

ROY CITY
STORM WATER MANAGEMENT PLAN

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Roy City Corporation
5051 South 1900 West
Roy , Utah 84067

801-774-1090

DOCUMENT FOR PUBLIC REVIEW



Prepared by

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STORM WATER MANAGEMENT PLAN

1.0 Permit and Public Review Information

Permittee: Roy City Corporation

UPDES Permit Number: UTR 090047

Location of MS4: Roy City, Weber County, Utah (see map, Figure 1)

The Roy City Storm Water Management Plan (SWMP) is required by permit to be available for public review. All other interested parties are encouraged to review the SWMP document and provide written comments. This document will be made available on the City's website, <http://www.royutah.org/>, and at the Roy City Public Works Building, 5460 South 2700 West, Roy, Utah 84067. Complete SWMP appendices (which include supporting documentation, forms, records, etc.) are available for review only at the Roy City Public Works Building. Written comments concerning this plan should be sent to:

Ross Oliver, Roy City Public Works Director
5460 South 2700 West
Roy, Utah 84067
roliver@royutah.org

2.0 Location and General Description

Roy City is located at the south end Weber County, Utah as shown on the attached vicinity map. Its current (2010) population is estimated to be approximately 35,000 people. Land use is mostly urban, consisting of residential and commercial uses. The City currently has no major industrial facilities within its boundaries. Roy City is approximately 90% built-out with relatively few areas available for new development. Other pertinent information is summarized below:

Population: 35,000
Land Area: 7.5 square miles
Receiving Waters: Howard Slough, which empties into the Great Salt Lake
Annual Precipitation: approx. 19 inches (Ogden Airport Data)
Latitude: N 41° 10' 21"
Longitude: W 112° 02' 42"

Roy City's storm drainage facilities consist of curb and gutter, storm drain pipe, local and regional detention basins, ditches and the Howard Slough. Runoff is generally collected by curb and gutter along roadways, and is then conveyed by storm drains to detention basins and eventually to outfalls that are directly tributary to the Howard Slough or to ditches that soon discharge to the Howard Slough. Regional detention basins have been constructed by Roy City at many key locations, and local detention basins have been required by Roy City for many commercial and a some residential developments. Existing drainage facilities have been mapped and are shown on the Storm Drainage Master Plan maps that are included in Appendix F.

The Howard Slough is the receiving water for storm water runoff from Roy City, with the exception of a few small areas on the east side of Roy City that discharge to sumps or retention basins. The Howard Slough receives runoff from Roy City and portions of neighboring communities. The slough originates in West Haven City, flows southward along the west side of Roy City, through Hooper City and then discharges into the Great Salt Lake. Protecting and maintaining the slough channel through Roy City has been a priority for storm drainage management.

3.0 Priorities and Concerns

Roy City has invested considerable effort and monetary resource in improving and restoring the Howard Sough to a more desirable, natural condition. After a century of agricultural land use, the Howard Slough had been modified until it had few attributes of a natural stream. The slough had been straightened and deeply channelized which reduced the natural storage capacity of the slough channel and tended to increased peak flows during runoff events. Restoring the slough to a more natural condition improves the appearance of the slough corridor and provides recreational opportunities for . Restoration efforts have included:

- Restoring a more natural meandering stream alignment and cross section where possible.
- Improving the coverage and diversity of vegetation along the slough corridor.
- Constructing a community fishery and other recreation opportunities along the slough.

Water quality is an important aspect of Roy City's efforts to improve the Howard Slough. Water quality concerns are based primarily upon the goal of maintaining recreational opportunities, especially the community fishery. Additional concerns are related to minimizing the contaminants that typical in storm water runoff from urban areas.

