

CHAPTER SIX

POLLUTION PREVENTION and GOOD HOUSEKEEPING PROGRAM FOR MUNICIPAL OPERATIONS

Operation and Maintenance Program Description

Permit Requirement 4.2.6 Operation and Maintenance Program

The Pollution Prevention and Good Housekeeping Program of this SWMP addresses routine activities in the operation and maintenance of City owned facilities, drainage systems, roadways, parks and open spaces, and other municipal operations to reduce pollutants entering the storm drain system.

Various City Departments and Divisions have prepared an operations and maintenance manual (O&M Manual) for the City owned facilities and City activities with specific standard operating procedures for the maintenance and proper operation of structural storm water controls and a training component that have the ultimate goal of preventing or reducing pollutant runoff from the City owned facilities and operations. All of the components of the O&M program will be included in this document, it will identify the department and the staff responsible for performing each activity described on this section.

City Owned Facilities Inventory

Permit Requirement 4.2.6.1 Inventory of city owned or operated facilities.

The Engineering Division in conjunction with City Divisions and Departments has created an inventory of city owned facilities, this list will be reviewed annually and updated as necessary, the care and maintenance of each facility has been assigned to a Division or Department for its care and maintenance. The list include but is not limited to:

- Composting facilities
- Equipment storage and maintenance facilities
- Landfills
- Landscape maintenance on municipal property
- Materials storage yards
- Pesticide storage facilities
- Public buildings, including libraries, police stations, fire stations, municipal buildings, and similar Permittee-owned or operated buildings
- Public parking lots
- Public golf courses
- Public swimming pools
- Public works yards
- Recycling facilities
- Salt storage facilities
- Street repair and maintenance sites
- Vehicle storage and maintenance yards
- Permittee-owned and/or maintained structural storm water controls Facilities covered under the General UPDES Permit for Storm Water Discharges Associated with Industrial Activities do not need to develop an O&M program but must instead maintain the Storm Water Pollution Prevention Plan (SWPPP) required by that permit

Inventory of City Owned Facilities

Buildings and Grounds Department

Office, Vehicle &Supplies Storage Yard 909 East 400 South

Buildings

- Springville City Hall 110 South Main Street
- Springville City New Library 45 South Main Street
- Springville Museum of Art 126 East 400 South
- Springville Senior Center 73 East 200 South
- Carnegie Library-DUP Museum 175 South Main Street
- Springville swimming pool 1015 East 900 South
- Community Services Building 443 South 200 East
- Rodeo Grounds 1600 South 700 West
- Fire Station 41 75 West Center Street
- Fire Station 42 442 South Canyon Road

Parks

- Art Wing Park 150 North 950 West
- Arts Park 700 South 1300 East
- Bartholomew Park 2900 East 1100 South
- Big Hollow Park 350 East Evergreen Drive
- Bird Park 1100 East 900 South
- Child Park 200 South 1300 East
- Clyde Park 1200 East 1200 South
- Community Park 700 North 950 West
- Conover Park 600 East 1000 South
- Freedom Park 650 North 250 West
- Hendrickson Park 1500 North 300 East
- Heritage Park 1100 North Main
- Hobble Creek Park 1250 South 2200 East
- Holdaway Park 550 East 400 North
- Kelvin Grove 1500 South 1400 West
- Kolob Park 600 South 700 East
- Memorial Park 200 South 600 East
- Spring Creek Park 700 North 800 East

Canyon Parks

- Kelly's Grove Hobble creek canyon road
- Jolley's Ranch Right Hand Fork
- Rotary Park Left Hand Fork

Cemeteries

- Springville City cemetery 351 West 400 South
- Springville Evergreen Cemetery 1997 South 400 East

Power Department

Hydro electric plants

- Upper Bartholomew Bartholomew Canyon left fork
- Lower Bartholomew Bartholomew Canyon left fork
- Hobble Creek Below Hobble Creek Golf Course
- Spring Creek East end of 400 South

