

RIVER HEIGHTS CITY
STORM WATER
MANAGEMENT PROGRAM

UPDES Permit # 090029
Effective March 1, 2016 – February 28, 2021

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.

Storm Water Management Program

A Storm Water Management Program should:

- Reduce the discharge of pollutants to the "maximum extent practicable" (MEP);
- Protect water quality;
- Satisfy the appropriate water quality requirements of the Clean Water Act; and
- Be phased in over a five year period.

Storm water management programs must include:

- Best Management Practices (BMPs) for each of the six minimum control measures;
 1. Public Education and Outreach
 2. Public Participation/Involvement
 3. Illicit Discharge Detection and Elimination

4. Construction Site Runoff Control
 5. Post-Construction Runoff Control
 6. Pollution Prevention/Good Housekeeping
- Measurable goals for each minimum control measure (i.e., narrative or numeric standards used to gauge program effectiveness);
 - Estimated months and years in which actions to implement each measure will be undertaken, including interim milestones and frequency; and
 - The person or persons responsible for implementing or coordinating the storm water program.

Permit Application and Notice of Intent

Phase II Rule encourages the development of a storm water management program by requiring a Notice of Intent (NOI) describing the storm water management program to be submitted to the NPDES permitting authority. The Notice of Intent becomes the permit application.

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

Reports

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

- The status of compliance with permit conditions, including an assessment of the appropriateness of the selected BMPs and progress toward achieving the selected measurable goals for each minimum measure;

- Results of any information collected and analyzed, including monitoring data if any;
- A summary of the storm water activities planned for the next reporting cycle;
- A change in any identified BMP or measurable goals for any minimum measure; and
- Notice of relying on another governmental entity to satisfy some of the permit obligations (if applicable).

Record Keeping

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

Deadlines

The following deadlines are included in this permit

Date	Description
September 1, 2011	Ongoing Documentation
October 1, 2011	Submit Revised SWMP document to the State
October 1, 2011	Revised SWMP document available on city website
December 1, 2011	Inventory of all floor drains inside Permittee-owned facilities
December 1, 2011	Inventory of all storm drains of Permittee-owned property
December 1, 2012	Post Construction program implemented
December 1, 2012	Construction program implemented
December 1, 2012	IDDE program implemented

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.

This document contains a description of the community-specific Storm Water Management Program for River Heights City. 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:

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

- Appendix F – Copies of State permits and documents regulating the River Heights City storm water program
- Appendix G – System maps and inventories

RIVER HEIGHTS CITY CHARACTERISTICS

General Information

The River Heights City Storm Drain System falls under the Public Works Department for the City. The Public Works Director can be contacted at the following address and phone number:

Mr. Clayton Nelson
520 South 500 East
River Heights, Utah 84321
435-752-2646 ext 2

Some general information for River Heights City follows:

- Population:** 1980
- Size:** .54 sq. miles
- Geographic Description:** Located on the S E border of Logan City with elevations varying between 4500 to 4600 ft.
- Receiving Waters:** River Heights is a drainage basin for the Logan River
- Annual Precipitation:** 17.63 inches per year
- Type of Community:** A small city with moderate rates of residential growth that are expected to continue for many years.
- Latitude:** 41.71* N
- Longitude:** 111.82* W

History

Situated south of the Logan River and south of Logan, River Heights was settled in 1882 by James Bullock who used the land for cattle grazing. This became a passageway for the settlers to travel from Providence to Logan.

River Heights was incorporated as a town in 1934 and became a City in 1968. Originally pasture land, it started to grow slowly and evolved into a community of well kept homes.

It is on the east bench lands of Cache Valley, a remnant of ancient Lake Bonneville. Providence is to the south and Logan is to the north, east, and west.

River Heights is unique among most other Cache communities. It is completely surrounded by either other cities or physical barriers that will limit its long term growth. While there still remains vacant land that can be developed, it is limited. The community is nearly all residential with limited possibilities for more commercial development.

Local Water Quality Concerns

The water quality within River Heights City is relatively good. None of the streams or waterways in River Heights have been identified as protected under section 303(d) of the Clean Water Act. However, River Heights has been given a wasteload allocation for its MS4 Permit under the Cutler TMDL. The hope and intent of this Storm Water Management Plan (SWMP) is to maintain that status and possibly even improve the current water quality.

The storm water in River Heights City drains to a series of ditches where it is transported to the Logan River or to Spring Creek. At present, the city hasn't encountered any major problems related to the ditches capacities. In the future it is anticipated that some infrastructure improvements may need to be made to deal with capacity issues. It is likely that these improvements will be made on an "as-needed" basis.

Based upon TMDL's of the Cutler Reservoir along with routine activities within River Heights, target pollutants for River Heights City have been identified as the following:

- BODs
- Nitrate (N)
- Total Nitrogen (TN)
- Total Phosphorus (TP)
- Total Dissolved Solids (TDS)
- Total Suspended Solids (TSS)
- E. coli
- Oil and Grease
- Turbidity

River Height's SWMP has been geared toward small city applications, targeting the pollutants mentioned. The primary focus in the plan is to meet the requirements of the Phase II Small Municipal Separate Storm Sewer Systems Permit, educate the community and to utilize public involvement and the participation to help keep costs within the modest budget for a small community.

