Stormwater Pollution Prevention Strategy for Municipal Facilities

Prepared for

City of Wilsonville

October 2013

City of Wilsonville
Stormwater Pollution Prevention Strategy for Municipal Facilities

29799 SW Town Center Loop E
Wilsonville, OR 97070

October 2013

KEEP THIS SWPPS ON SITE AT ALL TIMES

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Definitions

The following definitions are listed in Schedule D.3 of the 1200-Z NPDES permit and have been referenced in this SWPPS.

Best Management Practices (BMP): Schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce the pollution of waters of the United States. BMPs also include treatment requirements, operating procedures, and practices to control facility site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage.

Clean Water Act (CWA): Federal Water Pollution Control Act or Federal Water Pollution Control Act Amendments of 1972.

Control Measure: Any BMP (structural, operational, or mechanical) used to prevent or reduce the discharge of pollutants to waters of the state.

Industrial Activity: Categories of industrial activates included in the definition of "stormwater discharges associated with industrial activity" per 40 CFR 122.26(b)(14)(i)-(ix) and (xi).

Material Handling Activities: Storage, loading and unloading, transportation or conveyance of raw material, intermediate product, finished product, by-product or waste product.

Point Source Discharge: Discharge from any discernible, confined, and discrete conveyance, including, but not limited to any pipe, ditch, channel, tunnel, or conduit.

Significant Quantity: The volume, concentration, or mass of a pollutant in a storm water discharge that can cause or threaten to cause pollution, contamination, or nuisance, adversely impact human health or the environment, and cause or contribute to a violation of any applicable water quality standards for the receiving water.

Stormwater: Runoff from a rain event, snow melt runoff, or surface runoff and drainage. It does not include infiltration and runoff from agricultural land.

Stormwater Conveyance: Sewer, ditch or swale that is designed to carry stormwater; a stormwater conveyance may also be referred to as a storm drain or storm sewer.

SWPPS: Stormwater Pollution Prevention Strategy

Section 1

Introduction

The City of Wilsonville's reissued municipal separate storm sewer (MS4) National Pollutant Discharge Elimination System (NPDES) permit (effective date: March 16, 2012) includes specific requirements and provisions related to pollution prevention for municipal facilities. This Stormwater Pollution Prevention Strategy (SWPPS) documents the City's strategy to reduce the impact of stormwater runoff from municipal facilities.

The following facilities are covered by this SWPPS:

- Three Bay Facility
- South Metro Area Rapid Transit (SMART) Operations & Fleet Facility
- Memorial Park Maintenance Barn

The objectives of the SWPPS are to outline a series of Best Management Practices (BMPs) that will control pollutants at their source, limit the opportunity for pollutants to enter stormwater, and, if needed, provide treatment to remove pollutants from stormwater runoff before it is discharged offsite to the MS4. Best Management Practices (BMPs) are described in accordance with current efforts conducted at each site and future efforts that will be considered and incorporated when the City is able to secure funding for specific projects.

1.1 Permit Language and Requirements

Schedule A.4.g of the City's MS4 NPDES permit describes the City's obligations related to Pollution Prevention for Municipal Operations. The City must "…implement a program to reduce the discharge of pollutants to the MS4 from properties owned and operated by the [City] for which the [City] has authority, including, but not limited to, parks and open spaces, fleet and building maintenance facilities, transportation systems and firefighting training facilities. The City must conduct, at a minimum, the following program activities:

i. Operate and maintain public streets, roads, and highways in a manner designed to minimize discharge of stormwater pollutants to the MS4, including pollutants discharged as a result of firefighting activities;

ii. Implement a management program to control and minimize the use and application of pesticides, herbicides and fertilizers on City-owned properties;

iii. By July 1, 2013, inventory, assess, and implement a strategy to reduce the impact of stormwater runoff from municipal facilities that are used to treat, store, or dispose municipal waste, such as yard, landscaping, or catch-basin cleaning waste, and are not already covered under a 1200 series NPDES, a DEQ solid waste permit, or other permit designed to reduce the discharge of pollutants;

iv. Limit infiltration of seepage from the municipal sanitary sewer system into the MS4;

v. Implement a strategy to prevent or control the release of materials related to fire-fighting training activities; and

vi. Assess [City] flood control projects to identify potential impacts on the water quality of receiving water bodies…."

This SWPPS is specifically aimed at meeting the City's obligation under Schedule A4.5.iii, to reduce the impact of stormwater runoff from municipal facilities that store and/or manage waste but are not already covered under a separate DEQ permit.

1.2 SWPPS Development

This SWPPS was developed based on site visits, facility inspections, staff interviews, and a facility assessment questionnaire that was used to document existing activities and practices at the City's municipal storage facilities. Brown and Caldwell (BC) worked with City staff to identify facility-specific Best Management Practices (BMPs) aimed at reducing the discharge of pollutants to the MS4. The BMPs documented in Section 3 include staff activities, maintenance practices, operating procedures, structural source controls, and treatment systems (where needed).

The SWPPS was patterned after the Department of Environmental Quality (DEQ) guidelines for Stormwater Pollution Control Plans (SWPCP) for industrial facilities that are covered by the NPDES 1200-Z permit. While the City's municipal storage facilities are not subject to a 1200-Z permit, many of the pollution control principles outlined in DEQ's SWPCP guidance are applicable to waste storage facilities. However, because the City's obligations under the MS4 NPDES permit are different than the requirements for 1200-Z permits, some aspects of the SWPCP (i.e. monitoring and reporting obligations) have not been incorporated into this SWPPS.

1.3 SWPPS Implementation

Implementation of the SWPPS will begin with employee training to understand the City's obligations, refresh current practices/activities, and outline intended future practices and structural controls. While operating procedures and maintenance practices can be implemented right away (and in most cases are already being implemented), some structural elements of the SWPPS will require significant capital funds and will need to be added to the City's capital facilities program to be constructed over time as funding allows.

Section 2

Site Description

The City of Wilsonville manages municipal waste at three facilities operated by the Public Works Department. Site descriptions for each facility, along with a summary of current activities and potential stormwater pollutants are included in the following sections.

2.1 Site 1: Three Bay Facility

The Three Bay Facility is located at 7930 SW Memorial Drive. The site is located within Memorial Park. The Three Bay Facility is a property maintenance storage yard for Public Works crews responsible for maintenance of roads, parks and property, and stormwater and sanitary systems. The site is primarily used to store landscaping equipment, maintenance materials, and landscaping supplies. Other activities on the site include limited vehicle storage, indoor material storage, and a work shop for public works crews. The City's vactor truck is also stored at Three Bay, though no decant or vactor waste disposal activities take place on site.

See Attachment A for a site map of the Three Bay facility.

2.1.1 Site 1: Land Use and Drainage Patterns

The Three Bay site is comprised of a large gravel storage yard, fully fenced from the surrounding park. The site is approximately 1.21 acres in area, including 0.62 acres of compacted gravel, and 0.58 acres of vegetation. Site facilities consist of three permanent buildings (2,210 SF of rooftop area total), and includes a maintenance shop, a landscape supply shed, and a small shed housing chemicals and supplies to maintain water features at the City's parks. One temporary building is used to store additional landscaping supplies.

The site is located within the Willamette River watershed. The site has no defined conveyance system and all stormwater runoff appears to infiltrate onsite or sheet flows to surrounding vegetated areas. Any sheet flow that does not infiltrate onsite will likely be absorbed by the dense vegetation and groundcover in Memorial Park.

2.1.2 Site 1: Potential Pollutants and Pollutant Sources

The Three Bay facility stores materials for municipal operations that have the potential to contribute to stormwater pollution. These materials include landscaping chemicals (pesticide, herbicide, and fertilizer), fuels, sand and gravel, and landscaping materials (soil, compost, mulch, etc.). Each of these materials is a potential stormwater pollutant due to their potential to wash off into stormwater during rain events.

In general, materials are stored indoors. The exceptions are the sand and gravel storage areas and landscape material storage, which are located outside in designated areas. (The sand and gravel storage area is located under a semi-permanent cover to protect from interaction with rainwater.)

Potential pollutants and potential pollutant sources at the Three Bay facility are listed in Table 2.1. A more detailed summary of site activities and potential pollutant sources is included in the Municipal Facility Assessment Questionnaire included as Attachment B.

Table 2-1 Potential Pollutants and Pollutant Sources at the Three Bay Facility			
Stormwater Exposure Category	Potential Pollutant Sources	Location	Potential Pollutants
Loading and Unloading Operations	• Loading/ unloading of landscaping materials • Loading/unloading of sand and gravel. • Loading/unloading of waste materials • Equipment and truck traffic	Across the site	Paint (if spilled), oil/grease, sediment, organic material, trash and debris
Hazardous Waste Storage/Disposal	• Indoor storage of paint, fuel additives, and landscaping chemicals • Outdoor storage of diesel fuel (in appropriate containment)	Indoors and at diesel fuel storage station	Paint, diesel (if spilled)
Outdoor Storage	• Storage of landscaping materials – compost, soil • Storage of sand and gravel • Vehicle and equipment storage area	Northeast corner Sand/Gravel Storage Area Vehicle Storage Area	Oil/grease, sediment, trash and debris, organic material
Fixed Fueling	• Diesel fueling station	Single location	Diesel (if spilled)
Dust or Particulate Generating Processes	• Blowing and cleaning of landscape equipment	Vehicle Storage Area	Sediment, organic material
Vehicle and Equipment Cleaning	• Limited (several times/year) washing of equipment over gravel surface	Vehicle storage area	Soap (if used), oil residue, waste fluids
Vehicle and Equipment Maintenance	• Small equipment oil changes performed outdoors	Vehicle storage area	Oil/grease, automotive fluids
Waste Management	• Trash dumpster • Recycling dumpsters • Material inventory and recycling	Northwest corner	Trash and debris, waste chemicals, paint (if spilled)
Vegetation Management	• Transfer and storage of landscaping chemicals. • Limited application of pesticide, herbicide, and fertilizer on site.	Across the site	Landscaping chemicals

2.1.3 Site 1: Existing Controls

The facility primarily relies on source controls to manage stormwater pollutant discharges onsite. The BMPs include operational actions such as closing dumpster lids, limiting outside material storage, designating storage areas, and reducing the quantities of materials ordered and stored at the facility. Additional information about operational BMPs is further discussed in Section 3.

The primary structural controls on the site include the covered buildings used for workshops and storage of materials. The larger permanent building in the northeast corner of the site is used as a work shop for maintenance crews and a storage area for the vactor crew. The small shed at the north end of the parking area stores materials to maintain park water features. The permanent building and temporary buildings at the southeast corner of the site are used for landscape material storage. These buildings allow for cover and containment of maintenance materials, including landscaping chemicals that would otherwise be a problem for stormwater pollution. The City's sand/gravel storage area has also been

fitted with structural controls, including concrete divider berms and a semi-permanent water resistant cover.

