	

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MCM	Target		Desired Result	Measurable Goal	Milestone Date	Associated BMPs	Measure of Success (Effectiveness)
	Pollutant(s)	Audience(s)					
1	All Pollutants	Public Employees, Businesses and Residents	4.2.3.7 Inform public employees, businesses, and general public of hazards associated with illicit discharges and improper disposal of waste	See MCM 1		PEP, ET	See MCM 1
3	Household Hazardous Waste	Residents	4.2.3.8 Promote or provide services for the collection of household hazardous waste	Put the Transfer Station Address and Phone number on County Web Site	Completed by July 1, 2011	UOR, HWM	Successful if complete by that date
3	Household Hazardous Waste	Residents	4.2.3.9 Publicly list and publicize a hotline or other telephone number for public reporting of spills and other illicit discharges	Put the Address and Phone number on County Web Site	Completed by July 1, 2011	CH	Successful if complete by that date
3	All Pollutants	All Audiences	4.2.3.10 Adopt and implement procedures for program evaluation and assessment. Include a database for mapping, tracking of the spills or illicit discharges identified and inspections conducted	Create a spreadsheet for tracking Illicit Discharges	Completed by July 1, 2011	IIC, MSWD	Successful if complete by that date
3	"	"	"	Incorporate the spreadsheet into a GIS Database	Completed by July 1, 2013	MSWD	Successful if complete by that date
3	"	"	"	Train Storm Water Personnel on GIS Mapping uses	Completed by July 1, 2015	ET	Successful if complete by that date

Construction Site Runoff Control

Construction Site Runoff Control

Minimum Control Measure 4

4.1 Introduction

The County has no responsibility for this control measure, outside unincorporated areas, except for mutual cooperation and coordination with a City at the City's request.

4.2 Pollutants of Concern

Sediment in stormwater is the primary pollutant of concern for construction activities. Other pollutants including heavy metals, nutrients, and additional toxics (construction materials and chemicals) are often found in runoff waters from construction sites. The following sections address stormwater runoff from the pollutants of concern associated with construction site activities along with impacts to receiving waters caused by these pollutants.

Sediment

Soil erosion is the process by which soil particles are removed from the land surface by wind, water, or gravity. Water erosion is the primary mechanism for the transport of sediment into stormwater systems and receiving waters. Vegetation protects soil from erosion by intercepting and absorbing rainfall, and by binding soil together with root structures. When trees and brush are removed, soil is exposed and is easily transported off site, resulting in increased sediment migration. Natural depressions and hills which temporarily pond water are often removed by grading activities; rainfall then runs off the area, taking with it soil particles. Runoff from areas which have been cleared and grubbed are associated with generally higher volumes of flow conveyed at an increased velocity capable of carrying sediment particles.

Excessive sediment in water can cause increased turbidity and reduced light penetration, resulting in impaired vision for aquatic life, clogging of fish gills, and a reduction in aesthetic values. In addition, other substances such as nutrients, heavy metals, and hydrocarbons tend to attach to sediment and in turn are transported with the sediment.

Nutrients

Nutrients, nitrogen and phosphorus, from fertilizers, pesticides, construction chemicals, and solid waste are often generated at construction sites. Excessive discharge into waterways may result in algae growth which can cause odor problems and reduce the dissolved oxygen available to fish and other aquatic life.

Oils and Greases

Oil and grease contain a wide array of hydrocarbon compounds, some of which are toxic to aquatic organisms at low concentrations. The main sources of oil and grease during construction activities are leakage from engines, spills at fueling stations, overfilled tanks, and waste oil disposal.

Other Toxic Chemicals

Construction of buildings and roads may require toxic or hazardous materials such as pesticides, herbicides, petroleum products, and building materials such as asphalt, sealants and concrete which

may pollute stormwater running off the construction site. These types of pollutants often contain small amounts of metals and other toxic materials which may be harmful to humans, plants, and fish in streams.

Miscellaneous Wastes

Miscellaneous wastes include wash water from concrete mixers, paints and painting equipment cleaning activities, solid wastes resulting from trees and shrubs removed during land clearing, wood and paper materials derived from packaging of building products, food containers such as paper, aluminum, and metal cans, and sanitary wastes. The discharge of these can lead to unsightly and polluted waterways.

4.3 Measurable Goals and Fiscal Ability

Please refer to the tables in this section which summarize the BMP's, Measurable Goals, Implementation Schedule for each BMP.