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. As part of this update, the Public Works Department has reviewed existing BMPs and measureable goals and assessed them for their effectiveness and contribution in helping us achieve our desired results. We have completed evaluation worksheets to document our review and our assessment of our current program. These evaluation sheets are found in Appendix D. This evaluation provided the foundation for this update. We have tried to build off of the positive things that have been accomplished and renewed our commitment to improve in areas where our program has been lacking. We feel the revised program is more focused.

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

Educational Materials

All cities in Cache County contract with Service Area #1 to provide garbage collection, waste services, and a recycling program. There are educational materials covering subjects of recycling, waste reduction, and proper disposal that are available at the local landfill. (see "Supporting Information" section)

City used Media

River Heights City has a website that is located at www.riverheights.org

Message Board

The city currently maintains a message board in City Hall. The purpose of the board is to post announcements and items of general interest to the community. The City publishes a newsletter quarterly that will be delivered to residents and also posted on the message board.

Storm Water Fair

Annually in the spring, the MS4 Permitted communities combine efforts to conduct a storm water fair for 4th graders across the valley. This has been a successful event and continues to grow in attendees and educational opportunities at the fair. (see "Supporting Information" section)

Contractor Training

Annually Logan City conducts contractor training of standards and specifications of construction in the city. In addition to that training, contractors are educated on the MS4 Permit requirements and inspection requirements for the contractors. (see "Supporting Information" section)

Plan and Implementation Measures

In order to help meet the goals and objectives of this SWMP River Heights City has chosen to adopt the following BMPs. Each BMP is cross referenced alphabetically by code in the indicated appendix to a fact sheet that describes the BMP, its applicability, its limitations, and its effectiveness. Only those BMPs listed below will be utilized by River Heights City as part of their SWMP at the present time.

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

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.

Rational for Public Education BMPs

Classroom Education on Storm Water was chosen as a BMP based upon the success of the ongoing 4th grade storm water fair. The storm water fair creates an outdoor classroom for the students to learn from an interactive environment.

Educational Materials was selected as a BMP because of its applicability in many of the existing efforts River Heights utilizes in its Public Education and Outreach efforts. These include newsletters, brochures, and information distributed at the storm water fair.

Employee Training of practices that need to be followed during development including erosion control plans, low impact development and other BMPs associated with the minimum control measures keeps information fresh on their minds and allows for discussion to better implement the program.

Public Education / Participation allows citizens of the community to become knowledgeable through many efforts. These include educational materials, media and interactive learning events such as a storm water fair.

Using Media is key to any public education and outreach program. Media such as paper and internet can be used to distribute information effectively under River Heights's current operations. The City has a website and distributes a newsletter quarterly.

**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	Selected pollutants	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	Selected pollutants	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	Selected pollutants	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 proper management of pet wastes.	Include information on the website and include information in utility bills or city newsletter.	Ongoing	PEP and UM	Information is current on website and included in utility bills or city newsletter.

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

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 produce and distribute a brochure that is targeted to specific types of businesses.	Ongoing	PEP and UM	Information is current on website and included 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.	Ongoing	EM	Information packets are signed for every new development.

**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	Illicit discharge and waste	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 quarterly on illicit discharges	By July 2019	ET	Work in progress
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 the city's LID goals. Discuss what has been done in the past year to meet the goals, and define the upcoming year's goals.	Ongoing		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 (2010). Implement the selected evaluation method (2011).	Research by January 2011 Implementation by January 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	1-Dec-10		Documented rationale included in the SWMP.

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

Steering Committee

A "Storm Water Steering Committee" consisting of city members was formed in October of 2002 and has taken an active role in selecting the BMPs and developing the initial SWMP for the city.

Green Waste Collection

A green waste bin is available for all residents to use throughout the spring and summer months. The Logan Landfill has a green waste facility where green waste can be dropped off and it is either composted or made into wood chips or firewood. The green waste facility encourages donations by offering \$10 of compost or wood chip material for ten loads of compost material dropped off. This program encourages reuse of an otherwise useless material that could become a solid contaminant in storm water.

Service Groups

There are local scout and church groups that have participated in street cleanup and litter reduction. There is also an irrigation company service day to help clean and maintain ditches and canals from Providence Logan Irrigation Company.

Recycling Program

All cities in Cache County contract with Service Area #1 for waste management services which include a recycling program. This program reduces solid waste by recycling and offers proper disposal options for hazardous wastes that can be difficult to dispose of, thereby preventing storm water contamination due to improper disposal of hazardous waste and solids. The Landfill accepts: cardboard, newspaper, aluminum cans, tin/steel cans, plastic bottles, plastic milk jugs, green waste, aluminum scrap, ferrous metals, tires, used oil, oil filters, antifreeze, carpet pad, batteries, mixed paper on site for recycling.

Plan and Implementation Measures

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

BMP	Code	Appendix
Public Education/ Participation	PEP	B

Goals

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.

