

# Utah Pollutant Discharge Elimination System Storm Water Program

## Small MS4 Report Form

The purpose of this report is to contribute information to an evaluation of the UPDES small municipal separate storm sewer system (MS4) permit program. Consistent with 40 CFR §122.37 the Utah Department of Environmental Quality is assessing the status of the storm water program. A “no” answer to a question does not necessarily mean noncompliance with your permit or with the federal regulations. In order to establish the range of variability in the program it is necessary to ask questions along a fairly broad performance continuum.

### 1. MS4 Information

AMERICAN FORK CITY

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Name of MS4

JAMES

HADFIELD

MAYOR

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Name of Contact Person (First)

(Last)

(Title)

(801) 763-3000

Mayor@afcity.net

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Telephone (including area code)

Email

51 East Main Street

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Mailing Address

American Fork

UT

84003

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City

State

ZIP code

What size population does your MS4 serve? 26,300

UPDES number UTR090015

What is the reporting period for this report? (mm/dd/yyyy)

From 07/01/2012 to 06/30/2013

### 2. Water Quality Priorities

A. Does your MS4 discharge to waters listed as impaired on a state 303(d) list?  Yes  No

B. If yes, identify each impaired water, the impairment, whether a TMDL has been approved by EPA for each, and whether the TMDL assigns a wasteload allocation to your MS4. Use a new line for each impairment, and attach additional pages as necessary.

Impaired Water	Impairment	Approved TMDL		TMDL assigns WLA to MS4	
<hr/>	<hr/>	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Yes	<input type="checkbox"/> No
<hr/>	<hr/>	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Yes	<input type="checkbox"/> No
<hr/>	<hr/>	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Yes	<input type="checkbox"/> No
<hr/>	<hr/>	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Yes	<input type="checkbox"/> No
<hr/>	<hr/>	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Yes	<input type="checkbox"/> No
<hr/>	<hr/>	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Yes	<input type="checkbox"/> No
<hr/>	<hr/>	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Yes	<input type="checkbox"/> No
<hr/>	<hr/>	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Yes	<input type="checkbox"/> No

C. What specific sources contributing to the impairment(s) are you targeting in your storm water program?

Pollution from concrete mix, sedimentation, nutrients, oil and antifreeze from road runoff

D. Do you discharge to any high-quality waters (e.g., Tier 2, Tier 3, outstanding natural resource waters, or other state or federal designation)?  Yes  No

E. Are you implementing additional specific provisions to ensure their continued integrity?  Yes  No

### 3. Public Education and Public Participation

- A. Is your public education program targeting specific pollutants and sources of those pollutants?  Yes  No
- B. If yes, what are the specific sources and/or pollutants addressed by your public education program?  
Sedimentation, concrete (pH), and oil/ antifreeze, bacteria from sanitary sewer pipe leaks
- C. Note specific successful outcome(s) (e.g., quantified reduction in fertilizer use; NOT tasks, events, publications) fully or partially attributable to your public education program during this reporting period.  
Sediment and hydrocarbon quantities reduction; public reporting illicit discharges via website
- D. Do you have an advisory committee or other body comprised of the public and other stakeholders that provides regular input on your storm water program?  Yes  No
- E. Do you belong to a storm water coalition or other advisory committee? If yes, describe:  Yes  No  
Utah County Storm Water Coalition

