CITY OF SELAH

Stormwater Pollution Prevention Plan (SWPPP)

Material and Equipment Storage Areas

City of Selah
115 West Naches Avenue
Selah, WA 98942
January 2011

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BE MADE AVAILABLE
TO THE PUBLIC
UPON REQUEST

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City of Selah Public Works SWPPP

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Section 1—Introduction

Acronyms and Abbreviations

BMPs	Best Management Practices
Ecology	Washington State Department of Ecology
EPA	Environmental Protection Agency
ISGP	Industrial Stormwater General Permit
MS4	Municipal Separate Storm Sewer System
NPDES	National Pollution Discharge Elimination System
Phase II Permit	NPDES Phase II Municipal Stormwater Permit
SWMP	Stormwater Management Program
SWPPP	Stormwater Pollution Prevention Plan
UIC	Underground Injection Control

List of Definitions

The majority of the definitions below are sourced from the Washington Department of Ecology (Ecology) Eastern Washington Phase II Municipal Stormwater Permit (Phase II Permit). Definitions not provided from the Phase II Permit were taken from other sources, including Ecology's Stormwater Management Manual for Eastern Washington, Environmental Protection Agency (EPA) National Pollution Discharge Elimination System (NPDES) website glossary, and the Illicit Discharge Detection and Elimination, A Guidance Manual for Program Development and Technical Assessments.

Best Management Practices (BMPs) are the schedules of activities, prohibitions of practices, maintenance procedures, and structural and/or managerial practices approved by Ecology that, when used singly or in combination, prevent or reduce the release of pollutants and other adverse impacts to waters of Washington State.

Combined Sewer means a sewer which has been designed to serve as a sanitary sewer and a storm sewer, and into which inflow is allowed by local ordinances.

Discoloration is a means by which to characterize stormwater. Typically, stormwater is yellowish in color. Discoloration however, other than turbidity, can indicate whether there is rust from iron pipes or iron bacteria, as seen by a yellowish/red color or if paint or cleaning agent emulsions have entered the stormwater system, as indicated by a white cloudy color.

Erosion and Sediment Control BMPs mean BMPs that are intended to prevent erosion and sedimentation, such as preserving natural vegetation, seeding, mulching and matting, plastic covering, and sediment traps and ponds. Erosion sediment control BMPs are synonymous with stabilization and structural BMPs.

Floatables is a means by which to characterize stormwater. A floatable is used as an indicator if very obvious trash or other controllable debris, such as landscaping material, leaf litter, etc., has entered into the storm system.

Foam is a means by which to characterize stormwater. Foam is used as an indicator that potentially soap or other cleaning products have entered into the storm system. However, stormwater can often be slightly foamy from pollen and other natural organic material. The way to tell the difference is by touch and smell. If the foam is persistent and accompanied by a fragrant odor, it is most probably coming from a cleaning product. If the suds break up quickly, then it is most likely from turbulence and/or natural conditions.

Hazardous Substance is: 1) Any material that poses a threat to human health and/or the environment. Typical hazardous substances are toxic, corrosive, ignitable, explosive or chemically reactive. 2) Any substance designated by EPA to be reported if a designated quantity of the substance is spilled in the waters of the United States or is otherwise released into the environment.

Hyperchlorinated means water that contains more than 10 mg/Liter chlorine. Disinfection of water mains and appurtenances requires a chlorine residual of 10 mg/L at the end of the disinfection period. This level is well above the Maximum Residual Disinfectant Level of an annual average of 4 mg/Liter chlorine for potable water.

Illegal Dumping means any intentional and non-permitted disposal of any substance other than stormwater into the municipal separate storm sewer system, unless otherwise called out as an allowed non-stormwater discharge.

Illicit Connection means any man-made conveyance that is connected to a municipal separate storm sewer without a permit, excluding roof drains

and other similar type connections. Examples include sanitary sewer connections, floor drains, channels, pipelines, conduits, inlets or outlets that are connected directly to the municipal separate storm sewer system.

Illicit Discharge means any discharge to the municipal separate storm sewer that is not composed entirely of storm water except discharges pursuant to a NPDES permit (other than the NPDES permit for discharges from the municipal separate storm sewer) and discharges resulting from fire fighting activities.

Industrial Stormwater General Permit (ISGP) means the NPDES Industrial Stormwater General Permit, issued by Ecology for stormwater discharges associated with industrial activities (Issued 2002, modified 2004, effective January 2005).

Material Storage Facilities means an uncovered area where bulk materials (liquid, solid, granular, etc.) are stored in piles, barrels, tanks, bins, crates, or other means.

Municipal Separate Storm Sewer System (MS4) means a conveyance, or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, manmade channels, or storm drains):

1) Owned or operated by a state, city, town, borough, county, parish, district, association, or other public body (created by or pursuant to State Law) having jurisdiction over disposal of wastes, storm water, or other wastes, including special districts under State law such as a sewer district, flood control district or drainage district, or similar entity, or an Indian tribe or an authorized Indian tribal organization, or a designated and approved management agency under section 208 of the CWA that discharges to waters of the United States;
2) Designed or used for collecting or conveying stormwater;
3) Which is not a combined sewer; and
4) Which is not part of a Publicly Owned Treatment Works, as defined at 40 CFR 122.2.

National Pollutant Discharge Elimination System (NPDES) means the national program for issuing, modifying, revoking, and reissuing, terminating, monitoring and enforcing permits, and imposing and enforcing

pretreatment requirements, under sections 307, 402, 318, and 405 of the Federal Clean Water Act, for the discharge of pollutants to surface waters of the state from point sources. These permits are referred to as NPDES permits and, in Washington State, are administered by the Washington Department of Ecology.

Non-Stormwater Discharges are discharges of process wastewaters, vehicle washwaters, cooling waters, or any other wastewaters associated with the facility into the stormwater collection system. Other discharges must be addressed in a separate NPDES permit. See also **Illicit Discharge**. Certain non-stormwater discharges are conditionally approved under the ISGP but are subject to specific provisions, including identifying the location, flow volumes, quality, potential for water quality issues and ability to apply appropriate BMPs. Examples of conditionally approved non-stormwater discharges under an ISGP include:

- Discharges from fire fighting activities.
- Fire protection system flushing, testing, and maintenance.
- Discharges of potable water including water line flushing, provided that water line flushing must be de-chlorinated prior to discharge.
- Uncontaminated air conditioning or compressor condensate.
- Irrigation drainage.
- Uncontaminated ground water or spring water.
- Discharges associated with dewatering of foundations, footing drains, or utility vaults where flows are not contaminated with process materials such as solvents.

Stormwater Management Program (SWMP) means a set of actions and activities designed to reduce the discharge of pollutants from the regulated small MS4 to the maximum extent practicable and to protect water quality, and comprising the components listed in S5 of S6 of the Western Washington Phase II Municipal Stormwater Permit and any additional actions necessary to meet the requirements of applicable requirements.

Structural source control BMPs are physical, structural, or mechanical devices or facilities that are intended to prevent pollutants from entering stormwater. Structural source control BMPs typically include:

- Enclosing and/or covering the pollutant source (building or other enclosure, a roof over storage and working areas, temporary tarp, etc.).

- Segregating the pollutant source to prevent run-on of stormwater, and to direct only contaminated stormwater to appropriate treatment BMPs.

Treatment BMPs are intended to remove pollutants from stormwater. A few examples of treatment BMPs are Wetponds, oil/water separators, biofiltration swales, and constructed wetlands.

Turbidity is a means by which to characterize stormwater. The dispersion or scattering of light in a liquid, caused by suspended solids and other factors; commonly used as a measure of suspended solids in a liquid.

Vehicle Maintenance or Storage Facility means an uncovered area where any vehicles are regularly washed or maintained, or where at least 10 vehicles are stored.

Water Quality means the chemical, physical, and biological characteristics of water, usually with respect to its suitability for a particular purpose.

Waters of the State includes those waters as defined as "waters of the United States" in 40 CFR Subpart 122.2 within the geographic boundaries of Washington state and "waters of the state" as defined in Chapter 90.48 RCW, which include lakes, rivers, ponds, streams, inland waters, underground waters, salt waters, and all other surface waters and water courses within the jurisdiction of the State of Washington.