4.4 Best Management Practices (BMP)

Included in Appendix B are the fact sheet that are referenced from the measurable-goals. There are also other BMPs listed on the Weber County Engineering website that include other possible BMPs for various applications. The format is similar to other communities on the Wasatch Front, having been originally obtained from Salt Lake County.

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MCM	Target		Desired Result	Measurable Goal	Milestone	Assoc.	Measure of Success (Effectiveness)
	Pollutant(s)	Audience(s)			Date	BMP	
4	Sediment, Construction Site Debris, Hydrocarbons	Contractors and Developers	4.2.4.1 Raise awareness of contractors and developers on what is expected on construction sites	Require a SWPPP for every construction site as required by UPDES	Feb. 2012	OD	Successful if 95% of all new construction sites have a NOI
4	Sediment, Construction Site Debris, Hydrocarbons	Contractors and Developers	4.2.4.2 Develop a written enforcement strategy and implement the enforcement provisions of the ordinance or other regulatory mechanism	Draft ordinance to include escalating enforcement provisions	July, 2011	OD	Successful if completed by milestone
4	Sediment, Construction Site Debris, Hydrocarbons	Contractors and Developers, County Commission, Plan Reviewers	Have an ordinance that is meaningful and enforceable	Revise ordinance to require a SWPPP on every active construction site as required by the UPDES	Feb. 2012	OD	If ordinance is in place and meets the permit requirements
4	"	"	"	Revise ordinance to include escalating enforcement provisions	Feb. 2012	OD	Successful if completed by milestone
4	"	"	4.2.4.2 Documentation and tracking of all enforcement actions	Develop and begin using a construction site enforcement action log/database	Feb. 2012	OD	Successful if we have a log and are using it
4	Sediment, Construction Site Debris, Hydrocarbons	Contractors and Developers	4.2.4.3 Develop and implement SOP's for pre-construction SWPPP review for construction sites	Develop checklist and begin to do preconstruction reviews of SWPPP	Feb. 2012	ECP	Successful if we are conducting SWPPP reviews
4	"	"	4.2.4.3.1 Conduct a pre-construction meeting	Hold Pre-con meetings on all sites greater than 1 acre or as part of common plan of development	Immediately		Successful if we are conducting Pre-con meetings

**General Permit for Discharges from Small Municipal
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Measurable Goals**

MCM	Target		Desired Result	Measurable Goal	Milestone	Assoc.	Measure of Success (Effectiveness)
	Pollutant(s)	Audience(s)			Date	BMP	
4	"	"	4.2.4.3.2 Incorporate into the SWPPP review procedures the consideration of potential water quality impacts and procedures for pre-construction review which shall include the use of a checklist.	Develop a policy to consider potential water quality impacts on all projects - private or municipal	Feb. 2012	ZO	Has the policy been created and is being followed
4	"	"	4.2.4.3.3 Incorporate into the SWPPP review procedures for an evaluation of opportunities for use of Low Impact Development (LID) and green infrastructure and when the opportunity exists, encourage such BMPs to be incorporated into the site design.	Develop a policy to consider Low Impact Development practices on all projects - private or municipal	Feb. 2012	ZO	Has the policy been created and is being followed
4	"	"	4.2.4.3.4 Identify priority construction sites, including at a minimum those construction sites discharging directly into or immediately upstream of waters that the State	Develop a "sensitive area" map showing areas within the county where "additional" protection may be desired	July, 2011	LIP	Successful when map is completed and ready for use
4	Sediment, Construction Site Debris, Hydrocarbons	Contractors and Developers	4.2.4.4.1 Inspections of all new construction sites ... at least monthly by qualified personnel	Conduct monthly inspections of new (started after August 1, 2010) construction sites - Emphasize self inspections - sensitive areas to be inspected twice monthly	Feb. 2012	CCIT	Successful if 90% of all new construction sites are inspected monthly

