STORM WATER

MANAGEMENT PROGRAM

UPDES Permit # 090029
Effective March 1, 2016 – February 28, 2021
Updated 2020

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.

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

Some general information for River Heights City follows:

Population:	2000
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:	Spring Creek, 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 waste load 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.

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.

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.

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. Only those BMPs listed below will be utilized by River Heights City as part of their SWMP at the present time.

BMP PE 01: Using Media

Minimum Control Measure: Public Education and Outreach

Target Pollutants: Typical Urban Pollutants

Audiences: Residents, Businesses (Institutions, and Commercial), Contractors, Developers, City.

Existing: X New:

Desired Results: Provide easy contact information and resource information to assist citizens and businesses who want to obtain information on the proper disposal of wastes.

Measurable Goal: On the City Web Site, provide the following information:

1) Information about Logan City's recycling program, curb side recycling, and locations of recycling drop locations.
2) Information about Logan City's green-waste facility, curb side pickup program, and green waste drop locations.
3) Information about household hazardous waste disposal program with descriptions of what is taken and any associated fees.
4) Information on illegal garbage disposal (dumping) and environmental impacts associated with it.
5) Information and guidelines concerning the impacts, responsibility, and methods for reducing or eliminating storm water impacts associated with illicit discharges, litter and garbage, fertilizers, pesticides, herbicides, yard wastes, oil and antifreeze, pet wastes, paint and cleaners, and soaps (yard and parking lot car wash issues, proper use of salt and other deicing materials.

6) Copy of storm water master plan
7) Links to low impact development (LID) guidelines and information.

Justification: The internet is becoming a convenient and widespread means of disseminating information to interested citizens.

Measures of Success:

1) Update of website annually.

Responsible Agency in River Heights City: Public Works Department, Office Staff

Milestones: Continue program and update as necessary.

BMP PE 02: Classroom Education on Storm Water

Minimum Control Measure: Public Education and Outreach

Target Pollutions: TSS, Phosphorus, nitrogen, Common Urban Pollutants

Audiences: Residents, focusing on 4th Grade Students

Existing: X New:

Desired Goal: Help fourth graders in the Logan City and Cache County School Districts gain an understanding of the importance of water quality and help build a habit of water quality protection.

Measurable Goal: Provide a water fair opportunity for fourth graders to attend once per year covering water shed protection, erosion control, water conservation, and good housekeeping to reduce residential pollution.

Justification: Providing education to students establishes a foundation for civic consciousness throughout the student's lives, and the students carry the message back into their homes creating a multiplier effect for the information presented.

Measure of success: Attendance of 4th grade classes from the Logan City and Cache County School District.

Responsible Agency in River Heights City: Public Works Department

Milestones: Continue program and update as necessary.

BMP PE 03: Educational Materials

Minimum Control Measure: Public Education and Outreach

Target Pollutions: TSS, Phosphorus, Nitrogen, Trash, Dust, and Debris

Audiences: Contractors and Developers

Existing: X New:

Desired Goal: Help educate contractors and developers in River Heights City MS4 about the SWMP and requirements associated with General Construction Permit.

Measurable Goal:

1) Require Contractors and Developers to attend the Logan City annual contractors meeting to instruct contractors of the requirements and BMPs associated with construction sites and post construction activities, especially NOI, SWPPP, and NOT requirements.
2) Train contractors on access and application of standards and specifications and reiterate these requirements for contractors during any preconstruction meetings.
3) Train Developers and Engineers on access and application to City requirements regarding construction, post construction, low impact development

Justification: Contractors are the single largest producer of water pollution during storm events if sites are not appropriately maintained and appropriate BMPs are not installed.

Measure of success:

1) Require Contractors and Developers to show proof of attendance at annual contractors meeting
2) Keep a log of Contractor training in SWMP.

Responsible Agency in River Heights City: Public Works Department, City Engineer.

Milestones: Continue program and update as necessary.

BMP PE 04: Employee Training

Minimum Control Measure: Public Education and Outreach

Target Pollutions: TSS, Phosphorus, Nitrogen, Hydrocarbons, Salts/ De-Icing, Dust, and Debris

Audiences: City Staff

Existing: X New:

Desired Goal: Educate the public, institutions, industrial/commercial and City staff on Storm Water Impacts

Measurable Goal:

1) Provide statement on City utility bill that directs the public to the City web page for information regarding potential impacts to storm water annually.
2) Provide training of City Staff addressing storm water pollution impacts and reference to City web page for additional information. Provide specific training to City staff based on job type and associated SOP's
3) Provide annual training and documentation on LID practices, green infrastructure and post construction BMP's to MS4 engineers, land use planners, review staff and others as applicable.

Justification: City planners and engineering design review are the first line of defense to protect water quality before construction ever gets started.

Measure of success:

1) Provide annual training to City staff, MS4 engineers, land use planners and design review staff on impacts pollution of storm water, website information, design review process, LID practices, green infrastructure and specific job SOP's.

Responsible Agency in River Heights City: Public Works Department, City Engineer.

Milestones: Continue program and update as necessary.

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 is 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.

BMP PI 01: Public Participation

Minimum Control Measure: Public Participation / Involvement

Target Pollutants: TSS, phosphorus, nitrogen, litter, green waste materials, debris, and other wastes

Audience: Residential, Businesses, City, Contractors & Developers

Existing: X New:

Desired Results: Continue educating and involving the public, businesses, City employees, and contractors and developers, concerning reduction, reuse, and recycling of solid and hazardous waste materials as well as green waste materials in order to prevent littering and dumping of these materials such that they come in contact with storm water run-off.