Other structural controls include signage to label all equipment parking areas, maintaining covers for trash and recycling containers, and fencing to isolate the facility from surrounding park space and to restrict access to the facility.

2.2 Site 2: SMART Operations & Fleet Facility

The SMART Operations & Fleet facility is located at 28879 SW Boberg Road. The site is located in an industrial area west of I-5. The site is operated by the SMART Operations and Fleet Services. The City completed construction of this facility in the spring of 2013. All vehicle maintenance, with pollutant discharge potential, is performed inside of the Fleet Services maintenance bays at this facility. Vehicle fueling and washing is performed under a covered self-contained areas (washwater is conveyed to the sanitary system and spill containment is provided) at this facility as well.

See Attachment A for a site map of the SMART Operations & Fleet Services facility.

2.2.1 Site 2: Land Use and Drainage Patterns

The SMART Operations & Fleet facility is comprised of a large paved vehicle storage yard, with landscaping and fencing separating the facility from the surrounding businesses. A stormwater pond and two swales provide detention and treatment of stormwater runoff. The site is approximately 4.4 acres in area, including 1.3 acres of impervious surface (concrete and pavement) and 2.8 acres of vegetation and landscaping. Site facilities consist of one permanent building that houses the maintenance shop, office area, and indoor storage. Adjacent to the building is a covered area which includes a fueling area, waste and recycling containers, and a washbay. No temporary buildings are used at this site.

The site is located within the Willamette River watershed, with one outfall located to the North. This outfall discharges to the City's municipal storm system and eventually to Coffee Lake Creek.
The onsite drainage system consists of a network of conveyance pipes, one pond and two vegetated swales that collect and convey stormwater prior to discharge offsite.

2.2.2 Site 2: Potential Pollutants and Pollutant Sources

The SMART Operations & Fleet facility stores materials for municipal operations that have the potential to contribute to stormwater pollution. These materials include cleaning chemicals, fuels and lubricants. Each of these materials is a potential stormwater pollutant. Materials are stored indoors or under covered areas with spill containment or a direct connection to the sanitary system.

Potential pollutants and potential pollutant sources at the SMART Operations & Fleet Facility are listed in Table 2-2. A more detailed summary of site activities and potential pollutant sources is included in the Municipal Facility Assessment Questionnaire included as Attachment B.

Table 2-2 Potential Pollutants and Pollutant Sources at the SMART Operations & Fleet Facility			
Stormwater Exposure Category	Potential Pollutant Sources	Location	Potential Pollutants
Loading and Unloading Operations	• Loading/unloading of waste materials • Equipment and truck traffic	Covered fueling/storage area (connected to sanitary sewer) or indoors	Cleaning chemicals (if spilled), oil/grease
Hazardous Waste Storage/Disposal	• Storage of fuel additives and used and new lubricants	Indoors	Oil, cleaners, additives
Outdoor Storage	• Vehicle and equipment storage area	West of building on paved area	Oil/grease, sediment
Fixed Fueling	• Diesel and gasoline fueling station	Covered fueling/storage area (connected to sanitary sewer)	Diesel and gasoline
Vehicle and Equipment Cleaning	• Cleaning and washing of vehicles	Covered fueling/storage area (connected to sanitary sewer)	Soap, oil residue, waste fluids
Vehicle and Equipment Maintenance	• Equipment oil changes	Indoors	Oil/grease, automotive fluids
Waste Management	• Trash dumpster • Recycling dumpsters • All under covered storage area	Covered fueling/storage area (connected to sanitary sewer)	Trash and debris, metal
Vegetation Management	• Application of pesticide, herbicide, and fertilizer on site	Across the site	Landscaping chemicals (not stored on site)

2.2.3 Site 2: Existing Controls

The facility primarily relies on source controls to manage stormwater pollutant discharges onsite. The BMPs include operational actions such as a covered dumpster storage area, no outside material storage, indoor storage areas, and reducing the quantities of materials ordered and stored at the facility. Additional information about operational BMPs is further discussed in Section 3.

The primary structural controls on the site include use of covered buildings for vehicle maintenance and storage of materials, for fueling, and for vehicle washing. The permanent building is located in the middle of the site and is used for vehicle maintenance and office space. The covered fueling and storage area and the covered wash rack are located directly adjacent to the permanent building.

The facility's stormwater management system includes a detention/treatment pond in the southwest corner of the property, two vegetated swales, and two oil water separators. One vegetated swale is located at the front of the permanent building, and the other is located downstream of the detention/treatment pond on the west side of property. The pond and swales are maintained on a regular basis. The oil water separators are located downstream of the covered vehicle wash rack and the fueling station/storage area. These areas discharge to the oil water separators prior to discharge to the sanitary system. Runoff from roof drains and parking areas on the east side of the site drain to the vegetated swale (in front of the permanent building) and through a pipe system to the detention/treatment pond, which is then conveyed through a grassy swale offsite. Roof drains and paved areas on the west side of the site are conveyed through piping directly to the detention/treatment pond.

2.3 Site 3: Memorial Park Maintenance Barn

The Memorial Park Maintenance Barn is located at 7950 SW Memorial Drive. The facility is located in the City's Memorial Park. The facility is managed by the Parks and Recreation Department. It contains park maintenance equipment and materials. See Attachment A for a site map of the facility.

2.3.1 Site 3: Land Use and Drainage Patterns

The Memorial Park Maintenance Barn facility is approximately 0.22 acres in size with 0.21 acres of comprised of a compacted gravel parking area and storage yard. The facility includes one permanent building (2,547 SF of floor area), which serves as a maintenance shop and storage. The building has no floor drains.

The site is located within the Willamette River watershed. The site has no defined conveyance system and all stormwater runoff appears to infiltrate onsite or sheet flows to surrounding vegetated areas.

2.3.2 Site 3: Potential Pollutants and Pollutant Sources

The Memorial Park Maintenance Barn stores materials for municipal operations that have the potential to contribute to stormwater pollution. These materials include cleaning chemicals and landscaping waste. These materials are potential stormwater pollutants due to their potential to wash off the site and enter the downstream stormwater system.

At this site, materials are generally stored indoors. Landscaping debris is contained in covered outside garbage bins. Potential pollutants and potential pollutant sources at the Memorial Park Maintenance Barn are listed in Table 2-3. A more detailed summary of site activities and potential pollutant sources is included in the Municipal Facility Assessment Questionnaire included as Attachment B.

Table 2-3 Potential Pollutants and Pollutant Sources at Memorial Park Maintenance Barn

Stormwater exposure category	Potential pollutant sources	Location	Potential pollutants
Loading and Unloading Operations	• Loading/unloading of landscaping materials • Equipment and truck traffic	Across the site	Cleaning chemicals (if spilled), organic material
Hazardous Waste Storage/Disposal	Indoor storage of paint, fuel additives, and landscaping chemicals	Indoors prior to off-site disposal	Trash and debris, paint, diesel
Outdoor Storage	• Storage of landscaping materials • Vehicle and equipment storage area	Across the site	Trash and debris, organic material
Small Equipment Fueling	Fueling activities for mowers, weed eaters, etc.	Across the site on graveled area	Diesel (if spilled)
Equipment Cleaning	Cleaning and washing equipment over gravel surface	East side of building on graveled area	Soap, oil residue, waste fluids
Equipment Maintenance	Some equipment maintenance activities performed outdoors over gravel surface (depending on the type of maintenance). Major equipment maintenance performed at the Fleet Services facility.	Across the site on graveled area	Oil/grease, automotive fluids
Waste Management	• Trash dumpster • Recycling dumpsters • Material inventory and recycling	North side of property	Trash and debris, paint

2.3.3 Site 3: Existing Controls

The facility primarily relies on source controls to manage stormwater pollutant discharges onsite. The BMPs include closing dumpster lids, limiting outside material storage, designating storage areas, and reducing the quantities of materials ordered and stored at the facility. Additional information about operational BMPs is further discussed in Section 3.

The primary structural controls on the site include use of a covered building for a workshop and storage of materials. One permanent building is located on the property.

Section 3

Pollution Prevention Strategy

The intent of the NPDES storm water regulations is to improve the quality of storm water discharges by eliminating or reducing the exposure to potential contaminants. The focus of the City's stormwater pollution prevention strategy for municipal operations is to use a variety of best management practices (BMPs) to control pollutant sources, minimize exposure of pollutants to stormwater, and capture and remove pollutants that may enter stormwater runoff before it is discharged from the site. The BMPs include both operational activities for City staff and structural elements such as buildings, covers, berms, or treatment facilities connected to the stormwater infrastructure.

The pollution prevention strategy identifies source controls in the following categories:

- Minimize Exposure
- Oil and Grease
- Waste Material Disposal
- Erosion and Sediment Control
- Debris Control
- Dust Generation and Vehicle Tracking
- Good Housekeeping
- Treatment BMPs

Sections 3.1 through 3.3 describe the applicable source control BMPs for each of the City's waste storage facilities. Sections 3.4 through 3.6 discuss city-wide policies and programs related to spill prevention, employee education, and inspections and recordkeeping.

3.1 Pollution Prevention Strategy for Site 1: Three Bay Facility

The primary pollutants of concern at the Three Bay Facility are related to storage and transfer of materials for landscaping activities and other maintenance supplies. The pollution prevention strategy is focused on first reducing potential pollutant exposure using covered storage areas and limiting erosion from stored materials. Table 3-1 outlines the source control BMPs that are applicable at the site along with proposed implementation timelines.

3.1.1 Site 1: Proposed Operational Measures

The operational BMPs listed in Table 3-1 are generally already in place, as City staff routinely perform the activities required to prevent pollutant exposure to stormwater. With the implementation of this SWPPS, the City will continue to implement operational BMPs such as minimizing the purchase and onsite storage of materials, storing materials indoors, using designated areas for equipment storage, using spill prevention measures during diesel fueling operations, and good housekeeping techniques.

3.1.2 Site 1: Proposed Structural Controls

In addition to the permanent and temporary buildings, containment palates, chemical storage lockers, and semi-permanent covers already in place on the site, the City has plans to construct the following structural control measures at the Three Bay Facility:

- Diesel Fueling Area: Currently, the diesel fueling area is used for limited fueling for small equipment (i.e., mowers, trimmers, etc.) involved in landscaping activities. The proposed structural control will extend the roofline of the existing storage building over the top of the diesel fuel storage area. The roofline extension will provide a sufficient height to allow vehicle access beneath the roof. This will provide cover for the storage area and protection for fueling activities. An asphalt or concrete berm will be installed around the fueling area to minimize stormwater exposure and provide spill containment under the roofline. Any drips or spills in the fueling area will be cleaned using absorbents.
- Sand/Gravel Storage Area – Construct a drivable asphalt berm on the exposed side of the existing sand and gravel storage area. The sand/gravel storage area is already isolated using temporary cover and concrete block separators on three sides. Installing a low, drivable berm on the open side will prevent stormwater from entering the storage area and limit erosion and tracking of materials from the base of the pile.