**General Permit for Discharges from Small Municipal
Separate Storm Sewer Systems (MS4s)
Measurable Goals**

MCM	Target		Desired Result	Measurable Goal	Milestone	Assoc.	Measure of Success (Effectiveness)
	Pollutant(s)	Audience(s)			Date	BMP	
4	"	Contractors, developers and MS4 staff	4.2.4.5 Provide training to municipal staff and 3rd party designers	Develop a policy to encourage all SWPPP inspectors to be registered or certified as an inspector by a 3rd party such as RSI, CPESC, CISEC, CESSWI, etc.	July, 2012	CCIT	Successful if completed by milestone
4	"	Contractors, developers and MS4 staff	4.2.4.4.2 ...The Permittee must include in its SWMP document a procedure for being notified by construction operators/owners of their completion of active construction so that verification of final stabilization and removal of all temporary control measures may be conducted.	Develop a written Notice of Termination process for use within the municipality	Feb. 2012	ECP	Successful if 95% of all active construction sites are terminated appropriately
4	"	Contractors, developers and MS4 staff	"	Train SWPPP inspectors, their supervisors, and any personnel who grant final occupancy permits on the NOT process	Feb. 2012	ECP	Successful if 95% of all active construction sites are terminated appropriately
4	"	"	4.2.4.4.3 Conduct Bi-weekly inspections on high priority construction sites	Develop a policy to have contractor Inspect high priority sites using the state form, and submit it to us monthly	Feb. 2012	ECP	Successful if all high priority sites are inspected bi-weekly
4	"	"	4.2.4.6 Maintain a log of active construction sites	Establish a log	Feb. 2012	ECP	Successful if active construction sites are recorded in the log

Post Construction Storm Water Management

Post Construction Storm Water Management

Minimum Control Measure 5

5.1 Introduction

The County has no responsibility for this control measure, outside unincorporated areas, except for mutual cooperation and coordination with a City at the City's request.

This section is similar to MCM 6 – Pollution Prevention/good Housekeeping, except that this section applies more to Redevelopment and long term Operation and Maintenance. MCM 6 applies more to preventing pollution in areas other than construction.

5.2 Pollutants of Concern

Because of the many different types of residential, commercial and construction activities, there can be a wide variety of pollutants that make it into stormwater runoff. Even different facilities of the same industry may need different approaches to reducing pollutant discharges to stormwater. Therefore, it is imperative that the owner/operator of each facility understand the potential pollutants and impacts from their individual processes. This chapter will only discuss the most typical pollutants found in industrial stormwater runoff.

Solids, nutrients, metals, oxygen demanding substances, bacteria and viruses, and oil and grease are the pollutants most frequently associated with stormwater runoff. These pollutants are discussed in the following subsection.

Solids

Solids (often referred to as total or suspended solids) can cause many receiving water problems. First, it can cause direct toxicity to aquatic organisms, through such mechanisms as fouling of gills, suffocation, etc. Second, high solids concentrations can reduce water clarity. Third, solids act as a vehicle to transport other pollutants. Excessive solids are often the result of poor construction practices at the industrial site.

Nutrients

Excessive nutrients such as nitrogen and phosphorus in the receiving water can cause problems by stimulating the growth of algae or rooted aquatic plants. Excessive plant growth can cause dissolved oxygen problems, reduce biologic diversity, worsen aesthetics, or impair use for water supply. Some industrial activities typically associated with nutrients include fertilizer/pesticide manufacturing and distribution, waste treatment, and food processing.

Metals

Metals, especially "heavy" metals can be toxic at very low concentrations. Metals can also bioaccumulate in fish and other species and be passed on to higher levels of the food chain, including humans. Certain metals including cadmium, copper, lead, silver, and zinc are the most common metals which contaminate waterways. Industrial activities which commonly deal with metals include mining, electroplating, cement, battery production, and metal recycling.

Oxygen-Demanding Substances

Oxygen-demanding substances tend to deplete the dissolved oxygen levels in streams and lakes. The depleted oxygen supply can result in loss of aquatic life. Oxygen demanding substances are commonly found in food processing industries and chemical manufacturing plants.

Bacteria and Viruses

Bacteria and viruses are the most common microorganisms found in surface water runoff. Bacteria and viruses often carry diseases which can be transferred to animal life and to humans. Food processing and medical wastes are often associated with microbiological contamination.

Oil and Grease

Oil and grease contain a wide array of hydrocarbon compounds, some of which are toxic to aquatic organisms at low concentrations. Industrial sources of oil and grease are generally associated with automobile related industries such as: repair shops, body and paint shops, retail distribution, and dismantlers/recyclers.

Floatables

Trash and litter from industrial sites may contain amounts of pollutants which will affect stormwater quality. Floatables in waterways and drainage systems pose both aesthetic and maintenance problems.

Other Toxic Materials (Priority Pollutants)

Facilities may contribute other toxic materials to storm water in low concentrations. Pesticides, phenols and polynuclear or polycyclic aromatic hydrocarbons (PAHs) are most frequently found in stormwater discharges associated with industrial operations.

5.3 Measurable Goals and Fiscal Ability

The following table summarizes the BMPs, Measurable Goals, Implementation Schedule, and Fiscal ability of the County for each BMP.

