

MURRAY CITY
2013 STORM WATER
MANAGEMENT PROGRAM

PREPARED BY:



MURRAY

**PUBLIC
SERVICES**

DELEGATION OF AUTHORITY

Utah Department of Environmental Quality
Division of Water Quality
195 North 1950 West
DEQ 3rd Floor
Salt Lake City, Utah 84116

Dear Executive Director:

As the principal executive officer (or ranking elected official) of Murray City, I hereby authorize Doug Hill acting as the Public Services Director to act on my behalf relative to documents, reports, notices or activities pertaining to the Murray City Small MS4 UPDES Storm Water Discharge Permit UTS 000001.

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.

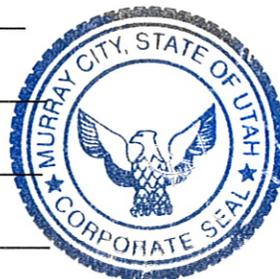
Respectfully Submitted,

Mayor: David Ted Eyre

Signature: David Ted Eyre

Title: Mayor

Date: Jan 14, 2014



ATTEST
Murray City Records Office

Jennifer Thomas

APPROVED AS TO CONTENT
Doug Hill

Finance Approved
[Signature]

Storm Water Management Plan

Permittee: Murray City
Permit Number: UTS 000001
Location of MS4: Murray City

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

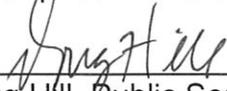
A description of any modifications to ordinances or long-term/ongoing processes implemented in accordance with the previous MS4 general permit for each of the six minimum control measures

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"



Doug Hill, Public Services Director

1/14/14

Date

INTRODUCTION

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

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

MURRAY CITY CHARACTERISTICS

General Information

Murray City Storm Drain System falls under the Public Services Department. The Public Services Director can be contacted at the following address and phone number:

Public Services Facility
4646 S. 500 W.
Murray, Utah 84123
(801) 270-2440

Population:	46,750
Size:	12 square miles
Geographic Description:	Murray City is located from approximately 4500 S. to 6600 S. ar Van Winkle Expressway on the east
Receiving Waters:	Jordan River, Big Cottonwood Creek, Little Cottonwood Creek

Annual precipitation:	Average precipitation is 16.1 inch/yr
Type of Community:	Land use is approximately 10% vacant land 45% residential 20% commercial and industrial 15% transportation 10% parks and open area
Latitude:	40° 40' 18.11" N
Longitude:	111° 54' 24.75" W

History

Murray City was officially recognized in January 3, 1902. The City is made up of a wide variety of ethnic backgrounds and religions. The City is governed by a Mayor-Council form of government with a mayor and 5 council members. The City has its own water, power, fire, police, and public services departments.

Permit Application and Notice of Intent

Cities required to permit under Phase II are allowed to cooperate and work together with neighboring cities in the application process. The permittee may join with a Phase I city or another Phase II city in applying for a permit. The individual MS4s may share responsibility for program development with neighboring communities and/or take advantage of existing local or state programs.

Permit Requirements

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

Reports

The permit requires that the city review the SWMP annually, report on activities and make any updates. Generally, the annual report should include the following information:

- The status of compliance with permit conditions, including an assessment of the appropriateness of the selected BMPs and progress toward achieving the selected measurable goals for each minimum measure;
- Results of any information collected and analyzed, including monitoring data if any;
- A summary of the storm water activities planned for the next reporting cycle;

- A change in any identified BMP or measurable goals for any minimum measure; and
- Notice of relying on another governmental entity to satisfy some of the permit obligations.

Record Keeping

Records required by the NPDES permitting authority must be kept for at least 5 years and made accessible to the public at reasonable times during regular business hours.

Penalties

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

Storm Water Management Program

This document contains a description of the community-specific Storm Water Management Program. The Program includes the following;

- Best Management Practices (BMPs) for each of the six minimum control measures;
 1. Public Education and Outreach
 2. Public Participation/Involvement
 3. Illicit Discharge Detection and Elimination
 4. Construction Site Runoff Control
 5. Post-Construction Runoff Control
 6. Pollution Prevention/Good Housekeeping
- Measurable goals for each minimum control measure (i.e., narrative or numeric standards used to gauge program effectiveness);
- Estimated months and years in which actions to implement each measure will be undertaken, including interim milestones and frequency; and