Pollution Prevention Team

The Pollution Prevention Team is responsible for ensuring that the recommended BMPs are implemented to control stormwater pollution at the site. Team members are responsible for inspections, operation and maintenance, operational source controls, employee training, emergency and spill response, and other activities necessary to implement the Stormwater Pollution Prevention Plan (SWPPP).

The Pollution Prevention Team for the City of Selah consists of the following staff members:

Job Title	Contact Number
Public Works Director	(509) 698-7365

The City of Selah is currently subject to the requirements of the National Pollution Discharge Elimination System (NPDES) Phase II Municipal Stormwater Permit (Phase II Permit) and the Underground Injection Control (UIC) Rule. The NPDES Phase II Permit was issued by the Washington State Department of Ecology (Ecology) on January 17, 2007, and became effective on February 16, 2007. A revised permit was issued on June 17, 2009.

The City of Selah is required to develop and implement Stormwater Pollution Prevention Plans (SWPPPs) to protect water quality at municipally owned and operated facilities, including material storage areas, heavy equipment storage areas, and maintenance areas, that are not currently covered under another NPDES stormwater permit (e.g., the General NPDES Permit for Stormwater Discharges Associated with Industrial Activities).

This document presents the SWPPP developed for the following facilities:

- Public Works Office/Shop
- Speyers Road City Property

1.1 SWPPP Objective

The objective of this SWPPP is to implement measures to prevent and control the contamination of discharges of stormwater to surface or ground waters.

1.2 Recordkeeping

All records related to this SWPPP shall be maintained for at least five years. All records related to this SWPPP shall be kept with the SWPPP, preferably in the same binder.

1.3 SWPPP Availability

All records related to this SWPPP shall be made available to the public at reasonable times during business hours. Members of the public who request SWPPP records in person shall be allowed to view documents on-site. SWPPP records shall not be removed from the site. Copies of SWPPP records may be obtained by sending a written request to the Public Works Director.

All records related to the SWPPP shall be made available to Ecology upon request.

1.4 SWPPP Development and Implementation Process

This SWPPP was prepared based on a SWPPP Template developed by Otak, Inc. for the Wenatchee Valley Stormwater Technical Advisory Committee using funding provided by a grant from Ecology.

The methods used to develop this SWPPP included site visits, identification of facility specific Best Management Practices (BMPs), and coordination with facility operators. Implementation of the SWPPP will include employee training and BMP application.

1.5 SWPPP Revisions

The SWPPP will need to be modified under the following conditions:

- Significant changes occur at the Facility which affect current BMPs and could affect stormwater quality;
- The City of Selah purchases or develops a new property to be used for municipal storage activities;
- The City of Selah changes site use (adds or ceases a major activity) at an existing municipal storage site; and/or
- On an annual basis to reflect any administrative changes, including Pollution Prevention team members.

Section 2—Site Assessment & Best Management Practices

2.1 Facility Description

The City of Selah Public Works Office/Shop is located at 222 South Rushmore Road, Selah, WA 98942. The site shares a border with Graham Packaging and the City of Selah sludge drying beds. The site is approximately 8 acres in area, including approximately 2 acres of concrete and pavement, and approximately 5 acres of vegetation. Site facilities consist of one permanent public works office/shop; including a 12,800 square feet maintenance shop, 5,600 square feet of office space and 4,800 square feet of covered shop. Activities include equipment storage/repair/washing, heavy equipment and vehicle parking areas, and the storage of raw materials, such as sand, top soil, rock, etc.. A site map for the facility is shown in Appendix A.

The Speyers Road City Property is located at Shannon Road, Selah, WA 98942. The site shares a border with residential parcels and undeveloped parcels. The site is approximately 95 acres in area, including gravel driving lanes to the lagoon and covered storage area. Site facilities consist of one permanent 1,800 square-foot covered storage area and one 7,000 square-foot concrete-lined lagoon. Activities include storage of stormwater maintenance waste, street sweepings and collected raw materials. A site map for the facility is shown in Appendix A.

2.1.1 History of Spills and Leaks

There is no recorded history of any major spills or leaks at these facilities.

2.1.2 Production and Application Activities

No production or application activities (such as vehicle painting or sign fabrication) are currently performed on-site.

2.2 Best Management Practices

BMPs are the schedules of activities, prohibitions of practices, maintenance procedures, and structural and/or managerial practices that, when used singly or in combination, prevent or reduce the release of pollutants and other adverse impacts to receiving waters.

There are three general classes of BMPs: Operational Source Control BMPs, Structural Source Control BMPs, and Treatment BMPs. Operational BMPs are those that involve specific activities or one-time actions on the part of the facility staff. If Operational BMPs do not adequately prevent the potential contamination of stormwater, Structural BMPs, such as constructing new covered shelters to prevent stormwater from coming into contact with potential pollutants, may be a

reasonable solution. Treatment BMPs are only used as a last resort to remove containments from stormwater before discharging to a stormwater conveyance system or to surface or ground waters.

2.2.1 General Operational BMPs

General Operational BMPs are good housekeeping activities that should be applied to day-to-day activities at the facility to prevent contaminants from entering stormwater at their source. The purpose of good housekeeping is to keep the Facility area clean and free of debris, storage materials under cover, and handling materials and waste products in a way that minimizes the risk to stormwater. The good housekeeping BMPs are:

- Keep open areas clean and orderly;
- Pick-up litter;
- Promptly contain and clean up solid and liquid pollutant leaks and spills;
- Sweep paved material handling and storage areas regularly;
- Inspect all BMPs regularly, particularly after a significant storm;
- Use drip pans or absorbent pads under leaking vehicles and equipment to capture fluids;
- Promptly remove debris and old equipment;
- Store hazardous materials as specified by the manufacturer; and
- Conduct regular employee training to reinforce proper housekeeping actions.

See Appendix B for additional preventative maintenance BMPs. The BMP descriptions in Appendix B were drawn primarily from Ecology's *Stormwater Management Manual for Eastern Washington* (2004) and the California Department of Transportation's *Stormwater Quality Handbook Maintenance Staff Guide* (2003, Revised 2007).

2.2.2 Specific BMPs

A wide variety of activities and areas of concern throughout the facilities may potentially contaminate stormwater. Example pollutant source-specific BMPs are included in Appendix C. BMP descriptions were drawn primarily from Ecology's Stormwater Management Manual for Eastern Washington (2004) and the California Department of Transportation's *Stormwater Quality Handbook Maintenance Staff Guide* (2003, Revised 2007).

2.4 Employee Training and Education

Training will be provided at staff meetings for all municipal field staff. The Public Works Director will provide training oriented toward prevention of stormwater pollution and implementation of the SWPPP. The goal of the training is to reduce or eliminate behaviors and practices that cause or contribute to adverse stormwater impacts. All maintenance facility personnel are recommended to participate in this training to improve their understanding of stormwater impacts and ways to prevent stormwater pollution. Additional training should be provided as an annual refresher course, or as new employees are hired.

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Section 3—Illicit Non-Stormwater Discharges

The City of Selah is required to develop, implement, and enforce a program to detect and eliminate non-stormwater illicit discharges into the municipal separate storm sewer system (MS4), including spills, illicit connections, and illegal dumping.

3.1 Illicit Connections

An illicit connection is any man-made conveyance of non-stormwater discharges that is connected to an MS4 without a permit. Examples include sanitary sewer connections, floor drains, and process waters that are connected directly or indirectly to the MS4. Exemptions include connections from foundation and footing drains, air conditioning condensation, uncontaminated groundwater, and other similar type connections. A complete list of the prohibited and exempt non-stormwater discharges can be found in the City of Selah's Illicit Connections and Discharges to the Municipal Separate Storm Sewer System, specifically Chapter 9.22 of the City of Selah Code of Ordinances.

If an illicit connection is detected on-site, the Pollution Prevention Team shall take appropriate steps to terminate or redirect the connection to an appropriate discharge location.

3.2 Illicit Discharges

An illicit discharge is any discharge to an MS4 that is not composed entirely of stormwater except discharges pursuant to a NPDES permit (other than the Phase II Permit) and discharges resulting from emergency fire fighting activities.

If a prohibited discharge is observed, the Pollution Prevention Team shall take immediate action to terminate the discharge. Depending on the nature of the illicit discharge, it may be necessary to report it as a spill; a three-page summary of basic spill response procedures is included in Appendix D.