5.4 Best Management Practices (BMP)

Included in Appendix B are the fact sheet that are referenced from the measurable-goals. There are also other BMPs listed on the Weber County Engineering website that include other possible BMPs for various applications. The format is similar to other communities on the Wasatch Front, having been originally obtained from Salt Lake County.

**General Permit for Discharges from Small Municipal
Separate Storm Sewer Systems (MS4s)
Measurable Goals**

MCM	Target		Desired Result	Measurable Goal	Milestone	Assoc.	Measure of Success (Effectiveness)
	Pollutant(s)	Audience(s)			Date	BMP	
5	All Pollutants	All Audiences	4.2.5.1. Develop and adopt an ordinance or other regulatory mechanism that requires long-term post-construction storm water controls at new development and redevelopment sites. (4.2.5.3.1 for flood control structure issues and 4.2.5.3.2 for LID)	Review existing ordinance to determine if it meets requirements of new permit - Use checklist from coaching sessions	March, 2011	OD	If review is complete
5	"	"	"	Draft ordinance revisions	July, 2011	OD	If draft is complete and ready for others to review
5	"	"	"	Adopt updated ordinance	Feb. 2012	OD	If ordinance has been passed
5	"	"	4.2.5.2.2 Documentation on how the requirements of the ordinance or other regulatory mechanism will protect water quality and reduce the discharge of pollutants to the MS4.	Draft a standard to require contractors and developers to submit documentation on: how long-term BMPs were selected, pollutant removal expected from the BMP, and technical basis supporting performance claims	July, 2011	IPL	If draft is completed by the milestone date
5	"	"	"	Adopt revised standard	Feb. 2012	IPL	
5	"	MS4 Staff, County Commission	4.2.5.3.3 The Permittee must develop a plan to retrofit existing developed sites that are adversely impacting water quality.	Update Storm Drain Master Plan and Capital Improvement Plan to include Water Quality as applicable	Dec. 2014	IPL	If CIP includes water quality projects

**General Permit for Discharges from Small Municipal
Separate Storm Sewer Systems (MS4s)
Measurable Goals**

MCM	Target		Desired Result	Measurable Goal	Milestone	Assoc.	Measure of Success (Effectiveness)
	Pollutant(s)	Audience(s)			Date	BMP	
5	"	MS4 Staff, Contractors and Developers	4.2.5.3.4 Each Permittee shall develop and define specific hydrologic method or methods for calculating runoff volumes and flow rates...	Review existing design standards to see if they meet new permit requirements - see section 4.2.5.3.4	June, 2011	IPL	If standards have been reviewed and comments made
5	"	"	"	Update design standards if necessary	Dec. 2011	IPL	If updated standards have been adopted
5	"	"	4.2.5.4.1 Review Storm Water Pollution Prevention Plans (SWPPPs)	See goals for MCM 4			
5	"	"	4.2.5.4.2 Permittees shall provide developers and contractors with preferred design specifications to more effectively treat storm water for different development types...projects located in, adjacent to, or discharging to environmentally sensitive areas.	Locate environmentally sensitive areas within the MS4	January, 2012	IPL	Completed map identifying environmentally sensitive areas
5	"	"	"	Review map of sensitive areas and identify preferred method(s) of treating storm water to discharge to those areas	Dec. 2012	IPL	List of preferred method(s)

**General Permit for Discharges from Small Municipal
Separate Storm Sewer Systems (MS4s)
Measurable Goals**

MCM	Target		Desired Result	Measurable Goal	Milestone	Assoc.	Measure of Success (Effectiveness)
	Pollutant(s)	Audience(s)			Date	BMP	
5	"	"	4.2.5.4.3 Permittees shall keep a representative copy of information that is provided to design professionals;...the dates of the mailings and lists of recipients.	Post Appendix A - Supplemental Guide to Contractors and Developers to the web site	July, 2011	EM	is appendix on web site
5	"	"	4.2.5.5. All Permittees shall adopt and implement SOPs or similar type of documents for site inspection and enforcement of post-construction storm water control measures.	Review and customize SOPs for inspection and enforcement of post-construction control measures	October, 2011	LIP	If inspection and enforcement SOPs are current and being utilized?
5	"	"	4.2.5.5.1 ... require private property owner/operators or qualified third parties to conduct maintenance and provide annual certification that adequate maintenance has been performed and the structural controls are operating as designed to protect water quality. In this case, the Permittee must require a maintenance agreement addressing maintenance requirements for any control measures installed on site.	Draft a maintenance agreement template	July, 2011	BMPIM	If draft is completed by the milestone date
5	"	"	"	Adopt a maintenance agreement template	Dec, 2011	BMPIM	If template is adopted and being used by milestone date