**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)					
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 30 days in advance of the city council 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 hard copy of the draft of the permit available at the city offices within a week of the public hearing	Week before city council 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

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 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. ceasing the illicit discharge, including notification of appropriate authorities, property owners, and technical assistance for removing the source and follow-up inspections.
5. Inform public employees, businesses, and the general public about the hazards associated with illegal discharges and improper disposal of waste.
6. Promote or provide services for the collection of household hazardous waste.
7. Publicly list and publicize a hotline or other local number for public reporting of spills and other illicit discharges.
8. Develop a written spill/dumping response procedure, and a flowchart for internal use, including various responsible agencies and their contacts.
9. Adopt and implement procedures for program evaluation and assessment.
10. Train employees, at a minimum, annually on the IDDE program.

Summary of Existing Efforts

Ordinances

River Height City currently has an ordinance designed to specifically prohibit illicit discharges to the storm sewer system.

Illicit Spills

Currently, reports of spills are handled through the City office during business hours. When reported to the City, spill reports are logged and assessed by the public works department. Any spills that occur after hours are reported to the Fire Department or County Health Department.

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 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 storm drain map showing the storm drain system and its points of discharge. A copy of this map is included in Appendix B.

Plan and Implementation Measures

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

BMP	Code	Appendix
Community Hotline	CH	B,C
Employee Training	ET	B,C
Hazardous Waste Management	HWM	B,C
Illegal Dumping Control	IDC	B,C
Identify Illicit Connections	IIC	B,C
Illegal Solids Dumping Controls	ISDC	B,C
Map Storm Water Drains	MSWD	B,C
Non-Storm Water Discharge to Drains	NSWD	B,C
Ordinance Development	OD	B,C

Public Education/ Participation	PEP	B,C
Used Oil Recycling	UOR	B,C

Goals

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.

**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)					
3	All Pollutants	Contractors, Developers, City Council	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 within 6 months	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 final approval.	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 final approval.	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	Purchase a portable unit for pH, DO, Conductivity, & Temp. for finding Illicit Discharges	Complete by July 1, 2013	IIC	Successful if purchased by that date
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 Flow Chart and train personnel	Completed by July 1, 2011	IIC, CH	Successful if completed by that date and staff is following Flow Chart
3	"	"	"	Review flow chart and 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 Flow Chart and train personnel	Completed by July 1, 2011	IDC, ISDC	
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

**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)					
3	Household Hazardous Waste	Residents	4.2.3.8 Promote or provide services for the collection of household hazardous waste	Put the HHW Address and Phone number on City Web Site	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 HHW Address and Phone number on City 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

CONSTRUCTION SITE RUNOFF CONTROL

Overview

Runoff from construction sites can be a large contributing factor to storm water pollution. By controlling construction site runoff through planning, design and construction best management practices, pollution to natural water bodies can be greatly reduced. Review of erosion control plans, Storm Water Pollution Prevention Plans and regular site inspection aid in implementation of this control measure to reduce non-storm water discharges.

Summary of Existing Efforts

Ordinances

River Heights City currently has an ordinance that relates to erosion and sediment control.

Site Plan Review

River Heights currently has a site plan review procedure that is in compliance with the most current MS4 Permit. This review includes: a SWPPP, water quality, low impact development and sensitive areas.

Site Inspectors

There is currently one public works inspector and one RSI who oversees local construction. They are concerned with sewer connections, storm drain and streets. There is a city ordinance that addresses some erosion control, the inspectors make decisions using good judgment of what proper construction technique is and can require contractors to clean up streets and causes of contamination.

Plan and Implementation Measures

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

BMP	Code
Erosion Control Plan	ECP
Establish/Compile Design Standards	ECDS
Certification and Inspector Training	CCIT

Dust Controls	DC
Silt Fence	SF
Straw Bales	STB
Temporary Drains and Swales	TDS
Temporary and Permanent Seeding	TPS
Concrete Waste Management	CWM
Ordinance Development	OD
Zoning	ZO
Land Use Planning Management	LUPM

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.

MCM	Target		Desired Result	Measurable Goal	Milestone Date	Assoc. BMP	Measure of Success (Effectiveness)
	Pollutant(s)	Audience(s)					
4	Sediment, Construction Site Debris, Hydrocarbons	Contractors and Developers	4.2.4.1 Raise awareness of contractors and developers on what is expected on construction sites	Require a SWPPP for every construction site over one acre	Feb. 2012	OD	Successful if 95% of all active construction sites have a working SWPPP
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, City Council, Plan Reviewers	Have an ordinance that is meaningful and enforceable	Revise ordinance to require a SWPPP on every active construction site over 1 acre	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

MCM	Target		Desired Result	Measurable Goal	Milestone Date	Assoc. BMP	Measure of Success (Effectiveness)
	Pollutant(s)	Audience(s)					
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
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	Successful if we have post construction BMPs on 50% of projects
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	Successful if we have post construction BMPs on 50% of projects
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 city where "additional" protection may be desired	July, 2011	LUPM	When preconstruction review is complete, documented and filed.
4	Sediment, Construction Site Debris, Hydrocarbons	Contractors and Developers	4.2.4.4.1 Inspections of all new construction sites ... at least monthly by qualified personnel	Conduct monthly inspections of all construction sites -	Feb. 2012	CCIT	Successful if 90% of all active construction sites are inspected monthly

