**STORMWATER POLLUTION**

**PREVENTION PLAN**

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CITY OF SAND SPRINGS

STREET AND DRAINAGE

MAINTENANCE FACILITY

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Appendix A

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**Background and General Requirements**

The City of Sand Springs has a stormwater discharge permit issued under the National Pollutant Discharge Elimination System (NPDES) Phase II System. The NDPES program is part of the federal Clean Water Act and is enforced in Oklahoma by the Department of Environmental Quality (DEQ). The Phase II Permit requires all permittees to develop a storm water management program (SWMP) aimed at reducing the level of pollutants into the municipal separate storm sewer system (MS4).

A required component of the (SWMP) is a program to prevent or reduce pollutant runoff from municipal operations and from municipally-owned facilities. DEQ recommends that cities develop storm water pollution prevention plans (SWPPP) for City maintenance and material storage facilities. This SWPPP has been developed to comply with DEQ recommendations.

Some of the plan has already been implemented. The remainder will be implemented over the next 90 days.

**SWPPP Availability**

A copy of the SWPPP will be kept at each applicable Sand Springs facility and will be available to Sand Springs and DEQ personnel upon request.

**SWPPP Revisions**

The SWPPP will be revised as needed and the date revised will be noted on the title page.

**Objectives of the SWPPP**

This document serves as the Stormwater Pollution Prevention Plan (SWPPP) for the City of Sand Springs Public Works Department Streets and Drainage Maintenance Facility located at 8620 West 21st Street.

The objectives of the Plan are:

* To identify the locations of all materials that could cause surface water pollution if spilled or otherwise be released into the environment
* To indentify all storm water conveyances and discharge points to aid in the isolation of contaminants should any be spilled into the system
* To identify locations of spill containment equipment and materials
* To implement and maintain best management practices (BMP’s) that identify, reduce, eliminate, and/or prevent the discharge of storm water pollutants
* To eliminate unpermitted discharges and other illicit discharges to separate storm sewer drainage systems
* Provide information on BMP’s to the facility’s staff

This document describes methods and procedures that the City of Sand Springs personnel will implement in order to reduce and/or eliminate the contamination of storm water runoff from this facility.

This document also:

* Identifies the Stormwater Site Leader
* Contains a facility description and activities
* Describes the BMP’s
* Describes the inspection and recordkeeping requirements

**NPDES Permit Coverage**

The City of Sand Springs is responsible for the operation and maintenance of the MS4 including the storm water BMP’s located at this facility.

**Stormwater Plan Contact Information:**

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**Facility Description**

The Street and Drainage Maintenance Facility is sited on approximately 5.5 acres at 8620 West 21st Street. It is bordered on the east by the wastewater treatment plant and on the northwest by the City animal shelter and on the west by an industrial plant. The Arkansas River lies to the south.

About one-third of the site is undeveloped and covered with trees and other vegetation. The remainder of the site is used for outdoor vehicle storage, large equipment storage and bulk storage of sand and soil. There are also piles of street sweeper debris stored at the site until transferred for final disposal.

There are two buildings on the site. The main building occupies 9,000 square feet of the site. Inside vehicle equipment and material storage occupies much of the building. It also houses administrative offices, a break room, and sign fabrication shop. The other building on the site is a 40 by 60 foot metal pole barn that mainly houses heavy equipment. Nine employees work at or out of this facility

**Operations at the Street and Drainage Maintenance Facility**

The primary operations at the Street and Drainage Maintenance Facility include the storage of city vehicles, heavy equipment storage, mowing and landscape equipment maintenance (indoors), and bulk materials storage. The primary operations that could potentially impact stormwater include:

* Loading and unloading of liquid and solid materials
* Landscaping, lawn and vegetation maintenance
* Outdoor portable container storage
* Parking lot maintenance and storage of vehicles and equipment
* Storage of bulk, dirt, sand and rock
* Storage of collected street waste solids and other storm facility solids

**Facility Plan and Map**

Appendix A of this document is a facilities plan of the site. It identifies the facility layout, storm water drainage system, heavy equipment storage areas, and material storage areas. Appendix B is a diagram of the main building on the site and the location of the various operations within the building and the locations of the building’s spill kits.