Power Plant

- Whitehead Power Plant 450 West 600 North

Electric Sub-stations

- Baxter Sub-station 300 E Evergreen Rd.
- Knight Sub-station 300 West 500 South
- Nestles Plant Sub-station 450 W Raymond Klauck Parkway
- 900 N 300 W Sub-station 900 North 300 West
- Compound Substation 909 East 400 South
- Hobble Creek Substation 1500 West 1000 North

Waste Water Division

- Waste Water Treatment Plant 700 North 500 West
- Compost Facility 700 North 700 West

Sewer Lift Stations

- Valtek 1380 North Mountain Springs Parkway
- West Fields 1150 North 1800 West
- Hobble Creek 1000 North 1500 West
- Oakbrook 405 West 1200 North
- East 550 North 600 East
- South 1200 South Main
- Spring Haven 2591 West 700 South
- Thirty Oaks 2800 East Canyon Road
- 1415 North 1415 North 100 West
- East Bay 1940 West 1400 North
- City Hall 110 South Main
- 900 S Compound 909 East 400 South
- Arts Park 650 South 1350 East

Storm Water and Sewer Collections Division

- Equipment and Material Storage Yards 700 North 500 West

Detention Ponds

- D.I. Detention Pond 660 South 1750 West
- Cherrington Detention Pond 400 South 1800 East
- 950 W 100 N Pond 950 West 100 North
- The Rivers Subdivision Pond 1100 South Whitney Lane

Street Division

Equipment and Material Storage Yards

- 400 South compound 909 East 400 South
- Material storage compound 2200 South 700 West

Water Division

Equipment and Material Storage Yard 909 East 400 South

Water Tanks

- Spring Creek 2400 East Spring Creek Canyon
- Hobble Creek 2000 East Canyon Road
- Rotary Rotary Park, Hobble Creek Canyon
- Jurgs Kelly's Grove Park, Hobble Creek Canyon
- Jolly's Jolly's Park, Hobble Creek Canyon
- Bartholomew Canyon Bartholomew Canyon, Hobble Creek

Springs

- Bartholomew Canyon
- Spring Creek Canyon
- Jolly's Jolly's Park, Hobble Creek Canyon
- Power House 700 South 2300 East
- Burt Springs 1900 East Canyon Road

Wells

- 909 East 400 South
- 900 South 1000 East
- 1000 South 600 East
- 1850 South 400 East
- 200 North 750 East
- 1700 East Canyon Road
- 1900 East Canyon Road
- 325 West 850 North

Pressure Reducing Valves (PRVs)

- 650 West 1600 South
- 650 West 400 South
- 650 West Center
- 380 West 400 North
- 20 West 900 North
- 700 East 1400 North
- 1850 East 450 South
- 650 South 2080 East
- 1700 East Center
- 450 South 2080 East
- 600 East 1000 South
- 800 East 900 South
- 1150 East 50 North
- 810 East 1125 North
- 405 North 880 East
- 2600 East Canyon Road
- Strong Regulator NE Fire Break Rd

Fleet Department

City Vehicle Maintenance Compound 909 East 400 South

Fire Department

Springville Fire Station 41 75 West Center Street
Springville Fire Station 42 442 South Canyon Road

Golf Course

Hobble Creek Golf Course 5984 East hobble Creek Canyon Road

Permit Requirement 4.2.6.2 Pollutant discharge potential assessment

The Engineering Division in conjunction with City Departments and Divisions will assess the City owned facilities and operations annually, for their potential to discharge to storm water systems the following typical urban pollutants: sediment, nutrients, metals, hydrocarbons (e.g. benzene, toluene, ethylbenzene and xylene), pesticides, herbicides and fertilizer, chlorine, road salts, detergents, chemicals, acid or base product, trash, bacteria, organic mater, and additional pollutants associated with its facilities that could be found in storm water discharges. A description of the assessment process and findings will be included on each O&M Manual which are included with this SWMP document.