MCM	Target		Desired Result	Measurable Goal	Milestone Date	Assoc. BMP	Measure of Success (Effectiveness)
	Pollutant(s)	Audience(s)					
4	"	Contractors , developers and MS4 staff	4.2.4.5 Provide training to city staff and 3rd party designers	Develop a city policy to require all SWPPP inspectors to be RSI inspectors within 6 months	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 city	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
	"	"	4.2.4.4.3 Conduct Bi-weekly inspections on high priority construction sites	Inspect high priority sites	Feb. 2012	ECP	Successful if all high priority sites are inspected bi-weekly
	"	"	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

LONG TERM STORM WATER MANAGEMENT IN NEW DEVELOPMENT AND REDEVELOPMENT

Overview

The intent of Long Term Storm Water Management is to maintain post construction runoff conditions to those of pre-construction runoff. This pertains to both quantity and quality. Techniques such as Low Impact Development (LID) are encouraged to be used when designing for Long Term Storm Water Management.

Long Term Storm Water Management applies to sites over one acre in size and sites less than one acre when part of a common plan of development (CPoD). Applicability of this minimum control measures also pertains to private and public development sites including roads.

When redevelopment of an area occurs within the community, considerations to reduce storm water runoff and improve water quality must also be considered.

Summary of Existing Efforts

Ordinances

River Heights City has an ordinance, development codes and guidelines to address storm water runoff from construction and new development sites.

Landscape Plan Review

Developers are required to present a plan outlining landscaping plans to the city.

Plan and Implementation Measures

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

BMP	Code
Ordinance Development	OD
Land Use Planning / Management	LUPM
Best Management Practices Inspection / Maintenance	BMPIM
Infrastructure Planning	IPL
Extended Detention Basins	EDB
Educational Materials	EM

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 Post Construction Runoff Control.

MCM	Target		Permit Reference/Desired Result	Measurable Goal	Milestone Date	Assoc. BMP	Measure of Success (Effectiveness)
	Pollutant(s)	Audience(s)					
5	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	June, 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, City Council	4.2.5.3.3 The Permittee must develop a plan to retrofit existing developed sites that are adversely impacting water quality.	Evaluate facilities that are adversely impacting water quality.	Dec. 2014	IPL	Complete evaluation and document.
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	Dec, 2011	IPL	If standards have been reviewed and comments made
5	"	"	"	Update design standards	June. 2012	IPL	If updated standards have been adopted

MCM	Target		Permit Reference/Desired Result	Measurable Goal	Milestone Date	Assoc. BMP	Measure of Success (Effectiveness)
	Pollutant(s)	Audience(s)					
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	July, 2012	IPL	Completed map identifying environmentally sensitive areas
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.	Keep a revision log for information in the "Design & Construction" section – Contractor Packet Log	July, 2011	EM	If revision log is filled out for all revisions
5	"	"	"	Log name and date of distribution of Supplemental Guide to Contractors and Developers	July, 2011	EM	If log is up to date and current
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	July, 2011	BMPIM	If inspection and enforcement SOPs are current and being utilized?

MCM	Target		Permit Reference/Desired Result	Measurable Goal	Milestone Date	Assoc. BMP	Measure of Success (Effectiveness)
	Pollutant(s)	Audience(s)					
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
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, ...	Inventory post-construction BMPs - see 4.2.5.7.1 for inventory inclusion items	March, 2011	BMPIM	If inventory is complete
5	"	"	"	Identify who is responsible to inspect and/or maintain each post-construction BMP	July, 2011	BMPIM	If list identifies person responsible for inspections/maintenance

MCM	Target		Permit Reference/Desired Result	Measurable Goal	Milestone Date	Assoc. BMP	Measure of Success (Effectiveness)
	Pollutant(s)	Audience(s)					
5	"	"	"	Develop inspection report form for post-construction BMPs	July, 2011	BMPIM	If form is completed
5	"	"	"	Conduct inspections for city owned BMP's	Ongoing	BMPIM	If completed inspection reports are properly filed
5	"	"	"	Conduct inspections on privately owned BMP's	Ongoing	BMPIM	If completed inspection reports are properly filed
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 HOUSEKEEPING

Overview

The intent of the Pollution Prevention / Good Housekeeping control measure is to maintain and construct city owned facilities in such a way to prevent pollutants from entering into the storm water system. This is accomplished by developing and implementing an operation and maintenance program, outlining standard operating procedures (SOPs) and defining roles and responsibilities of staff overseeing the SWMP.

Summary of Existing Efforts

The city currently maintains the following items in its storm water system.

Item	Maintenance
Catch Basins	Once a year
Ditches/swales and Canals	Cooperate with Canal Co.
Street Sweeping	Annually/as needed

Recycling Program

River Heights City supports Logan City's recycling program through supplying recycling facilities during the community cleanup day. The citizens of the community also use recycle waste containers at the curb. Through the City newsletter, citizens are informed about recycling of hazardous wastes and materials.

Operational Procedures

River Heights currently operates with a limited amount of equipment. This equipment is serviced, cleaned and fueled at commercial facilities not operated by the public works department. This limits the exposure of potential pollutants to the storm water outfalls in the community.