### 4. Construction

- A. Do you have an ordinance or other regulatory mechanism stipulating:
- |  |   |                             |
|--|---|-----------------------------|
| Erosion and sediment control requirements?           | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No |
| Other construction waste control requirements?       | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No |
| Requirement to submit construction plans for review? | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No |
| MS4 enforcement authority?                           | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No |
- B. Do you have written procedures for:
- |                               |   |                             |
|-------------------------------|---|-----------------------------|
| Reviewing construction plans? | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No |
| Performing inspections?       | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No |
| Responding to violations?     | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No |
- C. What is the threshold for construction storm water plan review (e.g., all projects, projects disturbing greater than one acre, etc.)? All the projects are subject to a SWPPP plan review.
- D. Identify the number of active construction sites  $\geq$  1 acre in operation in your jurisdiction at any time during the reporting period. 30
- E. How many of the sites identified in 4.D did you inspect during this reporting period? 30
- F. Identify the number of active construction sites  $<$  1 acre in operation in your jurisdiction at any time during the reporting period. 7
- G. How many of the sites identified in 4.F did you inspect during this reporting period? 7
- H. Describe, on average, the frequency with which your program conducts construction site inspections.  
Once a month. Twice a month during grading or when a Corrective Action Notice is issued.
- I. Do you prioritize certain construction sites for more frequent inspections?  Yes  No  
 If Yes, based on what criteria? Projects doing grading are a higher priority and are inspected twice
- J. Identify which of the following types of enforcement actions you used during the reporting period for construction activities, indicate the number of actions, or note those for which you do not have authority:
- |   |  |            |                                       |
|---|--|------------|---------------------------------------|
| <input checked="" type="checkbox"/> Yes | Notice of violation                    | # <u>0</u> | No Authority <input type="checkbox"/> |
| <input checked="" type="checkbox"/> Yes | Administrative fines                   | # <u>0</u> | No Authority <input type="checkbox"/> |
| <input checked="" type="checkbox"/> Yes | Stop Work Orders                       | # <u>0</u> | No Authority <input type="checkbox"/> |
| <input checked="" type="checkbox"/> Yes | Civil penalties                        | # <u>0</u> | No Authority <input type="checkbox"/> |
| <input checked="" type="checkbox"/> Yes | Criminal actions                       | # <u>0</u> | No Authority <input type="checkbox"/> |
| <input checked="" type="checkbox"/> Yes | Administrative orders                  | # <u>0</u> | No Authority <input type="checkbox"/> |
| <input checked="" type="checkbox"/> Yes | Other <u>Corrective Action Notices</u> | # <u>9</u> |                                       |

- K. Do you use an electronic tool (e.g., GIS, data base, spreadsheet) to track the locations, inspection results, and enforcement actions of active construction sites in your jurisdiction?  Yes  No
- L. What are the 3 most common types of violations documented during this reporting period?  
No SWPPP board on site; No inspection records on-site; Failure to maintain BMPs
- M. How often do municipal employees receive training on the construction program? 4 classes during 2012

**5. Illicit Discharge Elimination**

- A. Have you completed a map of all outfalls and receiving waters of your storm sewer system?  Yes  No
- B. Have you completed a map of all storm drain pipes and other conveyances in the storm sewer system?  Yes  No
- C. Identify the number of outfalls in your storm sewer system. 65
- D. Identify the number of Class V injection wells in your jurisdiction. 358
- E. Do you have documented procedures, including frequency, for screening outfalls?  Yes  No
- F. Of the outfalls identified in 5.C, how many were screened for dry weather discharges during this reporting period?  
15
- G. Of the outfalls identified in 5.C, how many have been screened for dry weather discharges at any time since you obtained MS4 permit coverage? 15
- H. What is your frequency for screening outfalls for illicit discharges? Describe any variation based on size/type.  
20% of them per year. Outfall near the PW Complex are inspected once a year, every year.
- I. Do you have an ordinance or other regulatory mechanism that effectively prohibits illicit discharges?  Yes  No
- J. Do you have documented procedures for tracing and removing an illegal discharge?  Yes  No
- K. Do you have an ordinance or other regulatory mechanism that provides authority for you to take enforcement action and/or recover costs for addressing illicit discharges?  Yes  No
- L. During this reporting period, how many illicit discharges/illegal connections have you discovered? 8
- M. Of those illicit discharges/illegal connections that have been discovered or reported, how many have been eliminated?  
8
- N. Identify which of the following types of enforcement actions you used during the reporting period for illicit discharges, indicate the number of actions, or note those for which you do not have authority:
 

<input checked="" type="checkbox"/> Yes	Notice of violation	# <u>8</u>	No Authority <input type="checkbox"/>
<input checked="" type="checkbox"/> Yes	Administrative fines	# <u>0</u>	No Authority <input type="checkbox"/>
<input checked="" type="checkbox"/> Yes	Stop Work Orders	# <u>0</u>	No Authority <input type="checkbox"/>
<input checked="" type="checkbox"/> Yes	Civil penalties	# <u>0</u>	No Authority <input type="checkbox"/>
<input checked="" type="checkbox"/> Yes	Criminal actions	# <u>0</u>	No Authority <input type="checkbox"/>
<input checked="" type="checkbox"/> Yes	Administrative orders	# <u>0</u>	No Authority <input type="checkbox"/>
<input checked="" type="checkbox"/> Yes	Other <u>Corrective Action Notice</u>	# <u>8</u>	
- O. How often do municipal employees receive training on the illicit discharge program? Once a year