3.3 Illegal Dumping

Illegal dumping consists of spilling, dumping, releasing, throwing, depositing or placing solid waste, litter, pet waste, yard waste, or hazardous materials where there is the potential for those materials or pollutants to end up in the MS4.

If illegal dumping is observed, the Pollution Prevention Team shall take immediate action to identify the responsible party and ensure cleanup of the dumped material.

Section 3— Illicit Non-Stormwater Discharges
Continued

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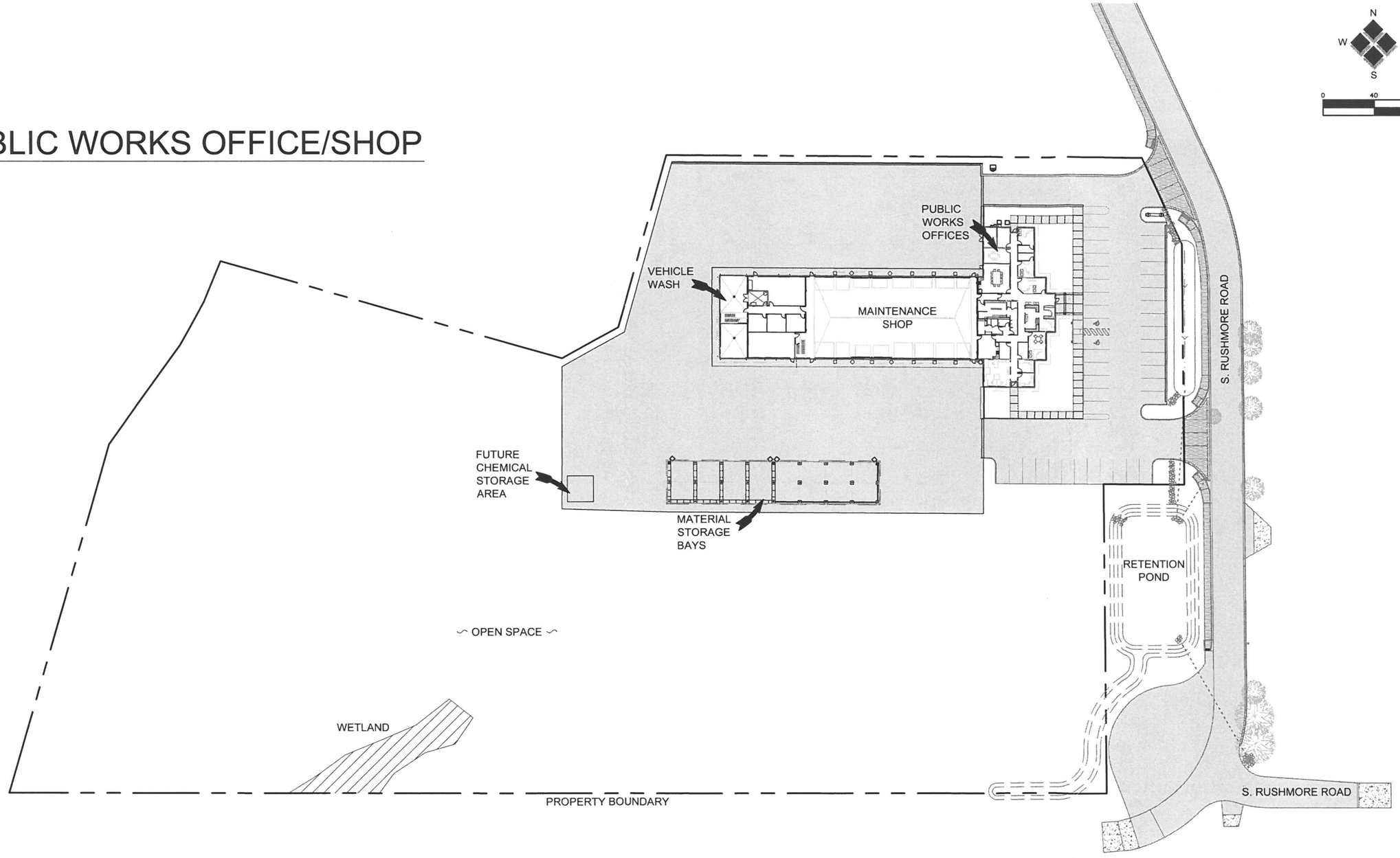
Appendix A—Site Maps

PUBLIC WORKS OFFICE/SHOP



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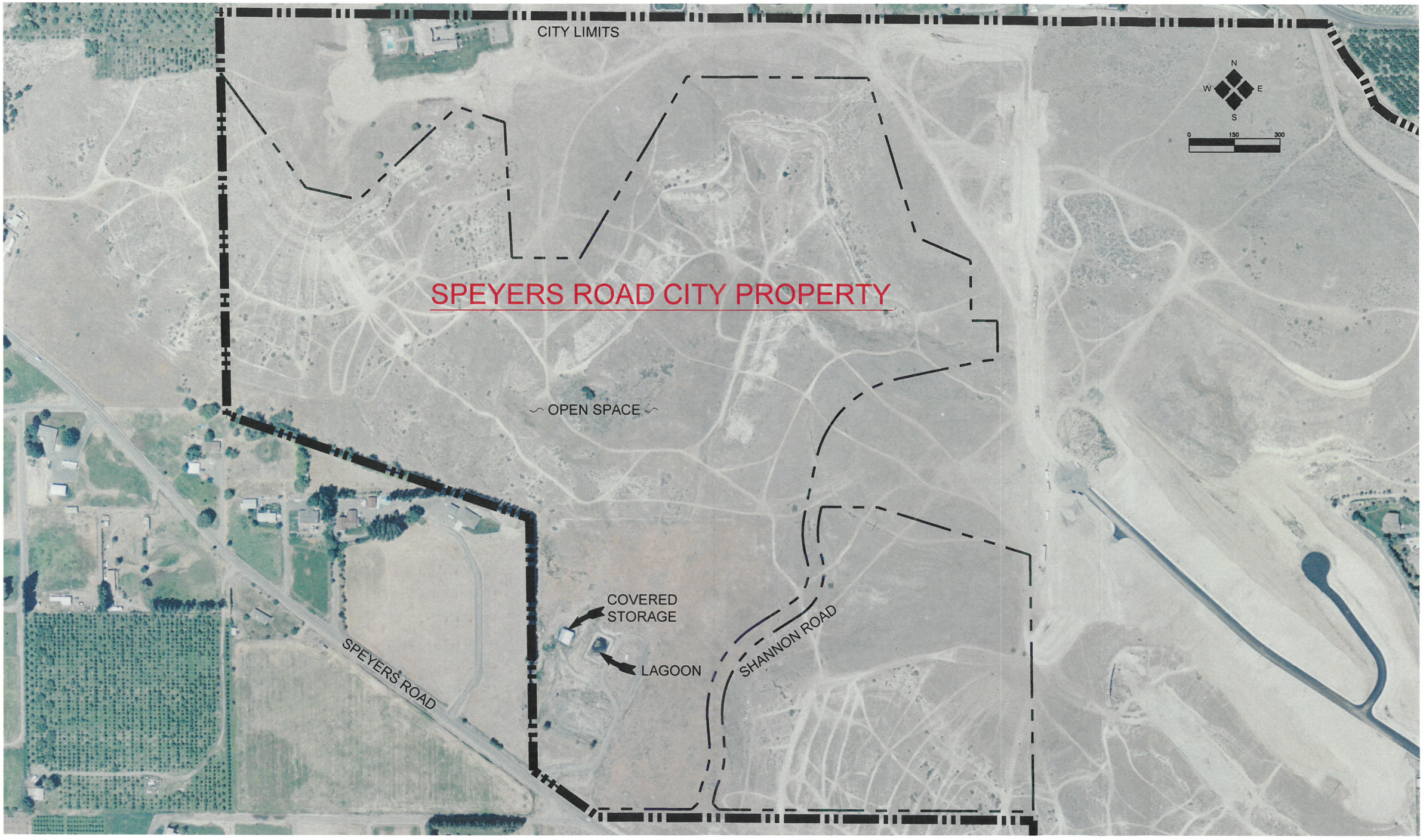
CITY OF SELAH
STORMWATER POLLUTION PREVENTION PLAN

PUBLIC WORKS OFFICE/SHOP SITE MAP

SHEET 1 OF 1



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CITY OF SELAH
STORMWATER POLLUTION PREVENTION PLAN

SPEYERS ROAD CITY PROPERTY SITE MAP

SHEET 1 OF 1

Appendix B—General Operational Source Control BMPs

General Pollution Prevention BMPs

Operational Source Control BMPs

Pollutant Control Approach

Operational Best Management Practices (BMPs) can be commonly applied to day-to-day activities at municipal storage facilities. These General Operational Source Control BMPs focus on retaining stormwater on-site, segregating pollutants from runoff, and preventing the discharge of pollutants to the stormwater collection and conveyance system.