Much of the maintenance is also performed by contractors and citizens. Items such as catch basin cleaning, street sweeping and asphalt maintenance are contracted. Care is taken to inform contractors of storm water requirements on the City that are imposed on contractors as well.

The City stores equipment and materials at the public works facilities near the city office. Most city vehicles are stored in doors to help prevent runoff and leakage spills. Salt and sand are stored off site at an adjacent community's facility.

Plan and Implementation Measures

In order to help meet the goals and objectives of this SWMP, River Heights City has chosen to adopt the following BMPs for use within our city as applicable. Each BMP is cross referenced alphabetically by code to a fact sheet that describes the BMP, its applicability, its limitations, and its effectiveness in the “BMP” section.

BMP	Code
Housekeeping Practices	HP
Infrastructure Planning	IPL
Street Cleaning	SC
Catch Basin Cleaning	CBC
Employee Training	ET

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 Pollution Prevention and Good Housekeeping.

Target		Desired Result	Measurable Goal	Milestone Date	Assoc. BMP	Measure of Success (Effectiveness)
Pollutant(s)	Audience(s)					
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
"	"	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
"	"	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
"	"	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
"	"	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
"	"	"	Conduct weekly inspections	Ongoing	HP	If at annual review all weekly inspections are logged and reports completed

Target		Desired Result	Measurable Goal	Milestone Date	Assoc. BMP	Measure of Success (Effectiveness)
Pollutant(s)	Audience(s)					
"	"	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
"	"	"	Conduct quarterly comprehensive inspections	Ongoing	HP	If at annual review all quarterly inspections are logged and reports completed
"	"	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
"	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
"	"	"	Get policy approved	Dec. 2011	IPL	If policy is approved and adopted by milestone date
"	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)			

Target		Desired Result	Measurable Goal	Milestone Date	Assoc. BMP	Measure of Success (Effectiveness)
Pollutant(s)	Audience(s)					
"	"	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			
"	"	"	Develop a training schedule	July, 2011	ET, HP	If schedule is complete by milestone date
"	"	"	Conduct ongoing training according to schedule	Ongoing	ET, HP	If training is completed and documented according to schedule at annual evaluation

GLOSSARY OF TERMS

Authorized Enforcement Agency: Employees or designees of the director of the municipal agency designated to enforce this ordinance.

Berm: An earthen mound used to direct the flow of runoff around or through a structure.

Best Management Practices (BMPs): Includes schedules of activities, prohibitions of practices, maintenance procedures, design standards, and other management practices to prevent or reduce the discharge of pollutants directly or indirectly into the waters of the United States. BMPs also include treatment requirements, operating procedures, educational activities, and practices to control plant site runoff spillage or leaks, sludge or waste disposal, or drainage from raw material storage.

BOD5: A measure of the amount of oxygen that is consumed by bacteria as it breaks down organic matter in a sample during a five-day period under standardized conditions. It is generally considered to be a measure of organic material in the water.

CIP (Capital Improvement Plan): A plan developed by municipalities to identify and prioritize improvements that need to be made in upcoming years.

Clean Water Act (CWA): The federal Water Pollution Control Act (33 U.S.C. § 1251 et seq.), and any subsequent amendments thereto.

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

Conveyance System: Any channel or pipe for collecting and directing the stormwater.

Culvert: A covered channel or large diameter pipe that directs water flow below the ground surface.

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

Dike: An embankment to confine or control water, often built along the banks of a river to prevent overflow of lowlands; a levee.

Directly Connected Impervious Areas (DCIA): Impervious surfaces that are directly connected to the storm drainage conveyance system. Directly connected means that there is no chance for infiltration or evapotranspiration before entering the conveyance system.

Discharge: The release of stormwater or other substance from a conveyance system or storage container.

Drainage: Refers to the collection, conveyance, containment, and/or discharge of surface and stormwater runoff.

DWS: Dry Weather Screening

Erosion: The wearing away of land surface by wind or water. Erosion occurs naturally from weather or runoff but can be intensified by land-clearing practices related to farming, residential or industrial development, road building, or timber-cutting.

Fill: A deposit of earth material placed by artificial means.

First Flush: The delivery of a disproportionately large load of pollutants during the early part of storms due to the rapid runoff of accumulated pollutants.

General Permit: A permit issued under the NPDES program to cover a class or category of stormwater discharges.

Grading: The cutting and/or filling of the land surface to a desired slope or elevation.

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

Heavy Metals: Metals of high specific gravity, present in municipal and industrial wastes, that pose long-term environmental hazards. Such metals include cadmium, chromium, cobalt, copper, lead, mercury, nickel, and zinc.

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

Illicit Discharge: Any direct or indirect non-storm water discharge to the storm drain system, except discharges from fire fighting activities and other discharges exempted in this ordinance.

Illicit Discharge Detection and Elimination (IDDE): A program that each municipality develops to identify and eliminate any illicit discharges they might have within their collection system.

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

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

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

Ingress/Egress: The points of access to and from a property.

Inlet: An entrance into a ditch, storm sewer, or other waterway.

Low Impact Development (LID): This term is used to describe means and methods that can be utilized to reduce the impact of development on the environment.