Lead Entity: Engineering Division

HIGH PRIORITY FACILITIES AND ACTIVITIES

Permit Requirement 4.2.6.3 -High priority City-Owned or Operated Facilities Identification

The Engineering Division in conjunction with City Divisions and Departments has identified as "high priority" based on the pollutant discharge potential assessment of each facility or operations that have a high potential to generate storm water pollutants. The factors that were considered in giving a facility a high priority ranking was the amount of urban pollutants stored at the site, the potential for improperly stored materials, activities that must be performed outside, proximity to water bodies, the potential for poor housekeeping practices, and the potential to discharge of pollutants to water ways are:

- Power Department - Whitehead Power Plant, 450 West 600 North
- Buildings and Grounds Department - Vehicle and Supplies Storage, 909 East 400 South
- Street Division - Equipment and Material Storage Yard, 909 East 400 South
- Water Division - Equipment and Material Storage Yard, 909 East 400 South
- Fleet Department - City Vehicle Maintenance Compound 909 East 400 South
- Golf Course - Hobble Creek Golf Course, 5984 East hobble Creek Canyon Road

Permit Requirement 4.2.6.4 – High Priority City-Owned or Operated Facilities SWPPP's

Each City Department or Division in charge of a "high priority" facility or "high priority" operation; has developed or will update the maintenance and activity operation specific standard operating procedures (SOPs). The SOPs will include storm water pollution prevention and good housekeeping BMPs that, when applied to the municipal operation or facility will protect water quality and reduce the discharge of pollutants to the MS4. Low impact development (LID) techniques will be considered when creating and reviewing the O&M manual SOPs.

This document shall be tailored and retained at all "high priority" facility locations. The SWPPP shall include a site map showing the following information:

- Property boundaries;
- Buildings and impervious surfaces;
- Directions of storm water flow (use arrows);
- Locations of structural control measures;
- Location and name of the nearest defined drainage(s) which could receive runoff from the facility, whether it contains water or not;

- Locations of all storm water conveyances including ditches, pipes, basins, inlets, and swales;
- Locations where the following activities are exposed to storm water:
 - Fixed fueling operations;
 - Vehicle and equipment maintenance and/or cleaning areas;
 - Brine making areas;
 - Loading/unloading areas;
 - Waste storage or disposal areas;
 - Liquid storage tanks;
 - Process and equipment operating areas;
 - Materials storage or disposal areas;
- Locations where significant spills or leaks have occurred;
- Locations of all visual storm water monitoring points;
- Locations of storm water inlets and outfalls, with a unique identification code for each outfall and an approximate outline of the areas draining to each outfall;
- Locations of all non-storm water discharges;
- Locations of sources of run-on to your site from adjacent property.

INSPECTIONS OF HIGH PRIORITY CITY-OWNED/OPERATED FACILITIES

Permit Requirement 4.2.6.5 - Inspections of City-Owned/Operated High Priority Facilities

The following inspections shall be conducted at “high priority” City-owned or operated facilities:

- **Permit Requirement 4.2.6.5.1 - Weekly visual inspections:**
Each Department or Division will perform weekly visual inspections of “high priority” facilities in accordance with their O&M Manual to minimize the potential for pollutant discharge; spills must be documented and cleaned up immediately to prevent contact with precipitation or runoff.
The weekly inspections will be tracked in a log by each Department or Division and records kept in their O&M Manual reporting section. The inspection log will include the date of an identified deficiency and the date corrective actions were taken to remedy the deficiency.
Copies of these logs will be loaded annually to an electronic file for each department.
- **Permit Requirement 4.2.6.5.2 - Quarterly comprehensive inspections:**
Each Department or Division will perform, at least once per quarter, a comprehensive inspection of the “high priority” facilities identified on the O&M Manual.
“High Priority” facility inspections will focus specific attention to:
 - Waste storage areas;
 - Dumpsters;
 - Vehicle and equipment maintenance areas;
 - Fueling areas;
 - Material handling areas; and
 - Similar pollutant-generating areas.The quarterly inspection will be documented and records kept with the O&M Manual, the report will include identified deficiencies and the corrective actions taken to remedy the deficiencies; the inspections will be done in accordance to the O&M Manual SOPs. Copies of these inspection reports will be loaded annually to an electronic file for each department.