Scheduling and Planning BMPs

1. Plan and schedule all maintenance activities in a manner that considers the use of BMPs. Recognize how the activity will affect stormwater so that the proper BMPs can be placed or utilized at the proper time. Some maintenance activities shall not be performed during rain events or when storms are predicted unless required by emergency conditions.
2. Be aware of where the flow of a leak, spill, or other runoff would go.
3. Set-up the work area to minimize the tracking of material by vehicles and equipment in or out of the work area.

Good Housekeeping BMPs

1. Promptly contain and clean up solid and liquid pollutant leaks and spills, including oils, solvents, fuels, and dust from operations and maintenance conducted on any exposed soil, vegetation, or paved area.
2. Use solid absorbents, e.g., clay and peat absorbents and rags for cleanup of liquid spills/leaks, where practicable.
3. Properly reuse, recycle, or dispose of cleaned empty containers, excess materials, and equipment or parts.
4. Sweep paved material handling and storage areas regularly, as needed, for the collection and disposal of dust and debris that could contaminate stormwater. Do not hose down pollutants from any area to the ground, storm drain, conveyance ditch, or receiving water unless necessary for dust control purposes to meet air quality regulations, and unless the pollutants are conveyed to a treatment system approved by the local jurisdiction.
5. Clean oils, debris, sludge, etc., from all BMP systems regularly, including catch basins, settling/detention basins, oil/water separators, boomed areas, and conveyance systems, to prevent the contamination of stormwater.
6. Promptly repair or replace all substantially cracked or otherwise damaged paved secondary containment, high-intensity parking, and any other drainage areas that are subjected to pollutant material leaks or spills.

General Operational Source Control BMPs

Continued

7. Promptly repair or replace all leaking connections, pipes, hoses, valves, etc. that can contaminate stormwater.

Preventative Maintenance BMPs

1. Inspect all BMPs regularly, particularly after a significant storm. Identify and correct deficiencies to ensure that the BMPs are functioning as intended.
2. Prevent the discharge of unpermitted liquid or solid wastes, vehicle and equipment wash-water, and sewage to ground or surface water, or to storm drains that discharge to surface water, or to the ground.
3. Do not connect floor drains in potential pollutant source areas to storm drains, surface water, or to the ground.
4. Conduct all oily parts cleaning, steam cleaning, or pressure washing of equipment or containers inside a building, or on an impervious contained area, such as a concrete pad. Direct contaminated stormwater from such an area to a sanitary sewer where allowed by local jurisdiction, or to other approved treatment.
5. Do not pave over contaminated soil unless it has been determined that groundwater has not been and will not be contaminated by the soil. Call Ecology for assistance.
6. Construct impervious areas that are compatible with the materials handled. Portland cement concrete, asphalt, or equivalent material may be considered.
7. Use drip pans or absorbent pads under leaking vehicles and equipment to capture fluids.
8. Drain oil and fuel filters before disposal. Discard empty oil and fuel filters, oily rags and other oily solid waste into appropriately closed and properly labeled containers, and in compliance with the Uniform Fire Code.
9. For the storage of liquids use containers, such as steel and plastic drums, that are rigid and durable, corrosion resistant to the weather and fluid content, non-absorbent, water tight, rodent-proof, and equipped with a close-fitting cover.
10. For the temporary storage of solid wastes contaminated with liquids or other potential pollutant materials use dumpsters, garbage cans, drums and comparable containers that are durable, corrosion resistant, nonabsorbent, non-leaking, and equipped with either a solid cover or screen cover to prevent littering. If covered with a screen, the container should be stored under a lean-to or equivalent structure.
11. Where exposed to stormwater, use containers, piping, tubing, pumps, fittings, and valves that are appropriate for their intended use and for the contained liquid.
12. Where feasible, store potential stormwater pollutant materials inside a building or under a cover, and/or containment.

General Operational Source Control BMPs

Continued

13. Minimize use of toxic cleaning solvents, such as chlorinated solvents, and other toxic chemicals.
14. Use environmentally safer raw materials, products, additives, etc.
15. Empty drip pans immediately after a spills or leaks are collected in an uncovered area.
16. Stencil warning signs at stormwater catch basins and drains, e.g., “Dump no waste.”

General Operational Source Control BMPs

Continued

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Appendix C—Example Pollutant Source-Specific BMPs

Pollutant Source Specific BMPs

1. Building and Ground Maintenance

Typical Activities	***Environmental Concerns***
Care of landscaped areas around each facility, cleaning of parking areas and pavements, dust control, and maintenance of the stormwater drainage system.	Discharge of the following materials into the stormwater drainage system or watercourse: • Sediment • Sewage • Litter • Trash • Non-Stormwater liquids • Herbicides • Vehicle Fuel and Fluids
Pollutant Control Approach	
Pollutants such as herbicides, eroded soil, and site debris can contaminate stormwater. Employ Operational Source Control Best Management Practices (Operational BMPs) to minimize the contact of stormwater and these pollutants.	

Operational BMPs

1. Dispose of sweepings and cleaning wastes as solid waste.
2. Inspect and clean stormwater conveyance systems as needed.
3. Properly dispose of wash-water generated by building maintenance activities. Dispose of wash-water to the sanitary sewer system.
4. Minimize dust generation and apply environmentally friendly and government approved dust suppressant chemicals, if necessary. Sprinkle or wet down soil or dust with water as long as it does not result in a wastewater discharge.
5. Limit the exposure of erodible soil, stabilize or cover erodible soil where necessary to prevent erosion, and/or provide treatment for stormwater contaminated with suspended solids caused by eroded soil.

Structural BMPs

1. Stencil drywell and catch basin grates with, “Dump No Waste - Drains to Stream/Groundwater".

Pollutant Source Specific BMPs

Continued

Pollutant Source Specific BMPs

2. Floor Drains

Typical Activities

Floor drains are found in maintenance shops. Any spills, leaks, or drips of oil, anti-freeze, paint, etc. that end up on the shop floor have the potential to end up in the floor drain.

Pollutant Control Approach

Identify and locate the final outfall for the floor drain system. If the floor drains are found to be connected to a drywell or other stormwater conveyance system, or if you are unsure where the floor drains outfall to, do not hose down shop floor with water.

Environmental Concerns

Discharge of the following materials into the stormwater drainage system or watercourse:

- Fuel
- Vehicle/Equipment Fluids
- Paint Products
- Metals

Operational BMPs

1. Sweeping should be used in place of water to clean the shop floor.
2. Clean up any hazardous material spills immediately.
3. Consider plugging each floor drain to eliminate potential pollutants from entering.

Structural BMPs

1. If a floor drain is found to be connected to a drywell or other stormwater conveyance system, it must be disconnected and routed to the sanitary sewer (if allowed by the local jurisdiction) or to other appropriate treatment BMPs.

Pollutant Source Specific BMPs

3. Loading and Unloading of Materials

Typical Activities

A variety of products are transferred at maintenance facilities and may cause harm to the environment if they come in contact with ground or surface waters. The following procedures are used to reduce the potential for the discharge of pollutants from loading/unloading areas to the stormwater drainage system or watercourses by minimizing exposure of the materials to stormwater and safeguarding against accidental release of materials.

Pollutant Control Approach

Cover and contain the loading/unloading area, where necessary, to prevent run-on of stormwater and runoff of contaminated stormwater; or, transfer materials in an area that slopes away from storm drains and waterways.