Measurable Goal:
1) Deliver a solid waste management newsletter annually.
2) Post advertisements, educational tips, and public service announcements made available by Logan City Environmental Department.
3) Post education and information about solid waste management and recycling made available by the Logan City Environmental Department's web site.
4) Work with citizens to insure cleanliness of driveways, curb and gutter, and irrigation ditches

Justification: Gutters, ditches, and other storm water conveyance systems frequently contain litter (paper, plastics, and food containers), as well as green waste and organic materials. This BMP aims at educating and involving the public about the appropriate local disposal, recycling, and composting programs for solid waste, hazardous wastes, and green waste materials.

Measure of Success: Success will be defined as completion of the following areas and an annual report documenting progress:
1) All newsletter and advertisements will be compiled in a scrap book or filed electronically.
2) The River Heights City web site is available for review at any time.
3) Continue working with citizens and volunteer groups
Responsible Agency in River Heights City: Public Works and Office Staff
Milestones: Continue program and update as necessary.

BMP PI 02: Storm Water Steering Committee

Minimum Control Measure: Public Involvement and Participation

Target Pollutants: TSS, phosphorus, nitrogen, trash, dust and debris.

Audience: City, Contractors, Businesses, Developers, and Residents.

Existing: X New:

Desired Results: Provide a means for the pubic to provide public comment and gain understanding into the activities of the Storm Water Utility.

Measurable Goal:

1) Maintain a Storm Water Steering Committee to review and make recommendations to City staff and the City Council on policy and programs affecting storm water management within River Heights City.
2) Maintain membership on Storm Water Steering Committee consisting of representatives of the entire Target Audience.

Justification: Public involvement, especially from representatives of those interest groups who will be most impacted by storm water management policies and programs, is important to the success of any program. The Storm Water Steering Committee will serve as an advisory body to City Staff and the City Council and will review policies, programs and project plans for storm water management involving both quantity and quality issue.

Measure of Success:

1) Meet at least annually.

Responsible Agency in River Heights City: Public Works Department

Milestones: Continue program and update as necessary.

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.

BMP ID 01: Storm Water System Mapping

Minimum Control Measure: Illicit Discharge Detection and Elimination

Target Pollutants: TSS, phosphorus, nitrogen and potential industrial contaminants

Audience: City

Existing: X New:

Desired Results: Map all storm water outfalls and the storm water system to facilitate illicit discharge inspections and to support MCM activities for Construction Sites, Post Construction, and General House Keeping.

Measurable Goal:

1) Maintain a map of all system outfalls within River Heights City.
2) Update all storm drain maps including existing system, new development, redevelopment, and public projects as it occurs.

Justification: Illicit discharges are illegal and unauthorized discharges to the storm water system or sewer system. Any illicit discharge program requires knowledge of where the storm water outfalls and collection system are located.

Measures of Success:

1) Continue to improve system mapping.

2) Survey and add new development, redevelopment, and public projects to the map as they are completed.

Responsible Agencies in River Heights City: Public Works Department, City Engineer.

Milestones: Continue program and update as necessary.

BMP ID 02: Ordinance and Enforcement

Minimum Control Measure: Illicit Discharge Detection and Elimination

Target Pollutants: Urban Pollution.

Audience: City, Residents, Businesses, Contractors, Development

Existing: New: X

Desired Results: Provide authority for inspection, prohibit illicit discharge, develop an escalating enforcement mechanism, develop standard procedures for enforcement, and document enforcement activities to eliminate non-storm water discharges.

Measurable Goal:

1) Continually update storm water ordinance including section for the elimination of illicit discharges (allowable discharges include non-storm water, irrigation, groundwater, or UPDES permitted discharge) and submit to City Council for approval. Include prohibition of illicit discharges, spills, illicit connection, illegal dumping, and sanitary sewer overflows (SSOs) into the storm drainage system.
    a. Include in ordinance requirements for removal of illicit discharges
    b. Include in ordinance definition of who has authority to issue enforcement.
    c. Include in the ordinance adequate authority to detect, investigate, eliminate and enforce against illicit discharges.
2) Include a variety of enforcement options in order to apply escalating enforcement procedures as necessary for the severity of violation. Review and update SOPs for ceasing illicit discharge including notifications of appropriate authorities, notification of property owner, technical assistance for removing the source of the discharge or otherwise eliminating the discharge, follow-up inspections, and escalating enforcement and legal actions if the discharge is not eliminated.
3) Update documentation process of all illicit discharge enforcement actions.

Justification: Illicit discharges are illegal and unauthorized discharges to the storm water sewer system. Implementation of an ordinance giving the authority and prohibitions by law is necessary before the River Heights City MS4 can stop these discharges and the associated storm water contamination as required by the provisions of the Utah Water Quality Act, Title 19, Chapter 5, Utah Code Annotated 2004, as amended (the “Act”) and the Federal Water Pollution Control Act (33 U.S.C. §§ 1251 et. seq., as amended to date), and the Rules and Regulations made pursuant to those statutes.

Measures of Success:

1) Enforce Storm Water Ordinance

Responsible Agencies in River Heights City: Public Works Department, City Engineer

Milestones: Continue program and update as necessary.

BMP ID 03: Illicit Discharge Detection and Investigation

Minimum Control Measure: Illicit Discharge Detection and Elimination

Target Pollutants: Urban Pollution.