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

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

1. Appendix A – Supplemental Guide to Storm Water Management for Contractors and Developers
 - a. Storm Water Guidance Manual which includes hydraulic and hydrologic methods and standards, structural BMP examples
 - b. Low Impact Development techniques
 - c. BMP abbreviation master list
 - d. BMP fact sheets
 - e. SWPPP inspection form
 - f. Land Disturbance/SWPPP Review Checklist
 - g. BMP master list
 - h. Storm Water Credit Application
2. Appendix B – Supplemental Guide to Storm Water Management for Public Services Departments
 - a. SOP Master List
 - b. Department SOP List
3. Appendix C – Standard Operating Procedures, Documentation and Elements of the Illicit Discharge Detection and Elimination program
 - a. Dry Weather Screening Flow Chart
 - b. Incident Response Flow Chart
 - c. Spill Response Call and Response Reporting Forms
 - d. Enforcement Action Log
 - e. IDDE Inspection Inventory Log
4. Appendix D – General program documentation including goals, inspection forms, enforcement logs, training logs, annual reports, maintenance records, observation reports, and other general documentation
5. Appendix E – Copies of the most current city ordinances applicable to storm water
 - a. Storm Water Utility Ordinance
 - b. Storm Water Management Ordinance
 - c. Salt Lake County Inter-Local Agreement

6. Appendix F – Copies of State permits and documents regulating Murray City storm water program
 - a. State General Permit.
7. Appendix G – System maps and inventories
 - a. Facility Inventory List
 - b. Facilities Map
 - c. Facility Evaluation Form
 - d. Outfall Monitoring Locations Inventory
 - e. Active Site Construction Inventory
 - f. Post Construction BMP Inventory

Ongoing Documentation Process

With this revised SWMP our program has been restructured. The SWMP itself has been reorganized to make it more of a working document with multiple appendices to help the City do a better job in record keeping and documenting our activities. Much of the documentation is or will be included in Appendix D. We have designed this SWMP to address regulations in the new UPDES Permit to become active January 3,uly 2014. As the Management Plan needs revisions the evaluation sheets in Appendix D will be used to effect changes within the plan.

Our plan is to document our activities and to keep better track of what is happening within our community. This SWMP includes many new forms and reports to help us in these documentation efforts. Report forms, logs, evaluation forms and backup information are spread throughout the applicable appendices.

PUBLIC EDUCATION AND OUTREACH

Permit Requirements

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

1. The MS4 must promote behavior change by the public to reduce water quality impacts associated with pollutants in storm water runoff and illicit discharges. This is a multimedia approach targeted to specific audiences. The four audiences are: (1) residents, (2) businesses, institutions, and commercial facilities, (3) developers and contractors (construction), and (4) MS4 industrial facilities.
2. Target pollutants and pollutant sources and their potential impacts relating to storm water quality.
3. Provide and document information given to the four focus audiences.
4. Provide documentation or rationale as to why particular BMPs were chosen for its public education and outreach program.

Summary of Existing Efforts

The City currently is a Co-Permittee of the Jordan Valley Municipalities as part of the 2013 Interlocal Cooperation Agreement which satisfies the MCM 1 portion of the Permit.

Plan and Implementation Measures

In order to help meet the goals and objectives of this SWMP, Murray City has chosen the BMP's listed on MCM -1 Goal Summary Table. Each BMP is cross referenced alphabetically by code to a fact sheet that describes the BMP, its applicability, its limitations, and its effectiveness in Appendix A.

Goals

In order to more fully realize the benefit of the BMP the city has set the following goals. The goals set along with the existing efforts fulfill the requirements of the Final Storm Water Phase II Rule for Education and Outreach.

The following table includes the goals for MCM - 1.

MCM – 1

ONGOING DOCUMENTATION PROCESS

Public Education – Goal Summary Table

Measurable Goal	Implementation Date	goal achieved ?	BMP's used	Action items for obtaining goals.
Participate as a Co-Permittee in the Jordan Valley Municipalities	January 2014		EM, ET, PEP, UM,W O	Continued participation with the Jordan Valley Municipalities through the Interlocal Agreement as a Co-Permittee to achieve Public Education and Outreach requirements

This process should take place continually, or as a minimum, annually. See SWMP Goals for further details.

PUBLIC PARTICIPATION / INVOLVEMENT

Permit Requirements

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

1. Comply with applicable State, and local public notice requirements to involve interest groups and stakeholders for their input on the SWMP.
2. Make available to the public a current version of the SWMP document for review and input for the life of the permit. This should be posted on the City's website.