**Receiving Waters**

In general, the storm water runoff from the Street and Drainage Maintenance facility drains east to west. The runoff is collected by a grass lined channel on the west side of the property. The water in the channel is collected by a 36 inch concrete pipe which then transports it under the levee to the Arkansas River.

**Potential Pollutants**

Table 1 below lists activities conducted at the Street and Drainage Maintenance Facility that have the potential to generate pollution if not managed properly. Proper management requires the utilization of best management practices.

**Table 1**

**Potential Pollution Generating Activities and Potential Pollutant**

|  |  |
| --- | --- |
| **Potential Pollution Generating Activity** **Potential Pollutant** | **Potential Pollutant** |
| Loading and unloading liquid materials | Oils, gasoline, anti-freeze & herbicides |
| Equipment maintenance | Oils, gasoline, grease & anti-freeze |
| Landscaping, lawn and vegetation maintenance | Herbicides |
| Outdoor storage or transfer of bulk materials | Street cleaning debris |
| Storage of vehicles and equipment | Hydraulic fluid, oil, fuel |

**Spill Prevention/Response and Illicit Discharges**

The city of Sand Springs depends on its employees to implement spill prevention and clean up leaks and/or spills, and report significant spills. They should also report if spill kits need replenishment or if they feel additional spill prevention measures are needed. If a large spill does occur and facility personnel do not feel they can manage quickly and effectively, it is their responsibility to call the fire department and then take appropriate measures to limit storm water degradation until the fire department arrives. If a large spill should occur they should also contact the Storm Water Coordinator.

**City-wide Best Management Practices**

All facilities within the city must implement the following **six** city-wide operational source control BMPs:

**BMP 1 - Perform routine maintenance for storm water drainage systems.**

Sediment and pollutants can accumulate over time in various components of stormwater collection, conveyance, and treatment systems, such as catch basins, ditches, storm drains, and oil/water separators. Regular maintenance of the stormwater drainage system decreases the amount of pollutants that are available to contaminate the stormwater. Routine cleaning of catch basins is one of the most important stormwater source control measures that a facility can implement. When catch basins are about 60 percent full of sediment, sediment removal efficiency drops; thus catch basins must be cleaned when sediment depth reaches 60% of capacity.

**BMP 2 - Dispose of fluids and wastes properly**

Every city facility must properly dispose of solid and liquid wastes, and contaminated stormwater. There are generally four options for disposal, depending on the type of waste:

• Recycling facilities

• Municipal solid waste disposal facilities

• Hazardous waste treatment, storage, and disposal facilities

• Sanitary sewer

Many liquid wastes (depending on the pollutants and associated concentrations) can be discharged to the sanitary sewer system, If wastes cannot be legally discharged to a sanitary sewer, one of the three other disposal options must be used. Holding tanks may be useful for storing liquid wastes temporarily. Dangerous or hazardous wastes must be properly transported to an appropriate hazardous waste treatment, storage, and disposal facility and requires appropriate documentation.

**BMP 3 - Proper storage of solid wastes**

City facilities must store wastes in suitable containers with leak-proof lids that are closed at all times. The waste storage area must be swept or otherwise cleaned frequently to collect all loose solids for proper disposal in a storage container. The area should not be hosed to collect or clean solids. Employees should be educated about the need to check for and replace leaking containers. Accumulated waste should not be allowed to exceed the capacity of the storage container. If this occurs, a larger storage container should be obtained and used or the material should be disposed more frequently.