These structural controls will be constructed based on City priorities, as capital funding is made available.

Table 3-1. Source Control BMPs for Three Bay Facility		
BMP category and activity	**Application of control measures**	**Timeline**
A. Minimize Exposure		
1. Use grading, berming, or curbing to minimize stormwater contact with chemicals or pollutants.	• Construct concrete or asphalt berm to prevent runoff from entering sand and gravel storage area. • Construct concrete or asphalt berm to prevent stormwater from entering diesel fueling area.	Planned for construction as capital budget allows.
2. Locate materials and activities indoors or under cover to protect them from contact with rain water. Utilize diversion systems to reduce stormwater exposure.	• Oil, fuel additives, and antifreeze stored inside (under cover) on containment pallets. • Landscaping chemicals stored inside (under cover) in a shed and on containment pallets. • Trash dumpsters located in designated area with covers. • Outdoor storage for sand and gravel is in a designated, covered area. • Outdoor equipment storage is in designated areas, over gravel pad for stormwater absorption.	Currently in place
	Construct extended roofline to provide cover over diesel fueling area.	Planned for construction as capital budget allows.
3. Store all hazardous substances within berms or other secondary containment devices.	Oil and other chemicals are stored indoors and on containment pallets.	Currently in place
4. Limit material and chemical storage to the quantities that will be used in one season.	Materials and chemicals are routinely inventoried to determine current use. Purchases are made in limited quantities, coordinated among all maintenance departments. Unused or outdated materials are disposed at the County's designated facilities.	Currently in place
5. Park vehicles in designated areas.	• Vehicles are parked in designated areas or at center of lot. • Vehicle parking is limited to temporary storage areas. Long term vehicle parking is located at the City's Fleet Facility.	Currently in place
6. Use covered or contained areas for vehicle and equipment cleaning.	• Vehicle washing is performed at an off-site commercial car wash facility. • Limited equipment washing (several times/year) is performed over gravel pad. No soaps or other chemicals are used during cleaning.	Currently in place
B. Oil and Grease		
1. Use drip pans or absorbents under or around leaking or leak-prone vehicles/ equipment or store indoors.	Drip pans are used around leaking or leak-prone vehicles until they can be relocated to the City's Fleet Facility for maintenance.	Currently in place
2. Use documented maintenance procedures to wipe off excess grease, fill oil to appropriate levels, and use drip pans or cloths when working outside with stationary equipment.	• Vehicle maintenance is performed off-site at the City's Fleet Facility. • Onsite maintenance for small equipment is limited to adding diesel fuel and other additives.	In process
3. Prompt spill/leak clean-up.	Spills are cleaned up promptly in accordance with the spill response plan located in Attachment C.	Currently in place
C. Waste Material Disposal		
1. Cover all waste in bins or dumpsters where there is a potential for drainage of stormwater through the waste.	Trash and recycling dumpsters located in the northwest corner of the site are covered.	Currently in place

Table 3-1. Source Control BMPs for Three Bay Facility		
BMP category and activity	**Application of control measures**	**Timeline**
2. Recycle or properly dispose of waste.	• Used oil in small quantities is stored inside buildings with appropriate secondary containment. • Unused chemicals are removed from the sites and properly disposed at an approved facility.	Currently in place
3. Ensure all vehicle wash water drains to a proper collection system such as a closed loop system or the sanitary sewer.	Vehicle washing is performed at an off-site commercial car wash facility.	Currently in place
D. Erosion and Sediment Control		
1. Stabilize exposed areas during construction and contain runoff using structural and nonstructural controls.	No construction activities are occurring at the site that would result in exposed surface areas.	N/A
2. Employ erosion control methods such as vegetating exposed areas, graveling, or paving.	Parking areas are graveled. Areas not used for vehicle movements are vegetated. No exposed soil areas are present on the site.	Currently in place
3. Employ sediment control methods such as silt fences or vegetated perimeter swales.	N/A	N/A
E. Debris Control		
1. Cover trash and recycling containers.	Trash and recycling containers are covered.	Currently in place
2 Employ screens, booms, settling ponds, or other methods to eliminate or minimize debris in stormwater runoff.	Stormwater is managed through infiltration. No collection system is onsite.	N/A
F. Dust Generation and Vehicle Tracking		
1. Minimize generation of dust.	Vehicle travel areas are graveled.	Currently in place
2. Minimize off-site tracking of waste material.	Equipment is cleaned using blowers or pressure washers (limited use) to remove debris and allow collection and settling of dust in gravel areas to prevent off-site tracking.	Currently in place
G. Good Housekeeping		
1. Keep work areas neat and tidy. Routinely clean all exposed areas that may contribute pollutants to stormwater using such measures as sweeping, debris removal, and litter pickup.	Litter and debris are removed throughout the work day and disposed in appropriate containers.	Currently in place
2. Keep materials orderly, labeled, and stored in appropriate containers.	• Materials and equipment are stored in labeled areas. • Doors and lids to storage areas are kept closed and locked when areas are not in active use. • Chemical containers are labeled and stored in appropriate containers.	Currently in place
3. Clean up spills or leaks promptly using absorbents or other methods.	All spills are cleaned up promptly in accordance with the Spill Response Plan in Attachment C.	Currently in place
H. Treatment BMPs		
1. Remove pollutants from the stormwater system through filtering, settling, or mechanical means	N/A	N/A

3.2 Pollution Prevention Strategy for Site 2: SMART Operations & Fleet Facility

The primary pollutants of concern at the SMART Operations & Fleet Facility are related to vehicle storage and maintenance and disposal of waste materials. The pollution prevention strategy is focused on first reducing potential pollutant exposure using covered storage areas, and then capturing and treating runoff. Table 3-2 outlines the source control BMPs that are applicable at the site along with proposed implementation timelines.

3.2.1 Site 2: Proposed Operational Measures

The operational BMPs listed in Table 3-2 are generally already in place, as City staff routinely performs the activities required to prevent pollutant exposure to stormwater. With the implementation of this SWPPS, the City will continue to implement operational BMPs such as minimizing the purchase and onsite storage of materials, storing materials indoors, using designated areas for equipment storage, using spill prevention measures during diesel fueling operations, and good housekeeping techniques.

3.2.2 Site 2: Structural Controls

Structural controls include use of the permanent building, containment palates, chemical storage lockers, and covers that are already in place on the site. Existing structural and treatment controls will continue to be in operation and maintained as necessary. No new structural controls are proposed for this site.

Table 3-2. Source Control BMPs for SMART Operations & Fleet Facility		
BMP category and activity	**Application of control measures**	**Timeline**
A. Minimize Exposure		
1. Use grading, berming, or curbing to minimize stormwater contact with chemicals or pollutants.	• Paved surfaces are graded to divert flow to a stormwater collection system for treatment in an onsite pond and swales. • Storage and loading areas are graded and sloped to promote spill containment.	Currently in place
2. Locate materials and activities indoors or undercover to protect them from contact with rain water. Utilize diversion systems to reduce stormwater exposure.	• Oil, fuel additives, and antifreeze stored inside (under cover) on containment pallets. • Landscaping chemicals are stored offsite. • Trash dumpsters located in designated area with covers. • Outdoor equipment storage is in designated areas, on a concrete pad.	Currently in place
3. Store all hazardous substances within berms or other secondary containment devices.	Oil and other hazardous chemicals are stored indoors and on containment pallets.	Currently in place
4. Limit material and chemical storage to the quantities that will be used in one season.	Materials and chemicals are routinely inventoried to determine current use. Purchases are made in limited quantities, coordinated among all maintenance departments. Unused or outdated materials are disposed at the County's designated facilities.	Currently in place
5. Park vehicles in designated areas.	Vehicles are parked in designated areas.	Currently in place
6. Use covered or contained areas for vehicle and equipment cleaning.	Vehicle washing is performed at an off-site commercial car wash facility or at the onsite wash rack, which is covered and drains to the sanitary sewer.	Currently in place
B. Oil and Grease		
1. Use drip pans or absorbents under or around leaking or leak-prone vehicles/ equipment or store indoors.	• Drip pans are used around leaking or leak-prone vehicles. • Vehicles that require maintenance are stored indoors or undercover.	Currently in place
2. Use good maintenance procedures to wipe off excess grease, fill oil to appropriate levels, and use drip pans or cloths when working outside with stationary equipment.	• Vehicle maintenance is performed in a designated, covered area. • Drips or leaks are cleaned-up immediately in accordance with the spill response plan located in Attachment C.	Currently in place
3. Prompt spill/leak clean-up.	Spills are cleaned up promptly in accordance with the spill response plan located in Attachment C.	Currently in place
4. Recycling	Vehicle and equipment oils, grease, radiator fluid, etc. are recycled by Fleet Services.	Currently in place
C. Waste Material Disposal		
1. Cover all waste in bins or dumpsters where there is a potential for drainage of stormwater through the waste.	Trash and recycling dumpsters located at the north end of the site are covered.	Currently in place
2. Recycle or properly dispose of wastes.	• Used oil in small quantities is stored inside buildings with appropriate secondary containment. • Unused chemicals are removed from the sites and properly disposed at an approved facility.	Currently in place
3. Ensure all vehicle wash water drains to a proper collection system such as a closed loop system or the sanitary sewer.	Vehicle washing is performed at an off-site commercial car wash facility or at the onsite wash rack, which is covered and drains to the sanitary sewer.	Currently in place

Table 3-2. Source Control BMPs for SMART Operations & Fleet Facility		
BMP category and activity	**Application of control measures**	**Timeline**
D. Erosion and Sediment Control		
1. Stabilize exposed areas during construction and contain runoff using structural and nonstructural controls.	No construction activities are occurring at the site that would result in exposed surface areas.	N/A
2. Employ erosion control methods such as vegetating exposed areas, and paving.	Parking areas are paved. Areas not used for vehicle movements are vegetated. No exposed soil areas are present on the site.	Currently in place
3. Employ sediment control methods such as silt fences or vegetated perimeter swales.	N/A	N/A
E. Debris Control		
1. Cover trash and recycling containers.	Trash and recycling containers are covered.	Currently in place
2. Employ ponds or other methods to eliminate or minimize debris in stormwater runoff.	Stormwater is collected via piped conveyance system. Stormwater treatment is provided via onsite swales and detention pond.	Currently in place
F. Dust Generation and Vehicle Tracking		
1. Minimize generation of dust.	Vehicle travel areas are paved.	Currently in place
2. Minimize off-site tracking of waste material.	Limited equipment is currently cleaned onsite and outdoors. Dry brushing techniques are used when possible and include sweeping of waste materials promptly after cleaning. No soaps or other chemicals are used during cleaning.	Currently in place
G. Good Housekeeping		
1. Keep work areas neat and tidy. Routinely clean all exposed areas that may contribute pollutants to stormwater using such measures as sweeping, debris removal, and litter pickup.	• Litter and debris are removed throughout the work day using operational measures such as sweeping. • Trash and debris are disposed in appropriate containers.	Currently in place
2. Keep materials orderly, labeled, and stored in appropriate containers.	• Materials and equipment are stored in labeled areas. • Doors and lids to storage areas are kept closed and the building is locked when not in active use. • Chemical containers are labeled and stored in appropriate containers.	Currently in place
3. Clean up spills or leaks promptly using absorbents or other methods.	All spills are cleaned up promptly in accordance with the Spill Response Plan in Attachment C.	Currently in place
H. Treatment BMPs		
1. Remove pollutants from the stormwater system through filtering, settling, or mechanical means.	Stormwater is treated in a pond and two vegetated swales.	Currently in place

3.3 Pollution Prevention Strategy for Site 3: Memorial Park Maintenance Barn

The primary pollutants of concern at the Memorial Park Maintenance Barn are related to maintenance activities. The pollution prevention strategy is focused on reducing potential pollutant exposure using a covered maintenance area. Table 3-3 outlines the source control BMPs that are applicable at the site along with proposed implementation timelines.