**General Permit for Discharges from Small Municipal
Separate Storm Sewer Systems (MS4s)
Measurable Goals**

MCM	Target		Desired Result	Measurable Goal	Milestone	Assoc.	Measure of Success (Effectiveness)
	Pollutant(s)	Audience(s)			Date	BMP	
5	"	"	4.2.5.5.3 Inspections and any necessary maintenance must be conducted annually by either the Permittee or through a maintenance agreement, the property owner/operator. On sites where the property owner/operator is conducting maintenance, the Permittee shall inspect those storm water control measures at least once every five years or sites where the county has access	Inventory post-construction BMPs - see 4.2.5.7.1 for inventory inclusion items	Sept, 2011	BMPIM	If inventory is complete
5	"	"	"	Identify who is responsible to inspect and/or maintain each post-construction BMP	Dec, 2011	BMPIM	If list identifies person responsible for inspections/maintenance
5	"	"	"	Develop inspection report form for post-construction BMPs	July, 2011	BMPIM	If form is completed
5	"	"	"	Conduct inspections annually for county owned BMP's	Ongoing	BMPIM	If completed inspection reports are properly filed
5	"	"	"	Conduct inspections on privately owned BMP's, accessible to the MS4, at least 20% per year	Ongoing	BMPIM	If completed inspection reports are properly filed

General Permit for Discharges from Small Municipal
Separate Storm Sewer Systems (MS4s)
Measurable Goals

MCM	Target		Desired Result	Measurable Goal	Milestone	Assoc.	Measure of Success (Effectiveness)
	Pollutant(s)	Audience(s)			Date	BMP	
5	"	MS4 staff	4.2.5.6. Permittees shall provide adequate training for all staff involved in post-construction storm water management, planning and review, and inspections and enforcement.	Schedule and conduct training for appropriate personnel	Annually	BMPIM	If all appropriate personnel are trained
5	"	"	4.2.5.7 Maintain an inventory of post construction BMP's	Inventory log updated annually	Ongoing		If log is updated

Pollution Prevention/Good House Keeping

Pollution Prevention/Good House Keeping

Minimum Control Measure 6

6.1 Introduction

The County has no responsibility for this control measure, outside unincorporated areas, except for mutual cooperation and coordination with a City at the City's request.

MCM 6 applies to preventing pollution in areas other than construction areas and establishing good techniques for Public Works maintenance activities.

6.2 Pollutants of Concern

A variety of pollutants are associated with stormwater pollution due to municipal activities including: sediment, nutrients, bacteria and viruses, oxygen demanding substances, oil and grease, metals, toxic pollutants, and floatables (Table 6-1). The impacts of these pollutants on water quality along with a discussion on municipal activities which can potentially contribute to their introduction into stormwater runoff is presented in the following subsections.

Sediment

Sediment is a common component of stormwater, and is considered to be one of the most damaging pollutants in Utah. Sediment fills in streams, lakes, rivers, wetlands, and road ditches, and can affect aquatic life by smothering fish larvae and eggs. Suspended soil particles can cause water to look cloudy or turbid. Excessive turbidity reduces light penetration in water, impairs sight of feeding fish, clogs fish gills, and increases drinking water treatment costs. Fine sediment also acts as a vehicle to transport other pollutants including nutrients, trace metals, and hydrocarbons to nearby surface waters.

Significant sediment-borne pollutants are associated with highway runoff; originating from pavement wear, vehicles, atmospheric deposition, and road maintenance. Other sources of sediment include erosion from new development and construction sites.

Nutrients

Nutrients, especially nitrogen and phosphorus, can cause algal blooms and excessive aquatic plant growth in lakes. These conditions can impair many important uses of these waters, including recreation, fish habitat, and water supply.

Nitrogen and phosphorus associated with highway runoff come from atmospheric deposition and roadside fertilizer application. Phosphorus has also been associated with application of sand and salt on roads. Nutrients are a result of yard debris, garbage, as well as fertilizer and pesticide use.

Metals

Trace metals are a water quality concern because the toxic effects they can have on aquatic life. Metals can also be a health hazard to humans through direct ingestion of contaminated water or through eating contaminated fish. The most common trace metals found in stormwater runoff in urban areas are lead, zinc, and copper. These metals originate from galvanizing, chrome plating, and other metal sources associated with automobiles. Lead, cadmium, nickel and zinc in urban runoff have also been associated with different sources including body rust, brake lining wear, steel highway structures, and tire wear from automobiles.