Audience: City, Residents, Businesses, Contractors, Development

Existing: New: X

Desired Results: Provide standard procedures for the detection and investigation of illicit discharges into the River Heights City MS4 including tracing and characterization of discharges.

Measurable Goal:

1) Develop and implement a written systematic procedure for locating and listing the priority areas likely to have illicit discharges based on:
    a. Areas with older infrastructure
    b. Commercial, or mixed use areas.
    c. Areas with a history of illegal dumping
    d. Areas with older sewer lines or with a history of sewer overflows or cross connections
    e. Areas upstream of sensitive water bodies
    f. Other areas the Permittee determines
2) Develop and document basis for selection of priority areas and update annually.
3) Update, publically list, and publicize a local telephone number for public reporting of spills and other illicit discharge. Develop written record forms to track call information, follow-up actions taken, and feedback received.
4) Update a written spill/dumping response procedures and flow chart that show the procedures for responding to public referrals of illicit discharges including the various responsible agencies and their contact information.
5) Update and implement field assessment activities, including an inspection form, for verifying outfall locations and detecting illicit discharges, including dry weather screening of outfalls or facilities serving priority areas identified in item 1 of this BMP.
6) Update and implement an SOP for tracing sources of an illicit discharge including:
    a. Visual inspections
    b. Manhole inspections
    c. Collection of water samples
7) Update and implement SOPs for characterizing the nature of, and potential public or environmental threat posed by any illicit discharge reported to or found by River Heights City MS4. SOPs shall include instructions for evaluating how discharge shall be contained and steps taken to implement the containment instructions
8) Update the illicit discharge form that contains:
    a. Date of discovery or report of illicit discharge
    b. Date discharge was observed
    c. Date the River Heights City MS4 initiated investigation
    d. Location of the discharge
    e. Method of discovery
    f. Date of removal or repair
    g. Enforcement action taken
    h. Date of removal or repair action follow-up inspection

i. Method of follow-up inspection

9) Update database tracking system including mapping, tracking of the number and type of illicit discharges, and inspections completed

Justification: Illicit discharges are illegal and unauthorized discharges to the storm water sewer system. Implementation of a program to locate and eliminate these discharges to the River Heights City MS4 can reduce storm water contamination as required by the provisions of the Utah Water Quality Act, Title 19, Chapter 5, Utah Code Annotated 2004, as amended (the "Act") and the Federal Water Pollution Control Act (33 U.S.C. §§ 1251 et. seq., as amended to date), and the Rules and Regulations made pursuant to those statutes.

Measures of Success:

1) Continue to publically list, and publicize a local telephone number for public reporting of spills and other illicit discharge. .
2) Continually update the written spill/dumping response procedures and flow chart that show the procedures for responding to public referrals of illicit discharges including the various responsible agencies and their contact information.
3) Continually update and implement field assessment activities, including an inspection form, for verifying outfall locations and detecting illicit discharges, including dry weather screening of outfalls.
4) Update SOP for tracing sources of an illicit discharge per current MS4 permit.

Responsible Agencies in River Heights City: Public Works Department, Office Staff

Milestones: Continue program and update as necessary.

BMP ID 04: Illicit Discharge Training

Minimum Control Measure: Illicit Discharge Detection and Elimination

Target Pollutants: Urban Pollutants.

Audience: City

Existing: New: X

Desired Results: Train employees about the IDDE program including: identification, investigation, termination, cleanup, and reporting of illicit discharges including spills, improper disposal, and illicit connections.

Measurable Goal:

1) Train newly hired staff immediately and Public Works office staff at least annually who might receive initial reports of illicit discharge how to identify a spill or illicit discharge, improper disposal, or an illicit connection to the MS4 and proper procedures for reporting the discharge and issuing work orders.
2) Train newly hired staff immediately and field staff at least annually how to respond, safely identify, notify, eliminate and inspect an illicit discharge as it applies to their job function. Training will focus on utilization of tracing and characterization SOPs, notification procedures, reporting procedures, elimination and repair procedures, enforcement, and follow-up inspections.
3) Train all City staff, contracted staff, other responsible entities, and others that might receive reports of illicit discharges annually in the IDDE program, including identification, investigation, termination, cleanup, and reporting of illicit discharges.

Justification: Illicit discharges are illegal and unauthorized discharges to the storm water system or sewer system. Any illicit discharge program requires knowledge of where the storm water outfalls and collection system are located.

Measures of Success:

1) Hold training classes annually. (Preferably before April 1)
2) Keep training log and file with SWMP

Responsible Agencies in River Heights City: Public Works, Office Staff

Milestones: Continue program and update as necessary.

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.

BMP CS 01: Inspection of Construction Projects

Minimum Control Measure: Construction Site Runoff Control

Target Pollutants: TSS, phosphorus, nitrogen, trash, dust and debris.

Audience: City, Contractors, Businesses, Developers, and Residential

Existing: X New:

Desired Results: Continue to implement and enforce a program to reduce pollutants in storm water runoff to the River Heights City MS4 from construction sites with a land disturbance greater than or equal to 1.0 acre, including projects less than one acre that are part of a larger common plan of development.

Measurable Goal:

1) Inspect all construction sites with a land disturbance greater than or equal to 1.0 acre, including projects less than one acre that are part of a larger common plan of development at least monthly by qualified personnel using the state approved inspection form.
2) Inspect all priority construction sites at least biweekly using approved inspection form. Priority construction sites are defined as a site that has the potential to threaten water quality when considering the following: soil erosion potential, site slope, project size and type, sensitivity of receiving water bodies, proximity to receiving water bodies, non-storm water discharges, and past record of non-compliance.
3) Inspect all phases of construction: prior to land disturbance, during active construction, and following active construction.