3.3.1 Site 3: Proposed Operational Measures

The operational BMPs listed in Table 3-3 are generally already in place, as City staff routinely performs the activities required to prevent pollutant exposure to stormwater. With the implementation of this SWPPS, the City will continue to implement operational BMPs such as minimizing the purchase and onsite storage of materials, storing materials indoors, using designated areas for equipment storage, using spill prevention measures during diesel fueling operations, and good housekeeping techniques.

3.3.2 Site 3: Proposed Structural Controls

In addition to the permanent building in place on the site, the City is working on the following structural control improvement at the Memorial Park Maintenance Barn:

- Designated Temporary Fueling Area: Currently, limited fueling activities are conducted for small equipment (i.e., mowers, trimmers, etc.) involved in landscaping activities. As part of this structural control improvement, a designated fueling area will be established and temporary berms will be purchased for use during fueling activities to provide spill containment. Any drips or spills in the fueling area will be cleaned using absorbents.

Table 3-3. Source Control BMPs for the Memorial Park Maintenance Barn		
BMP category and activity	**Application of control measures**	**Timeline**
A. Minimize Exposure		
1. Use grading, berming, or curbing to minimize stormwater contact with chemicals or pollutants	Designate a temporary fueling area and employ temporary berms to provide spill containment	In discussion with management.
2. Store all hazardous substances within enclosed building.	Oil and other chemicals are stored indoors with no floor drains.	Currently in place
3. Limit material and chemical storage to the quantities that will be used in one season.	Materials and chemicals are routinely inventoried to determine current use. Purchases are made in limited quantities, coordinated among all maintenance departments. Unused or outdated materials are disposed at the County's designated facilities.	Currently in place
4. Park vehicles in designated areas.	Vehicles are parked in designated areas. No overnight parking occurs.	Currently in place
5. Use covered or contained areas for vehicle and equipment cleaning.	Any vehicle washing is performed at an off-site commercial car wash facility or at the Fleet Facility.	Currently in place
B. Oil and Grease		
1. Use drip pans or absorbents under or around leaking or leak-prone vehicles/ equipment or store indoors.	Drip pans are used around leaking or leak-prone vehicles.	Currently in place
2. Use good maintenance procedures to wipe off excess grease, fill oil to appropriate levels, and use drip pans or cloths when working outside with stationary equipment.	• Vehicle maintenance is performed in a designated, covered area at the City's Fleet Facility. • Drips or leaks are cleaned-up immediately.	Currently in place
3. Prompt spill/leak clean-up.	Spills are cleaned up promptly in accordance with the spill response plan located in Attachment C.	Currently in place
4. Recycling	Vehicle and equipment oils, grease, radiator fluid, etc. are recycled by Fleet Services.	Currently in place
C. Waste Material Disposal		
1. Cover all waste in bins or dumpsters where there is a potential for drainage of stormwater through the waste.	Trash and recycling dumpsters located on the west side of the site are covered.	Currently in place
2. Recycle or properly dispose of wastes.	Maintenance activities that would generate waste chemicals or materials are performed at the City's Fleet Facility.	Currently in place
3. Ensure all vehicle wash water drains to a proper collection system such as a closed loop system or the sanitary sewer.	Any vehicle washing is performed at an off-site commercial car wash facility or at the Fleet Facility.	Currently in place

Table 3-3. Source Control BMPs for the Memorial Park Maintenance Barn		
BMP category and activity	**Application of control measures**	**Timeline**
D. Erosion and Sediment Control		
1. Stabilize exposed areas during construction and contain runoff using structural and nonstructural controls.	No construction activities are occurring at the site that would result in exposed surface areas.	N/A
2. Employ erosion control methods such as vegetating exposed areas, graveling, or paving.	Parking areas are graveled. Areas not used for vehicle movements are vegetated. No exposed soil areas are present on the site.	Currently in place
3. Employ sediment control methods such as silt fences or vegetated perimeter swales.	N/A	N/A
E. Debris Control		
1. Cover trash and recycling containers.	Trash and recycling containers are covered.	Currently in place
2 Employ screens, booms, settling ponds, or other methods to eliminate or minimize debris in stormwater runoff.	Stormwater is managed through infiltration. No collection system or debris screens are needed.	N/A
F. Dust Generation and Vehicle Tracking		
1. Minimize generation of dust.	Vehicle travel areas are graveled.	Currently in place
2. Minimize off-site tracking of waste material.	Limited equipment is currently cleaned onsite and outdoors. Dry brushing techniques are used when possible and include sweeping of waste materials promptly after cleaning. No soaps or other chemicals are used during cleaning.	Currently in place
G. Good Housekeeping		
1. Keep work areas neat and tidy. Routinely clean all exposed areas that may contribute pollutants to stormwater using such measures as sweeping, debris removal, and litter pickup.	• Litter and debris are removed throughout the work day using dry methods such as sweeping and litter pick-up. • Trash and debris are disposed in appropriate covered containers.	Currently in place
2. Keep materials orderly, labeled and stored in appropriate containers.	• Materials and equipment are stored in labeled areas. • Doors and lids to storage areas are kept closed and locked when areas are not in active use. • Chemical containers are labeled and stored in appropriate containers.	Currently in place
3. Clean up spills or leaks promptly using absorbents or other methods.	All spills are cleaned up promptly in accordance with the Spill Response Plan in Attachment C.	Currently in place
H. Treatment BMPs		
1. Remove pollutants from the stormwater system through filtering, settling, or mechanical means.	N/A	N/A

3.4 Spill Prevention

Spill prevention and response procedures are required to help prevent spill events and to implement proper and effective cleanup procedures should a spill occur. The City maintains spill kits and absorbents to clean-up spills on-site at all times. Spill prevention and response procedures have been described in City's Spill Response Plan included in Attachment C.

3.5 Employee Education

In-house employee training is designed to familiarize all employees with the purpose for and the requirements of the SWPPS. Training will be provided for all new employees at their initial orientation before beginning work (within 30 days of hire). Existing employees will receive an annual refresher. For all personnel, topics to be included in the training session include:

- Importance of preventing stormwater pollution.
- Good housekeeping procedures.
- Source control BMPs.
- Spill prevention, response, and clean-up (OSHA First Responder Operations level training)
- Materials handling and storage procedures.
- Inspection and preventative maintenance requirements.

The City maintains records of employee training activities related to stormwater pollution prevention.

3.6 Inspections and Recordkeeping

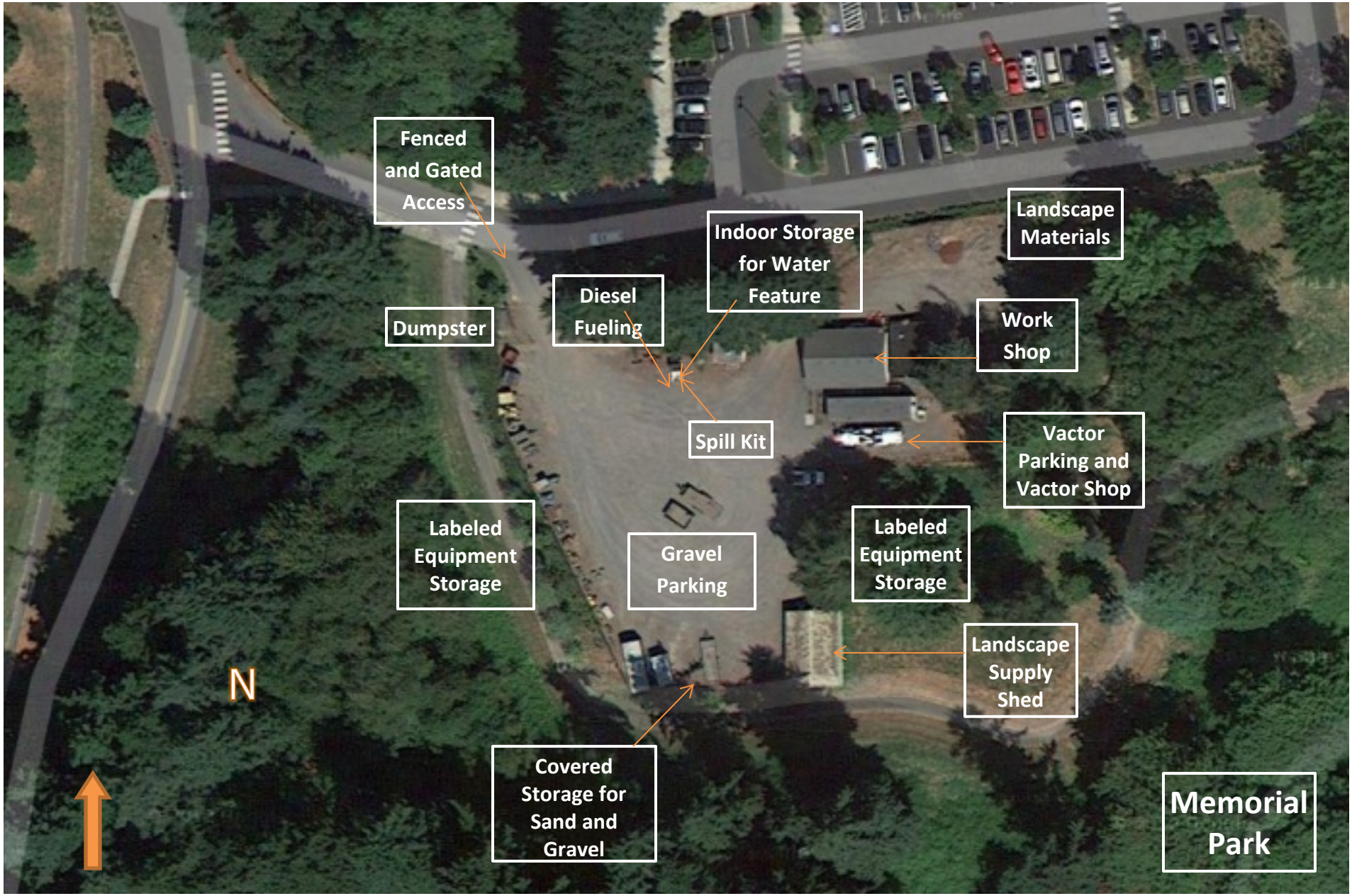
The City's pollution prevention measures include regular inspection, maintenance, and repair of BMPs to keep the City's waste storage facilities in good working order and prevent the contamination of stormwater. The City follows the following general inspection schedule:

- Monitoring of the facilities performed to identify potential pollutant source exposures and to check functionality of control measures. This includes verifying containment of chemicals, checking stockpiles of stored materials, and clearing locations where debris may accumulate.
- Conduct and document annual comprehensive inspections of the facility, documenting the condition and implementation of source control BMPs and any onsite stormwater collection, conveyance, and treatment systems on the Municipal Facility Site Inspection Report in Attachment D.
- Clean onsite catch-basins and change treatment filters (if applicable), as conditions dictate.