**BMP 4 - Materials Management**

Store materials indoors whenever possible. If materials must be stored outside they should be stored in weatherproof containers. Vulnerable materials stored outside temporarily should be covered with a tarp that is securely fastened. Materials stored outside should be protected from traffic or located where it is unlikely to be damaged by vehicles or equipment.

**BMP 5 - Spill prevention and cleanup**

A spill can be a one-time event, a continuous leak, or a frequent small leak. All three types of spills must be prevented. Leaks and spills of solid and liquid pollutants including oils, solvents, fuels, and dust from manufacturing operations on any exposed soil, vegetation, or paved area should be promptly contained and cleaned up. Spill cleanup kits should be available at activity locations where spills may occur. In order to reduce the potential for spills, the following practices should be implemented:

• Clearly label all containers

• Store and transport liquid materials in appropriate containers with tight fitting lids

• Place drip pans underneath all containers, fittings, valves, where materials are likely to spill or leak

• Use tarpaulins, ground cloths, or drip pans in areas where materials are mixed, carried, and applied to capture any spilled materials

• Train employees on the safe techniques for handling materials that are used on the site and encourage them to check for leaks and spills

• Spill cleanup kits should be stored near areas with a high potential for spills, so that they are easily accessible in the event of a spill. The contents of the spill kit should be selected based on the types and quantities of materials stored or used at the facility and refilled when the materials are used.

**BMP 6 - Provide oversight and training for staff**

All team members should be trained annually in the operation, maintenance, and inspections of BMPs. This training must be documented. Training staff about good housekeeping expectations is one of the most effective methods for keeping sediment and other pollutants out of stormwater and receiving waters.

Regular meetings should be held to review the overall operation of the BMPs, establish responsibilities for inspections and O&M, and determine responsibilities for emergency situations.

**Implementing Additional or Enhanced BMP’s**

If additional or enhanced BMPs become necessary due to a regulatory change or a facility operations change, the change will be implemented and incorporated into this SWPPP within 30 days.

**Source Specific BMP’s**

The table on the following pages provides source-specific structural control BMPs for the City of Sand Springs Public Street and Drainage Maintenance Facility based on outdoor activities that could potentially impact stormwater quality. These actions are required in addition to the operational BMPs.