4) Update and maintain 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.
5) Document enforcement actions to ensure compliance in accordance with enforcement strategy defined in standard operating procedures.
6) Provide training to staff responsible for plan review, construction site inspections, and enforcement. The Permittee shall ensure that all new hires are trained upon hire and before commencing storm water related duties and annually thereafter, at a minimum.
7) Perform reviews and maintain a record of all projects covered by this BMP including at a minimum: site plan reviews, SWPPPs, NOIs, NOTs, inspection reports, documentation of enforcement action taken, and records of preconstruction meetings.

Justification: Construction sites without the proper BMPs implemented as part of their SWPPP are a major source of erosion and generate large amounts of trash and dust. As a result, significant improvements to the MS4 water quality result from the implementation of this BMP.

Measure of Success: Success will be defined as projects meeting the below measures:

1) Inspect construction sites with a land disturbance greater than or equal to 1.0 acre, including projects less than one acre that are part of a larger common plan of development prior to land disturbance, during active construction, and following active construction Use approved inspection form and data bases to track when inspections are completed. Include copy of project inspection forms in individual project file.
2) Identify if a project is priority construction project during preconstruction inspection. If it is a priority project, track all inspections biweekly using approved inspection form.
3) Track all inspections of construction phases including: prior to land disturbance, during active construction, and following active construction.
4) Use end of project inspections, and warranty inspections to verify completion of active construction so that verification of final stabilization and removal of all temporary control measures may be conducted prior to the release of bonds for all commercial sites. Include site stabilization as requirement in Land Disturbance Permit for subdivisions and residential sites.
5) If enforcement is required, track enforcement in compliance with River Heights City Storm Water Ordinance and in accordance with standard operating procedures.
6) Provide necessary training opportunities annually to City staff.
7) Maintain scans of project submittals in project files tracking site plan reviews, SWPPPs, NOIs, NOTs, inspection reports, documentation of enforcement action taken, and records of preconstruction meetings.

Responsible Agency in River Heights City: City Engineer, Public Works Director

Milestones: Continue program and update as necessary.

BMP CS 02: Standards and Specifications for Construction

Minimum Control Measure: Construction Site Runoff Control

Pollutants: TSS, phosphorus, nitrogen, trash, pH, dust, and debris.

Audience: City, Contractors, Businesses, Developers, and Residential

Existing: X New:

Desired Results: Continue to implement and enforce a program to reduce pollutants in storm water runoff to the River Heights City MS4 from construction sites with a land disturbance greater than 1.0 acre, including projects less than one acre that are part of a larger common plan of development.

Measurable Goal: Implement standard requirements in design guidelines for preparation of SWPPP and post this on the River Heights City website that includes the following:

1) Update storm water design standards and construction standards and specifications annually.
2) Enforce this BMP on all construction sites with a land disturbance greater than 1.0 acre, including projects less than one acre that are part of a larger common plan of development.
3) Utilize a preconstruction SWPPP checklist for design review on all projects.
4) Incorporate water quality impacts and procedures as part of the SWPPP review checklist.
5) Include the evaluation of potential low impact design (LID) and green infrastructure alternatives in the checklist and design criteria.

Justification: Comprehensive standards and specifications defining acceptable BMPs for all aspects of construction are essential to reduce erosion and sedimentation problems associated with construction. Further utilization of a standard checklist will ensure that projects are not allowed to proceed to construction until compliance with the BMP has been accomplished.

Measures of Success: Compliance with these measures on all qualifying projects

1) Update storm water design standards and construction standards and specifications annually. Document amendment dates
2) Perform design review of all projects tracking compliance with this BMP. Do not issue building permits or notices to proceed until the project is compliant.
3) Update the SWPPP review checklist for design review. Include the checklist used during design review in the project file.
4) Include water quality impacts and procedures as part of the SWPPP review checklist.
5) Include the evaluation of potential low impact design (LID) and green infrastructure alternatives in the checklist and design criteria.

6) Include the Identification priority construction sites as defined in current MS4 permit, including the reason for the priority construction site classification on the checklist and copy this to the storm water inspector.

Responsible Agent in River Heights City: City Engineer, Public Works Director

Milestones: Continue program and update as necessary.

BMP CS 03: Storm Water Ordinance

Minimum Control Measure: Construction Site Runoff Control

Pollutants: TSS, phosphorus, nitrogen, trash, dust and debris.

Audience: City, Contractors, Businesses, Developers, and Residential

Existing: X New:

Desired Results: Continue to implement and enforce a program to reduce pollutants in storm water runoff to the River Heights City MS4 from construction sites with a land disturbance greater than 1.0 acre, including projects less than one acre that are part of a larger common plan of development.

Measurable Goal:

1) Update as necessary and enforce an ordinance that requires the use of erosion and sediment control practices at construction sites with equivalent technical requirements per the current Utah General Permit for Discharges from Construction Activities, (UCGP) or the General Storm Water Permit for Construction Activity Connected with Single Lot Housing Projects Common Plan Permit (CPP)
2) Evaluate and update ordinance provisions for site access by authorized individuals to inspect construction storm water BMPs on private properties that discharge to the River Heights City MS4.
3) Evaluate and update escalating enforcement procedures and actions that ensure rapid compliance.
4) Update standard procedures that include specific processes and sanctions to minimize the occurrence of violations, and obtain compliance from violators.