The City maintains records of annual site inspections and resulting maintenance activities.

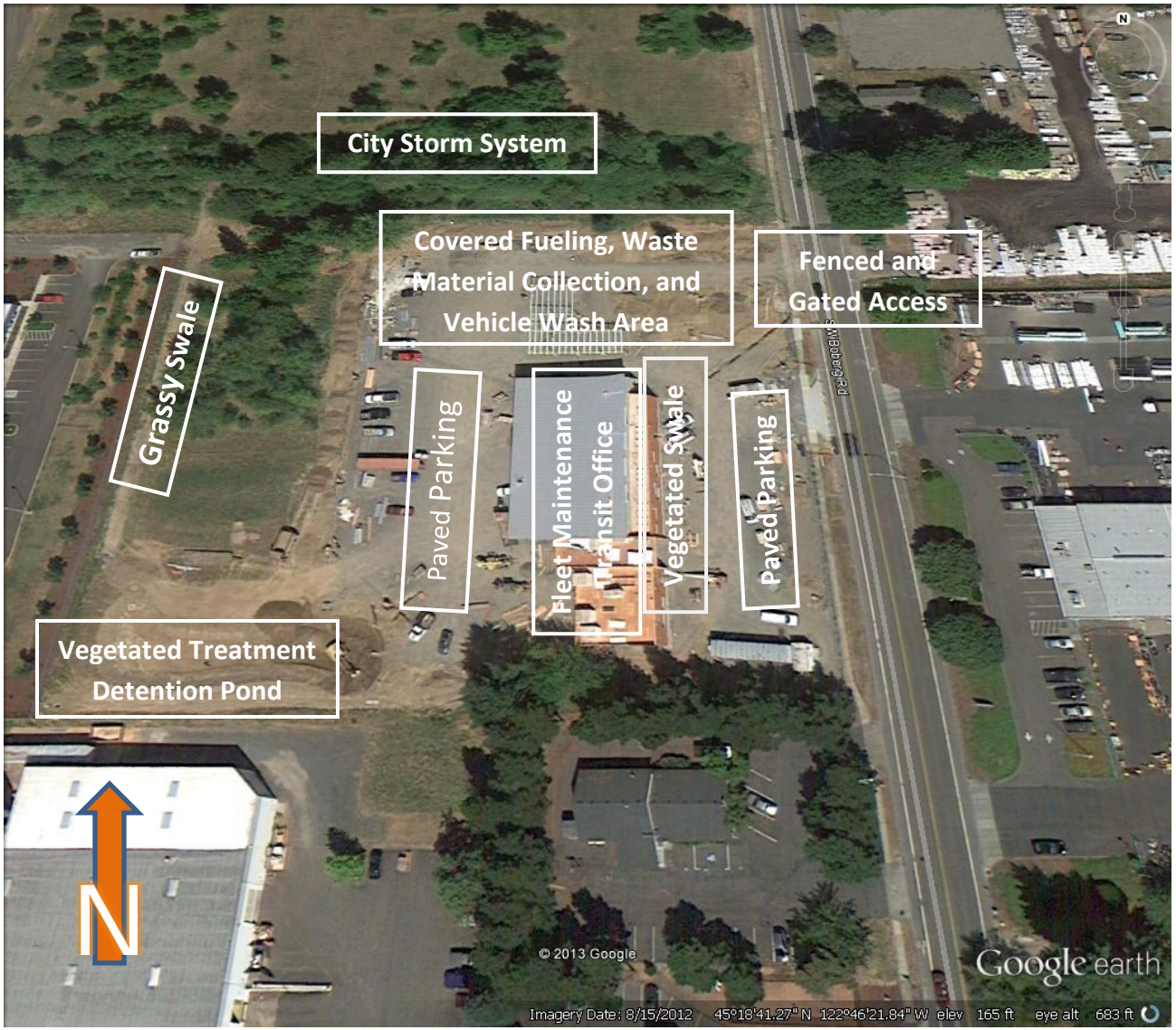
Attachment A: Site Maps

Wilsonville Property Maintenance Three Bay Site Map

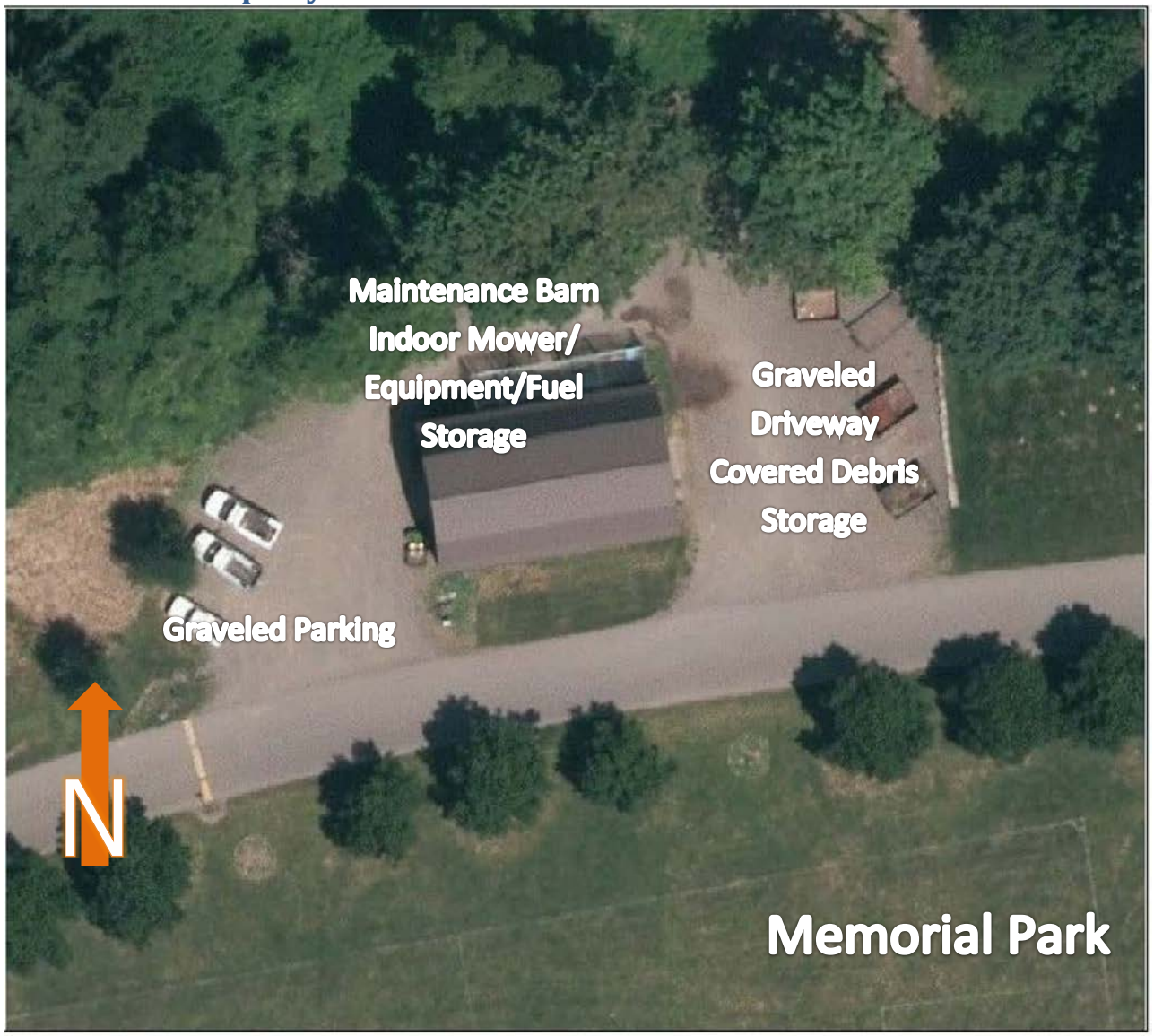


Attachment A-1

Wilsonville SMART Operations & Fleet Facility Site Map



Wilsonville Property Memorial Park Maintenance Barn



Attachment A-3

Attachment B: Facility Assessment Questionnaires

Municipal Facility Assessment Questionnaire

For use in developing Stormwater Pollution Prevention Plan

1 Facility Description

Facility Name: Wilsonville Property Maintenance Three Bay

Facility Address: 7930 SW Memorial Drive

Contact Name: Matt Baker

Contact Phone: 503/519–8866

Main Site Activities: Parks and Property Maintenance
Roads Maintenance
Stormwater and Sanitary System Maintenance

Total Area of Facility: 1.21 acres

Surface Types:

(Check all that apply and fill in approximate area)

- [X] Permanent Buildings: 3 number of buildings, 2210 square feet
- [X] Temporary Buildings: 1 number of buildings, 540 square feet
- [ ] Pavement: _____ acres
- [X] Gravel: 0.62 acres
- [ ] Bare Ground: _____ acres
- [X] Vegetation: 0.58 acres

2 Stormwater Drainage System

Please attach any maps or sketches of the facility, if available.

General drainage characteristics of the site: No catch basins on Three Bay site. Absorbed into ground through gravel and ground cover. Any sheet flow off the site filters through surrounding vegetation areas. No direct connection to waterbodies.