Lead Entity: Engineering Division

Year	Measurable goal action summary:	The Engineering Division will make sure that all of the inspections are being performed and data gathered in the correct electronic files. Document dates of department file review.
7/1/2016 - 6/30/2017		
7/1/2017 - 6/30/2018		
7/1/2018 - 6/30/2019		
7/1/2019 - 6/30/2020		
7/1/2020 - 6/30/2021		

- **Permit Requirement 4.2.6.5.3 - Quarterly visual observation of storm water discharges:**

The Engineering Division SWPPP Inspector will visually observe the quality of the storm water discharges from the "high priority" facilities. Any observed problems such as: color, foam, sheen, turbidity, that can be associated with pollutant sources or controls will be remedied to prevent discharge to the storm drain system; remedies that will require modification to structural controls will be presented to decision makers with in the City to approve such changes, temporary remedies will be implemented during that period of time. Visual observations will be documented and records kept with the SWMP document.

SOPs for the inspection are as follows:

- Use of the official Discharge Monitoring Report Form (located on the Storm Water MS4 electronic file);
- Locate monitoring discharge point;
- Collect sample on a glass container;
- Document with pictures: water sample, runoff flow patterns, observed sheen flows, etc.;
- Identify deficiencies and report to the parties responsible for the deficiencies;
- Responsible party will then report back to the SWPPP Inspector of the corrective actions taken.
- SWPPP Inspector conducts a follow up inspection to verify correction and finish report.

Permit Requirement 4.2.6.6. SOPs for Facilities and/or Activities

SOP's shall be developed and implemented for the following types of facilities and/or activities listed below:

- **Permit Requirement 4.2.6.6.1 - Buildings and facilities O&M Program and SOPs**

- The O&M program will include: City owned or operated offices, police and fire stations, swimming pool, parking lots, etc. Each Department or Division that has an impact on storm water discharging to the municipal separate storm sewer

system (MS4), will create or update their O&M Manuals and SOPs to include the following items:

- o The SOPs must address the use, storage and disposal of chemicals and ensure through employee training, that those responsible for handling these products understand and implement SOPs.
- o All City owned or operated facilities must develop and ensure that spill prevention plans are in place.
- o The SOPs will address dumpsters and other waste management which includes, but is not limited to cleaning, washing, painting and other maintenance activities.
- o The O&M program will include schedules and SOPs for sweeping parking lots and keeping the area surrounding the facilities clean to minimize runoff of pollutants.
- o By February 1st of 2011, the City Departments and Divisions will create an inventory of all floor drains inside all of the buildings in their care.
 - Inventory will be kept current.
 - Each department or division will ensure that all floor drains discharge to appropriate locations
- o By February 1st of 2011, the City Departments and Divisions will develop an inventory including a map of all storm drains located on the property of all the City owned or operated buildings and facilities in their care.
 - Each City Divisions and Departments must ensure that only storm water is allowed into these drains and that the appropriate BMPs are in place to minimize pollutants from entering the MS4.