Justification: Update ordinance or other regulatory mechanism that requires the use of erosion and sediment control practices at construction sites. The ordinance or other regulatory mechanism shall, at a minimum, be equivalent with the technical requirements set forth in the UPDES Storm Water General Permit for Construction Activities, or the CPP. The ordinance or other regulatory mechanism shall include penalties or fines to facilitate compliance. The ordinance or other regulatory mechanism shall apply, at a minimum, to construction projects disturbing greater than or equal to

one acre and to construction projects of less than one acre that are part of a common plan of development.

Measure of Success:

1) Approval of updated Ordinance by City Council and Administration.
2) Update standard procedures that comply with the measurable goals in this BMP.

Responsible Agent in River Heights City: City Engineer, Public Works Director

Milestones: Continue program and update as necessary.

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.

BMP PC 01: Storm Water Ordinance

Minimum Control Measure: Long Term Storm Water Management in New

Development and Redevelopment

Target Pollutants: TSS, phosphorus, nitrogen and dust

Audience: City, Contractors, Businesses, Developers, and Residential

Existing: X New:

Desired Results: Update and enforce the program to reduce pollutants in storm water runoff to the River Heights City MS4 from new development and redevelopment with a land disturbance greater than 1.0 acre, including projects less than one acre that are part of a larger common plan of development.

Measurable Goal:

1) Update the ordinance and design standards that require long-term post construction storm water controls at new development and redevelopment sites at least equivalent to requirements set forth in the current MS4 permit.
2) Update the enforcement strategy and update the enforcement provisions of the ordinance including processes and sanctions to minimize occurrence of and obtain rapid compliance from violators which shall include appropriate escalating enforcement procedures and actions.
3) Ensure storm water ordinance provides access to private property for post construction inspections.

Justification: The objective of this BMP is for the hydrology associated with new development and redevelopment to mirror pre-development peak flows and total runoff of the previously undeveloped site and to improve the hydrology of a redeveloped site and decrease the discharge of storm water flows (volumes and peaks) and contaminants by the River Heights City MS4.

Measure of Success:

1) Approval by City Council and Administration of the updated ordinance that complies with the measurable goals in this BMP.
2) Approval by Administration of the updated standard procedures for enforcement of this ordinance.
3) Continue to provide training to all City engineering and public works inspectors who will be enforcing the storm water ordinance.

Responsible Agent in River Heights City: City Engineer, Public Works Director

Milestones: Continue program and update as necessary.

BMP PC 02: Standards and Specifications for Development and Redevelopment

Minimum Control Measure: Long Term Storm Water Management in New

Development and Redevelopment

Target Pollutants: TSS, phosphorus, nitrogen
Audience: City, Contractors, Businesses, Developers, and Residential

Existing: X New:

Desired Results: Implement and enforce a program to reduce pollutants in storm water runoff to the River Heights City MS4 from new development and redevelopment with a land disturbance greater than 1.0 acre, including projects less than one acre that are part of a larger common plan of development.

Measurable Goal: Implement and make available to the public the standard requirements in design guidelines for new development and redevelopment that includes the following:

1) Update storm water design standards and construction standards and specifications annually.
2) Require designers to provide BMPs that will minimize the negative impacts on water quality from new development and redevelopment
3) Implement land development code restrictions to the development of sensitive lands susceptible to erosion and sediment loss or provide areas that provide important water quality benefits, and protect the integrity of natural resources and sensitive areas.
4) Update and modify the process to evaluate and select low impact development (LID) methods.
5) Update and refine River Heights City's plan to retrofit existing developed sites that are adversely impacting water quality emphasizing Low Impact Development and green infrastructure including but not limited to: infiltration basins, depressed grassed swells, and water harvesting as allowed by State Code.
6) Update the method and standard procedures for calculating runoff volumes and flow rates to ensure consistent sizing of structural BMPs and incorporate retaining the 90th percentile storm event.

Justification: The objective of this BMP is for the hydrology associated with new development and redevelopment to mirror pre-development hydrology of the previously undeveloped site and to improve the hydrology of a redeveloped site and reduce the discharge of storm water flows (volumes and peaks) and contaminants by the River

Heights City MS4. This will reduce flows rates and volumes into the canals, streams, and rivers as well as improve overall water quality.

Measures of Success:

1) Update storm water design standards and construction standards. Track amendment dates
2) Mandate water quality BMPs, including LID methods, that will minimize the negative impacts on water quality by new development and redevelopment.
3) Update in the standards and specifications a reference to the land development code restrictions for the development of sensitive lands susceptible to erosion and sediment loss or provide areas that provide important water quality benefits, and protect the integrity of natural resources and sensitive areas.
4) Finish remapping the flood plain and continue flood plain management program to identify areas where future flood control structures may be built.
5) Refine the process to evaluate and encourage low impact development (LID).
6) Update the method and standard procedure for calculating runoff volumes and flow rates to ensure consistent sizing of structural BMPs using the 100-year 24 hour storm for all design except retention basins which shall use the 100-year 48-hour storm. The updated standard will require retaining the 90th percentile storm event.

Responsible Agent in River Heights City: City Engineer, Public Works Director

Milestones: Continue program and update as necessary.