Stormwater from the site discharges: (*Check all that apply*)

- ☐ Direct to water body, Name: _____
- ☐ Municipal Sanitary Sewer
- ☐ Municipal Storm Sewer
- ☒ Ground
- ☐ Drywells / Infiltration Trenches
- ☐ Other: _____

The stormwater drainage system consists of the following components: *Check all that apply*

- ☒ None
- ☐ Catch basins
- ☐ Floor drains
- ☐ Deck drains
- ☐ Roof drains
- ☐ Trench drains
- ☐ Culverts
- ☐ Subsurface Pipes
- ☐ Ditches
- ☐ Dry Wells
- ☐ Pump station
- ☐ General Site Stormwater Treatment:
  - ☐ Oil/water separator
  - ☐ Catch basin inserts
  - ☐ Vegetated swale, infiltration swale, or rain garden
  - ☐ Pond
  - ☐ Filtration System
  - ☐ Other: _____

3 Potential Pollutant Sources

This section identifies activities conducted on site that have the potential to contaminate stormwater.

3.1 Waste Management

☐ No waste management activities are performed on site.

X Wastes are managed as follows:

X Dumpster, located: Northwest corner of site – covered.

☐ Trash compactor, located: _____

X Recycling Containers, located: Northwest corner of site – covered.

☐ Used Oil Container, located: _____

☐ Other, describe: _____

3.2 Cleaning and Washing

☐ No cleaning or washing activities are performed on site.

X Vehicle and/or Equipment cleaning and washing is performed as follows: **Limited to several times/year**

Location of cleaning or washing activity: _____

Cleaning or washing area:

☐ Self-Contained Building

☐ Covered Pad

X Designated Open Area

☐ Other: _____

Surface of cleaning or washing area:

☐ Asphalt ☐ Concrete X Compacted Gravel ☐ Soil

Chemical(s) used in washing:

☐ Soaps or detergents: _____

☐ Abrasives: _____

☐ Acids: _____

☐ Solvents: _____

X Other: Equipment is pressure washed and trucks are ran through carwash _____

Discharge location for wash water:

☐ Storm Sewer; Treated before discharge? ☐ Yes ☐ No

☐ Sanitary Sewer

X Other: Gravel _____

☐ Other cleaning and/or washing activities: **None**

☐ Buildings

☐ Paved areas

☐ Other: _____

3.3 Transfer of Liquids or Solids

Includes both indoor and outdoor loading, unloading, and material transfer activities.

☐ No transfer of liquids or solids is performed on site.

X Transfer of liquids or solids is performed as follows:

Location(s) where transfer occurs *(circle liquids or solids)*:

- ☐ Railroad yard ☐ Liquids ☐ Solids
- ☐ Loading dock ☐ Liquids ☐ Solids
- X Self-Contained Building X Liquids: **In containment** ☐ Solids
- X Covered Pad ☐ Liquids X Solids: **Sand and Gravel**
- X Designated Open Area X Liquids ☐ Solids
- ☐ Other: _____

Surface of Transfer Area(s):

☐ Asphalt X Concrete X Compacted Gravel ☐ Soil

Type(s) of liquids transferred:

- X Fuels, oils, or greases: _____
- X Paints: _____
- ☐ Acids: _____
- X Pesticides, Herbicides, Fertilizers: _____
- X Cleaning products: _____
- ☐ Other: _____

Type(s) of solids transferred:

- ☐ Shipping Containers: _____
- ☐ Equipment: _____
- ☐ Packaged goods: _____
- X Bulk materials (aggregate, debris, etc.): **Sand and Gravel** _____
- ☐ Other: _____

3.4 Production and Application Activities

Application activities involve the application of product to an object such as painting, coating, spraying, or other treatment.

X No production or application activities are performed on site.

☐ Production and/or application activities are performed as follows:

Location(s) of production and/or application activities: _____

_____

Description of production and/or application activities: _____

_____

3.5 Material Storage

☐ No material storage is performed on site.

X Material storage is performed as follows:

Storage area structure:

- X Covered
- ☐ Designated Open Area
- ☐ Other: _____

Surface of Storage Area:

☐ Asphalt ☒ Concrete ☐ Compacted Gravel ☐ Soil

Type(s) of Liquids Stored:

☒ Fuels, oils, or greases

☒ Paints

☐ Acids

☒ Pesticides, Herbicides, Fertilizers

☒ Cleaning products

☐ Other: _____

Small quantities of liquid chemicals (fertilizer, pesticide, fuel additives, antifreeze, paint) are stored onsite in appropriate, labeled containers. Chemicals are stored above ground on pallets or shelving. Clean-up of minor spills is performed with absorbents – no washing.

Chemicals are consistently inventoried and excess quantities are disposed offsite at an approved disposal facility.

Liquids are stored in:

☒ Small Containers

☐ Drums

☐ Totes

☒ Aboveground Tanks

☐ Other, describe: _____

Type(s) of Solid Materials Stored: **Small quantities only**

☒ Aggregates (sand, gravel, rock, broken concrete, broken asphalt, etc.)

☒ Soil and compost

☒ Wood Products (untreated lumber, logs, wood chips, wood waste, etc.)

☐ Scrap metals

☐ Building Materials (masonry products, metal framing, rebar, etc.)

☐ Treated lumber

☒ Other: **Signs and related materials** _____

3.6 Vehicle and Equipment Storage

☐ No vehicle or equipment storage or parking is performed on site.

☒ Vehicle and/or equipment storage and/or parking application is performed as follows:

Type and Number of vehicles and equipment that are stored or parked on site:

☒ Passenger vehicles: 2

☒ Utility trucks: 1

☒ Dump truck: 1

☐ Tractor trailer: _____

☐ Top pick: _____

☐ Crane: _____

☐ Forklift: _____

☐ Earthmoving equipment: _____

☒ Miscellaneous Small Equipment: _____

☒ Other: Tractors

Storage or parking area:

☐ Covered

☒ Designated Open Area

☐ Other: _____

Surface of storage or parking area:

☐ Asphalt ☐ Concrete ☒ Compacted Gravel ☐ Soil

3.7 Vehicle and Equipment Maintenance and Repair

☒ No vehicle or equipment maintenance is performed on site.

☐ Vehicle and/or equipment maintenance is performed on site as follows:

Types of maintenance/repair activities: _____

_____

_____

Location of maintenance/repair Activities:

☐ Indoors

☐ Outdoors under Cover

☐ Designated Open Area

☐ Other: _____

Surface of maintenance/repair area:

☐ Asphalt ☐ Concrete ☐ Compacted Gravel ☐ Soil

3.8 Dust Control and Soil and Sediment Control

☒ No dust generating activities are performed on site and no exposed soils are present.

☐ Exposed soils are present on site as follows:_____

_____

Describe any erosion and sediment control or dust control methods used: _____

_____

_____

3.9 Landscape Management

☐ There are no vegetated areas on site. No pesticides, herbicides or fertilizers are used.

☒ Vegetated areas are managed as follows:

Types of vegetation management activities:

☒ Mowing/Trimming

☒ Hand Weeding

☒ Vegetated Waste Disposal Location: Dumpsters for recycling _____

☒ Application of Fertilizer

☒ Application of Pesticide and Herbicide

☐ Other:_____

Describe any existing policy, practice, training or BMPs related to pesticide, herbicide, and fertilizer application:

Trained, licensed applicators All required record keeping _____

_____

3.10 Other Pollution-Generating Activities

This questionnaire does not capture all potential sources of stormwater pollution. Evaluate your site for any additional pollution generating activities not listed above and describe here.

Other pollution-generating activities are performed on site as follows:

Storage of diesel and fueling of small equipment (diesel) – limited amount of diesel is stored in above ground containment. Fueling of small equipment performed in designated area.

Fueling of large equipment and vehicles is performed offsite.

4 History of Spills and Leaks

Describe any past spills or leaks on site that resulted in discharge to the storm sewer system, surface waters, or groundwater:

None. _____

_____

_____

_____

_____

Municipal Facility Assessment Questionnaire

For use in developing Stormwater Pollution Prevention Plan

1 Facility Description

Facility Name: Wilsonville SMART Operations & Fleet Facility

Facility Address: 28879 SW Boberg Road

Contact Name: Scott Simonton

Contact Phone: 503/570-1541

Main Site Activities: Smart and Fleet Services
City Transit
Vehicle and equipment maintenance

Total Area of Facility: 4.09 acres

Surface Types:

(Check all that apply and fill in approximate area)

X Permanent Building: 1 number of buildings
12187 square feet

__ Temporary Buildings: 0 number of buildings
0 square feet

☒ Pavement: 2.35 acres

__ Gravel: ____ acres

☐ Bare Ground: ____ acres

X Vegetation: 1.74 acres

2 Stormwater Drainage System

Please attach any maps or sketches of the facility, if available.

General drainage characteristics of the site: Collected water discharges to treatment and detention pond, (in southwest corner of site), then to grassy swale (along west side of property) flows north to discharge into open ditch storm system draining to west, _____

_____

Stormwater from the site discharges: (*Check all that apply*)

- ☐ Direct to water body, Name: _____
- ☐ Municipal Sanitary Sewer
- ☒ Municipal Storm Sewer/Ditch
- __ Ground
- ☐ Drywells / Infiltration Trenches
- ☐ Other: _____

The stormwater drainage system consists of the following components: *Check all that apply*

- ___ None
- ☒ Catch basins
- ☐ Floor drains
- ☐ Deck drains
- ☒ Roof drains
- ☐ Trench drains
- ☐ Culverts
- ☒ Subsurface Pipes
- ☐ Ditches
- ☐ Dry Wells
- ☐ Pump station
- ☒ General Site Stormwater Treatment:
  - ☒ Oil/water separator
  - ☐ Catch basin inserts
  - ☒ Vegetated swale, infiltration swale, or rain garden
  - ☒ Pond
  - ☐ Filtration System
  - ☐ Other: _____

3 Potential Pollutant Sources

This section identifies activities conducted on site that have the potential to contaminate stormwater.

3.1 Waste Management

☐ No waste management activities are performed on site.

X Wastes are managed as follows:

X Dumpster, located: North/Middle of site – covered.

☐ Trash compactor, located: _____

X Recycling Containers, located: North/Middle of site – covered.

☒ Used Oil Container, located: Inside of shop

☐ Other, describe: _____

3.2 Cleaning and Washing

☐ No cleaning or washing activities are performed on site.

Vehicle and/or Equipment cleaning and washing is performed as follows:

Location of cleaning or washing activity: Covered wash area draining to sanitary sewer North/Middle of site

Cleaning or washing area:

☐ Self-Contained Building

☒ Covered Pad

__ Designated Open Area

☐ Other: _____

Surface of cleaning or washing area:

☐ Asphalt ☒ Concrete __ Compacted Gravel ☐ Soil

Chemical(s) used in washing:

☒ Soaps or detergents: mild soap/no cleaners

☐ Abrasives: _____

☐ Acids: _____

☐ Solvents: _____

X Other: Equipment is pressure washed and trucks are ran through carwash

Discharge location for wash water:

☐ Storm Sewer; Treated before discharge? ☐ Yes ☐ No

☒ Sanitary Sewer

X Other: Gravel

☐ Other cleaning and/or washing activities: **None**

☐ Buildings

☐ Paved areas

☐ Other: _____

3.3 Transfer of Liquids or Solids

Includes both indoor and outdoor loading, unloading, and material transfer activities.