## 6. Storm Water Management for Municipal Operations

- A. Have storm water pollution prevention plans (or an equivalent plan) been developed for:
- |  |   |                             |
|--|---|-----------------------------|
| All public parks, ball fields, other recreational facilities and other open spaces | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No |
| All municipal construction activities, including those disturbing less than 1 acre | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No |
| All municipal turf grass/landscape management activities                           | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No |
| All municipal vehicle fueling, operation and maintenance activities                | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No |
| All municipal maintenance yards  | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No |
| All municipal waste handling and disposal areas                                    | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No |
- Other N/A
- B. Are storm water inspections conducted at these facilities?  Yes  No
- C. If Yes, at what frequency are inspections conducted? Every three months
- D. List activities for which operating procedures or management practices specific to storm water management have been developed (e.g., road repairs, catch basin cleaning).  
Road repairs and maintenance; Underground utilities repair and maintenance, Inspections of projects
- E. Do you prioritize certain municipal activities and/or facilities for more frequent inspection?  Yes  No
- F. If Yes, which activities and/or facilities receive most frequent inspections? Public Works Complex parking lot
- G. How are you disposing of catch basin decant water and solid material?  
Polluted materials are disposed at the North Point Landfill Plant located at 2000 W 200 S, Lindon, UT
- H. Are municipal vehicles washed into an approved wastewater disposal system?  Yes  No
- I. Do all municipal employees and contractors overseeing planning and implementation of storm water-related activities receive comprehensive training on storm water management?  Yes  No
- J. If yes, do you also provide regular updates and refreshers?  Yes  No
- K. If so, how frequently and/or under what circumstances? In-house training once a year and at Conferences

## 7. Long-term (Post-Construction) Storm Water Measures

- A. Do you have an ordinance or other regulatory mechanism to require:
- |   |   |                             |
|---|---|-----------------------------|
| Site plan reviews for storm water/water quality of all new and re-development projects? | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No |
| Long-term operation and maintenance of storm water management controls?                 | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No |
| Retrofitting to incorporate long-term storm water management controls?                  | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No |
- B. If you have retrofit requirements, what are the circumstances/criteria?  
All existing site plans requesting an amendment are subject to a SWPPP retrofitting requirement.
- C. What are your criteria for determining which new/re-development storm water plans you will review (e.g., all projects, projects disturbing greater than one acre, etc.) All projects are reviewed for SWPPP compliance.
- D. Do you require water quality or quantity design standards or performance standards, either directly or by reference to a state or other standard, be met for new development and re-development?  Yes  No
- E. Do these performance or design standards require that pre-development hydrology be met for:
- |                      |   |                             |
|----------------------|---|-----------------------------|
| Flow volumes         | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No |
| Peak discharge rates | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No |
| Discharge frequency  | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No |
| Flow duration        | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No |

- F. Please provide the URL/reference where all post-construction storm water management standards can be found.  
http://afcity.org/Departments/UtilityDepartment/StormWater/tabid/337/Default.aspx
- G. How many development and redevelopment project plans were reviewed during the reporting period to assess impacts to water quality and receiving stream protection? 45
- H. How many of the plans identified in 7.G were approved? 42
- I. How many privately owned permanent storm water management practices/facilities were inspected during the reporting period? 6
- J. How many of the practices/facilities identified in I were found to have inadequate maintenance? 6
- K. How long do you give operators to remedy any operation and maintenance deficiencies identified during inspections?  
If Hazardous spills are present: immediately; Otherwise, from 24 hours to 7 days. A Corrective Action Notice is issued after the inspection
- L. Do you have authority to take enforcement action for failure to properly operate and maintain storm water practices/facilities?  Yes  No
- M. How many formal enforcement actions (i.e., more than a verbal or written warning) were taken for failure to adequately operate and/or maintain storm water management practices? 6
- N. Do you use an electronic tool (e.g., GIS, database, spreadsheet) to track post-construction BMPs, inspections and maintenance?  Yes  No
- O. Do all municipal departments and/or staff (as relevant) have access to this tracking system?  Yes  No
- P. How often do municipal employees receive training on the post-construction program? Once a year