BMP PC 03: Retrofit Existing Development Impacting Water Quality

Minimum Control Measure: Long Term Storm Water Management in New

Development and Redevelopment

Target Pollutants: TSS, phosphorus, nitrogen, trash, dust and debris

Audience: City, Contractors, Businesses, Developers, and Residential

Existing: New: X

Desired Results: Implement and enforce a program to reduce pollutants in storm water runoff to the River Heights City MS4 from existing development and redevelopment that are identified by the implementation of the post construction facility inspections, illicit discharge inspections, mapping and inspecting existing septic tanks, and water quality monitoring and sampling

Measurable Goal: Implement program and process to reduce storm water pollution from existing development within the City Boundary by:

1) Incorporate additional results from water quality monitoring and sampling.
2) Incorporate results from the MCM Illicit Discharge Detection and Elimination Program.
3) Incorporate results from the post construction inspections.
4) Using GIS maps of sensitive lands; develop a ranking system for prioritizing projects to correct deficient areas based on proximity to the receiving water; distance to discharge into Spring Creek, or other waters of the U.S; hydrologic condition of the water body; proximity to sensitive ecosystem or protected areas; and upcoming development that could be further enhanced in cooperative effort.
5) Develop prioritization list of projects and incorporate these into the planned CIP projects based on available funding.

Justification: The objective of this BMP is for the hydrology associated with existing development to mirror pre-development hydrology of the previously undeveloped site and to improve the hydrology of a redeveloped site and reduce the discharge of storm water flows (volumes and peaks) and contaminants by the current MS4. This BMP coincides with the standards and criteria requirements associated with the MCM's for Construction Sites and Illicit Discharge Detection and Elimination. This will reduce flow rates and volumes into the canals, streams, and rivers as well as improve overall water quality.

Measures of Success:

1) Using investigative data from other BMP's develop a map of water quality problem areas. Update this information annually.
2) Annually update prioritization list of projects and incorporate these into the master planned CIP projects.

Responsible Agent in River Heights City: City Engineer, Public Works Director

Milestones: Continue program and update as necessary.

BMP PC 04: Design Review Process Development, Redevelopment, and Retrofit Projects

Minimum Control Measure: Long Term Storm Water Management in New

Development and Redevelopment
Target Pollutants: TSS, phosphorus, nitrogen

Audience: City, Contractors, Businesses, Developers, and Residential

Existing: X New:

Desired Results: Update and enforce a program to reduce pollutants in storm water runoff to the River Heights City MS4 from new and existing development and redevelopment projects and retrofit projects being completed by City, State, and private entities.

Measurable Goal: Update the Design Review Process that accomplishes the desired results by:
1) Update a checklist and standard operating procedure for design review to ensure compliance with this SWMP related to post construction BMPs.

Justification: The objective of this BMP is for the hydrology associated with existing development to mirror pre-development hydrology of the previously undeveloped site and to improve the hydrology of a redeveloped site and reduce the discharge of storm water flows (volumes and peaks) and contaminants by the River Heights City MS4. This BMP coincides with the standards and criteria requirements associated with the MCMs for Construction Sites and Illicit Discharge Detection and Elimination. This will reduce flows rates and volumes into the canals, streams, and rivers as well as improve overall water quality.

Measures of Success:

1) Success with BMP CS 02 and BMP PC 02.
2) Use of design review checklist on all qualifying projects.
3) Compliance with design review process on all qualifying projects to ensure projects being built will comply with the goals of the BMP.

Responsible Agent in River Heights City: City Engineer, Public Works Director

Milestones: Continue program and update as necessary.

BMP PC 05: Post Construction Inspection

Minimum Control Measure: Long Term Storm Water Management in New

Development and Redevelopment

Target Pollutants: TSS, phosphorus, nitrogen, debris

Audience: City, Contractors, Businesses, Developers, and Residential

Existing: X New:

Desired Results: Update and enforce a program to reduce pollutants in storm water runoff to the River Heights City MS4 from existing development projects and retrofit

projects existing within the boundaries of River Heights City MS4 by inspecting the existing facilities annually to ensure proper operations and maintenance.

Measurable Goal:

1) Ensure ordinance provides authority to require and enforce annual inspection of private storm water facilities that discharge to the River Heights City MS4.
2) Update and implement maintenance agreements that will require property owners of Long Term Storm Water Management BMPs to be maintained and inspected at least annually.
3) Continue to require non-City owned facilities be inspected annually by a licensed qualified professional to ensure that facilities are being maintained and operated as designed. Require non-City owned facilities be inspected at least once every five (5) years by City staff.
4) Continue to require City owned facilities be inspected by a City qualified staff member annually.
5) Update River Heights City MS4 Post Construction facility checklist to be used in all annual inspections, whether by City staff or by third party qualified inspector which includes:

a. Inspection Date
b. Name and Signature of inspector
c. Project Location
d. Description of facilities
e. Description of storm water control measure including quality of
    i. Vegetation and soils
    ii. Inlet and outlet channels and structures
    iii. Catch basins
    iv. Spillways v. Weirs/Orifices
    vi. Sediment and debris accumulation
    vii. Specific maintenance issues and violations found that need to be corrected by property owner along with deadlines and re-inspection dates.
f. Update post construction inspection SOP.

Justification: The objective of this BMP is for the hydrology associated with existing development to mirror pre-development hydrology of the previously undeveloped site and to improve the hydrology of a redeveloped site and reduce the discharge of storm water flows (volumes and peaks) and contaminants by the River Heights City MS4. This BMP coincides with the standards and criteria requirements associated with the MCMs for Construction Sites and Illicit Discharge Detection and Elimination. This will reduce flows rates and volumes into the canals, streams, and rivers as well as improve overall water quality.