Oxygen-Demanding Substances

Oxygen-demanding substances tend to deplete the dissolved oxygen levels in streams and lakes. The depleted oxygen supply can result in the reduction of aquatic life. Oxygen demanding substances are found in yard waste (such as leaves and lawn clippings), animal wastes, street litter, and organic matter.

Bacteria and Viruses

Bacteria and viruses are the most common microorganisms found in surface water runoff. Bacteria and viruses often carry diseases which can be transferred to animal life and to humans. The main sources of these contaminants are animal excrement and sanitary sewer overflows.

Oil, Grease and Hydrocarbons

Oil, grease and hydrocarbons contain a wide array of compounds, some of which are toxic to aquatic organisms at low concentrations. The main sources of oil and grease are leakage from engines, restaurant grease traps, and waste oil disposal. Hydrocarbons typically come from spills, leaks, lubricants and asphalt surface leachate. Hydrocarbon levels are highest from parking lots, roads and service stations.

Floatables

Floatables are pollutants that may be contaminated with heavy metals, pesticides, and bacteria. Typically resulting from street refuse or industrial yard waste, floatables also create an aesthetic “eye sore” in waterways or detention basins.

Table 6-1. Potential pollutants of concern associated with municipal activities.

Activity	Pollutant	Potential Source
Construction	Sediment	Poor erosion control practices on hillsides, undeveloped property, right-of-way for construction sites
Residential and Parks	Nutrients	Yard debris, garbage, fertilizer and pesticide use, rat poison, pyrotechnics
Transportation and Commercial	Metals	Paint, plastics, pottery pigments and glazes, automobile tires, common galvanized coatings, pesticide use, root killer application on sewer lines, old lead paint and glazes, wood preservatives, batteries
Residential	Oxygen demanding Substances	Yard debris, animal wastes, organic chemical use
Parks and Residential	Bacteria and Viruses	Human and animal (pets and aquatic life) waste, sanitary sewer infiltration into storm drain system, decomposing yard waste
Commercial and Residential	Oil, Grease, and Hydrocarbons	Asphalt surface leaching, spills, leaks, construction activities
Residential and Parks	Floatables	Street refuse, industrial yard waste

6.3 Measurable Goals and Fiscal Ability

Please refer to the tables in this section which summarize the BMP's, Measurable Goals, Implementation Schedule for each BMP.

6.4 Best Management Practices (BMP)

Included in Appendix B are the fact sheet that are referenced from the measurable-goals. There are also other BMPs listed on the Weber County Engineering website that include other possible BMPs for various applications. The format is similar to other communities on the Wasatch Front, having been originally obtained from Salt Lake County.

**General Permit for Discharges from Small Municipal
Separate Storm Sewer Systems (MS4s)
Measurable Goals**

MCM	Target		Desired Result	Measurable Goal	Milestone	Assoc.	Measure of Success (Effectiveness)
	Pollutant(s)	Audience(s)			Date	BMP	
6	All pollutants	MS4 staff	4.2.6 ...All components of an O & M program shall be included in the SWMP document and must identify the department (and where appropriate, the specific staff) responsible for performing each activity described in this section...	Complete Org chart and define specific responsibilities for all departments shown	Jan. 2011	HP	If org chart is complete and up to date by milestone date
6	"	"	4.2.6.1. Permittees shall develop and keep current a written inventory of Permittee-owned or operated facilities	Complete listing of MS4 owned/operated facilities	Dec. 2010	HP	If list is completed by milestone date
6	"	"	4.2.6.2. All Permittees must initially assess the written inventory of Permittee-owned or operated facilities, operations and storm water controls identified in Part 4.2.6.1. for their potential to discharge to storm water the following typical urban pollutants:	Complete assessments and identify "high priority" facilities	Feb. 2011	HP	If assessments are completed and documentation recorded in SWMP
6	"	"	4.2.6.4. Each "high priority" facility identified in Part 4.2.6.3. must develop facility-specific standard operating procedures (SOPs) or similar type of documents.	Review, customize and update appropriate SOPs	July, 2011	HP	If SOPs are updated and current by milestone date