Lead Entity: Engineering Division, All Departments and Divisions

Year	Measurable goal action summary:	1. February 1 st 2011- inventory of all floor drains and storm drain inlets of all city owned or operated facilities (map). 2. Continue to update O&M Manual SOPs
7/1/2016 - 6/30/2017	February 1 st 2011- inventory of all floor drains and storm drain inlets of all city owned or operated facilities (map).	
7/1/2017 - 6/30/2018		
7/1/2018 - 6/30/2019		
7/1/2019 - 6/30/2020		
7/1/2020 - 6/30/2021		

Permit Requirement 4.2.6.6.2 - Material storage areas, heavy equipment storage areas and maintenance areas

Each Department or Division will update and implement SOPs to protect water quality at each of the facilities owned or operated by the City Departments or Divisions not covered under the General Permit for Storm Water Discharges Associated with Industrial Activities.

Permit Requirement 4.2.6.6.3 - Parks and open space

The Parks Division and Golf Course will update their O&M Manual SOPs to address:

- Fertilizer, pesticides, and herbicides proper application, storage and disposal, including minimizing the use of these products and using only in accordance with manufacturers instruction;
- Sediment and erosion control;
- Lawn maintenance and landscaping activities- evaluate practices to ensure protection of water quality such as, proper disposal of lawn clippings and vegetation, and use alternative landscaping materials such as drought tolerant plants;
- Management of trash containers at parks and other open spaces- (include scheduled garbage pick up, number of containers, and signage in areas concerning proper disposal of pet wastes);
- Cleaning of maintenance equipment, building exterior, trash containers and the disposal of the associated waste water.

The Parks Division and Golf Course will implement pollution prevention and good housekeeping practices at their facilities.

Permit Requirement 4.2.6.6.4 - Vehicle and equipment maintenance activities

All Divisions and Departments will update their O&M Manual SOPs to address vehicle maintenance and repair needs.

The Golf Course, Fleet Department, Parks, and Street Divisions maintain vehicles at their facilities; they will include BMPs such as drip pans and absorbents under or around leaky vehicles and equipment or storing indoors where feasible.

The Fueling area operated by the City is located at the Waste Water Reclamation Plant; it is constantly monitored and evaluated according to the requirements of their MSGP SWPPP.

Vehicle wash procedures will be addressed by all Departments and Divisions to ensure that wash waters are not discharged to the MS4 or surface waters.

Permit Requirement ~~4.2.6.4.5~~ 4.2.6.6.5 - Roads, highways and parking lots

The Street Division O&M Manual will be reviewed annually and updated, if necessary, to describe in writing standard operating procedures for:

- Sweeping streets and other BMPs designed to reduce road debris and other pollutants from entering the MS4 including schedules;
 - Include disposal methods of waste removed.
- Pothole repairs;
- Pavement marking;
- Sealing and repaving;
- Plowing, sanding and application of deicing compounds, and maintenance of snow disposal areas;
- Right of way maintenance including mowing and herbicide application; and
- Municipal sponsored events (parade and street fair clean up)

The Buildings and Grounds Department, Parks Division and Golf Course O&M Manuals will be updated to describe in writing standard operating procedures for:

- Sweeping of parking lots and any other BMPs designed to reduce parking lot debris and other pollutants from entering the MS4; and
- Snow removal, sanding or application of deicing compounds.

Permit Requirement 4.2.6.6.6 - Storm water collections and conveyance system

The Storm Water Division O&M Manual will be updated to describe in writing, standard operating procedures and schedules for the maintenance, inspection, cleaning, and repair of:

- Detention/retention ponds;
- Catch basins;
- Storm water conveyance pipes;
- Ditches and irrigation canals;
- Culverts;
- Structural storm water controls;
- Structural runoff treatment; and
- Flow control facilities.

The Storm Water Division will create storm sewer system maintenance map and schedule to document inspections; this data will be used to designate priority areas that will be maintained more frequently.

Also the Storm Water Division O&M Manual SOPs will include proper documentation procedures and disposal methods of all waste and waste water removed from the storm water conveyance system.

Permit Requirement 4.2.6.6.7 - Other facilities and operations

Each Department or Division that has an impact on storm water discharging to the municipal separate storm sewer system (MS4), will create or update their O&M Manuals SOPs to include facilities and operations not listed above that would reasonably be expected to discharge contaminated runoff.