Summary of Existing Efforts

The City currently is a Co-Permittee of the Jordan Valley Municipalities as part of the 2013 Interlocal Cooperation Agreement which satisfies the MCM 2 portion of the Permit.

Plan and Implementation Measures

In order to help meet the goals and objectives of this SWMP, Murray City has chosen the BMP's listed on MCM -2 Goal Summary Table. Each BMP is cross referenced alphabetically by code to a fact sheet that describes the BMP, its applicability, its limitations, and its effectiveness in Appendix A.

Goals

In order to more fully realize the benefit of the BMP the city has set the following goals. The goals set along with the existing efforts fulfill the requirements of the Final Storm Water Phase II Rule for Public Involvement and Participation.

The following table summarizes the goals for MCM - 2.

MCM - 2

ONGOING DOCUMENTATION PROCESS

Public Participation/Involvement – Goal Summary Table

Measurable Goal	Implementation Date	goal achieved?	BMP's used	Action items for obtaining goals.
Participate as a Co-Permittee in the Jordan Valley Municipalities	January 2014		WO	Continued participation with the Jordan Valley Municipalities through the Interlocal Agreement as a Co-Permittee to achieve Public Involvement/Participation requirements

This process should take place continually, or as a minimum, annually. See SWMP Goals for further details.

ILLICIT DISCHARGE DETECTION AND ELIMINATION

Permit Requirements

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

1. Maintain a storm sewer system map of the MS4, showing the location of all outfalls and the names and location of all State waters that receive discharges from those outfalls.
2. Through an ordinance, or other regulatory mechanism, a prohibition (to the extent allowable under State, or local law) on non-storm water discharges into the MS4, and appropriate enforcement procedures and actions.
3. Develop and implement a plan to detect and address non-storm water discharges, including spills, illicit connections, and illegal dumping to the MS4.
4. Develop procedure for locating and listing priority areas likely to have illicit discharges: industrial, commercial, past illicit discharge and dumping areas, onsite sewage disposal, areas with history of sewage overflows, areas upstream of sensitive water bodies.
5. Develop and implement standard operating procedures (SOPs) for:
 - a. tracing the source of an illicit discharge.
 - b. characterizing the nature of, and the potential public or environmental threat posed by, any illicit discharges found or reported.
 - c. Recording location, description, date observation, date of reported discharge
 - d. ceasing the illicit discharge, including notification of appropriate authorities, property owners, and technical assistance for removing the source and follow-up inspections.
6. Inform public employees, businesses, and the general public about the hazards associated with illegal discharges and improper disposal of waste.
7. Promote or provide services for the collection of household hazardous waste.
8. Publicly list and publicize a hotline or other local number for public reporting of spills and other illicit discharges.
9. Develop a written spill/dumping response procedure, and a flowchart for internal use, including various responsible agencies and their contacts.
10. Adopt and implement procedures for program evaluation and assessment.
11. Train employees, at a minimum, annually on the IDDE program.

Summary of Existing Efforts

Ordinances

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

Illicit Spills

Reports of spills are handled by the Storm Water Department with assistance from Fire Department or County Health Department.

ABOP

The City participates in the ABOP program where people can drop off used oil, antifreeze, paint and batteries to be collected by Salt Lake County to be disposed of properly.

Green Waste Collection

The city allows residents to rent green waste trailers where it is ground into bark mulch for sale to residents.

Illicit Connections

The City has not generally experienced problems with individuals or businesses illicitly connecting their sanitary waste water piping to storm drains. More-common types of illicit discharges include natural runoff from sites where former industrial businesses once stood, spills from highway accidents, concrete truck wash out water, residential yard waste and debris being washed into the gutters, and carpet cleaner waste.

Mapping

The city has a fairly comprehensive, GIS based, storm drain map showing the storm drain system and its points of discharge. A copy of this map is included in Appendixes B and G.

Plan and Implementation Measures

In order to help meet the goals and objectives of this SWMP, Murray City has chosen the BMP's listed on MCM -3 Goal Summary Table. Each BMP is cross referenced alphabetically by code to a fact sheet that describes the BMP, its applicability, its limitations, and its effectiveness in the indicated Appendix A.

Goals

In order to more fully realize the benefit of the BMP the city has set the following goals. The goals set along with the existing efforts fulfill the requirements of the Final Storm Water Phase II Rule for Illicit Discharge Detection and Elimination.

The following table includes the goals for MCM - 3.