Measures of Success:

1) Update the maintenance agreement that requires property owners of Long Term Storm Water Management BMP's be maintained and inspected at least annually

2) Evaluate and update tracking procedure and SOP to continue the storm water post construction inspections.
3) City to inspect 100 percent of mapped City owned facilities annually and 20 percent of mapped non-city owned facilities once every year.
4) Update post construction inspection SOP.

Responsible Agent in River Heights City: City Engineer, Public Works Director

Milestones: Continue program and update as necessary.

BMP PC 06: Post Construction Inspector Training

Minimum Control Measure: Long Term Storm Water Management in New

Development and Redevelopment

Target Pollutants: TSS, phosphorus, nitrogen

Audience: City, Contractors, Businesses, Developers, and Residential

Existing: X New:

Desired Results: Update and enforce a program to reduce pollutants in storm water runoff to the River Heights City MS4 from existing development projects and retrofit projects existing within the boundaries of River Heights City MS4 by inspecting the existing facilities annually to ensure proper operations and maintenance. This BMP provides for the training of post construction inspectors and defines “qualified” as a registered storm water inspector (RSI) with the Utah Chapter of the American Public Works Association or other recognized storm water inspector certification.

Measurable Goal:

1) Provide annual training opportunities to all City staff involved in post-construction storm water management, planning and review, inspections, and enforcement.
2) Provide training annually to staff involved in inspections, both City staff and third party staff on the use of the approved post-construction inspection checklist.

Justification: The objective of this BMP is for the hydrology associated with existing development to mirror pre-development hydrology of the previously undeveloped site and to improve the hydrology of a redeveloped site and reduce the discharge of storm water flows (volumes and peaks) and contaminants by the River Heights City MS4. This BMP coincides with the standards and criteria requirements associated with the MCMs for Construction Sites and Illicit Discharge Detection and Elimination. This will reduce flows rates and volumes into the canals, streams, and rivers as well as improve overall water quality.

Measures of Success:

1) Continue to provide training opportunities to ensure key positions have been trained.
2) Maintain log of training classes including course dates, course titles, course descriptions, names and qualifications of instructors, and names and positions of attendees.

Responsible Agent in River Heights City: City Engineer, Public Works Director

Milestones: Continue program and update as necessary.

BMP PC 07: Post Construction Facility Mapping

Minimum Control Measure: Long Term Storm Water Management in New

Development and Redevelopment

Target Pollutants: TSS, phosphorus, nitrogen

Audience: City, Contractors, Businesses, Developers, and Residential

Existing: New: X

Desired Results: Update and enforce program to reduce pollutants in storm water runoff to the River Heights City MS4 from existing development projects and retrofit projects within the boundaries of River Heights City MS4 by inspecting the facilities annually to ensure proper operations and maintenance. This BMP provides for mapping the long term storm water infrastructure within the River Heights City MS4.

Measurable Goal:

1) Update map of all storm water infrastructure and long term BMPs within River Heights City MS4 boundaries.
2) Update GIS layers and database tracking:
    a. Short description of each storm water control measure
    b. Create a short description of maintenance requirements
    c. Document structure ownership and contact information in GIS.
    d. Document City inspection frequency requirements and private inspection frequency requirements.
    e. Track inspections in GIS in support of BMP PC 05.
3) Update inventory based on inspections.

Justification: The objective of this BMP is for the hydrology associated with existing development to mirror pre-development hydrology of the previously undeveloped site

and to improve the hydrology of a redeveloped site and reduce the discharge of storm water flows (volumes and peaks) and contaminants by the current MS4 permit. This BMP coincides with the standards and criteria requirements associated with the MCM's for Construction Sites and Illicit Discharge Detection and Elimination. This BMP will provide the documentation necessary to implement the rest of the BMPs in this MCM.

Measures of Success:

1) Provide quality control, inspection, verification and update of 20 percent of storm water infrastructure within River Heights City annually.
2) Update infrastructure inventory with the construction of all development, re-development, and retrofit of storm water infrastructure.
3) Create tracking database using GIS for annual inspection results.
4) Update the SOP for implementing this BMP.

Responsible Agent in River Heights City: Public Works Department

Milestones: Continue program and update as necessary.

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

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

BMP GH 01: Annual Facility Inventory

Minimum Control Measure: Pollution Prevention / Good Housekeeping

Target Pollutants: TSS, nutrients, metals, hydrocarbons (BTUX, GRO, DRO), pesticides, chlorides, phosphorus, nitrogen, and trash.

Audience: City

Existing: X New:

Desired Results: To develop and implement an operations and maintenance (O&M) program for River Heights City MS4 owned and operated facilities, operations and structural storm water controls that include standard operating procedures (SOPs) and a training component that reduce pollutant runoff.

Measurable Goal:

1) Develop and maintain a current written inventory of all City-owned and operated facilities and storm water controls as listed in the current MS4 permit.
2) Assess the written inventory for their potential to discharge to the target pollutants into the storm drainage system
3) Identify facilities that discharge to the storm drainage systems and identify the "high priority" facilities
4) Develop a Storm Water Pollution Prevention Plan (or similar type document) for each "high priority" City-owned facility .

Justification: MS4 permit requires that all components of an O&M program be included in the SWMP document and must identify the department and specific staff responsible for performing each activity described in the permit. The annual inventory will identify those facilities that have the potential to discharge contaminants to the storm water system.