**8. Program Resources**

- A. What was the annual expenditure to implement MS4 permit requirements this reporting period? \$ 865,000.00
- B. What is next year's budget for implementing the requirements of your MS4 NPDES permit? \$ 925,000.00
- C. This year what is/are your source(s) of funding for the storm water program, and annual revenue (amount or percentage) derived from each?
 

Source: <u>Storm Drain User Fee</u>	Amount \$ <u>925,000</u>	OR % <u>98</u>
Source: <u>Storm Drain Late Fee</u>	Amount \$ <u>20,000</u>	OR % <u>2</u>
Source: _____	Amount \$ _____	OR % _____
- D. How many FTEs does your municipality devote to the storm water program (specifically for implementing the storm water program; not municipal employees with other primary responsibilities)? 2
- E. Do you share program implementation responsibilities with any other entities?  Yes  No
 

Entity	Activity/Task/Responsibility	Your Oversight/Accountability Mechanism
<u>Utah County PW</u>	<u>Public Education to Elementary School students</u>	<u>Supervise that the classes are offered to students</u>
<u>Utah County PW</u>	<u>SWPPP Training to contractors</u>	<u>Attend the class. Invite local contractors</u>
_____	_____	_____

### 9. Evaluating/Measuring Progress

A. What indicators do you use to evaluate the overall effectiveness of your storm water management program, how long have you been tracking them, and at what frequency? These are not measurable goals for individual management practices or tasks, but large-scale or long-term metrics for the overall program, such as macroinvertebrate community indices, measures of effective impervious cover in the watershed, indicators of in-stream hydrologic stability, etc.

Indicator	Began Tracking (year)	Frequency	Number of Locations
Water sampling results vs stream water quality	2010	Quarterly	2
Water sample ph level at oil/ water separator	2011	Quarterly	4
<b>Water sample BOD5 at oil/ water separator</b>	2011	Quarterly	4
<b>Water sample at DEQ STORET stations</b>	2013	Quarterly	3

B. What environmental quality trends have you documented over the duration of your storm water program? Reports or summaries can be attached electronically, or provide the URL to where they may be found on the Web.

Public Education and Outreach: Public Outreach was focused on business owners. Before or during an IDDE inspection, the business owners or managers were informed and trained about compliance with the Clean Water Act and the UPDES Phase II permit. Also, the topic of "How to control and stop sanitary sewer leaks" was presented to the Utah County Storm Water Coalition and the American Fork City Public Works staff members.

Public Involvement and Participation: The creation of a Storm Water Advisory Committee has helped to coordinate the implementation of the program without creating a hardship to contractors and local business owners. These recommendations were presented to local business owners who were scheduled to be inspected as part of the IDDE Program.

Illicit Discharge Detection and Detection: The Storm Water Division submitted an IDDE Program for the City Council for review and approval. The IDDE includes a list of High Hazard potential polluters with a detailed three year implementation plan which includes the type of pollutants targeted for each private business inspection. During the 2012 - 2013, some of the targets retailers were inspected for compliance with the UPDES Phase II. These inspections will be completed on a yearly basis from now on. Finally, more water sampling during dry and wet weather conditions were taken from the 3 STORET stations located within the American Fork City limits with a monitoring program focused on pH and BOD5 (nutrients) level.

Construction Site Storm Water Runoff Control: Those contractors who attended a pre-construction meeting and were trained about compliance with the SWPPP rules and regulations, performed better than those who did not attend. The monthly inspections have been scheduled 48 hours before a rain event as predicted by the previous' year hydrograph. This approach ensures that during a rain event, most of the roads, parking lots, gutters, etc. are properly maintained and consequently reduces the level of pollution. The Storm Drain Division is using the latest smart technology to conduct inspection via Android Tablets and forms being sent to the site operators via email. There has been a significant improvement on the compliance with the SWPPP by the contractors. The number of Corrective Active Notices dropped from an average of 45 per year to only 9 this year.