MCM -3

ONGOING DOCUMENTATION PROCESS

Illicit Discharge Detection and Elimination –Goal Summary Table

Measurable Goal	Implementation Date	goal achieved?	BMP's used	Action items for obtaining goals.
Review the ordinance to conform with new permit	2014		OD	Ordinance conforms with the permit
Maintain a current SD System Map on all new developments within 6 months	2014		MSWD	City storm water facilities for new developments will be updated within 6 months after the development is accepted by the City
Do dry weather screening of 20% of all outfalls each year	2014		IDC,NSWD	Set schedule for dry weather screening of 20% of outfalls each year
Have SOP in place and training to Staff to recognize and tracing the source of illicit discharges	2014		ET	Develop SOP for tracing source of illicit discharge and SW staff is trained to identify and stop source of discharge, identify responsible party/owner, proceed with proper enforcement
Have SOP in place and training to Staff, create the Incidence Response Flow Chart and train personnel	2014		ET	Train Staff to follow Incidence Response Flow Chart SOP
Develop and distribute educational materials for businesses concerning hazards associated with Illicit discharges	2014		PEP	Issue business newsletter on alternating year with residential newsletter
Promote the collection of hazardous household waste	2014		UOR	Put the SL County hazardous household waste contact information on City Web Site
List a hotline for reporting spills and illicit discharges	2014		CH	Put the SL County hazardous household waste contact information and the City hotline on City Web Site
Database is created in GIS to record illicit discharges, connections, cleanups, etc.	2014		MSWD	Database is created and Storm Water personnel are trained in the use of the and data input of the database

This process should take place continually, or as a minimum, annually. See SWMP Goals for further details.

CONSTRUCTION SITE STORM WATER RUNOFF CONTROL

Permit Requirements

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

1. Develop an ordinance to ensure contractor compliance with the General Permit, development of Storm Water Pollution Prevention Plan (SWPPP) for areas larger than 1 acre.
2. Develop SOP's for preconstruction review of SWPPP's.
3. Develop SOP's for site inspection and enforcement procedures with regulatory authority from the storm water ordinance.
4. Conduct biweekly inspections of priority construction sites.
5. Tracking and follow-up actions of all enforcement actions to ensure compliance regarding construction runoff.
6. Annual training of MS4 personnel involved with permitting, planning, inspections and enforcement of construction section of the storm water program.

Summary of Existing Efforts

City Ordinance

The City storm water ordinance has been developed to ensure contractor compliance to storm water requirements through the issuing of a Land Disturbance Permit and education in the Storm Water Guidance Manual.

Contractor Training

Areas with construction larger than 1 acre require the contractor to view a video concerning construction site runoff.

Inspection of Construction Sites

The storm water inspector currently inspects each construction site issued a land disturbance permit on a weekly basis.

SWPPP Review Checklist

Construction of any area larger than 1 acre requires submittal of a SWPPP. The SWPPP is reviewed using a checklist to ensure all applicable items during and after construction are addressed.

Plan and Implementation Measures

In order to help meet the goals and objectives of this SWMP, Murray City has chosen the BMP's listed on MCM - 4 Goal Summary Table. Each BMP is cross referenced alphabetically by code to a fact sheet that describes the BMP, its applicability, its limitations, and its effectiveness in the indicated Appendix A.

Goals

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

The following table includes the goals for MCM - 4.

MCM - 4

ONGOING DOCUMENTATION PROCESS

Construction Site Runoff Control – Goal Summary Table

Measurable Goal	Implementation Date	Goal achieved?	BMP's used	Action items for obtaining goals.
Ordinance requiring land disturbance permit for all sites over 1 acre	January 2014		OD	During plan review ensure all active construction sites over 1 acre have been issued an LDP
Review and compare current City ordinance with Permit requirements and revise as needed	January 2014		OD	Review for compliance with permit and enhanced enforcement
Continue using a construction site enforcement action log/database	January 2014		IM	Site enforcement actions are logged on regular basis
Review current preconstruction SWPPP checklist, develop SOPs for plan reviews, pre-con meetings, water quality issues and LID practices	January 2014		SPR	Review SWPPP checklist, include SWPPP requirements in plan reviews and pre-con meetings. Change SWPPP checklist to meet any updated requirements
Conduct biweekly inspections of priority construction sites.	January 2014		IM, CE	All priority sites are inspected biweekly and any enforcement actions recorded and tracked for compliance.
Training of MS4 personnel involved with permitting, planning, inspections and enforcement of construction section of the storm water program.	January 2014		ET	City MS4 inspector(s) to receive annual training concerning inspections, enforcement, etc.