☐ No transfer of liquids or solids is performed on site.

X Transfer of liquids or solids is performed as follows:

Location(s) where transfer occurs *(circle liquids or solids)*:

- ☐ Railroad yard ☐ Liquids ☐ Solids
- ☐ Loading dock ☐ Liquids ☐ Solids
- X Self-Contained Building X Liquids: **In containment** ☐ Solids
- Covered Pad ☐ Liquids Solids:
- Designated Open Area Liquids ☐ Solids
- ☐ Other: _____

Surface of Transfer Area(s):

☐ Asphalt X Concrete Compacted Gravel ☐ Soil

Type(s) of liquids transferred:

- X Fuels, oils, or greases: _____
- __ Paints: _____
- ☐ Acids: _____
- __ Pesticides, Herbicides, Fertilizers: _____
- __ Cleaning products: _____
- ☐ Other: _____

Type(s) of solids transferred:

- ☐ Shipping Containers: _____
- ☐ Equipment: _____
- ☐ Packaged goods: _____
- Bulk materials (aggregate, debris, etc.): **Sand and Gravel** _____
- ☐ Other: _____

3.4 Production and Application Activities

Application activities involve the application of product to an object such as painting, coating, spraying, or other treatment.

No production or application activities are performed on site.

☐ Production and/or application activities are performed as follows:

Location(s) of production and/or application activities: _____

_____

Description of production and/or application activities: _____

_____

3.5 Material Storage

☐ No material storage is performed on site.

_ Material storage is performed as follows:

Storage area structure:

- _ Covered
- ☐ Designated Open Area
- ☐ Other: _____

Surface of Storage Area:

☐ Asphalt ☒ Concrete ☐ Compacted Gravel ☐ Soil

Type(s) of Liquids Stored:

☒ Fuels, oils, or greases

Paints

☐ Acids

Pesticides, Herbicides, Fertilizers

Cleaning products

☐ Other: _____

Liquids are stored in:

☒ Small Containers

☒ Drums

☐ Totes

☒ Aboveground Tanks

☐ Other, describe: _____

Type(s) of Solid Materials Stored:

Aggregates (sand, gravel, rock, broken concrete, broken asphalt, etc.)

Soil and compost

Wood Products (untreated lumber, logs, wood chips, wood waste, etc.)

☐ Scrap metals

☐ Building Materials (masonry products, metal framing, rebar, etc.)

☐ Treated lumber

Other: _____

3.6 Vehicle and Equipment Storage

☐ No vehicle or equipment storage or parking is performed on site.

Vehicle and/or equipment storage and/or parking application is performed as follows: **Aside from buses, only vehicles in for maintenance or repair are stored.**

Type and Number of vehicles and equipment that are stored or parked on site:

☒ Passenger vehicles: 20-25

☒ Utility trucks: 1-2 (Various equipment)

☐ Dump truck: _____

☐ Tractor trailer: _____

☐ Top pick: _____

☐ Crane: _____

☐ Forklift: _____

☐ Earthmoving equipment: _____

☐ Miscellaneous Small Equipment: _____

☐ Other: Buses – when not in use - 30

Storage or parking area:

☐ Covered

☒ Designated Open Area

☐ Other: _____

Surface of storage or parking area:

☐ Asphalt ☒ Concrete ___ Compacted Gravel ☐ Soil

3.7 Vehicle and Equipment Maintenance and Repair

☒ Vehicle and/or equipment maintenance is performed on site as follows:

Types of maintenance/repair activities: Full functioning maintenance and repair facility _____

_____

_____

Location of maintenance/repair Activities:

☒ Indoors

☐ Outdoors under Cover

☐ Designated Open Area

☐ Other: _____

Surface of maintenance/repair area:

☐ Asphalt ☒ Concrete ☐ Compacted Gravel ☐ Soil

3.8 Dust Control and Soil and Sediment Control

X No dust generating activities are performed on site and no exposed soils are present.

☐ Exposed soils are present on site as follows:_____

_____

Describe any erosion and sediment control or dust control methods used: _____

_____

_____

3.9 Landscape Management

☒ There are no vegetated areas on site. No pesticides, herbicides or fertilizers are used.

X Vegetated areas are managed as follows:

Types of vegetation management activities:

X Mowing/Trimming

X Hand Weeding

X Vegetated Waste Disposal Location: Dumpsters for recycling _____

X Application of Fertilizer

X Application of Pesticide and Herbicide

☐ Other:_____

Describe any existing policy, practice, training or BMPs related to pesticide, herbicide, and fertilizer application:

Trained, licensed applicators All required record keeping _____

_____

_____

3.10 Other Pollution-Generating Activities

This questionnaire does not capture all potential sources of stormwater pollution. Evaluate your site for any additional pollution generating activities not listed above and describe here.

Other pollution-generating activities are performed on site as follows:

Storage of diesel and gasoline is stored in above ground covered containment.

4 History of Spills and Leaks

Describe any past spills or leaks on site that resulted in discharge to the storm sewer system, surface waters, or groundwater:

None. _____

_____

_____

_____

_____

Municipal Facility Assessment Questionnaire

For use in developing Stormwater Pollution Prevention Plan

1 Facility Description

Facility Name: Memorial Park Maintenance Barn

Facility Address: 7950 SW Memorial Drive

Contact Name: Steve Munstermman

Contact Phone: 503/519–9843

Main Site Activities: Parks Maintenance

Total Area of Facility: 0.218 acres

Surface Types:

(Check all that apply and fill in approximate area)

- [X] Permanent Buildings: 1 number of buildings, 206.8 square feet
- [ ] Temporary Buildings: ____ number of buildings, ____ square feet
- [ ] Pavement: ____ acres
- [X] Gravel: 0.2141 acres
- [ ] Bare Ground: ____ acres
- [ ] Vegetation: ____ acres

2 Stormwater Drainage System

Please attach any maps or sketches of the facility, if available.

General drainage characteristics of the site: No catch basins Barn site. Absorbed into ground through gravel. Any sheet flow off the site filters through vegetation draining to dith on north side of property..

Stormwater from the site discharges: (*Check all that apply*)

- ☐ Direct to water body, Name: _____
- ☐ Municipal Sanitary Sewer
- ☐ Municipal Storm Sewer
- ☒ Ground
- ☐ Drywells / Infiltration Trenches
- ☐ Other: _____

The stormwater drainage system consists of the following components: *Check all that apply*

- ☒ None
- ☐ Catch basins
- ☐ Floor drains
- ☐ Deck drains
- ☐ Roof drains
- ☐ Trench drains
- ☐ Culverts
- ☐ Subsurface Pipes
- ☐ Ditches
- ☐ Dry Wells
- ☐ Pump station
- ☐ General Site Stormwater Treatment:
  - ☐ Oil/water separator
  - ☐ Catch basin inserts
  - ☐ Vegetated swale, infiltration swale, or rain garden
  - ☐ Pond
  - ☐ Filtration System
  - ☐ Other: _____

3 Potential Pollutant Sources

This section identifies activities conducted on site that have the potential to contaminate stormwater.

3.1 Waste Management

☐ No waste management activities are performed on site.

X Wastes are managed as follows:

X Dumpster, located: East side site – covered.

☐ Trash compactor, located: _____

X Recycling Containers, located: East side site – covered.

☐ Used Oil Container, located: _____

☐ Other, describe: _____

3.2 Cleaning and Washing

X No cleaning or washing activities are performed on site.

Equipment cleaning and washing is performed as follows:

Location of cleaning or washing activity: _____

Cleaning or washing area:

☐ Self-Contained Building

☐ Covered Pad

X Designated Open Area

☐ Other: _____

Surface of cleaning or washing area:

☐ Asphalt ☐ Concrete X Compacted Gravel ☐ Soil

Chemical(s) used in washing:

☐ Soaps or detergents: _____

☐ Abrasives: _____

☐ Acids: _____

☐ Solvents: _____

X Other: Equipment is pressure washed (limited) and trucks are ran through offsite carwash

Discharge location for wash water:

☐ Storm Sewer; Treated before discharge? ☐ Yes ☐ No

☐ Sanitary Sewer

X Other: Gravel _____

☐ Other cleaning and/or washing activities: **None**

☐ Buildings

☐ Paved areas

☐ Other: _____

3.3 Transfer of Liquids or Solids

Includes both indoor and outdoor loading, unloading, and material transfer activities.

☐ No transfer of liquids or solids is performed on site.

X Transfer of liquids or solids is performed as follows:

Location(s) where transfer occurs *(circle liquids or solids)*:

- ☐ Railroad yard ☐ Liquids ☐ Solids
- ☐ Loading dock ☐ Liquids ☐ Solids
- X Self-Contained Building X Liquids: **In containment** ☐ Solids
- ☐ Covered Pad ☐ Liquids ☐ Solids:
- X Designated Open Area X Liquids ☐ Solids
- ☐ Other: _____

Surface of Transfer Area(s):

- ☐ Asphalt ☐ Concrete X Compacted Gravel ☐ Soil

Type(s) of liquids transferred:

- X Fuels, oils, or greases: _____
- X Paints: _____
- ☐ Acids: _____
- ☐ Pesticides, Herbicides, Fertilizers: _____
- X Cleaning products: _____
- ☐ Other: _____

Type(s) of solids transferred:

- ☐ Shipping Containers: _____
- ☐ Equipment: _____
- ☐ Packaged goods: _____
- ☐ Bulk materials (aggregate, debris, etc.): _____
- ☐ Other: _____

3.4 Production and Application Activities

Application activities involve the application of product to an object such as painting, coating, spraying, or other treatment.

X No production or application activities are performed on site.

☐ Production and/or application activities are performed as follows:

Location(s) of production and/or application activities: _____

_____

Description of production and/or application activities: _____

_____

3.5 Material Storage

☐ No material storage is performed on site.

X Material storage is performed as follows:

Storage area structure:

- X Covered
- ☐ Designated Open Area
- ☐ Other: _____

Surface of Storage Area:

☐ Asphalt ☐ Concrete X Compacted Gravel ☐ Soil

Type(s) of Liquids Stored:

X Fuels, oils, or greases

X Paints

☐ Acids

☐ Pesticides, Herbicides, Fertilizers

☐ Cleaning products

☐ Other: _____

Small quantities of liquid chemicals (fertilizer, pesticide, fuel additives, antifreeze, paint) are stored onsite in appropriate, labeled containers. Chemicals are stored above ground on pallets or shelving. Clean-up of minor spills is performed with absorbents – no washing.