Minimum Control Measure (MCM): The EPA has identified six areas of focus for MS4s in developing a program to minimize the potential for pollutants to leave a jurisdiction and to enter the waters of the United States. These six areas of focus are called minimum control measures and they include:

- 1) Public Education and Outreach
- 2) Public Involvement

- 3) Illicit Discharge Detection and Elimination
- 4) Construction Site Storm Water Control
- 5) Post Construction Storm Water Control
- 6) Pollution Prevention and Good Housekeeping

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

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

Nonpoint Source: Pollution caused by diffuse sources (not a single location such as a pipe) such as agricultural or urban runoff.

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

NPDES Permit: An authorization, or license, or equivalent control document issued by EPA or an approved state agency to implement the requirements of the NPDES program.

Off-site: Any area lying upstream of the site that drains onto the site and any area lying downstream of the site to which the site drains.

On-site: The entire property that includes the proposed development.

Outfall: The point, location, or structure where wastewater or drainage discharges from a sewer pipe, ditch, or other conveyance to a receiving body of water.

Point Source: Any discernible, confined, and discrete conveyance, including but not limited to any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, or vessel or other floating craft, from which pollutants are or may be discharged.

Plat: A map or representation of a subdivision showing the division of a tract or parcel of land into lots, blocks, streets, or other divisions and dedications.

Pollutant: Generally, any substance introduced into the environment that adversely affects the usefulness of a resource. Pollutants may include, but are not limited to: paints, varnishes, and solvents; oil and other automotive fluids; non-hazardous liquid and solid wastes and yard wastes; refuse, rubbish, garbage, litter, or other discarded or abandoned objects, and accumulations, so that same may cause or contribute to pollution; floatables; pesticides, herbicides, and fertilizers; hazardous substances and wastes; sewage, fecal coliform and pathogens; dissolved and particulate metals; animal wastes; wastes and residues that result from constructing a building or structure; and noxious or offensive matter of any kind.

Receiving Waters: Bodies of water or surface water systems receiving water from upstream constructed (or natural) systems.

Retention: The holding of runoff in a basin without release except by means of evaporation, infiltration, or emergency bypass.

Riparian: A relatively narrow strip of land that borders a stream or river.

Riprap: A combination of large stone, cobbles and boulders used to line channels, stabilize banks, reduce runoff velocities, or filter out sediment.

Runon: Stormwater surface flow or other surface flow which enters property other than that where it originated.

Runoff: That part of precipitation, snow melt, or irrigation water that runs off the land into streams or other surface water. It can carry pollutants from the air and land into the receiving waters.

Sedimentation: The process of depositing soil particles, clays, sands, or other sediments that were picked up by runoff.

Sheet Flow: Runoff which flows over the ground surface as a thin, even layer, not concentrated in a channel.

Source Control: A practice or structural measure to prevent pollutants from entering

stormwater runoff or other environmental media.

Stabilization: The proper placing, grading and/or covering of soil, rock, or earth to ensure its resistance to erosion, sliding, or other movement.

Standard Operating Procedure (SOP): A written description of the standard method of performing a given task. Can include a step by step description. SOP's are developed in an effort to bring consistency to a program and to clearly define the expectations of that program. They should be the basis of training programs for municipal employees.

Storm Drain: A slotted opening leading to an underground pipe or open ditch for carrying surface runoff.

Stormwater: Rainfall runoff, snow melt runoff, and drainage. It excludes infiltration.

Storm Water Management Program (SWMP): A document which describes the Best Management Practices and activities to be implemented by a person or business to identify sources of pollution or contamination at a site and the actions to eliminate or reduce pollutant discharges to storm water, storm water conveyance systems, and/or receiving waters.

Storm Water Pollution Prevention Plan (SWPPP): A document which describes the general plan for addressing storm water pollutants at a given site. The plan characterizes the nature of the potential pollutants, describes methods and concepts for controlling those pollutants and identifies those responsible for the plan.

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

TMDL (Total Maximum Daily Load): An acronym for and in this Permit refers to a study that: 1) quantifies the amount of a pollutant in a stream; 2) identifies the sources of the pollutant; and 3) recommends regulatory or other actions that may need to be taken in order for the impaired waterbody to meet water quality standards.

Total Suspended Solids (TSS): An analytical measure of the amount of sediment

suspended in water. TSS is typically comprised of larger sediment particles and does not include fine clays and silts that might be dissolved.

Treatment Control BMP: A BMP that is intended to remove pollutants from stormwater.

Underground Injection Wells (UIW): A hole receiving storm water whose top dimension is narrower than the depth.