Environmental Concerns

Discharge of the following materials into the stormwater drainage system or watercourse:

- Asphalt Products
- Paint
- Epoxy Resins
- Cement
- Herbicides
- Solvents
- Vehicle Fluids
- Fertilizer
- Fuel

Operational BMPs

1. Sweep loading/unloading areas frequently to remove material that could otherwise be washed off by stormwater.
2. Place drip pans or other appropriate temporary containment devices at locations where leaks or spills may occur during loading/unloading activities.
3. In the event of a spill or leak, follow the procedures outlined in the facility's Spill Response Plan.
4. Ensure the cleanup of liquid/solid spills in the loading/unloading area immediately if a significant spill occurs and upon completion of the transfer activity for minor spills.
5. Maintain an appropriate oil spill cleanup kit on-site for rapid cleanup of oil spills.
6. Ensure that an employee trained in spill containment and cleanup is present during loading/unloading activities.

Pollutant Source Specific BMPs

Continued

Structural BMPs

1. Consistent with Uniform Fire Code requirements and to the extent practicable, conduct unloading or loading of solids and liquids in a building, under a roof or lean-to, or other appropriate cover.
2. Berm, dike, and/or slope the loading/unloading area to prevent run-on of stormwater and to prevent the runoff or loss of any spilled material from the area.
3. Pave and slope loading/unloading areas to prevent the pooling of water.
4. Install an automatic shutoff valve in storm drain system in case of unanticipated off-loading interruption (e.g. coupling break, hose rupture, overfill, etc.)

Pollutant Source Specific BMPs

4. Outdoor Storage of Raw Materials

Typical Activities

Maintenance facilities store a variety of raw materials that may adversely impact water quality if they come in contact with ground or surface waters. Raw materials may include asphalt, soil, road de-icing salts, compost, unwashed sand and gravel, sawdust, logs, bark, lumber, metal products, etc.

Pollutant Control Approach

Provide impervious containment with blocks, berms, dikes, etc. and/or cover to prevent run-on and discharge of leachate pollutant(s) and suspended solids. The preferred method for storage of materials is under a covered structure.

Environmental Concerns

Discharge of the following materials into the stormwater drainage system or watercourse:

- Asphalt Products
- Sand and aggregates
- De-icing Agents

Operational BMPs

1. Store materials away from stormwater drainage systems or watercourses.
2. Protect storm drain inlets and watercourses from potential spills of raw materials.
3. Sweep paved storage areas regularly for collection and disposal of loose solid materials.
4. Do not hose down the contained stockpile area to a storm drain, a conveyance to a storm drain, or to receiving water.

Structural BMPs

1. Areas should be sloped to drain stormwater to the perimeter where it can be collected or to internal drainage "alleyways" where material is not stockpiled.
2. Convey contaminated stormwater from stockpile areas to a wet pond, wet vault, settling basin, media filter, or other appropriate treatment system depending on the contamination.
3. Choose one or more of the structural source control BMP options listed below for stockpiles greater than 5 cubic yards of erodible or water soluble materials such as soil, road de-icing salts, compost, unwashed sand and gravel, sawdust, etc.

Pollutant Source Specific BMPs

Continued

Also included are outside storage areas for solid materials, such as logs, bark, lumber, metal products, etc.

4. Store in a building or paved and bermed covered area; or
5. Place temporary plastic sheeting (polyethylene, polypropylene, hypalon, or equivalent) over the material; or
6. For large stockpiles that cannot be covered, implement containment practices at the perimeter of the site and at any stormwater conveyance system as needed to prevent erosion and discharge of the stockpiled material offsite or to a storm drain. Ensure that contaminated stormwater is not discharged directly to stormwater conveyance systems without conveying first through a treatment BMP.

Pollutant Source Specific BMPs

5. Storage of Liquids, Solid Materials, and Hazardous Materials

Typical Activities

A variety of products are stored at maintenance facilities and may be harmful to the environment if they come in contact with ground or surface waters. The following procedures are used to reduce the potential for the discharge of pollutants from hazardous material storage sites to the stormwater drainage system or watercourses by minimizing exposure of the materials to stormwater and safeguarding against accidental release of materials.

Environmental Concerns

Discharge of the following materials into the stormwater drainage system or watercourse:

- Asphalt Products
- Paint
- Epoxy Resins
- Cement
- Herbicides
- Solvents
- Fertilizer
- Vehicle Fluids
- Fuel

Pollutant Control Approach

Store hazardous materials in a designated area containing chemically compatible materials. Do not store incompatible products in the same storage area without some type of physical barrier separating the containers. For example, do not store strong oxidizers with organics, or flammable/combustible materials. Where feasible, store hazardous materials in a covered area that does not drain to the stormwater drainage system or watercourse. Ensure container covers or caps are secure.

Operational BMPs

1. Sweep storage areas frequently to remove material that could otherwise be washed off by stormwater.

Pollutant Source Specific BMPs

Continued

2. Place drip pans, or other appropriate temporary containment device, at locations where leaks or spills may occur.
3. In the event of a spill or leak, follow the procedures outlined the facility's Spill Response Plan.
4. Place tight fitting lids on all containers.
5. Storage of reactive, ignitable, or flammable liquids must comply with the Uniform Fire Code.
6. Label all cabinets, storage sheds, etc. containing hazardous chemicals with proper Hazardous Material signage.
7. Do not remove original product label from paint or hazardous materials containers as it contains important spill cleanup and disposal information. Use the entire product before properly disposing of the container. Appropriately label all secondary containers.
8. Inspect container storage areas regularly for corrosion, structural failure, spills, leaks, overfills, and failure of piping systems. Check containers daily for leaks/spills. Replace containers as needed.
9. Cover dumpsters, or keep them under a cover such as a lean-to, to prevent the entry of stormwater. Replace or repair leaking garbage dumpsters.
10. Drain dumpsters and/or dumpster pads to sanitary sewer. Keep dumpster lids closed. Install waterproof liners.

Structural BMPs

1. Keep containers with dangerous waste or other potential pollutant liquids inside a building unless this is impracticable due to site constraints or Uniform Fire Code requirements.
2. Store containers in a designated impervious area that is covered, bermed, diked, or paved, in order to contain leaks and spills. Any secondary containment structures shall be sloped to drain into a dead-end sump for the collection of leaks and small spills.
3. For liquid wastes such as used oil, surround the containers with a secondary containment structure. The secondary containment structure must be of sufficient height to provide a volume of either: 10 percent of the total volume of all containers or 110 percent of the volume contained in the largest container, whichever is greater, or, if a single container, 110 percent of the volume of that container.
4. Place containers mounted for direct removal of a liquid chemical for use by employees inside a secondary containment structure as described above. Use a drip pan during liquid transfer.
5. For contaminated stormwater in the secondary containment structure, connect the sump outlet to a sanitary sewer, if approved by the local jurisdiction, or to

appropriate treatment, such as an American Petroleum Institute (API) or Coalescing Plate (CP) oil/water separator, catch basin filter or other appropriate system. Equip the sump outlet with a valve to prevent the release of spilled or leaked liquids, especially flammables (compliance with Fire Codes), and dangerous liquids. This valve may be opened only for the conveyance of contaminated stormwater to treatment.

6. Another option for discharge of contaminated stormwater is to pump it from a dead-end sump or catchment to a tanker truck or other appropriate vehicle for off-site treatment and/or disposal.

Pollutant Source Specific BMPs

6. Vehicle and Equipment Washing

Typical Activities

Vehicles and equipment are typically washed on-site at maintenance facilities. When vehicle and equipment washing is conducted, it is essential that the washwater not be allowed to drain to the stormwater drainage system or watercourses.

Pollutant Control Approach

The preferred approach is to cover and/or contain the vehicle/equipment washing or conduct the washing inside a building or within a designated washing station to contain the washwater and keep it separate from stormwater.

Environmental Concerns

Discharge of the following materials into the stormwater drainage system or watercourse:

- Cleaning Agents
- Non-Stormwater fluids
- Sediment
- Fuel
- Vehicle Fluids
- Metals

Operational BMPs

1. Vehicle and equipment washing areas should be inspected daily and cleaned as needed.
2. Approved safer alternative products should be used where practical and effective, such as phosphate-free biodegradable soaps and detergents.
3. Do not remove the original product label from cleaning containers as it contains important spill cleanup and disposal information. Use the entire product before disposing of the container.
4. Water usage should be minimized.

Structural BMPs

1. Preferably, conduct vehicle/equipment washing in a building or enclosure constructed specifically for washing of vehicles and equipment, which drains to the sanitary sewer.
2. Alternatively, conduct outside washing operations in a designated wash area; and
3. Operate a closed system with wastewater recycling (like a floor drain discharge to a holding tank); or

a. Discharge to a municipal sanitary sewer; or
b. Obtain a groundwater discharge permit.