Biologists from the Utah Department of Natural Resources have indicated to Roy City staff that maintaining adequate oxygen levels and proper pH levels are the primary factors for the health of the Howard Sough and the community fishery. These water quality concerns are primarily impacted by the following potential pollutants:

- Nutrients (fertilizers, detergents, etc.)
- Yard waste and trash
- Sediment

Additional water quality concerns include toxic and hazardous substances. Available literature from the EPA and the U.S. Fish and Wildlife Service indicates that following potential pollutants could also be present in typical urban storm water:

- Fuel
- Oils and lubricants
- Household hazardous waste
- Solvents
- Pesticides
- Paints and paint products

Roy City personnel have observed algal blooms at the community fishery. Although a fish kills have not been tied directly to algal blooms or low oxygen levels, these algal blooms have the potential to negatively impact oxygen levels in the water. It appears that nutrients and yard wastes could be contributing to this problem. Significant amounts of yard waste, especially grass clippings have been observed by Roy City at trash grates on the slough. Sediment has also been observed during storm events. Research by Salt Lake County indicates a link between phosphorus and total suspended solids. This suggests that efforts targeting reduction of sediment in storm water could also reduce nutrients. No testing for hazardous substances has been completed.

4.0 Statement of Basis

In 1990, EPA promulgated rules establishing Phase I of the National Pollutant Discharge Elimination System (NPDES) storm water program. The Phase I program for municipal separate storm sewers (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.

Implementation of the Storm Water Phase II Rule to small MS4s began in 2002 and extended coverage of the NPDES storm water program to Roy City in 2003.

Roy City is classified by the Utah Division of Water Quality (DWQ) as a small MS4. The DWQ regulates small MS4 communities under the Utah Pollutant Discharge Elimination System (UPDES), and MS4s are covered under the State's permit for Discharges from Small Municipal Separate Storm Sewer Systems — UTR090000. The narrative requirements of this permit are intended to reduce the discharge of pollutants to the maximum extent practicable (MEP) and meet water quality standards through the development and implementation of a storm water management program (SWMP).

Implementation of a SWMP involves implementation of a variety of best management practices (BMPs) and designated minimum performance measures. The goal of implementation is to reduce the discharge of pollutants from the MS4. MEP is the standard that establishes the level of pollutant reductions that operators of regulated MS4s must achieve through implementation of BMPs included in their SWMPs. There are no numeric effluent limitations included in this permit. Storm Water Management Program requirements are the controls used in place of numeric limits to achieve a reduction of pollutants in the storm water discharge from small MS4s.

Roy City's SWMP is comprised of six minimum control measures that must be developed and implemented. These measures include:

1. Public Education and Outreach
2. Public Involvement/Participation
3. Illicit Discharge Detection and Elimination (IDDE)
4. Construction Site Storm Water Runoff Control
5. Post-Construction Storm Water Management
6. Pollution Prevention and Good Housekeeping for Municipal Operations

Roy City's SWMP is intended to meet the requirements of the six minimum measures and protect state waters from pollution, contamination, and/or degradation.

5.0 Plan Elements

The intent of this plan is to modify the existing stormwater management plan to bring it into compliance with the most recent UPDES permit for small MS4s. The plan includes specific measurable goals selected to achieve compliance with each minimum control measure (MCM). Plan elements and measurable goals related to each MCM are given in MCM Tables 1 - 6. Additional plan elements, forms, standards, procedures, inventories,

logs, supporting documentation, and compliance documentation are included in Appendices as outlined in the Table of Contents.

6.0 Storm Water Ordinance

Roy City has adopted an ordinance for storm water protection and management. The ordinance is designated as Title 8, Chapter 4 of the Roy City Code. The ordinance specifically prohibits non-stormwater discharges, requires approval for stormwater connections, establishes a stormwater utility fee, requires a permit for construction activities, sets penalties for violations, allows inspection of private stormwater facilities, and sets other requirements necessary for compliance with the federal clean water act. A copy of the ordinance is included in Appendix E and the current ordinance can be viewed on-line at the following web address:

http://www.sterlingcodifiers.com/codebook/index.php?book_id=513

Several modifications to existing City Stormwater Ordinances are planned. Proposed modifications include: specific escalating enforcement strategies for illicit discharges and SWPPP violations, requiring long-term controls for new and re-development, and requirements for construction sites equivalent to the technical requirements in the construction permit. These modifications are pending and are currently in the process of being considered by the Roy City Attorney.