Lead Entity: Engineering Division

Year	Measurable goal action summary:	The Engineering Division will meet with each department annually to help create, review or make changes to the O&M Manual SOPs and BMPs. Document meeting dates and outcome of the meeting.
7/1/2016 - 6/30/2017		
7/1/2017 - 6/30/2018		
7/1/2018 - 6/30/2019		
7/1/2019 - 6/30/2020		
7/1/2020 - 6/30/2021		

THIRD PARTY MAINTENANCE OF STORM WATER FACILITIES

Permit Requirement 4.2.6.7 The Engineering Division will allow private developments to conduct their own maintenance and inspections of storm water BMPs and will be held to the same standards the city follows. These expectations will be defined through the proposed City Ordinance “4-12-302 Maintenance (3) Maintenance Arrangements” to insure through

contractually-required documentation or periodic site visits, that the owner of such storm water BMPs is following SOP to maintain such controls.
This permit requirement will also be covered in section 4.2.5 of this plan.

FLOOD MANAGEMENT STRUCTURAL CONTROLS

Permit Requirement 4.2.6.8 Flood management controls design

The Engineering Division will develop and implement a process to assess the water quality impacts in the design of all new flood management structural controls that are associated with discharges to the MS4. The process will include consideration of controls that can be used to minimize impacts to site water quality and hydrology while still meeting project objectives.

Description of this process is as follows:

- Developer submits proposed flood management structural control method (i.e. detention pond w/ pretreatment)
- Developer submits technical literature from manufacturer of selected pre-treatment control listing the pollutant removal capabilities of said pre-treatment control (i.e. remove floatables, sediment, and hydrocarbons)
- City Engineer reviews submitted technical literature and determines if the selected control's pollutant removal capabilities are acceptable

Permit Requirement 4.2.6.8.1 Existing flood management

Existing flood management structural controls will be assessed by the Engineering Division to determine whether changes or additions should be made to improve water quality.

The City presently has several detention basins that were constructed with individual subdivisions or commercial site plans to address flood management. As part of the City's adopted storm water master plan the City is moving toward regionalized detention rather localized detention. As these regional basins are constructed, existing local basins may be removed.

The existing flood management structural controls will be assessed following the process listed below:

- Routine site visits (as described in Section 4.2.5.5.3)
- Condition assessment (as described in Section 4.2.5.5.3)
 - Bring concerns to City Engineer's attention
 - Engineering Division under direction of the City Engineer determines proper remediation or corrective action

CONSTRUCTION PROJECTS

Permit Requirement 4.2.6.9 Public construction projects

"Construction Projects. Public construction projects shall comply with the requirements applied to private projects. All construction projects disturbing greater than or equal to one acre, including projects less than one acre that are part of a larger common plan of development or sale, owned or operated by the Permittee are required to be covered under the

General UPDES Permit for Storm Water Discharges Associated with Construction Activities. All public projects approve after the effective date of this Permit shall include construction and post-construction controls selected and implemented pursuant to the requirements in Parts 4.2.4. and 4.2.5."

TRAINING

Permit Requirement 4.2.6.10 Training for employees

The Engineering Division in conjunction with Departments and Divisions will provide training annually for all employees who have primary construction, operations, or maintenance job functions that are likely to impact storm water quality.

Training will address the importance of protecting water quality, the requirements of the Small MS4 General UPDES UTR090000 Permit addressed on this document, operation and maintenance requirements, inspection procedures, ways to perform their job activities to prevent or minimize impacts to water quality, SOPs for the various City owned or operated facilities and procedures for reporting water quality concerns, including potential illicit discharges.

Training records will be kept and shall include dates, activities or course descriptions, and names and positions of staff in attendance. Follow-up training will be provided as needed to address changes in procedures, methods or staffing.