Chemicals are consistently inventoried and excess quantities are disposed offsite at an approved disposal facility.

Liquids are stored in:

X Small Containers

☐ Drums

☐ Totes

☐ Aboveground Tanks

☐ Other, describe: _____

Type(s) of Solid Materials Stored: **Small quantities only**

☐ Aggregates (sand, gravel, rock, broken concrete, broken asphalt, etc.)

☐ Soil and compost

X Wood Products (untreated lumber, logs, wood chips, wood waste, etc.)

☐ Scrap metals

☐ Building Materials (masonry products, metal framing, rebar, etc.)

☐ Treated lumber

☐ Other: **Signs and related materials** _____

3.6 Vehicle and Equipment Storage

X No vehicle or equipment storage or parking is performed on site.

☐ Vehicle and/or equipment storage and/or parking application is performed as follows:

Type and Number of vehicles and equipment that are stored or parked on site:

☐ Passenger vehicles: _____

☐ Utility trucks: _____

☐ Dump truck: _____

☐ Tractor trailer: _____

☐ Top pick: _____

☐ Crane: _____

☐ Forklift: _____

☐ Earthmoving equipment: _____

X Miscellaneous Small Equipment: Mowers etc. stored in building

☐ X Other: Tractors

Storage or parking area:

☐ Covered

X Designated Open Area

☐ Other: _____

Surface of storage or parking area:

☐ Asphalt ☐ Concrete X Compacted Gravel ☐ Soil

3.7 Vehicle and Equipment Maintenance and Repair

X No vehicle or equipment maintenance is performed on site.

☐ Vehicle and/or equipment maintenance is performed on site as follows:

Types of maintenance/repair activities: _____

_____

_____

Location of maintenance/repair Activities:

☐ Indoors

☐ Outdoors under Cover

☐ Designated Open Area

☐ Other: _____

Surface of maintenance/repair area:

☐ Asphalt ☐ Concrete ☐ Compacted Gravel ☐ Soil

3.8 Dust Control and Soil and Sediment Control

X No dust generating activities are performed on site and no exposed soils are present.

☐ Exposed soils are present on site as follows:_____

_____

Describe any erosion and sediment control or dust control methods used: _____

_____

_____

3.9 Landscape Management

☐ There are no vegetated areas on site. No pesticides, herbicides or fertilizers are used.

☐ Vegetated areas are managed as follows surrounding site:

Types of vegetation management activities:

X Mowing/Trimming

X Hand Weeding

X Vegetated Waste Disposal Location: Covered dumpsters for recycling _____

X Application of Fertilizer

X Application of Pesticide and Herbicide

☐ Other:_____

Describe any existing policy, practice, training or BMPs related to pesticide, herbicide, and fertilizer application:

Trained, licensed applicators All required record keeping _____

_____

_____

3.10 Other Pollution-Generating Activities

This questionnaire does not capture all potential sources of stormwater pollution. Evaluate your site for any additional pollution generating activities not listed above and describe here.

Other pollution-generating activities are performed on site as follows:

Storage for fueling of small equipment – limited amount of fuel is stored in above ground containment in locked cabinets t. Fueling of small equipment performed in onsite.

Fueling of large equipment and vehicles is performed offsite.

4 History of Spills and Leaks

Describe any past spills or leaks on site that resulted in discharge to the storm sewer system, surface waters, or groundwater:

None. _____

_____

_____

_____

_____

Attachment C: Spill Response Plan

Spill Response and Reporting

Procedures

- If the material is a hazardous substance, and of sufficient quantity to pose **health risks** to responders and the general public, call **911 immediately**.
- For spills or releases, the following parties are responsible for **responding**:
  - **Wastewater treatment plant or the sanitary sewer system**: **WWTP System Supervisor** (**503-522-7762)**.
  - **Industry**: **Pretreatment Coordinator** (**503-522-7763)**.
  - **Streets or into the stormwater system**: **Roads Supervisor** (**503-519-0375)**.
  - These people are responsible for inter-departmental communication
- For spills or releases, the following parties are responsible for **reporting**:
  - **Wastewater treatment plant or the sanitary sewer system**: **WWTP System Supervisor** (**503-522-7762)**.
  - **Industry**: **Pretreatment Coordinator** (**503-522-7763)**
  - **Stormwater system: Stormwater Management Coordinator** (**503-522-7764)**.
- Spill response and follow up will be based upon an incident assessment, which satisfies all required safety procedures.
- If after determination that the spill or release is reportable, (see below) those responsible will follow up with required reporting.
- If the above parties are not available, contact the **Operations Manager** at **503-519-9837** regarding the **wastewater treatment plant, the sanitary sewer system or industry**. Contact the **Natural Resources Program Manager** at **503-570-1570** regarding the **stormwater system**.
- After hours and weekends for the **wastewater treatment plant, the sanitary sewer system, or industry** contact Emergency Pager at **503-441-0670**. For **streets or the stormwater system** contact Emergency Pager at **1-866-252-3614**.

Reportable Quantity

- Reportable quantity as defined in OAR 340-142-0050 (Division 142). A list of reportable quantities is available at http://www.deq.state.or.us/regulations/rules.htm. For example, spills of oils that are discharged into waters of the state or in a location from which it is likely to escape into waters of the state any quantity of oil that would **produce a visible film, sheen, oily slick, oily solids, or coat aquatic life, habitat or property with oil.**
- If spilled on the surface of the land and not likely to escape into waters of the state, any quantity of oil or hazardous material over one barrel (**42 gallons**).
- If the amount of oil or hazardous material exceeds the **reportable quantity in any 24-hour** period, this is also a reportable quantity.

Reporting

- After determination of a reportable spill or release, **Oregon Emergency Response Systems** (OERS) shall be contacted at **1-800-452-0311** (sanitary or stormwater discharge) and **DEQ** at **503-229-5295** (sanitary discharge) within 24 hours of incident. Provide the following information:
  a) Location of spill or release
  b) Receiving waters (if there is one)
  c) Estimate of the volume of spill or release
  d) Describe where the spill or release occurred
  e) Estimate date and time when the spill or discharge began and stopped or will be stopped.
- Give the above details and follow up on DEQ requirements.
- DEQ must receive within **five days** of a reportable spill or release, a **written report** with required (permit) reporting information. A reporting form is available online from DEQ at http://www.deq.state.or.us/lq/pubs/forms/cu/SpillReleaseReportForm.pdf.

Spill Response and Reporting Emergency Contact List

Fire/Hazard/Emergency

Tualatin Valley Fire and Rescue 911

Police

Clackamas County Sheriff's Department 503-682-1051
Clackamas County Sheriff's Dispatch 503-655-8211

Hospitals

Legacy Meridian Park 503-692-1212
Providence St. Vincent 503-216-1234

Reporting

Oregon Emergency Response Systems (OERS) 1-800-452-0311
DEQ Complaint Line 503-229-5393
DEQ Northwest Region 503-229-5263
DEQ Wastewater Contact, Lyle Christensen 503-229-5295
DEQ Stormwater Contact, Benjamin Benninghoff 503-229-5185

Emergency Response Contractors

NRC Environmental Services 1-800-337-7455
Belfour Environmental 503-408-7404
River City Environmental 503-252-6144

Attachment D: Inspection Forms

STORMWATER POLLUTION PREVENTION PLAN
MUNICIPAL FACILITY INSPECTION FORM

Inspections must be conducted by a person with the knowledge and skills to assess conditions and activities that could impact stormwater quality at the facility, and evaluate the effectiveness of best management practices. Retain a copy of the completed form.

I. INSPECTION SUMMARY	
FACILITY NAME:	**INSPECTION DATE:** **TIME:**
INSPECTOR(s) NAME:	**INSPECTOR(S) TITLE:**

WEATHER INFORMATION:

- Description of Weather Conditions (e.g., sunny, cloudy, raining, snowing, etc.):
  _____
  _____
- Was stormwater (e.g., runoff from rain or snowmelt) flowing at outfalls and/or discharge areas shown on the Site Map during the inspection: ☐ **Yes** ☐ **No** ☐ **Comments:**
  _____
  _____

SWPPP and SITE MAP:

Have a copy of the SWPPP and site map with you during the inspection so that you can ensure they are current and accurate. Use it as an aide in recording the location of any issues you identify during the inspection.

- Is the Site Map current and accurate? ☐ **Yes** ☐ **No**
- Describe any new site activities or potential pollutant sources that should be added to the SWPPP:
  _____
  _____

II. POTENTIAL POLLUTANT SOURCE AREA INSPECTION AND BMP EVALUATION			
Vehicle/Equipment Areas: • Is equipment washed and/or cleaned only in designated areas? • Are all fueling areas free of contaminant buildup and evidence of chronic leaks/spills? • Are maintenance tools, equipment and materials stored in designated areas? • Are all drums and containers of fluids stored with proper cover and containment? • Are any vehicles and/or equipment leaking fluids?	**Yes**	**No**	**Findings and Follow Up Actions:**
Good Housekeeping BMPs: • Are paved surfaces free of accumulated sediment and debris? • Are there areas of erosion or sediment/dust sources that discharge to storm drains? Are all waste receptacles that are located outdoors: • In good condition? • Not leaking contaminants? • Closed when not being used? • External surfaces and area free of excessive contaminant buildup?	**Yes**	**No**	**Findings and Follow Up Actions:**

Spill Response and Equipment: • Are spill kids available and properly stocked? • Are contaminated absorbent materials properly disposed of? List any evidence of leaks or spills since last inspection:	Yes	No	Findings and Follow Up Actions:
Material Storage Areas: • Are potential pollutants stored inside a building or another type of storm resistance shelter? • Are all uncontained material piles stored in a manner that does not allow discharge of impacted stormwater? • Are outdoor containers covered? • Are empty containers cleaned and stored properly? List any excess materials that need to be removed from the site:	Yes	No	Findings and Follow Up Actions:
Stormwater BMPs and Treatment Structures: *Visually inspect all stormwater infrastructure and treatment BMPs.* • Are BMPs and treatment structures in good repair and operational? • Are pipe plugs used to divert and direct discharges adequate and in good condition? • Are catch basins structurally sound, clean and free of debris? List any catch basins or stormwater structures that require cleaning or maintenance:	Yes	No	Findings and Follow Up Actions:
Observation of Non-Stormwater Discharges: • Is the discharge from the site free of floating materials, visible oil sheen, discoloration, turbidity, odor, foam or any other signs of contamination? • Water from washing vehicles or equipment and/or pressure washing is a potential stormwater pollutant and is not allowed to comingle with stormwater or enter storm drains. Is wash water comingling with stormwater or entering storm drains?	Yes	No	Findings and Follow Up Actions:

III. ADDITIONAL FINDINGS

Describe additional inspection findings and corrective actions, if needed. Provide brief explanation of the general location and the rationale for the additional or different BMPs.

_____

_____

_____

_____

_____

_____