**General Permit for Discharges from Small Municipal
Separate Storm Sewer Systems (MS4s)
Measurable Goals**

MCM	Target		Desired Result	Measurable Goal	Milestone	Assoc.	Measure of Success (Effectiveness)
	Pollutant(s)	Audience(s)			Date	BMP	
6	"	"	4.2.6.6.1 Weekly visual inspections: The Permittee must perform weekly visual inspections of "high priority" facilities in accordance with the developed SOPs to minimize the potential for pollutant discharge.	Develop weekly inspection form and log	July, 2011	HP	Completed inspection form and log
6	"	"	"	Conduct weekly inspections	Ongoing	HP	If at annual review all weekly inspections are logged and reports completed
6	"	"	4.2.6.6.2 Quarterly comprehensive inspections: At least once per quarter, a comprehensive inspection of "high priority" facilities, including all storm water controls, must be performed	Develop quarterly inspection form(s) and log	July, 2011	HP	Completed inspection form and log
6	"	"	"	Conduct quarterly comprehensive inspections	Ongoing	HP	If at annual review all quarterly inspections are logged and reports completed

**General Permit for Discharges from Small Municipal
Separate Storm Sewer Systems (MS4s)
Measurable Goals**

MCM	Target		Desired Result	Measurable Goal	Milestone	Assoc.	Measure of Success (Effectiveness)
	Pollutant(s)	Audience(s)			Date	BMP	
6	"	"	4.2.6.6.3 Quarterly visual observation of storm water discharges: At least once per quarter, the Permittee must visually observe the quality of the storm water discharges from the "high priority" facilities	Conduct quarterly visual observations of storm water discharges at high priority facilities	Ongoing	HP	If at annual review all quarterly visual monitoring is completed and logged and reports completed
6	"	MS4 Staff, Contractors and Developers	4.2.6.7. The Permittee must develop and implement a process to assess the water quality impacts in the design of all new flood management structural controls that are associated with the Permittee or that discharge to the MS4.	Draft a policy/process to assess water quality impacts on all new flood control projects	July, 2011	IPL	If draft is prepared and ready for internal review process by milestone date
6	"	"	"	Get policy approved	Dec. 2011	IPL	If policy is approved and adopted by milestone date
6	"	MS4 staff	4.2.6.7.1 Existing flood management structural controls must be assessed to determine whether changes or additions should be made to improve water quality.	See MCM 5 for goals (part of the retrofit program)			

**General Permit for Discharges from Small Municipal
Separate Storm Sewer Systems (MS4s)
Measurable Goals**

MCM	Target		Desired Result	Measurable Goal	Milestone	Assoc.	Measure of Success (Effectiveness)
	Pollutant(s)	Audience(s)			Date	BMP	
6	"	"	4.2.6.9. Permittees shall provide training for all employees who have primary construction, operation, or maintenance job functions that are likely to impact storm water quality.	See individual training goals within other MCMs			
6	"	"	"	Develop a training schedule	July, 2011	EM, HP	If schedule is complete by milestone date
6	"	"	"	Conduct ongoing training according to schedule	Ongoing	EM, HP	If training is completed and documented according to schedule at annual evaluation