Measures of Success:

1) Completion of dye tests, camera inspections, or smoke tests showing the discharge points from all facilities. If flows are to the storm water system, the inventory will identify facility discharge points to the storm drain system.
2) Prepare a standard methodology for initially assessing if the facilities are a “high priority.”
3) Rank the City owned and operated facilities as high priority or low priority using standard methodology and include the results in the SWMP.
4) Develop High Priority facility SWPPP (If necessary)

Responsible Agent in River Heights City: Public Works Director

Milestones: Continue program and update as necessary.

BMP GH 02: High Priority Facilities SOPs

Minimum Control Measure: Pollution Prevention / Good Housekeeping

Target Pollutants: TSS, nutrients, metals, hydrocarbons (BTUX, GRO, DRO), pesticides, chlorides, phosphorus, nitrogen, and trash.

Audience: City

Existing: X New:

Desired Results: To develop and implement an operations and maintenance (O&M) program for River Heights City MS4 owned and operated facilities, operations and structural storm water controls that include standard operating procedures (SOPs) and a training component that reduce pollutant runoff.

Measurable Goal:

1) Based on assessments completed in BMP GH 01, re-evaluate maintenance SOPs to prevent storm water contamination for high priority facilities in each category below as required by the current MS4 permit:
    a. Buildings and Facilities
    b. Materials storage areas, heavy equipment storage areas, and maintenance areas.
    c. Parks and open space.
    d. Vehicle and equipment.
    e. Roads, highways, and parking lots.
    f. Storm water collection and conveyance system.
    g. Sanitary sewer facilities.
    h. Other facilities and operations that may discharge contaminated runoff.
2) Develop standard agreements with any third party who conducts maintenance or operations using City owned facilities to comply with the City SOP.

Justification: The current MS4 permit requires that all components of an O&M program be included in the SWMP document and must identify the department and specific staff responsible for performing each activity described in the permit. The SOPs will provide the required safety to reduce or eliminate possible storm water contamination.

Measures of Success:
1) Completion of maintenance SOPs for all “high priority facilities.”
2) Inventory of any third parties who operate or maintain City facilities and amend their contracts for compliance with the City SOPs.
3) Evaluate current contracts with third parties operating City owned facilities.

Responsible Agent in River Heights City: Public Works Director

Milestones: Continue program and update as necessary.

BMP GH 03: City Owned and Operated Facility Inspections

Minimum Control Measure: Pollution Prevention / Good Housekeeping

Target Pollutants: TSS, nutrients, metals, hydrocarbons (BTUX, GRO, DRO), pesticides, chlorides, phosphorus, nitrogen, and trash, per current MS4 permit

Audience: City

Existing: X New:

Desired Results: Re-evaluate operations and maintenance (O&M) program for River Heights City MS4 owned and operated facilities, operations and structural storm water controls that include standard operating procedures (SOPs) and a training component that reduce pollutant runoff.

Measurable Goal:

1) Departments owning facility shall complete a weekly inspection of “high priority” facilities in accordance with SOPs to minimize potential pollutant discharge Departments must complete a weekly log and checklist of inspections with deficiencies and corrective actions. Completed logs must be included with the SWMP
2) Departments responsible parties identified in the SOPs shall complete, at least quarterly, a comprehensive inspection of all storm water controls in accordance with the SOPs. An inspection report and checklist, including any deficiencies and corrective actions must be completed and included with the SWMP document
3) Complete visual observations of storm water discharges at least quarterly (weather permitting, but in no case less than four times annually) documenting any observed problems including color, foam, sheen, turbidity, odor or other evidence of pollution that

may be associated with the site. Visual observations must be documented, including deficiencies and any corrective actions, and included with the SWMP.

Justification: The current MS4 permit requires that all components of an O&M program be included in the SWMP document and must identify the department and specific staff responsible for performing each activity described in the permit. The inspection program will evaluate the effectiveness of the SOPs.

Measures of Success:

1) Maintain weekly inspection logs and quarterly inspection logs for high priority facilities. Maintain quarterly visual storm water discharge inspection forms for high priority facilities.
2) Maintain a tracking and reporting system to facilitate completion and inclusion of report logs in SWMP, both digital and hard copies.
3) Implement tracking and reporting SOPs for weekly and quarterly inspections.

Responsible Agent in River Heights City: Public Works Department

Milestones: Continue program and update as necessary.

BMP GH 04: General Housekeeping Training

Minimum Control Measure: Pollution Prevention / Good Housekeeping

Target Pollutants: TSS, nutrients, metals, hydrocarbons (BTUX, GRO, DRO), pesticides, chlorides, phosphorus, nitrogen, and trash.

Audience: City employees and contracted staff

Existing: X New:

Desired Results: To provide training to appropriate city and contracted staff regarding the general and high priority facility specific SOPs and likely impacts to storm water quality.

Measurable Goal:

1) Train appropriate city and contracted staff in appropriate departments regarding general and facility specific SOPs. Focus on staff responsible for SOP implementation at “high priority” facilities identified in BMP GH01.
2) Track training of existing staff and new hires to ensure all staff receives appropriate training in storm water quality.

Justification: To provide training that will enable City staff that are likely to impact storm water quality to know how to perform their job functions to prevent or minimize impacts to water quality, SOP's and SWPPP for the various Permittee owned facilities.

Measures of Success:

1) Create log identifying training offered, trainer, each attendee, and date of training.
2) Provide annual refresher training for employees and training of new employees when they are hired and update logs regularly.
3) Maintain annual training logs with the SWMP.

Responsible Agent in River Heights City: Public Works Director

Milestones: Continue program and update as necessary.