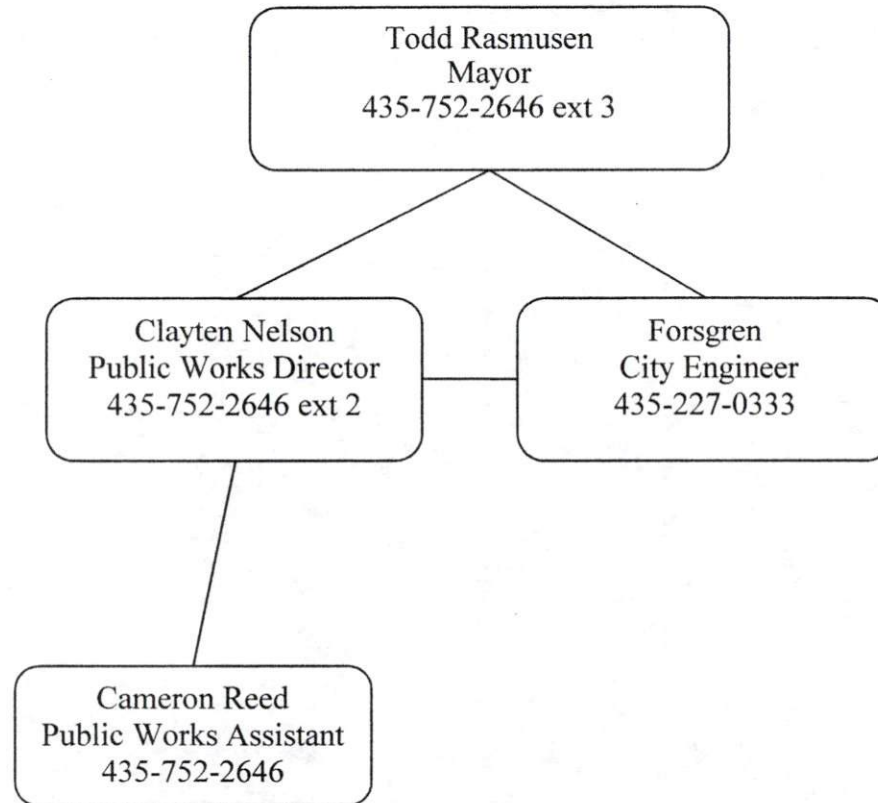
UPDES (Utah Pollutant Discharge Elimination System): The State of Utah's program to control the discharge of pollutants to waters of the United States.

Waters of the State: Surface waters and ground waters within the boundaries of the State of Utah and subject to its jurisdiction.

Waters of the United States: Surface watercourses and water bodies as defined in 40 CFR § 122.2. including all natural waterways and definite channels and depressions in the earth that may carry water, even though such waterways may only carry water during rains and storms and may not carry storm water at and during all times and seasons.

Wetlands: An area that is regularly saturated by surface or ground water and subsequently characterized by a prevalence of vegetation that is adapted for life in saturated soil conditions. Examples include: swamps, bogs, marshes, and estuaries.

MS4 ORGANIZATION CHART
River Heights City



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

Organization Chart for Department Responsibilities

Public Works Director

- Liaison with administration and City Council
- Oversee SWPP program
- Annual report
- Updating SWPPP
- Responsible for general work areas including:
 - Storm drain system maintenance
 - General BMP maintenance
 - Equipment wash area
- Coordination with Assistant City Engineer
- Parks dept. maintenance
- Pesticides, Herbicides, and Fertilizers program
- Training parks personnel
- Chemical and fertilizer storage area
- Water dept. maintenance
- Training water dept. personnel
- Street dept. maintenance
- Training street dept. personnel
- Snow plowing program
- Street sweeping program
- Equipment operations and maintenance

Public Works Assistant

- Parks dept. maintenance work area
- Water dept. maintenance work area
- Street dept. maintenance work area
- Equipment operations and maintenance

Assistant City Engineer

- Tracking and documentation of activities and actions
- Database updates
- Engineering support
- Help with all reporting
- Storm drain mapping



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04.18.16

Memorandum of Understanding

As part of our compliance with section 4.1.3.3 of the Small MS4 General Permit, Providence City would like to work with both Millville City and River Heights City in a cooperative effort to enforce our respective SWMP's.

This will include notifying a neighboring city as to a potential problem(s) located within their city limits and also the education of contractors who may do work in any of the three cities.

Providence City feels like this will be an advantageous understanding between all three cities.