This process should take place continually, or as a minimum, annually. See SWMP Goals for further details.

POST-CONSTRUCTION STORM WATER MANAGEMENT

Permit Requirements

The permit requirements for Construction Site Storm Water Runoff can be found in Section 4.2.5 of the permit. A copy of the permit is included in Appendix F for reference. The permit outlines in general the following requirements:

1. Develop an ordinance to ensure new development and redeveloped sites meet predevelopment hydrology and to reduce the amount of storm water discharge for areas larger than 1 acre. The ordinance must allow for inspection by City personnel and ensure the control structures are constructed and maintained properly.
2. Develop enforcement strategy (ordinance and SOP's) for enforcement of BMP's including escalating enforcement procedures and sanctions.
3. Develop and define methods for calculating runoff volumes and flow rates. Define the specific design storm that the post-construction structural BMP will be treating.
4. On review of a retro-fit plan to include criteria that addresses water body location, status of water body to improve impaired water body, hydrologic condition of receiving water body, proximity to protected areas.
5. Review SWPPPs to ensure long term storm water management measures are met. Provide Contractors and developers with preferred design specifications to treat storm water for different sites
6. Develop SOPs for inspection of BMPs.
7. All structural control measures must be inspected yearly and at least every 5 years by the Permittee. Condition of the structure, maintenance and violations and re-inspection dates are to be documented.
8. Develop an ordinance to allow inspection and maintenance of private post-construction BMP's by City inspectors or 3rd party. Cost recovery for maintenance should be included.
9. Maintain an inventory of post-construction BMPs including location, description, maintenance requirements, owner contact information, inspection information.

Summary of Existing Efforts

Ordinance Development

The storm water ordinance addresses post-construction requirements on new and redeveloped properties including inspection access, maintenance agreements and BMP installations.

Structural BMPs

Design of structural BMPs must include calculations for the design storm, peak runoff, runoff volumes, and conveyance capacities, flow velocities, etc. prior to approval of plans submitted to the City. Structural BMPs installed to date include oil/water separators, Stormtech systems designed as onsite detention, Snouts used as oil/water and debris separator.

Maintenance Incentive/Maintenance Agreement

The City does not have maintenance agreements with privately owned storm water treatment systems. The City does provides a reduction of up to 45% in the assessed

storm water utility fee if the owner maintains their storm water BMPs. If the BMPs are not properly maintained the City may revoke the fee reduction.

SWPPP Review

During the SWPPP review the post construction BMPs are reviewed to determine if they will meet the needs for treatment of runoff for quality and quantity.

Post-Construction BMP Inventory

An inventory of BMPs and locations is maintained by the Storm Water Division. Structural BMPs are inspected annually to determine if they are operating properly and any required maintenance.

Plan and Implementation Measures

In order to help meet the goals and objectives of this SWMP, Murray City has chosen the BMP's listed on MCM - 5 Goal Summary Table. Each BMP is cross referenced alphabetically by code to a fact sheet that describes the BMP, its applicability, its limitations, and its effectiveness in the indicated Appendix A.

Goals

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

The following table includes the goals for MCM - 5.

MCM - 5

ONGOING DOCUMENTATION PROCESS

Post-Construction Runoff Control – Measurable Goal Summary Table

Measurable Goal	Implementation Date	goal achieved	BMP's used	Action items for obtaining goals.
Develop ordinance to ensure developing sites maintain predevelopment hydrology.	January 2104		OD	Ordinance currently in place and addresses this goal
The ordinance must include provision for inspection of BMP's during and after construction by City personnel and provide for enforcement of BMP's	January 2104		OD	Ordinance currently in place and addresses this goal
Develop methods for calculating runoff volumes and rates to ensure post construction BMP's will treat required storm runoff.	January 2104		ECP	Achieved through Storm Water Guidance Manual Appendix B
Review SWPPP's to ensure long term storm management measures are met.	January 2104		PCSPR	Achieved through Storm Water Guidance Manual Appendix B
Develop SOP's for inspection of post construction BMP	January 2104		IM	SOP's for pre and post construction inspection written
Develop SOP's for yearly and 5 year inspection of post construction BMP's by both private and City personnel.	January 2104		IM, LTOM	SOP's for annual and 5 year inspections of private BMP's written.
Annual training for staff involved with planning, review, inspection and enforcement of structural and non-structural control measures.	January 2104		ET	Storm Water staff to be trained for staff involved with planning, review and inspection of control measures
Adopt procedures for plan review to minimize water quality impacts.	January 2104		PCSPR,S PR	SWPPP review to include review: of sites larger than 1 acre, of runoff volumes and flow rates of design storm
Keep record of information provided to design professionals.	January 2104			Information to design professionals can be obtained from web site and guidance manual

This process should take place continually, or as a minimum, annually.