**Table 2 Pollution Prevention BMP Summaries**

**Potential Pollution Generating Activity and Corresponding BMP**

|  |  |
| --- | --- |
| **Vehicle Washing** | Wash vehicles using water only. If using detergent personnel may use only “Earth Friendly” and only do so occasionally and washing must occur on grass. |
| **Loading and unloading of liquid or solid material** | * Sweep outside, uncovered loading/unloading areas frequently to remove material that could otherwise be washed off by stormwater * Clean up any liquid or solids spill immediately. If the spill is too large for site personnel to clean up call the Fire Dept. |
| **Materials Management** | * Store containers under roof. Any containers stored outside should be protected from vehicles and by tarps and should be stored outside only temporarily. * If liquid containers cannot be stored indoors they need to be stored on a paved and diked area to prevent leakage in the storm water system. * All containers should have tight fitting lids * Place drip pans beneath container taps and potential spill and drip location while filling and unloading containers * Inspect container storage areas regularly for corrosion,   structural failure, spills, leaks, overfills, and failure of  piping systems   * Storage of flammable or reactive liquids must comply with Uniform Fire Code * Check containers frequently for leaks/spills. * Replace or repair leaking garbage dumpsters * Keep dumpster lids closed |
| **Automotive Repair and Maintenance** | * Inspect all vehicles, parts, and equipment stored temporarily   outside for leaks and use drip pans as necessary   * Empty oil and fuel filters before disposal * Provide for proper disposal of waste oil and fuel * Do not pour/convey wash water, liquid waste, or other   pollutant into storm drains or to surface water   * Conduct all maintenance and repair of vehicles and   equipment in a building   * Do not hose down work areas. Use dry methods for   cleaning leaked fluids   * Recycle greases, used oil, oil filters, antifreeze, cleaning   solutions, automotive batteries, hydraulic fluids,  transmission fluids, and engine oils whenever possible   * Dispose of all chemicals, fuels, lubricants and other   hazardous materials properly |
| **Landscaping, lawn and vegetation management** | * If herbicides are used they must be carefully applied in accordance with label instructions * Do not dispose of collected vegetation into waterways or * storm drainage systems * Use erosion control BMPs whenever soil is disturbed * Maintain a list of selected herbicides and their specific uses; brands, formulations, application methods and quantities to be used; equipment use and maintenance procedures; safety, storage, and disposal methods * Mix herbicides and clean the application equipment in an area where accidental spills will not enter surface or ground waters, and will not contaminate the soil. * Store herbicides in enclosed areas or in covered impervious containers * Ensure that herbicide contaminated stormwater or spills/leaks of herbicides are not discharged to storm drains * Store and maintain appropriate spill cleanup materials in   a location known to all near the storage area   * Clean up any spilled herbicides and ensure that the herbicide contaminated waste materials are kept in designated covered and contained areas |
| **Painting, finishing, and coating of vehicles, buildings and equipment** | * Train employees in the careful application of paints,   finishes, and coatings to reduce misuse and over spray   * Use ground or drop cloths underneath outdoor painting,   scraping, and sandblasting work   * Wipe up spills with rags and other absorbent materials   immediately   * Do not hose down the area to a storm drain or receiving   water or conveyance ditch to receiving water   * Use a storm drain cover, filter fabric, or similarly effective   runoff control device if dust, grit, or other pollutants may  escape the work area and enter a catch basin   * Use a ground cloth, pail, drum, drip pan, tarpaulin, or   other protective device for activities such as paint mixing  and tool cleaning outside or where spills can contaminate  stormwater   * Properly dispose of all wastes and prevent all   uncontrolled releases to the air, ground or water   * Clean brushes and tools covered with non-water-based   paints, finishes, or other materials in a manner that  allows collection of used solvents (e.g., paint thinner,  turpentine, xylol, etc.) for recycling or proper disposal   * Store toxic materials under cover during precipitation events   and when not in use to prevent contact with stormwater   * Enclose and/or contain all work while using a spray gun   or conducting sand blasting   * Do not conduct outside spraying, grit blasting, or sanding   activities during windy conditions   * Clean paintbrushes and tools covered with water-based   paints in sinks connected to sanitary sewers or in  portable containers that can be dumped into a sanitary  sewer drain |

**Recordkeeping and Inspections**

Records of all inspections, observations, and compliance records, as applicable, will be kept by the City of Sand Springs Public Works Street and Drainage Maintenance facility on-site for a minimum of five years. Copies of these records shall be provided upon request.

The Stormwater Coordinator and the Stormwater Site Leader must regularly inspect all areas on City of Sand Springs-owned sites to assess how well stormwater BMPs are working. Complete, routine inspections must occur annually; a minimum of one additional inspection, preferably during the wet season (April through June) is required to ensure that trash, debris, sediment and/or vegetation is not blocking more than 10 percent of the inlet capacity. Record the results of the inspections on the Public Works Stormwater Inspection forms. If at any time a BMP is not effective, it must be repaired or maintained before the next anticipated storm event. If maintenance prior to the next storm event is not possible, maintenance must be completed as soon as possible and documented on the form for the extended repair schedule. In the interim, back-up measures must be implemented to ensure that stormwater quality is not diminished.

**Concluding Statement**

The intent of this SWPPP is to prevent pollution from entering stormwater from the Street and Drainage Maintenance Facility. However, this SWPPP will not be effective at maximizing pollution reduction unless it is implemented fully. Full implementation of this plan includes regular staff training as well as compliance checks to ensure that BMPs are being utilized consistently and correctly.

This document must be considered a 'living document", meaning that it can and should be updated as often as necessary to ensure that it meets State and Federal stormwater regulations.