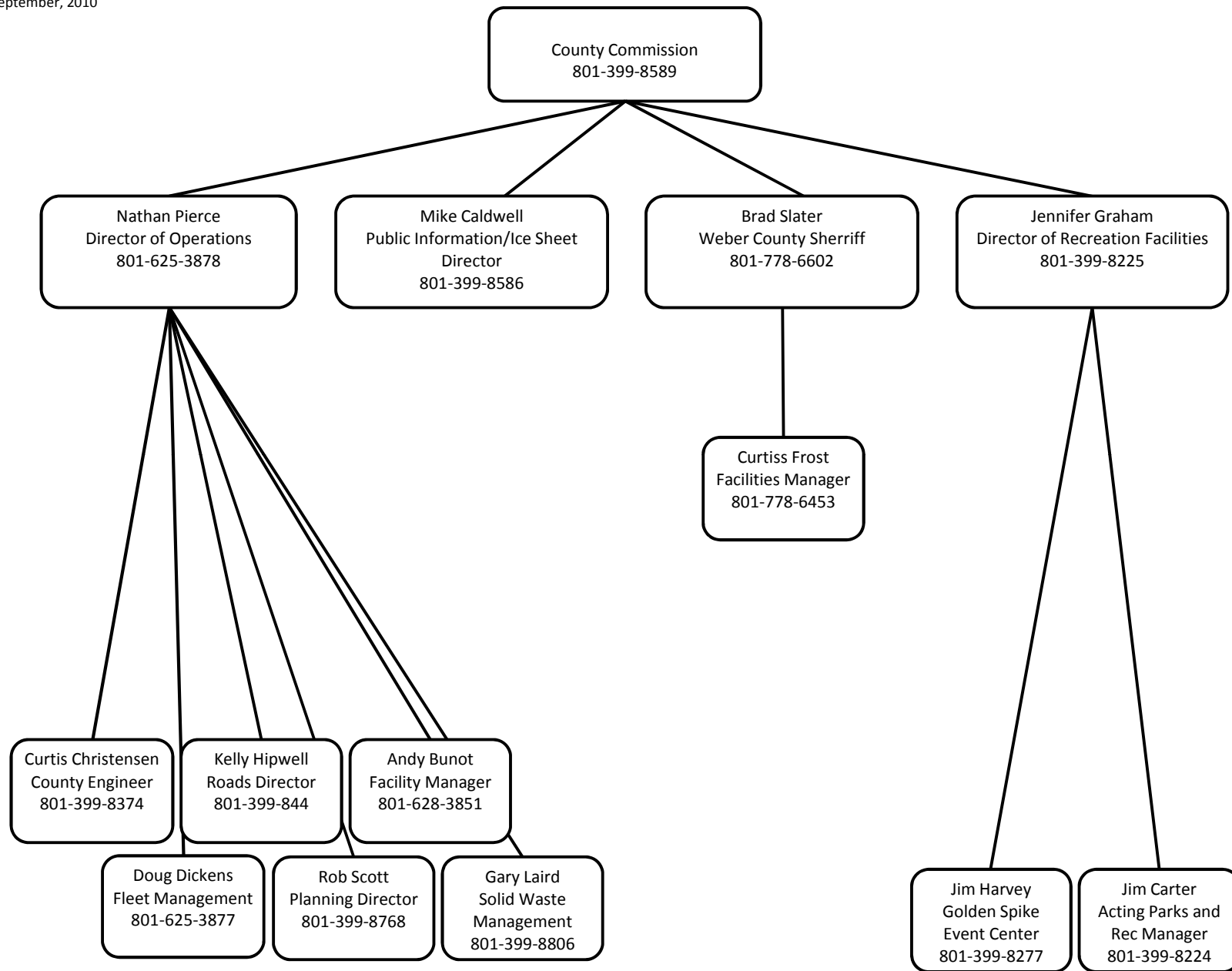
Additional Information

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.....	(801) 538-6146
Division of Environmental Response and Remediation.....	(801) 536-4100
Division of Air Quality	(801) 536-4000
Solid and Hazardous Waste – Used Oil Hotline	(800) 458-0145
Utah Division of Natural Resources	
General Information	(801) 539-4001
Weber County	
County Engineer	(801) 399-8007
Storm Water Management.....	(801) 399-8374

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THE
LANGDON
GROUP



GATEWAY
MAPPING
INC.

OTHER J-U-B COMPANIES

County Commission

- Liaison with the public

Director of Operations

- Liaison with County Commission
- General coordination of the Storm Water Pollution Prevention (SWPP) program

County Engineer

- Annual report
- Updating SWPPP
- Tracking and documentation of activities and actions
- Database updates
- Engineering support
- Help with all reporting
- Oversee SWPP program specifics and work with department heads
- Storm drain mapping
- Updating storm drain ordinances

Roads Director

- Streets dept. maintenance work area
- Streets dept. equipment operation
- Equipment maintenance for streets dept.
- Training streets dept. personnel
- Chemicals storage in work area
- Snow plowing program
- Street sweeping program
- Salt and materials storage stockpile areas
- Metal fabrication area
- Weed control
- Responsible for shared facilities and general work areas including:
 - o Large equipment wash area
 - o Fueling station
 - o Salt and materials storage stockpile areas
 - o Storm drain system maintenance
 - o General BMP maintenance
 - o Small vehicle wash area

Facility Manager

- Facility maintenance
- Mowing program
- Snow removal

Fleet Management

- Fleet department maintenance work area
- Purchase fleet vehicles
- Fleet maintenance (Done at 3rd party shops)

Planning Director

- Low Impact Development Coordinator

Solid Waste Management

- Transfer Station
- C&D Landfill
- Compost Facility

Parks and Recreation Manager

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

Golden Spike Event Center Manager

- Building Facilities
- Grounds Maintenance
- Chemical Storage
- Equipment operation and maintenance
- Training personnel
- Salt pile storage

Weber County Sheriff Facility Manager

- Weber County Sheriff's 12th Street Complex
- Kiesel Facility
- Animal Shelter
- Monte Trailhead Office

Ice Sheet Director

- Building Maintenance
- Ground Maintenance ???