POLLUTION PREVENTION AND GOOD HOUSEKEEPING FOR MUNICIPAL OPERATIONS

Permit Requirements

The permit requirements for Construction Site Storm Water Runoff can be found in Section 4.2.6 of the permit. A copy of the permit is included in Appendix F for reference. The permit outlines in general the following requirements:

1. Keep an inventory of Permittee owned facilities and storm water controls including buildings, golf courses, parks, maintenance yards and equipment storage. Assess the facilities for storm water pollution potential and identify high priority sites.
2. Develop O&M programs for each facility that will protect storm water from being polluted from that facility. As part of the O&M program schedules and SOPs must be developed to address but not limited to the following items: storage and handling of chemicals, employee training, dumpster management, cleaning washing maintenance of equipment and vehicles, parking lot cleaning, landscape maintenance, storage areas, fertilizer/pesticide/herbicide storage application and disposal, spill response, street sweeping, salt storage and handling, storm water conveyance maintenance, fire fighter training, construction and any other activities that introduce pollution into the storm water system.
3. Develop SOP's for weekly visual inspections and quarterly visual and comprehensive inspections of high priority sites.
4. Assessment of new and existing flood control structures to determine changes that can improve water quality.
5. Compliance of Public Services construction projects with UPDES Permit requirements.

Summary of Existing Efforts

Inventory of Facilities

All City facilities have been inventoried, mapped, floor drains verified to drain to sanitary sewer and assessed for priority status.

Assessment of Flood Control Structures

In 2011 the Storm Drain Master Plan was updated. In the Master Plan the entire system was evaluated, inadequacies in the system were found in the conveyance portion of the system. Flood control structures in detention basins are evaluated for improving water quality when they are part of a larger project.

Public Services Construction Projects

Public Services construction projects that disturb more than 1 acre are required to submit a SWPPP and comply with the regulations found in the UPDES Permit

Plan and Implementation Measures

In order to help meet the goals and objectives of this SWMP, Murray City has chosen the BMP's listed on MCM - 6 Goal Summary Table. Each BMP is cross referenced

alphabetically by code to a fact sheet that describes the BMP, its applicability, its limitations, and its effectiveness in the indicated Appendix A.

Goals

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

The following table includes the goals for MCM - 6.

MCM - 6

ONGOING DOCUMENTATION PROCESS

Pollution Prevention/Good Housekeeping – Goal Summary Table

Measurable Goal	Implementation Date	goal achieved	BMP's used	Action items for obtaining goals.
Develop and maintain a written inventory of City operated facilities and storm water controls	January 2014		MSWD	Facility inventory has been completed see Appendix G
Facilities will be categorized into high and low according to high and low priority according to the inventory of onsite pollutants	January 2014			Facility categorization has been completed see Appendix G
SOP's will be developed to protect water quality and reduce discharge of pollutants from high priority sites	January 2014		ET, HP	SOP's to protect water quality in high priority sites written. Training to all
The City will ensure all floor drains from each facility discharge to the sanitary sewer or the appropriate BMP's are in place to minimize pollutant discharge.	January 2014		IM	City facility floor drain have been mapped
SOP's will be developed for routine maintenance activities of sites including: parking lot and street sweeping, dumpsters, vehicle washing, plowing paving, mowing, material storage, etc.	January 2014		ET, HP, SC	SOP's have been written for standard maintenance of all City facilities including high priority facilities
SOP's will be developed for weekly and quarterly inspections including storm water controls and discharges of high priority facilities and associated documentation	January 2014		IM	High priority facilities inspection SOP's have been written
Structural controls will be evaluated to determine any changes that can improve water quality discharge	January 2014		ECP	Structural controls are evaluated under Land Disturbance Checklist
Public construction projects will comply with requirements of private projects pertaining to BMP selection.	January 2014		HP	Public construction projects disturbing over 1 acre will be required to submit a Land Disturbance Permit
Annual training will be provided for all employees whose jobs are likely to impact storm water quality including construction and maintenance positions.	January 2014		ET	City employees with jobs where storm water can be affected will receive annual training

This process should take place continually, or as a minimum, annually.