4. For additional information see the Washington State Department of Ecology *"Vehicle and Equipment Washwater Discharges/Best Management Practices Manual"*, publication number 95-056.

Pollutant Source Specific BMPs

7. Vehicle and Equipment Fueling

Typical Activities

When vehicle and equipment fueling takes place, there is the potential for fuel to be leaked or spilled at the site. The procedures for vehicle and equipment fueling are designed to minimize contact between stormwater runoff and spilled fuel, oil or other leaked vehicle fluids at equipment fueling areas.

Pollutant Control Approach

Fueling stations must be constructed on an impervious concrete pad under a roof to keep out rainfall and stormwater run-on. A treatment BMP must be used for contaminated stormwater and wastewaters in the fueling containment area. These procedures should be used at all equipment fueling areas.

Environmental Concerns

Discharge of the following materials into the stormwater drainage system or watercourse:

- Fuel
- Vehicle Fluids

Operational BMPs

1. Prepare an emergency spill response plan and have a designated trained person(s) available either on-site or on call at all times to promptly and properly implement the plan and immediately cleanup any spills. Keep suitable cleanup materials, such as dry absorbent materials, on-site to allow prompt cleanup of a spill.
2. Train employees on the proper use of fuel dispensers. Proper fueling and spill cleanup instructions shall be posted at fueling areas. Post signs in accordance with the Uniform Fire Code (UFC).
3. Make sure that the automatic shutoff valve on the fuel nozzle is functioning properly.
4. A person must be present at the fuel pump during fueling at all times.
5. Hosing down of leaks, drips and spills is prohibited.
6. Maintain clean fuel dispensing areas using dry cleanup methods.

Structural BMPs

1. The fueling pad must be paved with Portland cement concrete, or equivalent. If paved with asphalt, add a protective coating to create an impervious surface, inspect regularly, and street sweep quarterly at a minimum.
2. Stormwater collected on the fuel island containment pad must be conveyed to a sanitary sewer system, if approved by the sanitary authority; or to an approved treatment system such as an oil/water separator and a water quality treatment BMP. Discharges from the treatment BMP to storm drains, surface water, or to the ground must not display ongoing or recurring visible sheen and must not contain greater than a significant amount of oil and grease.
3. The fueling island must have a roof or canopy to prevent the direct entry of precipitation onto the fueling area. The roof or canopy should, at a minimum, cover the fueling area (within the grade break or fuel dispensing area) and preferably extend several additional feet to reduce the introduction of windblown rain.
4. The transfer of fuel from the delivery tank truck to the fuel storage tank must be performed in an impervious contained area and appropriate overflow protection must be used. Alternatively, cover nearby storm drains during the filling process and use drip pans under all hose connections.

Pollutant Source Specific BMPs

8. Vehicle and Equipment maintenance and Repair

Typical Activities

Vehicle and equipment maintenance and repair may include vehicle fluid removal, engine and parts cleaning, body repair and painting.

Pollutant Control Approach

Reduce the discharge of potential pollutants from areas in which vehicle maintenance and repair activities are conducted by employing controls which minimize contact between stormwater and the activity areas and products used in each activity.

Environmental Concerns

Discharge of the following materials into the stormwater drainage system or watercourse:

- Fuel
- Vehicle Fluids
- Used Oil Filters
- Lead-Acid Batteries
- Paint Products
- Metal

Operational BMPs

1. Outdoor vehicle and equipment maintenance shall not be performed during rain events or prior to predicted rain events unless required by emergency conditions.
2. Maintenance activity areas should be kept clean, well organized and equipped with spill cleanup supplies.
3. Inspect all incoming vehicles, parts, and equipment stored temporarily outside for leaks.
4. Use absorbent pads, drip pans or absorbent material as appropriate. If rags and absorbents are saturated or contaminated with high concentrations of regulated hazardous materials, dispose of rags and absorbents as hazardous waste.

Structural BMPs

1. Use drip pans or containers under parts or vehicles that drip or are likely to drip.
2. Remove batteries and liquids from vehicles and equipment in designated areas which are designed to prevent stormwater contamination. Store cracked batteries in a covered non-leaking secondary containment system.
3. Empty oil and fuel filters before disposal.

4. Recycle greases, used oil, oil filters, anti-freeze, cleaning solutions, automotive batteries, hydraulic fluids, and transmission fluids.
5. Transfer removed vehicle and equipment fluids from drip pans or other temporary containers into recycling storage tanks or drums by the end of each shift (daily).
6. Do not mix dissimilar or incompatible waste liquids stored for recycling.
7. Ensure safeguards such as oil shut-off valves are installed and maintained on recovery equipment.

Pollutant Source Specific BMPs

9. Vehicle and Equipment Parking and Storage

Typical Activities

Vehicles and equipment have the potential to leak or drip hazardous fluids. When they are parked or stored outside and are exposed to the elements (not parked under a cover), the fluids can be picked up by stormwater and carried to the storm sewer system.

Pollutant Control Approach

Provide impervious containment with berms, dikes, etc. and/or store under cover to prevent run-on and discharge of hazardous pollutants.

Environmental Concerns

Discharge of the following materials into the stormwater drainage system or watercourse:

- Fuel
- Metal
- Vehicle Fluids
- Lead-Acid Batteries

Operational BMPs

1. Sweep parking lots, storage areas, and driveways regularly to collect dirt, waste, and debris. Do not hose down the areas to a stormwater conveyance system.
2. Use drip pans or containers under vehicles and equipment that drip or are likely to drip.
3. Remove liquids from vehicles that are retired for scrap.

Structural BMPs

1. Consider storing damaged vehicles inside a building or paved and bermed covered containment area until all liquids are removed.
2. Park/store all vehicles and equipment in a designated covered area.

Pollutant Source Specific BMPs

10. Vegetation Management

Typical Activities

This method of landscaping and lawn vegetation management can include grading, soil transfer, vegetation removal, pesticide/herbicide and fertilizer applications, and watering. Lawn and vegetation management can also include control of objectionable weeds, insects, mold, bacteria and other pests with chemical pesticides and herbicides.

Pollutant Control Approach

Control fertilizer and pesticide/herbicide applications, soil erosion, and site debris to prevent contamination of stormwater. Stormwater contaminants include toxic organic compounds, heavy metals, oils, sediment, coliform bacteria, fertilizers and pesticides.

Environmental Concerns

Discharge of the following materials into the stormwater drainage system or watercourse:

- Fertilizer
- Pesticides
- Herbicides
- Sediment

Operational BMPs

<u>Pesticides, Herbicides, and Fertilizer (below called "Chemicals")</u>

1. Choose the least toxic pesticide/herbicide available that is capable of reducing the infestation to acceptable levels. The pesticide/herbicide should readily degrade in the environment and/or have properties that strongly bind it to the soil. Any pest control method used should be conducted at the life stage when the pest is most vulnerable. Any method used should be site-specific and not used wholesale over a wide area.
2. Apply chemicals according to label directions. Under no conditions shall chemicals be applied in quantities that exceed manufacturer's instructions.
3. Mix chemicals and clean the application equipment in an area where accidental spills will not enter surface or ground waters, and will not contaminate the soil.
4. Store chemicals in enclosed areas or in covered impervious containment. Ensure that contaminated stormwater or spills/leaks of the chemicals are not discharged

to storm drains. Do not hose down the paved areas to a storm drain or conveyance ditch.

5. Clean up any spilled chemicals and ensure that the contaminated waste materials are kept in designated covered and contained areas.
6. The chemical application equipment must be capable of immediate shutoff in the event of an emergency.
7. Store and maintain appropriate spill cleanup materials in a location known to all near the storage area.
8. Do not spray chemicals within 100 feet of open waters including wetlands, ponds, and streams, sloughs and any drainage ditch or channel that leads to open water except when approved by Ecology or the City of Selah. All sensitive areas including wells, creeks and wetlands must be flagged prior to spraying.
9. Spray applications should only be conducted during weather conditions as specified in the label direction and applicable local and state regulations. Do not apply during rain or immediately before expected rain.
10. Rinse water from equipment cleaning and/or triple-rinsing of chemical containers should be used as product or recycled into product.