Post Construction Storm Water Management: The biggest challenge has been verifying the right of entry for inspecting an existing development. The implementation of a Storm Drain Maintenance Agreement, which started being required this year, will solve this problem. The adoption of a Performance Guarantee Bond will include the bonding for the SWM Agreement and consequently an inspection before the final bond release is granted.

Pollution Prevention and Good Housekeeping for Municipal Operations: The regular maintenance of the Public Works Complex parking lot is reducing the amount of pollution significantly. Dry weather water samples collected from oil/ water separators, outfalls and catch basin are showing a significant reduction on the amount of sedimentation, oil, organic matter, and BOD. The Salt Dome and Material Storage is also under construction and the construction will be completed before the upcoming Winter Season. The project includes areas for stockpiling the street sweeping and storm drainage maintenance waste before being transported to the Landfill for its proper disposal.

Some of the upcoming year goals include the following:

1. Increase the number of IDDE inspections to private businesses
2. Increase the number of water samples and data collection at specific location citywide
3. Elimination of unnecessary storm drain outfalls discharging into the American Fork River

## 10. Additional Information

In the space below, please include any additional information on the performance of your MS4 program. If providing clarification to any of the questions on this form, please provide the question number (e.g., 2C) in your response.

### 2. Water Quality Priorities

The American Fork River, Mitchell Hollow, Ellery Sager Slough, Mill Pond and Spring Creek are rivers and streams are not officially listed as Impaired Waters of the United States or the State, but the Storm Drain Division is taking a proactive approach to minimize the pollution levels by monitoring the the levels of pH, detergent, BOD5, and temperature. The Storm Drain Division is now collecting water samples from the 3 STORET stations location within city boundaries.

### 3. Public Education and Public Participation

Three EPA videos have been uploaded to the American Fork City's website. The number of viewers is increasing to from 600 to 1,023 adults and from 2,400 to 4,709 children.

### 4. Construction

A pre-construction meeting is the best way to reduce pollution, improve compliance and reduce the need for Corrective Actions. The number of Corrective Action Notices were reduced from an average of 45 per year to only 9 citations this current year with a larger number of project to inspect.

Also, smart inspection scheduling has a positive impact on cleaning storm drain runoff. Based on the previous' year rainfall data frequency and intensity hydrograph, the city inspector is scheduling inspection to construction sites within 48 or 24 hours of a "previous year rain event". This is one of the most efficient ways to make sure the streets, concrete gutters, etc are cleaned before and during a storm event. This approach has shown a positive impact reducing sedimentation loads draining into the storm drain system. The Storm Drain Division is planning to continue the use of this BMP.

### 5. Illicit Discharge Detection Elimination:

The city has added a Hotline Number for the public to report IDDEs. Considering the fact that people prefer to use a smart phone or emails to report an illegal activity, the city added a web-based computer program to report IDDE from one those devices. The number of complaints via email was lower this year compared to previous year showing an improvement on compliance with the Storm Water Pollution Prevention local ordinances.

### 6. Storm Water Management for Municipal Operations:

The construction of the Salt Storage Building is almost completed. The same site will be used as a street sweeping and storm drain maintenance waste stockpile area during Spring, Summer and Fall. The goal is to decant the polluted fluids at the site before disposing the sludge at the Landfill facility. Currently, the fluids are removed from the maintenance truck and drained into the sanitary sewer system. The remaining solids are disposed at the landfill facility located at the North Point Landfill at 2000 West 200 South, Lindon, UT.

### 7. Post Construction Storm Water Measures

The city is now requiring the recordation of a Storm Drain Maintenance Agreement for new private development. This new form will allow city staff to obtain legal access to the private property, the right to demand inspections and maintenance records, and the potential collection of maintenance costs in case the cleaning of the storm drain is performed by city staff.

A Performance Guarantee Bond unit price schedule has been adopted by the City Council. Compliance with this Minimum Control Measure is not easy and it may take some time to see the results of the compliance with the Maintenance Agreement by Home Owners Associations, business owners and Business Owners Association.

## Certification Statement and 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.

Yes

James H. Hadfield, Mayor

Name of Certifying Official, Title

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Date (mm/dd/yyyy)