7.0 Plan Effectiveness

The effectiveness of the Roy City Stormwater Management Plan will be evaluated on an annual basis by the City Stormwater Committee. The basis of the evaluation will be the measurable goals as listed in each MCM and general qualitative observations of water quality in the Howard Slough. The results and criteria of each evaluation will be documented.

8.0 Impaired Waters & TMDLs

As indicated previously, the Howard Slough is the receiving water for storm water runoff from Roy City. The Howard Slough is tributary to Farmington Bay of the Great Salt Lake. The Howard Slough has not been identified by DWQ as an impaired water or a Class 1 or 2 water. No total daily maximum load (TMDL) studies have been performed for the Howard Slough or the Great Salt Lake. The beneficial use categories applied by the DWQ for the Howard Slough are given below:

Class 2B -- Protected for infrequent primary contact recreation. Also protected for secondary contact recreation where there is a low likelihood of ingestion of water or a low degree of bodily contact with the water. Examples include, but are not limited to, wading, hunting, and fishing.

Class 3C -- Protected for nongame fish and other aquatic life, including the necessary aquatic organisms in their food chain.

Class 4 -- Protected for agricultural uses including irrigation of crops and stock watering.

The Howard Slough status and beneficial use categories will be reviewed annually to determine if any changes have occurred. The status of the Howard Slough is listed in Section R317-2-13 of the Utah Code.

9.0 Organization and Responsibilities

The organizational chart for the Roy City storm water program is shown in Figure 2. General responsibilities are given below.

City Manager

- Liaison with City Council
- Coordination of overall budget allocations

City Attorney

- Ordinances
- Violations

Public Works Director

- Liaison with City administration and coordination with City Engineer
- General coordination of the Storm Water Management Plan (SWMP) program
- Responsible for shared facilities and general work assignments
- Overall SWMP program and coordination with department heads
- Responsible for shared facilities and general work areas including:
 - Large equipment wash area
 - Fueling station
 - Salt and materials storage stockpile areas

Storm drain system maintenance
General BMP maintenance
Vehicle wash area

- Annual report
- Evaluating and updating SWMP

Development Director

- Development standards
- Initial coordination with developers on new development or re-development projects

City Engineer

- Tracking and documentation of activities and actions
- Database updates
- Hydrologic methods and design standards
- Design of flood control and storm water improvement projects
- Plan review and approval of SWPPPs
- Engineering support
- Assistance with all reporting
- Assistance with storm drain system mapping

Parks Department Superintendent

- Parks department maintenance work area
- Pesticide, herbicide, and fertilizer program
- Training parks personnel
- Chemical and fertilizer storage in work area
- Parks department equipment operation
- Equipment maintenance for parks department equipment
- Mowing program

Water Department Superintendent

- Water department maintenance, work and storage areas
- Training water department personnel
- Chemical storage (chlorine) in at wellhouses
- Waterline repairs
- Water facilities (wellhouse) maintenance and equipment operation

Streets Department Superintendent

- Streets department maintenance, work and storage areas

- Streets department equipment maintenance and operation
- Training streets department personnel
- Chemicals storage in work area
- Snow plowing program
- Street sweeping program and sweeping waste disposal
- Salt and sand storage stockpile areas

Shop Superintendent

- Fleet department maintenance work area
- Training fleet department personnel
- Chemicals, fluids, grease, oils, and waste oils/fluids
- Metal fabrication area

Stormwater Specialist

- Storm drain outfall monitoring
- Water quality observations at Howard Slough and Community Fishery
- City owned facilities inventories and inspections
- Program documentation

Public Works and Building Inspectors

- Construction inspections
- Active projects inventory

10.0 Shared Responsibilities

Roy City has entered into an interlocal agreement with Weber County to support to the City's stormwater management program for MCMs 1 and 2. Details regarding specific tasks that are being completed by the county are presented in MCM Tables 1 and 2. A copy of the interlocal agreement is included in Appendix E.

11.0 Certification and Authorized Signature

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

Signature

Date

Title