Thank you,

Rob Stapley 6.24.16

Rob Stapley
Providence City
Public Works Director

Chel V. Kurb
Millville City representative

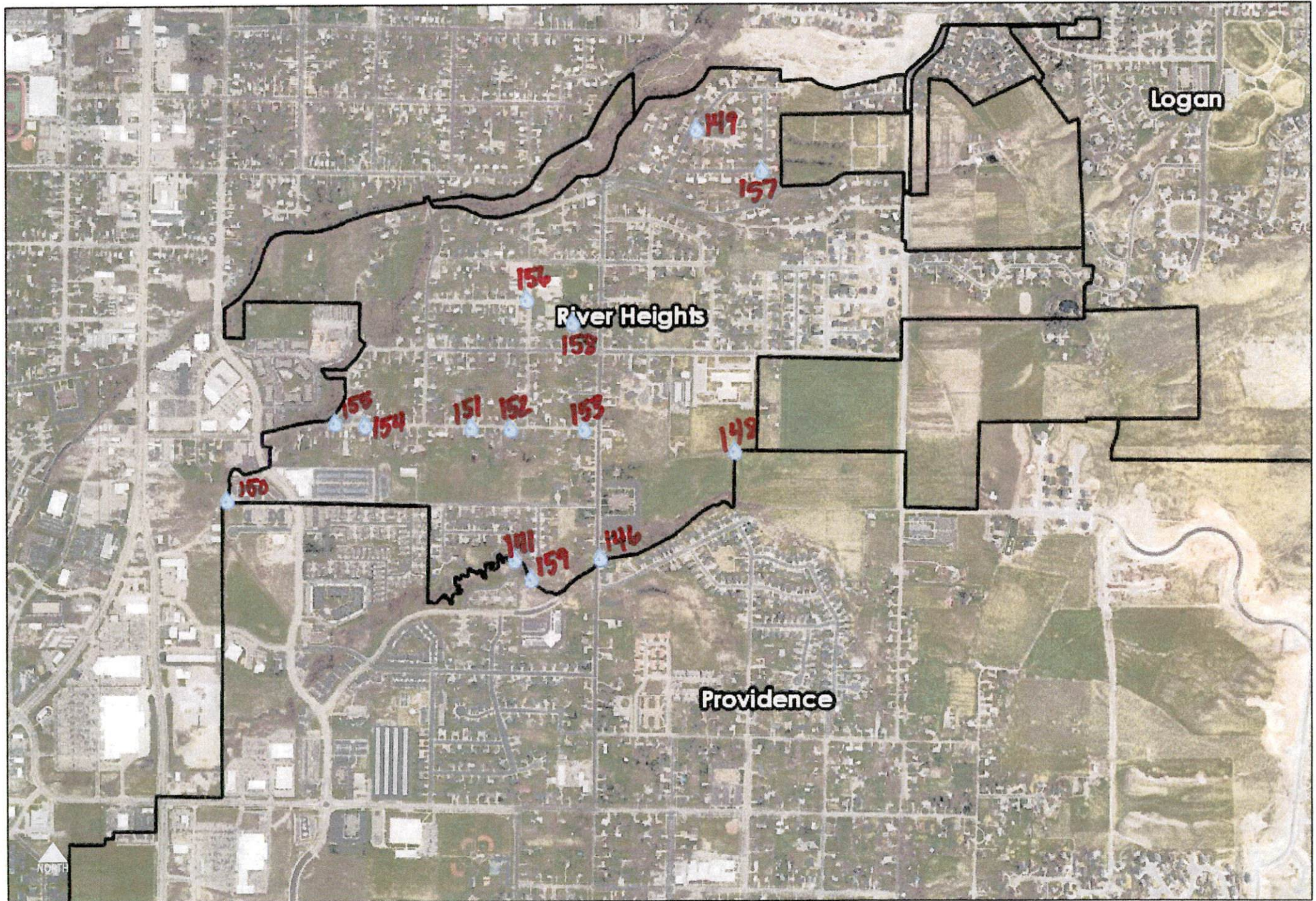
6/24/2016
Date

Charles Nelson
River Heights City representative

6/23/2016
Date

Sample Shared Responsibilities

Activity	Target Pollutants	Target Audiences	Measurable Goal	Document/Data/Proof of Completion	Document Location	Responsible Person/Party
TV Advertisements	1-17	1-4	Purchase annually	Invoice	Coalition Documentation Binder	Coalition Chairman
Monthly Coalition Meeting	1-17	1-4	Meet 10 times annually	Agenda, Minutes, Attendance List	Binder	Coalition Chairman
4th Grade Lessons	1-7,15	1	Teach all public 4th grade classes annually	Invoice, Teacher's lesson plan, school visitation schedule	Binder	Coalition Chairman
Purchase Education Materials						
Booklets & Balls	1-7,15	1	Purchase enough for all 4th grade classes annually	Invoice	Binder	Coalition Chairman
BMP Manual	3,8	3,4	Review annually	Finished document	Binder	Coalition Chairman
Pamphlets	2,3,6,9-14,16	1-4	Develop 1 pamphlet annually	Invoice, finished document	Binder	Coalition Chairman
Stickers (gas station)	17	1,2	Purchase when supply is depleted	Invoice, finished products	Binder	Coalition Chairman
Pencils & Magnets	1-17	1	Have continually available	Invoice, finished products	Binder	Coalition Chairman
Curb Markers	1-17	1	Have continually available	Invoice, finished products	Binder	Coalition Chairman
Water Fair	1-7,15	1	Hold one event annually	Invoices	Binder	Coalition Chairman
Trainings	1-17	3,4	Hold one training annually	Invoice, Invitation, Agenda, Attendance List	Binder	Coalition Chairman
County Drainage Map	15	4	Request updates annually	Minutes of Coalition meeting	Binder	Coalition Chairman
Spill Report Hotline	15	1-4	Get reports semi-annually	Report on calls received	Binder	Coalition Chairman
Standard Operating Procedures	1-17	4	Review & update annually	Finished document	Binder	Coalition Chairman
StormCon Conference	1-17	4	Send 3 coalition members annually	Invoices	Binder	Coalition Chairman
SWAC Meeting Attendance	1-17	4	Have 1 voting member and 1 alternate assigned and present 90%	Attendance sheet, minutes	Binder	Coalition Chairman
Interlocal Agreement	1-17	1-4	Execute once per permit cycle	Executed document	Binder	Coalition Chairman
Model Ordinance	1-17	1-4	Have available by July 2011	Finished document, subcommittee minutes	Binder	Coalition Chairman



Date: 7/30/2019