Pesticides

1. Develop and implement an Integrated Pest Management (IPM) plan and use pesticides only as a last resort.
2. Implement a pesticide-use plan and include at a minimum: a list of selected pesticides and their specific uses; brands, formulations, application methods and quantities to be used; equipment use and maintenance procedures; safety, storage, and disposal methods; and monitoring, recordkeeping, and public notice procedures.
3. Consider alternatives to the use of pesticides such as covering or harvesting weeds, substitute vegetative growth, and manual weed control/moss removal.

Turf Management

1. Consider the use of soil amendments, such as compost, that are known to control some common diseases in plants.
2. Use at least an eight-inch "topsoil" layer with at least 8 percent organic matter to provide a sufficient vegetation-growing medium.
3. Aerate lawns regularly in areas of heavy use where the soil tends to become compacted. Aeration should be conducted while the grasses in the lawn are growing most vigorously. Remove layers of thatch greater than ¾-inch deep.
4. Set the mowing height at the highest acceptable level and mow at times and intervals designed to minimize stress on the turf. Generally mowing only 1/3 of the grass blade height will prevent stressing the turf.

5. Irrigate less often, but for longer frequency to develop a strong root system within the grass.
6. Turfgrass is most responsive to nitrogen fertilization, followed by potassium and phosphorus.
7. Fertilizers should be applied in amounts appropriate for the target vegetation and at the time of year that minimizes losses to surface and ground waters. Do not fertilize during a drought or when the soil is dry. Alternatively, do not apply fertilizers within three days prior to predicted rainfall. The longer the period between fertilizer application and either rainfall or irrigation, the less fertilizer runoff occurs.
8. Use slow release fertilizers such as methylene urea, IDBU, or resin coated fertilizers when appropriate, generally in the spring. Use of slow release fertilizers is especially important in areas with sandy or gravelly soils.
9. Time the fertilizer application to periods of maximum plant uptake. Generally fall and spring applications are recommended, although WSU turf specialists recommend four fertilizer applications per year.
10. Properly trained persons should apply all fertilizers. Fertilizers should not be applied to grass swales, filter strips, or buffer areas that drain to sensitive water bodies unless approved by the City of Selah.

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Appendix D—Spill Response Plan

City of Selah
Spill Response Plan

EMERGENCY

In the event of a hazardous material or waste release, fire, or emergency that is a danger to personnel health and safety immediately call:

911

AND
City of Selah Fire Department: (509) 698-7310

AND
City of Selah Police Department: (509) 698-7347

NON-EMERGENCY

In the event of a non-emergency spill or release to water, soil, or air call:

National Response Center: **1-800-424-8802**
AND
Washington State Emergency Management Division: **1-800-258-5990 OR 1-800-OILS-911**
AND
Washington State Department of Ecology Eastern Region: **1-509-329-3400**

Be prepared to provide the following information (see Spill Reporting Form):

- Where is the spill?
- What spilled?
- How much spilled?
- How concentrated is the spilled material?
- Who spilled the material?
- Is anyone cleaning up the spill?
- Are there resource damages (e.g. dead fish or oiled birds)?
- Who is reporting the spill?
- How can you be reached?

Spill Response Plan

Continued

Required Spill Control and Reporting BMPs:

- Stop, contain, and clean up all spills immediately upon discovery. Do not flush absorbent materials or other spill cleanup materials to a storm drain or to surface water. Collect the contaminated absorbent material as a solid and place in appropriate disposal containers.
- If any spill has reached, or may reach, a sanitary or a storm sewer, groundwater, or surface water, notify Ecology and the local sewer authority immediately (not to exceed one hour). Take reasonable steps to minimize any adverse impacts to waters of the state and to correct the problem. Follow up with written documentation covering the event within thirty (30) days unless otherwise directed by Ecology.
- Place and maintain emergency spill containment and cleanup kit(s) at outside areas where there is a potential for fluid spills. These kits should be appropriate for the materials being handled and the size of the potential spill, and readily accessible to personnel responsible for spill response.
- Oil includes the following: oil, gasoline, or diesel fuel that causes a violation of the state of Washington's Water Quality Standards, or, that causes a film or sheen upon or discoloration of the waters of the state or adjoining shorelines or causes a sludge or emulsion to be deposited beneath the surface of the water or upon adjoining shorelines.
- In the event of a spill or release to water, soil, or air utilize the Spill Reporting Form to document information.

Spill Reporting Form

Use this form to document the spill, should the Fire Department not complete a report. In the event of a spill or release to water, soil, or air collect the following information:

Section 1: Reporting Party	**Section 2: Responsible Party**
Name:	Name:
Phone Number:	Phone Number:
Organization:	Organization:

Section 3: Incident Information			
Incident Description:			
Incident Date:	Time of Discovery:	Cause:	
Address:	City:	State:	County:
Material Involved:	Amount Released:		
Water Body Affected:	Sheen Length:		
Sheen Width:	Sheen Color: (rainbow, silver, grey, etc.)		
Odor Description:	Weather Conditions:		

Section 4: Other
Actions Taken:

Appendix E
Staffing and Equipment Tracking Spreadsheet

220 Number of working days to equal one FTE

CITY OF SELAH STORMWATER STAFFING AND EQUIPMENT TRACKING SPREADSHEET

TASK	DESCRIPTION	LEVEL OF SERVICE	NPDES Phase II Permit Requirement (Y/ N)	Total Units in City Enter # Units	Unit Measure Enter Unit	Estimated Annual Frequency to Meet Level of Service Enter # Times per Year Activity is Performed	Average Daily Production Enter # Units Completed per Day	Crew Size Enter # People	Annual Crew Days	Annual Person Days	Full-Time Equivalent	Equipment Enter Equipment	Annual Equipment Use (Days)	COMMENTS
MAJOR ACTIVITY: Stormwater Conveyance/Collection														
Inspection and Clean (if necessary) - City Owned Facilities	Inspect drainage facilities and document maintenance needs (ponds, vaults, swales, filters, detention pipes, etc.).	Perform inspections **annually. Clean if necessary.**	*Yes*	6	EA	1.0	1.0	2	6.00	12.00	0.05	Pickup	6.00	This covers repairing/rebuilding earth facilities.
Inspection and Clean (if necessary) - City Owned Infiltration Facilities	Inspect drainage facilities and document maintenance needs (drywells, infiltration basins and trenches, etc).	Perform inspections **twice yearly. Clean if necessary.**	*Yes*	140	EA	2.0	10.0	2	28.00	56.00	0.25	Pickup	28.00	
Inspection - City Owned Oil Water Separator Facilities	Inspect oil water separator facilities and document maintenance needs.	Perform inspections **monthly from October through March**.	*Yes*	1	EA	6.0	1.0	2	6.00	12.00	0.05	Pickup	6.00	
Inspect and Clean Catch Basins and Manholes on Arterials	Removing sediment and debris from catch basins and manholes using a vactor or vacall.	Clean each structure if sediment visible.	*Yes*	360	EA	1.0	50.0	3	7.20	21.60	0.10	Pilot Pickup Vactor	7.20	
Inspect and Clean all other (non-Arterial) Catch Basins and Manholes	Removing sediment and debris from catch basins and manholes using a vactor or vacall.	Clean each structure if sediment visible.	*Yes*	900	EA	1.0	50.0	2	18.00	36.00	0.16	Pilot Pickup Vactor	18.00	
Mowing Vegetation at Facilities	Mow grass/ground cover, remove noxious weeds, prune trees, and prepare landscaping.	Mowing is performed for aesthetics, to control fire hazards, to control woody growth and weeds in the swale/pond, to maintain hydraulic capacity, and to prevent the release of nutrients to the stormwater from dying/decaying plants in the swale. In residential areas **growth should not exceed 1 foot**.	*Yes - as determined by inspection.*	10	EA	5.0	2.0	1	25.00	25.00	0.11	Pickup Mower	25.00	
Maintain Treatment Swales	Remove debris, sediment, vegetation, and restore slope on swales.	Swales should be returned to design standards. **Remove trash when accumulation exceeds approx. 1 standard garbage can.** Remove vegetation (see above). Remove excessive accumulated sediment.	*Yes - as determined by inspection.*	15	EA	0.2	2.0	3	1.50	4.50	0.02	Pickup Flatbed Dump Truck Trackhoe	1.50	This covers sediment removal and major maintenance.
Minor Repairs at Facilities	Repair damaged fences and gates. Repair/Replace facility signs damaged by vandalism or weather.	Fencing and gates should operate smoothly without holes or defects. Repair any defect that would allow easy entry to facility. **Allow no opening under the fence more than 4" in height.** Repair any part of the fence **more than 1' out of design alignment.** Repairs as needed to keep signs functional and aesthetic as possible.	*Yes - as determined by inspection.*	4	EA	1.0	1.0	2	4.00	8.00	0.04	Pickup	4.00	
Clean Conveyance System Pipes With Equipment along Arterials	Clean material from pipes.	All pipes should be clear and conveyance system should be restored to design standards. Remove accumulated sediment that **exceeds 1/4 of the pipe diameter.** Remove any vegetation that reduces free movement of water through pipes.	*Yes - as determined by inspection.*	27,000	LF	1.0	1,000.0	4	27.00	108.00	0.49	Pickup Vactor Sweeper	27.00	
Clean Conveyance System Pipes With Equipment, ALL non-arterials	Clean material from pipes.	All pipes should be clear and conveyance system should be restored to design standards. Remove accumulated sediment that **exceeds 1/4 of the pipe diameter.** Remove any vegetation that reduces free movement of water through pipes.	*Yes - as determined by inspection.*	47,000	LF	0.5	1,000.0	3	23.50	70.50	0.32	Pickup Vactor Sweeper	23.50	
Repair/Replace Drainage Pipe	Replace or repair drainage pipe or culvert.	Perform when existing pipes have been damaged to the extent that they are functionally restricted.	*Yes - as determined by inspection.*	74,000	LF	0.01	100.0	4	7.40	29.60	0.13	Pickup Backhoe Flatbed Trailer Dump Truck	7.40	
Repair/Replace Catch Basin and Grate, Manhole	Replacement or repair and reconstruction of catch basins/manholes.	Catch basins/manholes should be **repaired or replaced when cracks are wider than 1/2" AND longer than 3',** or any evidence of soil entering through cracks or when maintenance person judges that the structure is unsound. **Also, when basin/manhole has settled more than 2" or rotated more than 2" out of alignment.**	*Yes - as determined by inspection.*	900	EA	0.03	3.0	2	9.00	18.00	0.08	Pickup Backhoe Dump Truck Flatbed	9.00	
Training	Attend training on proper techniques to protect water quality and maintain stormwater system in proper working order.	Operations, maintenance, techniques, recordkeeping, etc.	*Yes - as determined by inspection.*	0.5	DAY	2.00	1.0	10	1.00	10.00	0.05	Flatbed Backhoe	1.00	
Recordkeeping	Keep records of stormwater collection and conveyance system maintenance activities.	Keep records for all activities and make annual reports to Ecology.	*Yes*	0.13	DAY	220	1.0	1	27.50	27.50	0.13	Computer	27.50	
TOTAL ANNUAL									191.10	438.70	1.99			
MAJOR ACTIVITY: Roads, Highways and Parking Lots														
Street Sweeping - Arterials	Clearing of leaves, roadway debris and sediment from roadways.	Perform roadway sweeping **once quarterly and as needed prior to** storm activity to prevent clogging and flooding of catch basin grates.	*Yes*	6	MI	6.0	6.0	1	6.00	6.00	0.03	Sweeper	6.00	

TASK	DESCRIPTION	LEVEL OF SERVICE	NPDES Phase II Permit Requirement	Total Units in City	Unit Measure	Estimated Annual Frequency to Meet Level of Service	Average Daily Production	Crew Size	Annual Crew Days	Annual Person Days	Full-Time Equivalent	Equipment	Annual Equipment Use (Days)	COMMENTS
			(Y/ N)	Enter # Units	Enter Unit	Enter # Times per Year Activity is Performed	Enter # Units Completed per Day	Enter # People				Enter Equipment		
Street Sweeping - all other impervious surfaces	Clearing of leaves, roadway debris and sediment from roadways.	Perform roadway sweeping **once annually and as needed prior to** storm activity to prevent clogging and flooding of catch basin grates.	*No*	29	MI	6.0	10.0	1	17.40	17.40	0.08	Sweeper	17.40	
Snow/Ice Removal	Remove snow/ice while avoiding covering drainage inlets.	Remove snow and ice off all major arterials and collectors.	*No*	35	MI	15.0	10.0	2	52.50	105.00	0.48	Snowplow	52.50	
De-icing/Sanding	Perform deicing/sanding with products that have the least adverse environmental impacts.	De-icing/Sanding for all major arterials and collectors.	*No*	35	MI	15.0	10.0	2	52.50	105.00	0.48	Snowplow	52.50	
Slope Mowing	Mowing of roadside, shoulders, ditches and backslopes to preserve sight distance and to ensure proper drainage.	Mowing should be scheduled four times annually during growing season to prevent grass from **growing taller than 1 foot.** Vegetation should be controlled to provide safe sight distance and allow for proper drainage.	*No*	11,000	LF	4.0	2,000.0	1	22.00	22.00	0.10	Pickup Slope Mower	22.00	
Ditch Maintenance	Reshaping and cleaning roadside ditches to ensure proper drainage. This task is performed with a motor patrol grader.	Remove excessive accumulated sediment. Remove vegetation that reduces free movement of water through ditches.	*Yes - as determined by inspection.*	11,000	LF	0.2	2,000.0	2	1.10	2.20	0.01	Pickup Dump Truck Grader Sweeper Flatbed	1.10	
Hydroseeding	Spreading seed/mulch on ditches to encourage vegetation growth for filtration.	Spread seed or mulch **annually** in ditches to enhance water quality and filtration.	*Yes - as determined by inspection.*	11,000	LF	0.3	1,000.0	1	3.30	3.30	0.02	Flatbed	3.30	
TOTAL ANNUAL									154.80	260.90	1.19			
MAJOR ACTIVITY: Vehicle Fleets														
Sweeping	Sweep vehicle storage parking lot.	Perform sweeping monthly and as needed during storm activity.	*Yes*	1	EA	12.0	1.0	1	12.00	12.00	0.05	Sweeper	12.00	
TOTAL ANNUAL									12.00	12.00	0.05			
MAJOR ACTIVITY: Municipal Buildings														
Inspection - Irrigation System	Inspect irrigation system and repair if necessary.	Perform inspections monthly from March through October.	*Yes*	6	EA	6.0	3.0	1	12.00	12.00	0.05	Pickup	12.00	
TOTAL ANNUAL									12.00	12.00	0.05			
MAJOR ACTIVITY: Parks and Open Space														
Inspection - Irrigation System	Inspect irrigation system and repair if necessary.	Perform inspections monthly from March through October.	*Yes*	9	EA	9.0	3.0	1	27.00	27.00	0.12	Pickup	27.00	
TOTAL ANNUAL									27.00	27.00	0.12			
MAJOR ACTIVITY: Other Maintenance-Related Activities														
Customer Calls	Emergency stormwater hotline, respond to customer calls.	Develop schedule for action plans and maintain log of calls.	*No*	220	EA	1.0	2.0	1	110.00	55.00	0.25	Telephone Computer	110.00	
Inspect Wells Sites	Inspect well sites for potential stormwater pollution.	Inspect site, buildings and facilities and record any necessary maintenance.	*No*	4	EA	2.0	1.0	1	8.00	8.00	0.04	Pickup	8.00	
Inspect Booster Pump Station Sites	Inspect booster pump station sites for potential stormwater pollution.	Inspect site, buildings and facilities and record any necessary maintenance.	*No*	7	EA	2.0	1.0	1	14.00	14.00	0.06	Pickup	14.00	
Inspect Reservoir Sites	Inspect reservoir sites for potential stormwater pollution.	Inspect site, buildings and facilities and record any necessary maintenance.	*No*	6	EA	2.0	1.0	1	12.00	12.00	0.05	Pickup	12.00	
Inspect High Dust-prone Locations	Inspect locations for dust problems.	Inspect location and schedule necessary maintenance.	*No*	6	EA	2.0	1.0	1	12.00	12.00	0.05	Pickup	12.00	
TOTAL ANNUAL									156.00	101.00	0.46			
SUMMARY								**Total Annual:**	**552.9**	**851.6**	**3.87**			